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STATE OF CALIFORNIA

JUDICIAL COUNCIL OF THE COURTS

ADMINISTRATIVE OFFICE OF THE COURTS

***CALIFORNIA COURTHOUSE CAPITAL PROGRAM
MANAGEMENT AUDIT REPORT***

Final Report

Pegasus Global Holdings, Inc.®

August 13, 2012

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LIST OF ACRONYMS AND ABBREVIATIONS USED

List of Acronyms and Abbreviations Used <i>(Shown Alphabetically)</i>	
AD	Assistant Division Director
A/E	Architect/Engineer
AIA	American Institute of Architects
AIA Handbook	The Architect's Handbook of Professional Practices
AOC	Administrative Office of the Courts
ARF	Architecture Revolving Fund
BANCO	(Undefined)
BGSF	Building Gross Square Feet
BOMA	Building Owners and Managers Association
BP	(Undefined)
CAFM	Computer Aided Facilities Management System
Cal Green	California Green Building Standards Code
CE	Conceptual Estimate
CEQA	California Environmental Quality Act
CFR	Count Funded Requires
CFWG	Court Facilities Working Group
CII	Construction Industry Institute
CM	Construction Management
CM@Risk	At-Risk Construction Management
CMAA	Construction Management Association of America
COBCP	Capital Outlay Budget Change Proposals
CPM	Critical Path Method Scheduling
CRARF	(Undefined)
DB	Design-Build
DBB	Design-Bid-Build
D&C	Design and Construction
DGS	Department of General Services
DOF	Department of Finance
EPC	Engineer-Procure-Construct
FF&E	Furnishing, Fixtures and Equipment
FM	Facilities Modification
FMCC	Facility Modification Coordination Committee
FMG	Facilities Modification Group
FMU	Facilities Modification Unit
FPE	Facility Performance Evaluation

List of Acronyms and Abbreviations Used (Shown Alphabetically)

GAGAS	Generally Accepted Government Auditing Standards
GAPP	Generally Accepted Purposes and Practices
GBCI	Green Building Certification Institute
GMP	Guaranteed Maximum Price
GO	General Obligation
ID/IQ	Indefinite Delivery/Indefinite Quantity
IOR	Inspector of Record
JLBC	Joint Legislative Budget Committee
JPA	Joint Powers Authority
LEED®	Leadership in Energy and Environmental Design
MPR	Monthly Progress Report
NCRO	(Undefined)
OCCM	Office of Court Construction Management
OCIP	Owner Control Insurance Program
OERS	Office of Emergency Response and Security
OGC	Office of General Counsel
OSHA	Occupational Safety and Health Administration
PAG	Project Advisory Group
PAL	Process Asset Library
PCC	Public Contract Code
Pegasus-Global	Pegasus Global Holdings, Inc.
PEP	Project Execution Plan
PgMP	Project Management Plan
PJ	Presiding Judge
PMBOK®	Project Management Book of Knowledge
PMI	Project Management Institute
PMP	Project Management Professional
POE	Post Occupancy Evaluation
Program	Court Capital Construction Program
Project Definition Report	Management Plan and Project Definition Report
PWB	Public Works Board
PWBS	Program Work Breakdown Structure
QS	Quality Staff
RCP	Review of Capital Project
Report	Capital Program Management Audit Report
RFI	Request for Information
SAM	State Administrative Manual
SCO	State Controller's Office

List of Acronyms and Abbreviations Used
(Shown Alphabetically)

SOC	Standard of Care
SRO	(Undefined)
SSAP	Site Selection and Acquisition Policy
TBD	To Be Determined
TCFMWG	Trial Court Facilities Modification Working Group
Title 24	California Building Standards Code
USGBC	U.S. Green Building Council
Willis	Willis Insurance Services of California, Inc.

ACKNOWLEDGEMENTS

We acknowledge and appreciate the excellent cooperation and assistance provided by the Administrative Office of the Courts, the Office of Court Construction and Management and their respective staff during the course of this audit for their tremendous support in promptly responding to our many document and information requests and in enabling our efforts to meet and interview key Program personnel.

Pegasus-Global found that every Program and Project Manager interviewed was willing to answer questions in a very open and comprehensive manner, without regard to how those answers might reflect on either the specific project under audit or the Program as a whole. Likewise the Program and Project Managers acknowledged what they considered to be gaps in the governance of the Program and the projects, often sharing suggestions which they believed would strengthen both the Program and the projects.

Pegasus-Global in particular recognizes the outstanding guidance and cooperation afforded by Judge Patricia Lucas, Chair of the Court Facilities Working Group Audit Subcommittee during the execution of this Management Audit. Judge Lucas provided Pegasus-Global valuable input during the development and finalization of the audit scope and plan, and arranged for direct access to other California Judiciary members during the audit interview process.

Likewise, Pegasus-Global acknowledges and is extremely grateful to Mr. James Mullen, Senior Facilities Risk Manager for the Office of Court Construction and Management for his cooperation, support and assistance as Pegasus-Global's direct liaison to AOC and OCCM. Mr. Mullen was tasked with responding to all Pegasus-Global requests, a difficult task given the depth and breadth of the Management Audit conducted, and one that Mr. Mullen discharged effectively and efficiently. Mr. Mullen's responsiveness to Pegasus-Global's requests was a vital element in enabling Pegasus-Global to meet the full requirements of the Work Order within the schedule established for the Management Audit.

CALIFORNIA COURTHOUSE CAPITAL PROGRAM MANAGEMENT AUDIT REPORT

1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

On January 12, 2012, Pegasus Global Holdings, Inc.® (“Pegasus-Global”) was selected as an independent consultant to assist the Court Facilities Working Group (“CFWG”) of the State of California Judicial Council in its ongoing oversight of the Judicial Branch’s Court Capital Construction Program. Pegasus-Global’s contract signed February 24, 2012 and effective February 6, 2012, defined various audit deliverables. This Capital Program Management Audit Report (“Report”) addresses Deliverable 1 to the Pegasus-Global contract.

1.2 AUDIT OBJECTIVES

The overall objective of the audit was to evaluate the Office of Court Construction Management’s (“OCCM”) processes in the management of the Administrative Office of the Courts’ (“AOC”) Court Capital Construction

Background Summary

The California Judicial Branch comprises 58 superior (trial) courts (one in each county), six intermediate appellate courts in nine locations, and the Supreme Court, with more than 2,000 judicial officers and approximately 20,000 employees.

The Judicial Council of California has rule-making authority respecting court administration, practice, and procedure. This authority includes developing, advocating for, and allocating the Judicial Branch budget.

The Chief Justice of California is authorized to establish working groups to assist the council on topics affecting the administration of justice. The CFWG has been appointed by the Chief Justice to provide oversight of the entire Judicial Branch facilities program. The facilities program includes the judicial branch courthouse construction program (“Program”) that is being implemented through the AOC.

The Program includes the planning, site acquisition, budgeting, design and construction of new courthouses and the renovation of existing courthouses throughout California. As of yearend 2011, the Program included construction and renovation projects with a total estimated construction cost of \$4.5 billion.

Program (“Program”) including an assessment of those processes in order to determine opportunities to improve efficiency and effectiveness. Specifically, the objectives of this audit include:

- An assessment of the overall management of the AOC Program relative to budget, scope, schedule and quality outcomes using a combination of AOC policies, procedures, processes, standard document reviews and interviews of designated representatives of the CFWG, the executive and senior management of the AOC and OCCM and other senior management responsible for key elements of the Program.
- An assessment of individual project team performance relative to budget, scope, schedule and quality outcomes based on a comparative review of actual project implementation as compared to program policy, procedure, process and standards utilizing a combination of document reviews and interviews with Project Managers and supporting staff responsible for the delivery of the following six (6) audit test projects:
 1. B.F. Sisk Renovation
 2. New Mammoth Lakes Courthouse
 3. New Portola/Loyalton Courthouse
 4. New San Bernardino Courthouse
 5. New Susanville Courthouse
 6. New Madera Courthouse
- An assessment of the structure and composition of the Program Management and individual project delivery teams, OCCM organization structure, overall staff qualifications, and the quality of project consultants, architects and engineers and general contractors.

1.3 AUDIT METHODOLOGY

Pegasus-Global conducted its audit in accordance with Generally Accepted Government Auditing Standards (“GAGAS”) issued by the U.S. Government Accountability Office. Those standards require that Pegasus-Global plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for the findings and conclusions based on the audit objectives. Pegasus-Global believes that the evidence obtained provides a reasonable basis for the findings and conclusions relative to the audit objectives established.

Pegasus-Global conducted the audit over the period of February 13, 2012 – July 26, 2012, including review of extensive program records and interviews with members of the CFWG, AOC and OCCM.

The audit results are not presented as, or meant to be interpreted as, a critique of any individual, particular unit, group, division, department, or the State of California. The audit results are presented as observational comparisons against comparative industry standards solely with the intention of providing stakeholders in the Program and individual Program projects with information that can be used by those stakeholders to improve the execution of the Program and the individual Program projects.

1.4 BACKGROUND

It is important when reviewing the audit findings to place the findings in context of the history of the Court Capital Construction Program:

1. The entire Program is relatively new having first come into existence in 2002 under SB 1732;
2. The initial priority for the Program was to transfer the county courts to judiciary management and control, a task which was not fully complete until December 2009;

3. While moving to execute the provisions of SB 1732, AOC had to establish, organize and staff the OCCM;
4. The OCCM had to:
 - a. First survey the conditions of the county courthouses transferred to the judiciary, identify the court facilities that needed to be replaced, renovated or added to the courthouse inventory, then formulate and execute a priority listing which identified those immediate and critical capital construction needs;
 - b. Establish its policies, procedures and processes, working in conjunction with other California state agencies;
 - c. And, finally, initiate and execute courthouse projects under the Court Capital Construction Program.
5. Since the initiation of the Program in 2002, OCCM began work (site acquisition funding) on 59 projects with a total budgeted value of \$6.6 billion. During that same time period OCCM has completed eight projects with a total budgeted value of \$300 million.

By having to transfer all trial courts to the Judicial Branch, create a prioritization methodology to identify the immediate and necessary trial court projects, and actually initiate execution of individual capital projects while simultaneously attempting to plan, organize and staff the OCCM all in a compressed timeframe; AOC and OCCM did not have the luxury to fully complete the traditional ramp-up phase expected in the life cycle of a megaprogram before embarking on the execution of projects identified for the Program.

As a result, the Judicial Council, AOC and OCCM had to focus primarily on those actions that were deemed critical to achievement of the immediate objectives set for the Program and its individual projects. Ultimately, OCCM had to choose where to focus its attention with the limited time and staff resources available, and chose to focus on the

actions which would most quickly meet the objectives mandated in the most expeditious manner possible.

Thus, given the priorities and demands on the AOC and OCCM under SB 1732 and SB 1407 Pegasus-Global would expect to find gaps in the formal policies, procedures and processes developed and implemented by the AOC and OCCM as noted in the findings of this Report. However, in light of the magnitude of the Program still before the OCCM it is critical that those gaps now be addressed in order to manage and control the Program and its projects in a more structured manner and to improve the uniformity (consistency), transparency and accountability of the Program elements.

1.5 KEY FINDINGS

Pegasus-Global's overall key findings are summarized below:

ORGANIZATIONAL STRUCTURE

- While the program organizational structure portrayed in the Program's organization chart and existing policies and procedures reflect a vertical form of organizational management, OCCM has essentially been forced to function as a horizontal organizational structure given the inability to have a ramp-up period, staffing limitations and constraints placed on the Program.
- From the legislation, it appears that the legislature specifically empowered and required the Judicial Council to perform as the Owner of the Program, and in logical extension, of each project within that Program. However, there is no universally acknowledged agreement or understanding within the Program (at any level) as to the ultimate Owner of the Program. Thus, the actual Owner may not be exercising its responsibility to examine and make crucial funding decisions from a program perspective.

- The program staff is generally well qualified and is dedicated to the execution of the Program and its individual projects, often bearing a program or project load which is at, or in certain cases, beyond the limits of an individual's reasonable span of control under the current organizational structure.
- The program staff has a generally entrepreneurial perspective, taking initiatives, ownership, and responsibility for their respective scopes of work. This perspective has enabled the staff at the program level to work around issues which may have had an impact on OCCM's ability to deliver the new courts per the legislative mandate.
- The OCCM is not staffed to the planned levels or for all of the organizational positions identified. The lack of staff since the inception of the Program resulted in the need to prioritize program tasks away from the completion of the Program's draft policies, procedures and processes, focusing the existing staff on a limited number of what were considered to be more critical elements of the Program.
- There is no formal delegation of authority and responsibility at either the program or project levels. This has resulted in confusion and some disagreement as to who within the Program and project structure are accountable for the decisions made and actions taken on behalf of the Program and each project.
- No issues were found related to a single point of accountability as every Program and Project Manager without exception held themselves accountable and responsible for all the decisions made and actions taken relative to their functions and project assignments.

POLICIES, PROCEDURES, AND PROCESSES

- OCCM currently does not have a formal document control system expected of a megaprogram, which has impacted the uniformity and transparency of the project practices.

- Although a Program Management Manual has been drafted, this foundation document for the Program does not appear to be uniformly followed by the program staff and does not provide a logical link between and among the policies, procedures and processes promulgated by OCCM.
- Overall, while some individual policies, procedures and processes met the industry Standard of Care (“SOC”), as a complete body, the policies, procedures and processes that are currently in place at OCCM for managing and controlling the Program are not uniform or transparent and do not provide for the level of accountability expected for a megaprogram the size and complexity of the Court Capital Construction Program.
- There are two primary sets of policies in place within OCCM, one for the capital construction projects and one for the facility modification projects. While the facility modification project policies have been drafted to a uniform template, the capital construction policies do not use a uniform format, making it difficult to determine what is a policy, procedure or process, and how those capital construction policies should be linked to the facility modification policies, procedures and processes to form a comprehensive set of mutually supportive policies, procedures and processes.
- The AOC/OCCM policies, procedures, processes and practices relative to site selection and acquisition were uniform, transparent and had a single point of accountability.
- The Trial Court Facility Standards and Practices were found to be fundamentally sound, providing a uniform and transparent structure which enables Project Management to manage and control project design. Some implementation gaps concerning design management and control were identified; however, those appeared to be relatively minor and can be easily addressed by Program Management.

- There is currently no comprehensive, complete or final policy, procedure or process in place which fully defines construction management under the Program, or which provides a uniform structure under which construction management and control will be exercised at the project level.
- The current program construction management policies, procedures and processes are incomplete, and in some instances in conflict with one another, which results in inconsistencies in construction management practices at the project level.
- Many of the other policies, procedures and processes that have been developed for the Program contain excellent written sections that conform to industry best practices and industry standards. However, those policies, procedures and processes are still identified as “Draft” and few of the policies, procedures and processes indicate that they have been formally approved and adopted by OCCM, AOC or the Judicial Council.

PROGRAM/PROJECT EXECUTION

- There is a lack of uniformity and transparency of project team practices across the test projects audited, in part, due to the fact that the policies, procedures and processes developed at the program level have not been completed and formally adopted. Once those policies, procedures and processes have been completed and adopted, the majority of the uniformity and transparency issues identified at the project level should be resolved.
- The current Management Plan and Project Definition Report (“Project Definition Report”) does not represent a formal Project Execution Plan (“PEP”), is inconsistent with other policies, procedures and processes within the OCCM, and omits references to the listed requirements, duties and responsibilities back to those program level policies, procedures and processes which provide the foundation and requirements which govern the operations of the project teams and any formal delegations of authority and accountability.

- There is no formal policy, procedure or process that addresses the review and approval of project designs, resulting in the Project Manager making such determinations and taking action based on their individual judgment which further impacts the uniformity, transparency and parts of accountability.
- The Program may be missing opportunities to realize economies of scale relative to bulk purchasing (construction and maintenance) and prototyping of some common design elements among projects.
- The assignment of both a Construction Manager at Risk (“CM@Risk”) and a contract Construction Manager (“CM”) on a single project creates confusion among the project participants and creates, or appears to create, potential conflicts of interest relative to those two positions.
- OCCM has not yet developed a quality management program that meets the industry SOC to manage and control quality across the entire Program.
- Project scheduling, one of the critical control tools in a program and project, has not yet been fully addressed through a policy, procedure or process issued by Program Management. As a result, scheduling at the project level is not uniform or transparent.
- There was no apparent comparative analysis of the original project estimate assumptions to cost adjustments made to project budgets during execution nor any program-level consolidation of, or analysis of, variations between the original project cost estimate and the final actual project costs.
- While the Program has in place a lessons learned database, the lessons learned program is not as formal as necessary to capture, consolidate and communicate the lessons learned at every phase of the Program.
- It does not appear that any formal process has been instituted by which each project architect, contractor and consultant is evaluated at the completion of their scopes of work thereby providing no documented basis to test or confirm the

qualifications of performance of those organizations against their bid representations and conditions of their individual contract agreements.

1.6 RECOMMENDATIONS

Pegasus-Global's overall recommendations are summarized below.

ORGANIZATIONAL STRUCTURE

- The Judicial Council, in consultation with the AOC and in recognition of the legislative actions in effect, should clearly establish the ultimate Owner of the Program.
- Once the identification of the "Owner" has been clarified, the Owner, working with the AOC and OCCM should establish formal, detailed delegation of authority which clearly delineates the party within the Program and projects with the authority to make decisions and take actions on behalf of the Owner. Those delegations must also specifically identify the limits of each delegated authority.
- Complete and formalize the restructuring of OCCM into a more horizontal structure, which will address the reality of the staffing levels should the staffing be reduced in light of the current slowdown of its capital construction projects.
- Develop, complete and adopt management policies, procedures and processes which better align with a horizontal structure, providing program and project staff with uniform and transparent guidance in fulfilling their duties and responsibilities under that horizontal structure effectively and efficiently.
- Maintain the current core staff positions. However, realign the interactive functions and communication processes to provide more complete, expedient and coordinated actions among all staff at both the program and project level.

POLICIES, PROCEDURES AND PROCESSES

- OCCM should adopt a formal electronic document control system and develop and issue a document preparation, management and control procedure which will ensure the timely and comprehensive preparation, distribution and capture (filings) of actual program and project document sets.
- In order to maximize the effectiveness and efficiency of the available staff and thus improve the opportunity to achieve all of the program and individual project goals and objectives, the completion of the policies, procedures and processes should be a priority of the Judicial Council, the AOC and the OCCM. Accordingly, OCCM should take advantage of the lessons learned during the planning and execution of the Program and projects to date and refocus attention on the completion and formal adoption of a comprehensive set of policies, procedures and processes by which the remaining majority of the Program and its projects will be managed and controlled.
- OCCM should adopt some policies or portions of policies with the State Administrative Manual (“SAM”) for use until OCCM program policies, procedures, and processes are fully developed, approved and adopted to ensure a uniform, transparent and accountable process for executing the Program projects.
- OCCM should adopt a uniform template for the development of all policies, procedures, and processes.
- OCCM should establish a numbering and naming system which would establish a logical linkage and flow of policies, procedures, and processes within functional units and across the entire Program.
- OCCM should implement a cohesive and comprehensive construction management and control system based on lessons learned during execution of the initial Court Capital Construction projects. OCCM should align all elements of construction management and control, from definition to contract documents with

program level standards, policies, procedures and processes in order to ensure that program and project construction goals and objectives are adhered to and met.

- Ultimately, OCCM should consolidate all adopted policies, procedures and processes into a centralized document control system (electronic and hard copy) so that they can be effectively and efficiently archived and accessed by anyone working within the Program.

PROGRAM/PROJECT EXECUTION

- Finalize, adopt and distribute a Project Execution Plan Manual that fully addresses the elements necessary to manage a construction project and ensure that its contents are consistent with the policies, procedures and processes that exist at the program level, and will provide guidance to the project teams in order to achieve uniformity and transparency of project team practices across the Program's projects.
- AOC/OCCM should consider examining the first projects completed, or fully underway, with representative input from an architect, a CM@Risk, a contractor, Facilities Maintenance Group ("FMG") and a facility occupant to identify possible economies of scale which can be taken advantage of to reduce both the execution of a project and the total life cycle cost of each facility constructed. Once such opportunities are identified they should be inserted into the basic project execution plans.
- AOC/OCCM should examine its contracts, policies and procedures regarding CM@Risk and CM contracting and assignments to both clarify the relative responsibilities and authorities (if the decision is made to maintain both positions on a project) and to eliminate the appearance of the conflict of interest between those two project positions.

- Develop and implement both in formally issued policies, procedures and processes and within the architectural contract document set, a standard process for the submittal, review and approval or rejection of design.
- AOC/OCCM should develop a more structured set of policies, procedures and processes to be followed relative to management and control of project schedules.
- Project and Program Management should use the data already collected by the Project Managers during development of the original estimates and budgets, and the final actual costs to execute a project to analyze the accuracy of the original estimates; the root cause for any adjustments over or under the original cost estimate; any common trends in cost estimates or management and control of project costs which should be addressed at a program level; and capture and consolidate the cost estimates, management and critical lessons learned on projects executed.
- OCCM should develop a comprehensive, formal quality management program consisting of linked and mutually supportive policies, procedures and processes for both the program and project level which address both quality control and quality assurance as practices within the industry at large.
- Formalize the lessons learned program to capture, consolidate and communicate those lessons among all program and project staff both to identify barriers to execution of the full program and/or project scope of work and to identify changes needed in the organization structure, and policies, procedures and processes which may improve the effectiveness and efficiency of OCCM as the recommended revised horizontal organizational structure is implemented and matures.
- Establish a formal process by which each project architect, consultant and contractor is evaluated at the completion of their scopes of work. Those evaluations should be templated to the conditions of the contract in general,

while still enabling OCCM staff to provide additional perspectives and observations relative to the effectiveness and efficiency with which the respective scopes of work were completed.

- A formal evaluation of the management, control and working relationships among all project stakeholders should be conducted. This evaluation is intended to establish those elements of the actual execution of a project which did not work well in forwarding or attaining project goals and objectives efficiently or effectively. These evaluations should be captured, consolidated and communicated within the lessons learned program and the document control system for use by subsequent program and project staff during the selection and engagement processes, and by Program and Project Management to adjust procedures and processes to improve the effectiveness and efficiency of stakeholder interaction.

1.7 SUMMARY

A complete listing of Pegasus-Global's detailed findings and recommendations with cross-reference locations to the corresponding audit discussion of those finding and recommendations is contained within **Exhibit A** to this Report.

Based on Pegasus-Global's audit findings, Pegasus-Global has identified and prioritized the following recommendations in **Executive Summary Table 1, *Priority Recommendation Summary***, that provide the greatest value to the Program and are necessary to execute the Program to industry standards and best practices:

EXECUTIVE SUMMARY TABLE 1 PRIORITY RECOMMENDATION SUMMARY	
Priority Number	Recommendation
1	Adopt a more horizontal organizational structure of OCCM
2	Finalize policies, procedures and processes
3	Issue delegations of authority
4	Install a comprehensive document control system
5	Implement a cohesive and comprehensive construction management and control system
6	Adopt uniform design review and approval policies, procedures, processes, practices and contracts
7	Finalize, adopt and distribute a Program Management Manual
8	Finalize, adopt and distribute a Project Execution Manual
9	Implement a formal lessons learned program
10	Develop evaluations of the execution of project functional scopes of work undertaken by architects, consultants and contractors
11	Develop evaluations of management, control and working relationships among all project stakeholders

Specific findings and recommendations identified in this **Executive Summary** are identified and discussed in more detail within the four **Parts** of this California Courthouse Capital Management Audit Report as follows:

- **Part I** – Management Audit of Program Level Policies, Procedures and Processes
- **Part II** – Management Audit of Individual Project Team Practices
- **Part III** – Assessment of the Structure and Composition of the OCCM Organization
- **Part IV** – Prioritization of Management Audit Recommendations

1.8 AOC/OCCM RESPONSE

As noted within GAGAS Chapter 7, Section 7.33¹:

“Providing a draft report with findings for review and comment by responsible officials of the audited entity and others helps the auditors develop a report that is fair, complete, and objective. Including the views of responsible officials results in a report that presents not only the auditors’ findings, conclusions, and recommendations, but also the perspectives of the responsible officials of the audited entity and the corrective actions they plan to take. Obtaining the comments in writing is preferred, but oral comments are acceptable.”

Per GAGAS Chapter 7, Section 7.34²:

“When auditors receive written comments from the responsible officials, they should include in their report a copy of the official’s written comments, or a summary of the comments received.”

Per GAGAS Chapter 7, Sections 7.35 and 7.37³:

“Auditors should include in the report an evaluation of the comments, as appropriate.” (Section 7.35)

“When the audited entity’s comments are inconsistent or in conflict with the findings, conclusions, or recommendations in the draft report, or when planned corrective actions do not adequately address the auditors’ recommendations, the auditors should evaluate the validity of the audited entity’s comments. If the auditors disagreed with the comments, they should explain in the report their reasons for

¹ Government Auditing Standards (GAO-12-331G), Comptroller General of the United States, Chapter 7, Section 7.33, page 173, December 2011

² Government Auditing Standards (GAO-12-331G), Comptroller General of the United States, Chapter 7, Section 7.34, page 174, December 2011

³ Government Auditing Standards (GAO-12-331G), Comptroller General of the United States, Chapter 7, Section 7.35 and 7.37, page 174, December 2011

disagreement. Conversely, the auditors should modify their report as necessary if they find the comments valid and supported with sufficient, appropriate evidence.”
(Section 7.37)

A draft final report of audit findings and recommendations was provided to the AOC and OCCM on July 26, 2012. AOC/OCCM responded with written comments to findings and recommendations contained in that draft audit report on August 8, 2012. The full text of AOC/OCCM’s response as received by Pegasus-Global is included in **Exhibit B**.

In summary AOC/OCCM accepted the findings and recommendations contained in the Management Audit Report as it stood on July 26, 2012. In addition, within its comments AOC/OCCM indicated that actions had already been initiated to address those recommendations as a foundation from which to strengthen and improve the management and execution of the Court Capital Construction Program. AOC/OCCM identified specific actions they intended to implement in response to each recommendation, the current status of the planned actions, and dates by which each of the actions would be completed in a summary table attached to their narrative response.

The AOC/OCCM narrative response addressed the major findings and recommendations presented in this Executive Summary, providing additional detail relative to the actions planned to address those major findings and recommendations. In two instances AOC/OCCM presented modifications to the Pegasus-Global recommendations:

1. AOC/OCCM partially modified the order in which Pegasus-Global prioritized the eleven findings and recommendations addressed within the Executive Summary of the Management Audit Report. AOC/OCCM explained that the change in priority was necessary to better align the sequence of the responsive actions with the current Program execution conditions and priorities. Pegasus-Global fully understands and accepts the AOC/OCCM explanation, and endorses the change in priority order identified by AOC/OCCM.

2. AOC/OCCM made adjustments to Pegasus-Global's recommended organizational structure (the organization chart) addressed in **Part III** of the Management Audit Report (See AOC/OCCM Response **Exhibit B**). Pegasus-Global's recommended organizational structure was submitted in response to a specific request by AOC/OCCM and the CFWG for Pegasus-Global's independent expert opinion of how best to organize OCCM in response to the current and expected conditions under which the Program will be planned and executed. Pegasus-Global developed its organizational recommendation based solely on the information available to it at the time and on its assumptions as to future conditions under which the Program will be executed. As a consultative service, AOC/OCCM are free to accept, reject or adjust that recommended organizational structure as seems best to it given its own internal knowledge of current and expected Program execution conditions. Therefore, Pegasus-Global understands the basis for the changes in the organizational structure and has no reason to question or challenge the AOC/OCCM changes to Pegasus-Global's recommendation.

In conclusion, Pegasus-Global is impressed with the speed with which AOC/OCCM has reviewed the full body of the findings and recommendations and moved to address each of those findings and recommendations. The immediate attention directed towards planning and implementing actions intended to improve and strengthen the management and execution of the Program and its constituent projects is highly commendable.

2.0 INTRODUCTION

2.1 BACKGROUND: HISTORY OF THE LEGISLATIVE FRAMEWORK RESPONSIBLE FOR THE COURT SYSTEM

It is important in any program audit to place the organization under audit into its historical context to understand the evolution of the management policies, procedures, processes and practices. The Court Capital Construction Program had its initial genesis under California statute SB 1732 in 2002, which initiated, among other things, the following actions relative to existing court facilities:⁴

- Transfer of all responsibility for trial court facilities funding and operations from counties to the state;
- Assigning the Judicial Branch of California government the total responsibility for *“its functions related to its operations and staff, including facilities”*;
- Uniting responsibility for operations and facility increases under the Judicial Branch to increase the *“likelihood that operational costs will be considered when facility decisions are made, and enhances the economical, efficient, and effective court operations”*;
- Making the Judicial Branch responsible to represent the state’s interests during the transfer of existing court facilities from the counties to the state;

⁴ Court Facilities Legislation – SB 1732 (Escutia), Chapter 1082, 2002, as amended through 2011

- Expecting the Judicial Branch to assume responsibility of the county court facilities in their “*as-is condition*”; and
- Transferring of all county trial courts to be completed “*as expeditiously as possible*”, but no later than June 30, 2007.

In addition, SB 1732 addressed the construction of new court facilities giving the Judicial Branch:

- Full responsibility for planning and construction of new facilities placed with the Judicial Branch of State government; and,
- The ability to dedicate the money collected from fee surcharges and the State Court Construction Penalty Assessment, which was “*dedicated to the capital facilities’ needs of the Judicial Branch*”.

In effect, SB 1732 made the Judicial Branch of California (1) responsible for the operation and maintenance of all court facilities in an economical, efficient and effective manner and, (2) responsible for the planning and construction of new trial court facilities using funds specifically collected by the Judicial Branch and allocated to the construction of those new trial court facilities.

In 2007, under SB 82 (an amendment to SB 1732), the legislature moved completion of county court transfers from June 30, 2007 to December 31, 2009, due to the number of court and court transactions which had to be undertaken by the Judicial Branch.⁵ SB 82 also provided additional detail relative to the establishment of a funding mechanism for new capital construction of court facilities, including the following:⁶

- Establishment of a State Court Facilities Construction Fund which was intended to “*further reasonable access to the courts and judicial process throughout the state for all parties*”.

⁵ Additional findings accompanying SB 82, (2007)

⁶ SB 82, Article 6, 2007

- Identification of a specific “*Immediate and Critical Needs Account*” which could only be used for the following:
 - ... *the planning, design, construction, rehabilitation, renovation, replacement, or acquisition of court facilities.*”
 - “*Repayment of moneys appropriated for lease of court facilities ...*”
 - “*Payment for lease or rental of court facilities or payment of service contracts ...*”
- Identification of the money contained in the Immediate and Critical Needs Account as a “*continuous appropriation*”, meaning in essence that those funds were not subject to annual fiscal year appropriation once site acquisition and schematic design were complete.
- Requirement that “*The Judicial Council ... make recommendations to the State Public Works Board before it undertakes projects based on its determination that the need for a project is most immediate and critical using the then most recent version of the Prioritization Methodology for Trial Court Capital-Outlay Projects originally adopted on August 26, 2006, subject to the availability of funds in the Immediate and Critical Needs Account.*” That provision was expanded to include other considerations to be applied in the recommendation to the State Public Works Board (“PWB”).

While SB 1732 (as amended) addressed the management and administration of the Program in some detail, Article 7 of SB 1732 summarized the full authority and responsibilities of the Judicial Council to:⁷

- “*Exercise **full responsibility, jurisdiction, control, and authority as an Owner** would have over trial court facilities the title of which is held by the state, including, but not limited to, the acquisition and development of facilities.*” [Bold highlight added]

⁷ SB 1372, Article 7, page 38 (a) and (b), 2002

- “Exercise the **full range of policymaking authority over trial court facilities**, including, but not limited to, planning, construction, acquisition, and operation, to the extent not expressly otherwise limited by law.” [Bold highlight added]

Those two provisions encompass the duties, authorities and responsibilities of the **Owner** of a construction project (or program) as understood within the capital construction industry at large. Regardless of the process by which the Judicial Branch exercises its authority and control of the Program, it is ultimately responsible as the Owner for setting and meeting the goals and objectives of the Program, as addressed in more detail later in this Report.

Other provisions within SB 1732 (and its amendments) which are germane to the audit include the following:

- A report to the Joint Legislative Budget Committee (“JLBC”) describing the scope, budget, schedule, number of courtrooms, number of secure holding cells, and square footage of administrative support space to be constructed or renovated;
- Creation of a local Project Advisory Group (“PAG”) to provide input into the planning and construction of new trial court facilities; and,
- Creation of “performance expectations” for court facilities, including benchmark criteria for total project life-cycle costs.

Overall, SB 1732 (and its amendments) established the basic guidelines and program organizational requirements (*i.e.*, relationship with the Department of Finance (“DOF”)) for the Program, but ultimately placed the responsibility for the planning and execution of the Program and its subcomponent projects with the Judicial Branch of California government.

SB 1407 (2008) enacted on September 26, 2008, provided enhanced revenue streams and authorized \$5 billion in lease revenue bonds for trial facility construction. SB 1407 extended “... *the purposes for which moneys in the* [State Court Facilities Construction

Fund] *may be used to acquire, rehabilitate, construct, or finance court facilities ...*”, codifying in additional detail the basic provisions first addressed in SB 1732, summarized above.⁸ SB 1407 increased the fees and assessments of fines to be imposed and collected into the construction fund and provided the procedural authority for the AOC to collect and deposit those fees and fines into the Immediate and Critical Needs Account of the Program. SB 1407 reiterated that the moneys collected “... *shall only be used for any of the following*”:⁹

- Planning, design, construction, rehabilitation, renovation, replacement, or acquisition of court facilities;
- Repayment of lease court facilities under issuance of lease-revenue bonds; and
- Payment for lease or rental of court facilities, including those made for facilities in which a private sector participant(s) undertake some of the risks associated with the financing, design, construction, or operation of the facility (public private partnership projects).

SB 1407 also included the following requirements, all of which bear upon the management and execution of the Program:

- The Program was authorized to pay the debt service of the lease revenue bonds, notes, bond anticipation notes, or other appropriate financial instruments used to pay for the costs in the amount of up to \$5 billion.¹⁰
- The AOC shall serve as an implementing agency (not the Owner) for the Program (upon approval of the Department of Finance).¹¹
- The Program is exempt from the California Public Contract Code, but is subject to the facilities contracting policies and procedures adopted by the Judicial Council after consultation and review by the DOF.¹²

⁸ Senate Bill 1407, Chapter 311, Legislative Counsel's Digest, Section (1), page 1, September 26, 2008

⁹ Senate Bill 1407, Chapter 311, Legislative Counsel's Digest, Section (5), page 15, September 26, 2008

¹⁰ Senate Bill 1407, Chapter 311, Legislative Counsel's Digest, Section (5), page 15, September 26, 2008

¹¹ Senate Bill 1407, Chapter 311, Legislative Counsel's Digest, Section (7), page 20, September 26, 2008

- The AOC shall be responsible for the operation, maintenance and repair of all court facilities whose title is held by the state.¹³
- The facilities constructed under this Program are subject to certain energy legislation and polices established by the State of California.¹⁴
- The Judicial Council shall “*Exercise full responsibility, jurisdiction, control, and authority as an Owner would have over trial court facilities whose title is held by the state, including, but not limited to, the acquisition and development of facilities.*”¹⁵ **[Bold highlight added]**
- Establishment of “... *policies, procedures and guidelines for ensuring that the courts have adequate and sufficient facilities, including, but not limited to, facilities planning, acquisition, construction, design, operation, and maintenance.*”¹⁶
- Formalizes the PAGs for construction projects.¹⁷
- Preparing strategic master and five-year capital facilities plans.¹⁸

SB 12 (2009) further defined and refined the Program, reiterating some of what was adopted in SB 1407, and adding the following provisions relevant to this Program audit:

- Requires the Judicial Council to make recommendations to the State PWB before undertaking projects and, based on State PWB approval and the certification of sufficient funding, authorizes the Judicial Council to acquire real property and complete preliminary design plans.¹⁹

¹² Senate Bill 1407, Chapter 311, Legislative Counsel’s Digest, Section (7), page 20, September 26, 2008

¹³ Senate Bill 1407, Chapter 311, Legislative Counsel’s Digest, Section (7), page 20, September 26, 2008

¹⁴ Senate Bill 1407, Chapter 311, Legislative Counsel’s Digest, Section (7), page 20, September 26, 2008

¹⁵ Senate Bill 1407, Chapter 311, Legislative Counsel’s Digest, Section (9), page 21, September 26, 2008

¹⁶ Senate Bill 1407, Chapter 311, Legislative Counsel’s Digest, Section (9), page 22, September 26, 2008

¹⁷ Senate Bill 1407, Chapter 311, Legislative Counsel’s Digest, Section (9), page 23, September 26, 2008

¹⁸ Senate Bill 1407, Chapter 311, Legislative Counsel’s Digest, Section (9), page 23, September 26, 2008

¹⁹ Senate Bill 12, Chapter 10, Legislative Counsel’s Digest, page 1, February 20, 2009

- Requires the Judicial Council to report to the JLBC and the chairs of the Senate Committee on Budget and Fiscal Review and the Assembly Committee on Budget the status of each project as of March 1 of each year of the Program.²⁰
- Reiterates a “*continuous appropriation*” for the Immediate and Critical Needs account without regard to fiscal year, only for the purposes of acquiring real property and completing preliminary plans.²¹
- Reiterates the total funding of the Program at \$5 billion (USD).²²
- The intent of the legislation is to appropriate funding for working drawings and construction in the next annual Budget Act following approval by the State PWB of the preliminary plans completed under the initial appropriation for a project to cover site acquisition and preliminary plans.²³

SB 78 (2011) established that the Judicial Branch was required to meet State procurement and contracting requirements as promulgated under the SAM until such time as it adopts a Judicial Branch Contracting Manual. The due date for that contracting manual was set as January 1, 2012.²⁴ Once submitted, the SAM was no longer the foundation document for the Program as the Judicial Branch Contracting Manual addresses the procurement and contracting policies, procedures and processes to be implemented and enforced. SB 78 also required that the Judicial Council report twice a year (February and August) information related to procurement of and amendments to, contracts secured by the Judicial Branch.²⁵ In addition, SB 78 requires the Judicial Council to report to the JLBC on the process, transparency, costs, and timeliness of its construction procurement practices for each court construction project completed between January 1, 2008 and January 1, 2013. The Legislative Analyst’s office is to conduct an analysis of the findings in that report and compare the costs and

²⁰ Senate Bill 12, Chapter 10, Legislative Counsel’s Digest, pages 1 and 2, February 20, 2009

²¹ Senate Bill 12, Chapter 10, Legislative Counsel’s Digest, Section 1, page 2 and 3, February 20, 2009

²² Senate Bill 12, Chapter 10, Legislative Counsel’s Digest, Section 2, page 3, February 20, 2009

²³ Senate Bill 12, Chapter 10, Legislative Counsel’s Digest, Section 3, page 4, February 20, 2009

²⁴ Senate Bill 78, Legislative Counsel’s Digest, Part 2.5, Section 19204 and 19206, January 10, 2011

²⁵ Senate Bill 78, Legislative Counsel’s Digest, Part 2.5, Section 19207, January 10, 2011

timeliness of the methods of delivery used by the judiciary to projects of comparable size, scope, and geographic location procured under the Public Contract Code provisions applicable to state agencies.²⁶

Beginning with SB 1732, and continuing through SB 82, SB 1407, SB 12, and SB 78, the Judicial Branch gained control over, and responsibility for, the trial courts within California. That control and responsibility extended beyond simple operations and maintenance of those trial court facilities already in existence, to the planning and execution of a new trial Court Capital Construction Program, under which \$5 billion (USD) in construction projects were authorized for the construction of new court facilities. Having completed the Program master plan and five-year district plans, the Court Capital Construction Program has fully entered the execution phase of that Program, with various projects cycling through the phases of execution. This audit is intended to examine the Program to date and ultimately recommend ways in which the Program can be enhanced and improved as the Program accelerates through execution.

2.2 AUDIT OBJECTIVES, TEAM, SCOPE AND METHODOLOGY

2.2.1 AUDIT OBJECTIVES

In February 2012, the Judicial Council through the AOC engaged Pegasus-Global to conduct a management audit of the Program as executed to date by AOC's OCCM. Under that engagement the AOC issued Work Order Number 1024456, which required Pegasus-Global to conduct an audit of the Court Capital Construction Program subdivided into four discrete elements as follows:

²⁶ Senate Bill 78, Legislative Counsel's Digest, Part 2.5, Section 22, January 10, 2011

- Deliverable 1, Subpart a.1 (See **Part I** of this Report). An assessment of the policies, procedures and formal processes governing the management and control of the AOC Program relative to budget, scope, schedule and quality outcomes. As a formal management audit conducted under GAGAS, OCCM was provided the opportunity to respond to the findings and recommendations presented by Pegasus-Global. The AOC has provided comments in response to those findings and recommendations, which have been appended to this Report as **Exhibit B**.
- Deliverable 1, Subpart a.2 (See **Part II** of this Report). An assessment of individual project team practices in managing a project's budget, scope, schedule and quality outcomes. As a formal management audit conducted under GAGAS, OCCM was provided the opportunity to respond to the findings and recommendations presented by Pegasus-Global. The AOC has provided comments in response to those findings and recommendations, which have been appended to this Report as **Exhibit B**.
- Deliverable 1, Subpart b (See **Part III** of this Report). An assessment and recommendation concerning the structure and composition of the Program Management and individual project delivery teams, OCCM organization structure, overall staff qualifications, and the quality of project consultants, architects and engineers, and CMs and general contractors. As a consultative service provided by Pegasus-Global, OCCM is not required to, and was not asked to, provide a formal response to the recommendations made under this Deliverable.
- Deliverable 1, Subpart c (See **Part IV** of this Report). On the basis of the findings of Deliverables 1.a.1, 1.a.2, and 1.b, Pegasus-Global was asked to identify and prioritize a list of those recommendations that in Pegasus-Global's opinion will provide the greatest value to the Program and which would enable the stakeholders to execute the Program following industry standards (or best practices).

2.2.2 AUDIT TEAM

The team assembled by Pegasus-Global to conduct the audit represented a cross section of the design and construction industry and collectively possessed technical knowledge, skills and professional experience necessary to plan and conduct this audit. The Pegasus-Global audit team included the following individuals:

- Dr. Patricia Galloway
- Dr. Kris Nielsen
- Mr. Jack Dignum
- Mr. Dana Hunter
- Mr. Jason Kliwinski
- Ms. Lia Nielsen

The resumes of each audit team member are attached to this Report at **Exhibit C**.

2.2.3 EVALUATION CRITERIA AND STANDARDS

This audit was conducted from February 13, 2012 through July 2012 and was conducted in accordance with GAGAS. GAGAS standards provide a framework for conducting high quality government audit engagements with competence, integrity, objectivity and independence. Those standards contain requirements and guidance dealing with ethics, independence, auditor's professional competence and judgment, quality control, the performance of field work and reporting. Audits performed under GAGAS provide information used for oversight, accountability, and improvements of government programs and operations.

Unlike a financial audit, a *program management audit* is classified as a category of *performance audit*, which under GAGAS are defined as engagements which:

.... Provide assurance or conclusions based on an evaluation of sufficient, appropriate evidence against stated criteria, such as specific requirements, measures, or defined business practices. Performance audits provide objective analysis so that management and those charged with governance and oversight can use the information to improve program performance and operations, reduce costs, facilitate decision making by parties with responsibility to oversee or initiate corrective action, and contribute to public accountability.²⁷

Pegasus-Global believes that the evidence obtained provides a reasonable basis for the findings and conclusions relative to the audit objectives established.

Summarizing from the GAGAS audit standard quoted above there are two critical elements of a Capital Program Management Audit:

1. The evaluation of management is conducted by comparing the actual conditions which exist within an organization against specifically identified industry-relevant standards. While the auditors are expected to use their expertise during the planning, execution and interpretation (reporting) of the program management audit, the auditor does not allow personal preference or bias to frame the planning, execution or interpretation of the audit. To ensure that personal bias is not introduced into its audit, Pegasus-Global uses a *comparative audit technique*, under which it compares the actual conditions which exist within an organization against two benchmark sources of comparison:
 - a. Applicable federal, state or local laws and regulations. If an agency of the state is required by State law or regulation to execute capital projects (or elements of capital projects) following a specific set of formal requirements then Pegasus-Global evaluates whether or not the agency under audit has performed its function in accordance with those formal requirements.

²⁷ Government Auditing Standards, United States General Accounting Office, July 2007, GAO-07-731G, Chapter 1, Section 1.25, page 17

- b. Industry Standards of Care. There are several national and international bodies which promulgate standards of care which are generally acknowledged and accepted within the construction industry to represent those best practices enabling management to achieve its established goals and objectives. For the purposes of this audit of the Program Pegasus-Global utilized the standards promulgated by the Project Management Institute (“PMI”) under its Project Management Body of Knowledge (“PMBOK”); the Construction Management Association of America (“CMAA”) under its Standards of Practice for Cost, Time, Quality and Contract Administration; selected portions of the American Institute of Architect’s (“AIA”) project contracting documents; and selected portions of the Leadership in Engineering and Environmental Design (“LEED®”) Standards.
2. The audit results are not presented as, or meant to be interpreted as, a critique of any individual, particular unit, group, division, department, or the State of California. The audit results are presented as observational comparisons against the standards identified above *solely* with the intention of providing stakeholders in the Program and individual projects with information which can be used by those stakeholders to efficiently and effectively execute the Program and the individual projects.

The second element is particularly relevant in any audit of a governmental entity that is subject to open and complete disclosure of results of any independent audit conducted of the State’s operations and management. The primary goal of a program audit is to provide a sound starting point for improving operations and management and, as such, a prerequisite is that the audit first identifies those elements of operation and management which currently do not align with the accepted practices and standards in general use throughout the entire industry.

The efficiency, effectiveness and economy of a governmental operation are inherent responsibilities of those charged with its management. The overall “effectiveness” of an

organization is the determination of how well predetermined goals and objectives for a particular activity or program are achieved. Effectiveness signifies the result of effort rather than the effort itself, this is sometimes characterized as impact, results, or outcome. Efficiency focuses on the maximization of output at minimal costs or the use of minimal input of resources for the achievable output. Economy signifies the acquisition of resources of appropriate quality and quantity at the lowest reasonable cost.

The result of the audit elements conducted under this management audit are focused entirely on providing the Judicial Council, AOC and OCCM with information which can be used in their efforts to improve their management of the Program and is not intended to be used as a criticism of the current management and operation of that Program.

2.2.4 AUDIT METHODOLOGY

The audit was conducted in four phases as described in **Section 2.2.1, Audit Objectives**. When reviewing the audit objectives, Pegasus-Global developed an audit plan under which the audit was to be conducted.

The audit plan was agreed between the CFWG of the Judicial Council, the OCCM and Pegasus-Global at an initial meeting held in San Francisco the week of February 13, 2012. The general audit methodology developed with the OCCM involved conducting an analysis under which the policies, procedures, processes and practices of the OCCM would be compared against those program management policies, procedures, processes and practices recognized as “good professional practice” within the capital construction industry at large.

Pegasus-Global’s team began the audit with an expectation of governmental excellence, a benchmark that all organizations should have as a primary objective. Holding governmental entities to the highest standards of efficiency and effectiveness serves the best interests of both the citizens and government. When those expectations are not met, Pegasus-Global attempts to identify opportunities to move toward an

organization's own vision of excellence. However, this vision must be recognized, accepted and internalized before significant organizational change can occur.

It is for this reason that many of Pegasus-Global's findings and observations found in this Report are *exception-based*. That is, they are oriented towards resolving problems or concerns. Although many aspects of operations are performed efficiently and effectively, the greatest benefits to an organization are typically derived from the identification of methods to achieve excellence.

Using the documents and information gathered from the AOC and OCCM, and from direct interviews of the CFWG representatives, senior AOC and OCCM staff and personnel involved in the capital projects, Pegasus-Global next identified appropriate program management standards of care against which the policies, procedures and practices should be compared and contrasted. Ultimately Pegasus-Global identified those program management standards promulgated by the PMI, CMAA, AIA and the US Green Building Council ("USGBC") LEED® standards.

In executing the comparative audit of the program level management of the policies, procedures, and processes in place to manage and control the Court Capital Construction Program against industry standards, Pegasus-Global undertook a three-step process as follows:

1. Pegasus-Global made several document requests in order to review those formal policies, procedures and processes which exist at the program level and reviewed those documents prior to conducting a series of interviews of the Program Management staff. Documents are used to identify and analyze the formal policies, procedures and processes in place at the program level intended to guide the execution of the Program and the individual projects which comprise that Program. The documents received and reviewed are compared against the topical industry standards to identify gaps in the OCCM policies, procedures and process. **Exhibit D** to this Report identifies the documents received and reviewed by Pegasus-Global over the course of the audit.

2. Pegasus-Global identified the applicable industry standards against which the policies, procedures and processes would be compared. A summary of the selection of those industry standards is contained in **Section 4.0, Audit Standards** immediately below.
3. As part of its audit Pegasus-Global interviewed representatives from the CFWG, AOC management, OCCM Program Management, OCCM Project Management and project consultant construction management. The interviews provide additional insight into the policies, procedures and processes and usually identify additional documents which are important to Pegasus-Global's understanding of the Program and the projects. Likewise, the interviews identify inconsistencies which exist between and even among the various levels of management in connection with those policies, procedures and processes, including the interpretation of, and applicability of those policies, procedures and processes. See **Exhibit E** for a complete listing of interviews conducted Pegasus-Global during this comparative audit.

Using all of the documentation and information gathered through the interview process, Pegasus-Global compared the OCCM's management of the Program within each of the Program phases against nine functional management elements delineated within the PMI standards:

- Integration Management;
- Scope Management;
- Time Management;
- Cost Management;
- Quality Management;
- Human Resource Management;
- Communication Management;

- Risk Management; and
- Procurement Management.

Finally, Pegasus-Global examined the OCCM program policies, procedures, processes, and practices holistically in order to determine if they were:

- Uniform;
- Transparent; and
- Single Point Accountable.

This portion of the audit regarding the program policies, procedures and processes was performed between February 13, 2012 and March 30, 2012.

3.0 Program Management

3.1 THE PURPOSE OF PROGRAM MANAGEMENT

Capital program and construction management as a profession came into existence in the early 1960s in response to increasing complexity of capital construction projects and the rapidly evolving sophistication of the CM and control tools coming into existence during the 1960s, 70s and 80s. Due to the ever increasing complexity, increasing costs, and extended schedules of basic infrastructure projects within the industry, Owners shifted more of their focus to megaprojects and megaprograms, which enabled the Owner to execute an interrelated series of projects under a single unified structure, plan and funding process. With the growing emergence of megaprojects and megaprograms arose the need for more sophisticated project control tools that could better monitor and

control the more complex management environments within which such management concerns as program and project cost and schedule had to be controlled.

The more complex execution and control environment resulted in the critical need for experienced personnel who were qualified to execute programs and projects using the new sophisticated tools that emerged. For example, to undertake and complete the construction of such complex facilities as the manned space flight facilities in Florida and Texas in the 1960s and 1970s, a new method for scheduling and coordinating the work of multiple contractors and vendors over a widely dispersed geographic area all working to a set of interdependent dates for activity completion and interface was needed. The ultimate result flowing out of such complex projects was what is today called Critical Path Method (“CPM”) scheduling. CPM scheduling is a very dynamic, powerful and sophisticated management and control tool which requires that someone (or several individuals) with specialized training and experience be engaged to develop, maintain and interpret a program or project schedule. As control systems like the CPM schedule grew in sophistication and complexity, Owners were faced with a decision - seek out and employ those specially trained and experienced CPM schedulers or give up attempting to schedule a program or project internally and contract that program or project management task to an outside expert.

As the sophistication of the project management control tools became more complex and technical, so did the requirements for personnel trained in the use of those project management control tools. Universities began developing undergraduate and graduate degrees specializing in construction management. Companies began to emerge that specialized in producing project management and project services. Industry associations including PMI and CMAA were formed to provide a place where companies and industries could learn and enhance their understanding of project and construction management. Certificate programs in project management and construction management were developed to assure companies retaining those individuals that they understood project management.

As the areas of program, project and construction management became more specialized, the majority of Owners recognized that they did not have the experience or expertise within their organizations to manage large complex projects. Owners thus began looking to third parties to perform these services.

As CPM scheduling became more prevalent in the 1970s, Owners commonly contracted for scheduling or cost management services from an outside source. Early on, these services were provided by the architect/engineer or the construction contracting firm engaged to actually design or construct a project. However, there were two inherent problems with contracting for those project controls to be managed by either the architect/engineer or the construction contractor:

- Conflict of interest; and
- Protection of position.

These problems became pronounced when multiple projects were to be executed concurrently by a single Owner, the megaproject or megaprogram. Thus, in order to look after multiple projects and to manage the activities of several stakeholders, the concept of program management was conceived.

The conflict of interest issue involves the question of “first loyalty” among the program and the multiple stakeholders of that program. As an example, assume that a construction contractor is also named the Program Manager, responsible to manage and control the program on behalf of the Owner. Because the individual(s) acting as the Program Manager are also employees of the construction contractor, in situations where there is a conflict between the interests of the Owner and the interests of the construction contractor, the Program Manager is placed in a position where the Program Manager must make a decision or take an action which would ultimately damage the Program Manager’s employer. In short, the ultimate interests of the Owner may be compromised by the decisions and actions of the Program Manager acting out of loyalty to its employer, the construction contractor.

The protection of position issue involves a similar situation. Assume again the named Program Director comes from the construction contractor and that a problem has arisen on a project involving the inability of the construction contractor to build to a specific design issued by the architect/engineer. The architect/engineer asserts that the design is good but that the construction contractor's work is defective. The construction contractor asserts that his work is good but that the architect's design is defective. To fix the problem will cost a substantial amount of money and delay the completion of the project. The Program Manager, an employee of the construction contractor, must determine who is responsible for the defect and, thus, who should bear the impact of that defect. If the Program Manager acts so as to protect the position of the construction contractor and the design is later proven to have been good, it is left to the Owner to defend itself from any actions taken by the architect/engineer to recover the money it cost the architect/engineer as a result of the Program Manager's decision and action.

Program and construction management were developed as a separate and distinct profession within the construction industry for two reasons: (1) to provide the expertise and experience necessary to manage and control large, complex capital construction programs and projects; and, (2) to provide Owners with a source of program and project management expertise and experience which enable the Program or Construction Manager to act in the Owner's best interest because it is independent of all other stakeholders involved in those programs and projects. Even in today's project management environment the megaproject or megaprogram introduces additional complexities and issues which must be recognized and addressed by the Owner of that megaproject or megaprogram.

3.2 MEGAPROJECTS

A megaproject is any project, or program of individual projects linked by a common funding source and integrated purpose, which typically displays the following attributes:

- A total execution cost in excess of \$1 billion (USD);

- Takes more than four years to execute;
- Involves multiple stakeholder entities; and
- Involves complex management and execution process.

The Court Capital Construction Program meets all of those criteria:

- The Program has an estimated total budget in excess of \$5 billion (USD);
- The Program will take approximately ten years to complete (through the first stage of priority projects);
- Involves multiple stakeholders including the State of California, Judicial Council, individual judges, the PAGs, PWB, DOF, AOC and OCCM; and
- Involves a complex program under which over 40 individual courthouses will be executed in different communities throughout the State of California.

Further complicating the execution is the fact that funding for each individual courthouse project is done by specific appropriation by the California Legislature in multiple phases, with each project phase requiring a separate appropriation as follows:²⁸

- Site acquisition (continuous appropriation);
- Preliminary plans (continuous appropriation Schematic Design and Design Development);
- Working drawings; and
- Construction.

The importance of recognizing that the Court Capital Construction Program as a program of individual projects which in total represent a megaprogram²⁹ is that the

²⁸ See **Section 5.0** below for additional detail.

stakeholders must set, plan, and execute the achievement of their goals at both a program level and at the individual project level, which in itself introduces an additional level of complexity into the planning and execution of both the program and the project levels. Oversimplifying this complexity:

Every decision made or action taken at the program level has the possibility of impacting the achievement of goals and objectives set at the individual project level. Likewise, every decision made or action taken on an individual project level has the possibility of impacting the achievement of goals and objectives set at the total program level.

For example, if at the program level money allocated to the program during an appropriation cycle is less than that needed to fully fund the projects under execution, decisions will have to be made which may require the delay or even deletion of individual projects which are planned for execution later in the overall program schedule. Conversely, if at the project level a specific project overruns its allotted budget for some unforeseen reason, the program will have to adjust its total program goals to accommodate that cost overrun. Even if such overruns are, by project, a small amount of money, a sufficient number of such small overruns may impact the ability of the program stakeholders to fully fund other projects in the total queue of individual projects to be executed later in the multi-year program.

An additional complexity is added to the Court House Construction Program in that there is not a single, unified stakeholder base for the Program or the individual projects. At the *program* level the primary stakeholders are the judiciary, the administering agencies (AOC and OCCM), certain state administrative agencies (DOF and PWB) and the California state legislature. However at the project level, the primary stakeholders are expanded to include the Presiding Judge (“PJ”), the courthouse operations and maintenance staff, the court administrative staff, the individual members of the PAG, the design consultant, the construction contractor, and, of course the public (either directly

²⁹ For consistency within this Report, the terms *megaprogram* or *program* are used to describe the full complement of individual courthouse projects planned and executed under the Program and not any specific project planned or executed under that Program.

or through their elected representatives). Every stakeholder has their own opinions and focus relative to the Program and/or the individual projects, and balancing those different opinions and focus is a crucial element of both the program and project management charged with executing the project and the Program. While policies, procedures, and processes cannot predict nor control stakeholder opinion or focus, standards established and promulgated through formal policies, procedures, and processes can provide the stakeholders with a point of reference from which their individual opinions or focuses will be addressed by program and project management. If such standards do not exist the program and project management will find it very difficult to proactively manage the divergent stakeholder's expectations of the program or the projects.

Because program and project goals are interdependent it is necessary for the program and project policies, procedures, processes, and practices to be aligned for consistency within program and project level planning and execution schedules. Therefore, in conducting the audit of the Court Capital Construction Program Pegasus-Global had to examine management at both the program and project levels, constantly checking to ascertain if those two critical management levels of the megaprogram are consistent and mutually supportive of both program and project goals and objectives. Where the two levels of management (program and project) were not consistent, Pegasus-Global identified and addressed those inconsistencies.

3.3 IMPORTANCE OF CONTROLS

Perhaps the most critical responsibility for any Program Manager is establishing and exercising control over the execution of the program and its component elements or projects. Without the proper management controls in place and exercised, the chances of a program actually achieving its set goals and objectives is significantly reduced. This is especially true of megaprograms consisting of multiple discrete projects, as without a uniform and comprehensive library of program management controls, the chances of the megaprogram or any specific project achieving its goals and objectives is even more

remote. The PMI Global Standard for Program Management defines program management controls as “... *activities, policies or procedures that govern the execution of the process, so that the process operates in a consistent, predictable manner.*”³⁰ PMI lists ten critical program management control processes:

1. **Standards** – “...*widely recognized and accepted standards...Standards may also be developed specifically for the program.*”³¹ Standards such as those promulgated by PMI and CMAA establish the foundation for all of the other control policies, procedures and processes which are required to exercise management control over the program and its constituent projects. In public programs, basic standards are often established in legislation and regulation, with the executing agency expanding and extending program standards in the development of program management control policies, procedures and processes.
2. **Policies and Procedures** – “...*implement standards, processes, and work methods that result in the work required by the program being performed...Organizational policies dictate required contents of a program management artifact such as a plan, specific methodology used to create the artifact, and approval process for the artifact.*”³² Artifacts are PMI’s general term for those formal policies, procedures and processes which are developed and implemented to manage and control the program and its component projects. In general, PMI identifies nine topical areas within the PMBOK® which specify artifacts (formal written policies, procedures and processes) which are described in detail in **Section 4.0, Audit Standards** below.
3. **Program Plans** – “...*a program is driven by a strategic plan, which includes a statement of the business goals for the program. All work in a program should contribute to one or more business goals. Business goals are the criteria against which potential program activities are judged.*” In a program consisting of multiple

³⁰ PMI, Global Standard for Program Management, Appendix F, page 91, 2006

³¹ PMI, Global Standard for Program Management, Appendix F, Section A, page 91, 2006

³² PMI, Global Standard for Program Management, Appendix F, Section B, page 91, 2006

constituent discrete projects strategic plans must address the standards, policies, procedures, processes, goals and objectives against which the management and control of the discrete project activities are judged. The strategic plan is usually a product of the program management plan “...which formulates and documents the management strategy and approach for the program. The program plan comprises a number of subsidiary management plans, such as:

- a. *Cost management plan*
- b. *Communications management plan*
- c. *Procurement management plan*
- d. *Quality management plan*
- e. *Resource management plan*
- f. *Risk management plan*
- g. *Schedule management plan*
- h. *Scope management plan*
- i. *Staffing management plan*

These and other subsidiary management plans may be incorporated directly into the same document as the program management plan or may exist as individual document artifacts.”³³

4. **Reviews** – “...are typically internal activities such as management or peer reviews with their outcomes communicated to project stakeholders...Reviews are executed as controls on numerous program management processes...[to]

³³ PMI, Global Standard for Program Management, Appendix F, Section C, pages 91 - 92, 2006

provide insight into status and plans for each project and the impact on the overall program.”³⁴

5. **Oversight** – “...by an executive review board or an individual executive may cause modifications to the program if the overarching business or strategic needs change. Executive oversight plays a key role in evaluating the proposed program management plan with respect to the business objectives and constraints.”³⁵
6. **Audits** - “...may be an internal control or may be an activity imposed by the client...the audit would require that information distributed to be substantiated by stored program information from which reports and distributions were compiled...audits could require demonstration of a process that meets certain criteria as spelled out in the contract or agreement. Types of audits may include: control point audits, financial audits, process audits, risk response audits, and quality audits.”³⁶ The audit performed by Pegasus-Global includes all of the types of audit listed by PMI in this Section G, and includes several procedural and process steps required by GAGAS.
7. **Contracts** – “Standard contractual terms and conditional clauses may be pre-developed and approved for inclusion in contracts awarded by a procuring agency.” The crucial consideration under this artifact is that the contracting processes and contracts are uniform and transparent.
8. **Directories and Distribution Lists** - “Standard lists are established and maintained to control the routing and recipients of all of the formal communications...to project stakeholders.”³⁷
9. **Documentation** – “Documentation controls may include requiring that all formal documents related to the program conform to style guides and documentation

³⁴ PMI, Global Standard for Program Management, Appendix F, Section D, page 92, 2006

³⁵ PMI, Global Standard for Program Management, Appendix F, Section E, page 92, 2006

³⁶ PMI, Global Standard for Program Management, Appendix F, Section G, page 91, 2006

³⁷ PMI, Global Standard for Program Management, Appendix F, Section H, page 91, 2006

*templates to be created and used for documentation of a repetitive nature...*³⁸

Following the standards provided within the PMBOK[®], Pegasus-Global considers the document control system one of the most important elements of sound program and project management.

10. **Regulations** – *“Regulations may stipulate the collection of pertinent data...[and] may include environmental legislation, government regulations and laws, legal opinions, legislative requirements, legislative restrictions, organizational legislation, and [other] regulations...”*³⁹ Regulations may establish program standards and may even address certain policy, procedures and processes requirements for the program.

A significant element of any audit of a program is to track the management control standards, policies, procedures and processes from formation at the program level to the project implementation level. This requires that Pegasus-Global identify those program management control standards, policies, procedures and processes which exist (or should exist per the applicable SOC); determine if those program management controls meet the industry standards for the management and control of a program consisting of multiple discrete projects; and finally, determine if those management control standards, policies, procedures and process are being adopted, enforced and followed at the program and project management levels.

3.4 STANDARD OF CARE

Successful management and control of a program consisting of multiple construction projects, each with its own scope of work, budget, schedule, location, architects, construction contractors and vendors, requires that a Program Manager have multiple “project teams” managing and controlling multiple projects simultaneously. Unless those teams are working within a **uniform** set of policies, procedures, and processes, it would

³⁸ PMI, Global Standard for Program Management, Appendix F, Section I, page 91, 2006

³⁹ PMI, Global Standard for Program Management, Appendix F, Section J, page 91, 2006

be a practical impossibility to coordinate the management and control of the megaprogram as a whole.

Likewise, in order for the senior AOC and OCCM staff to clearly understand the meaning and importance of the data and results being generated from those policies, procedures, and processes, the manner in which the data and results are managed, captured, and reported must be **transparent**. Transparency simply means that there is a clear, direct and recognizable path from the point at which the program or project is managed, information is generated, information is reported and, ultimately, how that information was used to reach decisions and take actions in response to specific situations.

Finally, there must be an individual identified as being **accountable** for the management task identified, information generated and reported, and an individual identified as being **accountable** for making the decisions and implementing the actions taken in response to that information. The accountability does not stop at the project level, but rises up through the organization with the Owner ultimately bearing the overall responsibility for the program. Without accountability, there is no assurance that the services to be provided are, in fact, provided as intended, by the Owner, AOC, OCCM or other participating stakeholders.

In managing a megaprogram, uniformity, transparency and accountability are even more crucial than in a single construction project. For instance, assume twelve projects of the program are executed simultaneously with six project teams each responsible for two projects. If each of those teams developed, implemented and employed its own cost management and control systems, the result would be six different cost management and control systems, each generating and reporting different cost data, making it difficult, if not impossible, to “roll the data up” into a single, meaningful cost report. The inability to roll up cost data may prevent OCCM, AOC or the Judicial Council from understanding exactly where the Program, as a whole, stands against its goals and objectives and may preclude the OCCM, AOC or the Judicial Council from making informed decisions as to actions needed to maintain the program goals and objectives.

Ultimately, lack of uniformity, transparency and accountability could seriously jeopardize the legislature's and public's trust of the information being reported out of the Program.

3.5 PROCESSES AND PRACTICES

There are two general components to every program management function: (1) Process, and (2) Practice. **Process** is the methodology by which the program and its individual projects are to be managed and controlled. The process is a combination of policies, procedures and systems (processes) in place to guide and support each of the management and control functions to be executed by Program and Project Managers. The policies, procedures and processes are, in effect, the tools that the Program and Project Managers have for discharging its management and control functions. **Practices** are how a Program or Project Manager actually manages and controls the execution of the program or project. In examining any program relative to an established SOC, Pegasus-Global examines both of those components simply because in its experience, it is entirely possible for a program or project to have excellent management and control policies, procedures and processes in place, yet during execution of the program or project those policies, procedures, and processes are not followed. Likewise, Pegasus-Global has encountered situations in which the formal policies, procedures and processes did not meet the SOC established by the industry at large or the specific needs of the program, yet in practice management followed excellent processes developed “on the fly” during the actual execution of the program and its individual projects.

During an audit Pegasus-Global attempts to identify gaps in the policies, procedures, and processes for the organization being audited; however Pegasus-Global also tries to identify those practices which, while they may not meet the formal program policies, procedures, and processes, nonetheless work and perhaps should be adopted by Program Management within the total body of the policies, procedures, and processes used to manage and control the program.

4.0 Audit Standards

Pegasus-Global's acceptance of the Judicial Council as the Owner of the Court Capital Construction Program meant that OCCM was charged with management of the Program, management the projects, design of the projects (including environmental requirements,) and the construction of the individual projects. Because OCCM was acting in all those roles Pegasus-Global had to identify those industry standards which most closely provided good industry practices in fulfilling those roles.

4.1 APPLICABLE COMPARATIVE STANDARDS

To provide a comparative standard for OCCM's role relative to its program and project management functions Pegasus-Global identified and used the standards promulgated by PMI and, to a lesser extent CMAA.

To provide a comparative standard for OCCM's role relative to its design management functions Pegasus-Global identified and used the standards promulgated by the AIA.

To provide a comparative standard for OCCM's role relative to design responsibilities specific to the California environmental requirements Pegasus-Global identified and used the following standards:

- California Code of Regulations, Title 24 ("Title 24") of the California State Code
- LEED®

In addition to industry recognized sources, Pegasus-Global also reviewed various legislative and regulatory documents, which in effect, established performance standards for the Court Capital Construction Program and generally attempted to determine whether or not program policies, procedures and processes addressed the legislative and regulatory requirements.

4.1.1 PMI PMBOK®

PMI is an international professional membership organization dedicated to the advancement and improvement of program and project management with hundreds of thousands of members globally. Over its history, PMI has assembled and published the PMBOK® through four complete editions⁴⁰ and a number of specialty project extensions, including a Construction Extension and a Global Standard for Program Management.⁴¹ PMI and the PMBOK® have become the preeminent project management educational resource internationally, extending to the certification of Project Management Professionals (“PMP”) from around the world. PMI’s PMBOK®, Fourth Edition (2008)⁴², coupled with PMI’s second edition of its “Construction Extension” (2007)⁴³ to the PMBOK®, and the Global Standard for Program Management (2006) represent the most comprehensive and complete compendium of “*good professional practices*” against which to compare the program and project management functions of the Judiciary, AOC and OCCM during the execution of the Court Capital Construction Program.

According to the PMBOK®:⁴⁴

A project is a temporary endeavor undertaken to create a unique product, service, or result. The temporary nature of projects indicates a definitive beginning and end. The end is reached when the project’s objectives have been achieved or when the project is terminated because its objectives will not or cannot be met, or when the need for the project no longer exists.

According to the PMBOK® Construction Extension:⁴⁵

⁴⁰ The PMI, Project Management Body of Knowledge, Fourth Edition (2008), was recognized by the American National Standards Institute (“ANSI”) as an ANSI Standard (ANSI/PMI 99-001-2008)

⁴¹ To avoid confusion within the report the PMI PMBOK®, the Construction Extension to the PMBOK and the Global Standard for Program Management are collectively called the “PMBOK®” except in specific situations when a distinction between those three documents is warranted.

⁴² A Guide to the Project Management Body of Knowledge, Project Management Institute, Fourth Edition, 2008, American National Standard ANSI/99-001-2008

⁴³ Construction Extension to A Guide to the Project Management Body of Knowledge, Project Management Institute, 2007 Edition

⁴⁴ A Guide to the Project Management Body of Knowledge, Project Management Institute, Third Edition, 2008, American National Standard ANSI/99-001-2008, Chapter 1, Section 1.2.1, page 5

Construction projects produce deliverables, such as: a facility that will make or house the means to make a product or provide service(s)... construction projects involve many stakeholders with varying project expectations such as public taxpayers, regulatory agencies, governments, and environmental or community groups, which many other types of projects do not include.

According to the PMI Global Standard for Program Management:

A program is a group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually.⁴⁶

Program management is the centralized coordinated management of a program to achieve the program's strategic benefits and objectives... Managing multiple projects by means of a program allows for optimization of integrated cost, schedules, or effort; integrated or dependent deliverables across the program, delivery of incremental benefits, and optimization of staffing in the context of the overall program's needs.⁴⁷

As summarized by PMI:⁴⁸

The PMBOK® Guide identifies that subset of the project management body of knowledge generally recognized as good practice. "Generally recognized" means the knowledge and practices describe are applicable to most projects most of the time, and there is consensus about their value and usefulness. "Good practice" means there is general agreement that the application of these skills, tools, and techniques can enhance the chances of success over a wide range of projects. Good Practice does not mean the knowledge described should always be applied uniformly to all projects; the organization

⁴⁵ Construction Extension to A Guide to the Project Management Body of Knowledge, Project Management Institute, 2007 Edition, 2007, Chapter 1, Section 1.2.4, page 5

⁴⁶ The Standard for Program Management, Project Management Institute, Global Standard, Section 1.2, page 4, 2006 Edition

⁴⁷ The Standard for Program Management, Project Management Institute, Global Standard, Section 1.3, page 4, 2006 Edition

⁴⁸ A Guide to the Project Management Body of Knowledge, Project Management Institute, Fourth Edition, 2008, American National Standard ANSI/99-001-02008, Chapter 1, Introduction and Section 1.1, page 4

and/or project management team is responsible for determining what is appropriate for any given project.

The elements of the PMBOK® are accepted internationally as representing “good professional practices” for the management and execution of projects and programs. Pegasus-Global found that only one member of the program level staff involved in Court Capital Construction Program was intimately familiar with PMI and the PMBOK®, the Construction Extension, or the Global Program Standard. Overall there did not appear to be any detailed knowledge of PMI, PMBOK®, the Construction Extension or the Global Program Standard at the project level. However, Pegasus-Global determined that the standards promulgated by PMI were broad enough to be an acceptable basis of comparison during the Court Capital Construction Program audit even without program management staff’s direct knowledge of or participation in, PMI.

The PMBOK® guide recognizes 42 processes that fall into five basic process groups and nine knowledge areas that are typical of almost all projects. The five process groups are:

1. Initiating;
2. Planning;
3. Executing;
4. Monitoring and Controlling; and
5. Closing.

The PMBOK® identifies nine key “knowledge areas” representing the best practice elements of project management:

- (1) Project Integration Management – the processes and activities needed to identify, define, combine, unify, and coordinate the various program and project

management activities identified in the other eight project management elements.⁴⁹

- (2) Project Scope Management – the processes required to ensure that the program and project includes all the work required, and only the work required, to complete the program or project successfully. Managing the program and project scope is primarily concerned with defining and controlling what is - and is not - included in the program or project.⁵⁰
- (3) Project Time Management – the processes involved in planning the sequence of work (schedule) and controlling schedule so as to accomplish timely completion of the program or project.⁵¹
- (4) Project Cost Management – the processes involved in planning, estimating, budgeting and controlling costs so that the program and project can be completed within the approved budget.⁵²
- (5) Project Quality Management – the activities of the performing organization that determine quality policies, objectives, and responsibilities so that the program and project will satisfy the needs for which it was undertaken.⁵³
- (6) Project Human Resource Management – the processes that organize and manage the program and project teams. The program and project teams are comprised of the people who have assigned roles and responsibilities for completing the program or project.⁵⁴

⁴⁹ A Guide to the Project Management Body of Knowledge, Project Management Institute, Third Edition, 2004, American National Standard ANSI/99-0102004, Chapter 4, Introduction, page 77

⁵⁰ A Guide to the Project Management Body of Knowledge, Project Management Institute, Fourth Edition, 2008, American National Standard ANSI/99-001-2008, Chapter 5, Introduction, page 103

⁵¹ A Guide to the Project Management Body of Knowledge, Project Management Institute, Third Edition, 2004, American National Standard ANSI/99-0102004, Chapter 6, Introduction, page 123

⁵² A Guide to the Project Management Body of Knowledge, Project Management Institute, Third Edition, 2004, American National Standard ANSI/99-0102004, Chapter 7, Introduction, page 157

⁵³ A Guide to the Project Management Body of Knowledge, Project Management Institute, Third Edition, 2004, American National Standard ANSI/99-0102004, Chapter 8, Introduction, page 179

⁵⁴ A Guide to the Project Management Body of Knowledge, Project Management Institute, Third Edition, 2004, American National Standard ANSI/99-0102004, Chapter 9, Introduction, page 199

- (7) Project Communications Management – the processes required to ensure timely and appropriate generation, collection, distribution, storage, retrieval, and ultimate disposition of program and project information.⁵⁵
- (8) Project Risk Management – the processes concerned with conducting risk management planning, identification, analysis, responses, and monitoring and control on a project; most of these processes are updated throughout the program and project.⁵⁶
- (9) Project Procurement Management – the processes to purchase or acquire the products, services, or results needed from outside the program or project team to perform the work.⁵⁷

Each of the nine knowledge areas contains the processes that need to be accomplished in order to achieve an effective project management program. Each of these processes fall into one of the basic process groups, creating a matrix structure such that every process can be related to one knowledge area and one process group.

During the audit Pegasus-Global compared the Court Capital Construction Program current policies, procedures, and processes against those promulgated by PMI within the PMBOK[®].

4.1.2 CMAA RECOMMENDED PRACTICES

For the first 20 years of the profession (1960-1980), the practice of program and construction management was largely unorganized and unregulated, which led to a significant disparity in the quality of services offered by self-titled “Construction Managers”. The CMAA was formed by representatives of 37 firms practicing program and construction management in 1982 in an effort to establish ethical and practical

⁵⁵ A Guide to the Project Management Body of Knowledge, Project Management Institute, Third Edition, 2004, American National Standard ANSI/99-0102004, Chapter 10, Introduction, page 221

⁵⁶ A Guide to the Project Management Body of Knowledge, Project Management Institute, Third Edition, 2004, American National Standard ANSI/99-0102004, Chapter 11, Introduction, page 237

⁵⁷ A Guide to the Project Management Body of Knowledge, Project Management Institute, Third Edition, 2004, American National Standard ANSI/99-0102004, Chapter 12, Introduction, page 269

performance standards of practice within the program and CM profession.⁵⁸ One of CMAA's earliest actions was to adopt a Code of Professional Ethics of the Program and Construction Manager, which every member of the CMAA must commit to abide by and uphold. For the first time the CM profession addressed two of the harshest criticisms from Owners, the first being the conflict of interest and protection of the Client's position:

1. *Client Service. I will serve my clients with honesty, integrity, competence, and objectivity, establishing a relationship of trust and confidence and furnishing my best skills and judgment consistent with the interests of my Client.*⁵⁹

The second major issue voiced by Owners at the time was the lack of standards or uniformity in the services provided by different CM and program management firms:

3. *Standards of Practice. I will furnish my services in a manner consistent with established and accepted standards of the profession and with the laws and regulations which govern its practice.*⁶⁰

Since 1982, CMAA has developed and updated standards for the provisions of several services provided by Program and Construction Managers that are to be applied during all phases of a program and/or project, including:

1. General Project Management:
 - a. Pre-design;
 - b. Design;
 - c. Procurement;

⁵⁸ Capstone: The History of Construction Management Practice and Procedures, Construction Management Association of America, 2003, Section 1.2, Historical Evolution of Construction Management, page 6

⁵⁹ Code of Professional Ethics of the Construction and Program Manager, CMAA, Ethical Standard No. 1, 2005

⁶⁰ Code of Professional Ethics of the Construction and Program Manager, CMAA, Ethical Standard No. 3, 2005

- d. Construction; and
 - e. Post Construction.
2. Cost Management;
 3. Time Management;
 4. Quality Management;
 5. Contract Administration; and
 6. Safety Management.

CMAA, beyond simply being a membership organization, also tests and certifies individuals as CM professionals.

From an overall perspective, CMAA defines program management within the construction industry as.⁶¹

...the application of construction management to large and complex capital improvement programs... There are many similarities between project management and program management. Both utilize integrated systems and procedures such as budgeting, estimating, scheduling and inspections to manage the design and construction process. The principal difference between project management and program management is the size and scope of the projects, and the range of services required... Presently in the construction industry, program management services are provided by a number of professional entities including construction managers, design-builders, designers, developers, and others... Generally, CMs, by their training and experience, possess the knowledge, skills, and abilities needed for effective program management.

⁶¹ CMAA, *Construction Management Standards of Practice*, 2008, page 67

Deliverable 1.a.1 was confined to the program level elements of the CMAA standards, which primarily concerns the following issues:

- The “*active role in defining objectives and concepts, and may extend to the acceptance and operation of the completed projects on behalf of the Owner.*”

In effect, the standards established by CMAA for the planning and management of actual construction are applied at the program level during the development of program policies, procedures, and processes, and are intended to provide direct input into the development of those policies, procedures, and processes in order to insure uniformity, transparency and accountability throughout the program and project management structure of the program.

4.1.3 AIA RECOMMENDED PRACTICES

The AIA was established in 1857 by 13 architects seeking to form a professional architects association with a goal to “*promote the scientific and practical perfection of its members*” and “*elevate the standing of the profession.*”⁶² Beginning in 1920, the AIA began publishing a handbook, *The Architect’s Handbook of Professional Practice* (AIA Handbook), which sought to be “*the definitive source of information about the business and administrative aspects of architecture practice*”⁶³. Presently in its 14th edition, the AIA Handbook remains a leading industry resource for not only architects, but other parties allied with the design profession, such as engineers, consultants, and contractors.

As noted in the AIA Handbook, “*the Handbook does not contain absolute rules and procedures. Rather, it presents concepts, principles, techniques, and other fundamental information that together provide guidance for the day-to-day needs of architects and other building design professionals.*”⁶⁴

⁶² History of the American Institute of Architects, www.aia.org/about/history/AIAB028819

⁶³ American Institute of Architects, *The Architect’s Handbook of Professional Practice*, 2008, page vi

⁶⁴ American Institute of Architects, *The Architect’s Handbook of Professional Practice*, 2008, page xii

The AIA Handbook dedicates Part 3 of its four-part handbook to the project itself. It is here where it establishes the concepts and principles that guide a project through the early stages of project definition, through the selection and implementation of a project delivery method, and to project management and quality management. Concepts explained here include:

- Defining Project Services – a clear description of services can serve as a basis for the architect’s response to the Owner’s programmatic requirements, facilitate the development of an effective work plan, enable negotiation of fair contract terms, and ensure adequate compensation is agreed to.⁶⁵
- Project Delivery Methods – the organization, strategy, and responsibilities of the key players in the building process – Owner, architect, and contractor – form the project delivery method for a project. The delivery model chosen is based on which project variables – cost, schedule, building quality, risks, and capabilities – drive the project.⁶⁶
- Design Phases – design is the keystone of architecture practice. Translating needs and aspirations into appropriate and exciting places and buildings requires great skill, as well as attention to broader public concerns.⁶⁷
- Risk Management – effective risk management is a mind-set – a pervasive, daily, affirmative approach to architecture practice that continuously recognizes, assesses, and deals with its inherent risks. The goal is to accept, within reasonable limits, risks the architect can absorb or manage and to lessen, transfer, or reject unacceptable risks.⁶⁸

⁶⁵ American Institute of Architects, *The Architect’s Handbook of Professional Practice*, 2008, Chapter 11.1, Defining Project Services, page 460

⁶⁶ American Institute of Architects, *The Architect’s Handbook of Professional Practice*, 2008, Chapter 11.4 Project Delivery Methods, page 491

⁶⁷ American Institute of Architects, *The Architect’s Handbook of Professional Practice*, 2008, Chapter 12.2 Design Phases, page 520

⁶⁸ American Institute of Architects, *The Architect’s Handbook of Professional Practice*, 2008, Chapter 9.1 Risk Management Strategies, page 348

- Construction Documentation – comprehensive design development documentation, carefully coordinated by the design team and approved by the owner, provides a sound foundation for preparing the construction documentation.⁶⁹
- Construction Cost Management – successful cost management depends on sound estimating skills. Estimating involves two basic steps: quantifying the amount of work to be estimated and applying reasonable unit prices to these quantities.⁷⁰
- Project Controls – as the project unfolds, progress is assessed against the Owner’s project goals – scope, quality, schedule, and budget – as well as the firm’s services and compensation requirements.⁷¹
- Quality Management – quality management is a comprehensive organizational process for identifying and improving the effectiveness of products and services.⁷²
- Project Closeouts – effective project closeout enable completion of unfinished work, results in a completed building delivered in acceptable condition, and facilities provision of essential post-construction documentation to the Client.⁷³

4.1.4 SUSTAINABILITY REQUIREMENTS

The *California Trial Court Facilities Standards (2011)* indicate that:

⁶⁹ American Institute of Architects, *The Architect’s Handbook of Professional Practice*, 2008, Chapter 12.3 Construction Documentation, page 551

⁷⁰ American Institute of Architects, *The Architect’s Handbook of Professional Practice*, 2008, Chapter 13.5 Construction Cost Management, page 751

⁷¹ American Institute of Architects, *The Architect’s Handbook of Professional Practice*, 2008, Chapter 13.3 Project Controls, page 718

⁷² American Institute of Architects, *The Architect’s Handbook of Professional Practice*, 2008, Chapter 14.1 Quality Management in Practice, page 760

⁷³ American Institute of Architects, *The Architect’s Handbook of Professional Practice*, 2008, Chapter 12.6 Project Closeouts, page 592

“All new courthouse projects shall be designed in conformance with the 2010 California Building Standards Code – Title 24, Part 11 California Green Building Standards Code...Additionally, all new courthouse projects shall be designed for sustainability and, at a minimum, to the standards of a LEED® v 3 “Certified” rating.”⁷⁴

Examination of the *California Building Standards Code*, otherwise known as the *California Code of Regulations, Title 24* as well as the *LEED® Version 3.0* standards provides the background necessary to determine what policies and procedures the OCCM has in place to ensure that these standards are being met.

4.1.4.1 TITLE 24 REQUIREMENTS

The State of California, through its legislature as well as various state agencies, boards, commissions, and departments, publishes Title 24 on a triennial basis. This collection of regulations is composed of twelve parts that govern the construction of all buildings in California. For the purposes of sustainability requirements, Part 11 of Title 24, *California Green Building Standards Code* (“Cal Green”), establishes the regulations and standards that all newly constructed buildings in California (unless otherwise noted in Title 24) must comply by.

As defined in Section 101.2 of Cal Green:

“The purpose of this code is to improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories:

1. *Planning and design*
2. *Energy efficiency*
3. *Water efficiency and conservation*

⁷⁴ Judicial Council of California, *California Trial Court Facilities Standards*, August 2011, page 1.3

4. *Material conservation and resource efficiency*

5. *Environmental quality*⁷⁵

Each of those five categories contains both mandatory and non-mandatory provisions that apply to the construction of new courthouse buildings. In the *Capital Courthouse Construction Program Management Plan: Organizational Overview* Section 3.3.16 Financial Manager notes one of the “key functions” of this position is “ensure that all federal, state, and local regulations are met, **including title 24 [sic]...**” [Bold highlight added].⁷⁶

4.1.4.2 LEED® REQUIREMENTS

In the early 1990s, the USGBC recognized the growing need in the construction industry, and specifically the sustainable building industry, for a system to define and measure “green buildings”. This effort formulated with the creation of the LEED® Pilot Project Program, also referred to as LEED® Version 1.0, which officially launched at the USGBC Membership Summit in 1998.⁷⁷ LEED® has continued to improve and evolve since its initial release through its current version, LEED® for New Construction Version 3.0, which was released in 2009. LEED® is designed to recognize performance in the following key areas:

- *Sustainable Sites;*
- *Water Efficiency;*
- *Energy & Atmosphere;*
- *Materials & Resources;*

⁷⁵ California Green Building Standards Code, California Code of Regulations, Title 24, Part 11, Section 101.2, June 2010

⁷⁶ Capital Courthouse Construction, Program Management Plan: Organizational Overview, Section 3.3.16, page 26, October 7, 2009

⁷⁷ U.S. Green Building Council, LEED for New Construction & Major Renovation Version 2.2 Reference Guide, 2007, page 12

- *Indoor Environmental Quality;*
- *Locations & Linkages;*
- *Awareness & Education;*
- *Innovation in Design; and*
- *Regional Priority.*

Since 2009, LEED® certification is awarded by the Green Building Certification Institute (“GBCI”), an organization established in 2007, “to provide professional accreditation and third-party certification related to the design and construction of sustainable buildings”.⁷⁸ Certification is achieved by first meeting Minimum Program Requirements⁷⁹, such as complying with environmental laws and meeting minimum floor area and occupancy rate requirements, and then being scored to a qualifying level. Scoring is awarded in several credits that fall within the areas listed above, with total possible points of 110. The process for achieving LEED® certification begins with registering a project, from there each credit and Minimum Program Requirements will require a unique set of documentation that must be reviewed by the project team and ultimately submitted as part of the application to the GBCI, the GBCI will then review the application and determine if certification has been achieved. **Table 4.1.4.2, LEED® Certification Levels**, demonstrates the range of points necessary to achieve the different levels of certification.

⁷⁸ Green Building Certification Institute, LEED Certification Policy Manual, June 2011, page 3

⁷⁹ U.S. Green Building Council, LEED 2009 Minimum Program Requirements, January 2011

Table 4.1.4.2 LEED® Certification Levels	
Certification Level	Points Required
LEED Certified™	40 to 49 points
LEED Silver®	50 to 59 points
LEED Gold®	60 to 79 points
LEED Platinum®	80 to 110 points

4.2 SUMMARY

A critical ethical consideration in conducting an audit is that:⁸⁰

“Auditors and audit organizations must maintain independence so that their opinions, findings, conclusions, judgments, and recommendations will be impartial and viewed as impartial by objective third parties with knowledge of the relevant information.”

Pegasus-Global’s findings and recommendations were reached independently and represent Pegasus-Global’s professional findings, opinions and recommendations. Pegasus-Global encountered no situation in which the CFWG, AOC or OCCM attempted to influence Pegasus-Global to substantially alter or eliminate any findings, opinions or recommendations.

The CFWG, AOC and OCCM were provided the opportunity to respond to or comment on the findings, opinions and recommendations put forth in a draft report issued by Pegasus-Global at the conclusion of the formal audit (Reported in **Parts I** and **II** of this Report). The comments received from the CFWG, AOC or OCCM have been appended to this Report in **Exhibit B**. Where appropriate, Pegasus-Global has responded to those comments within the body of this Report.

⁸⁰ Government Auditing Standards (GAO-07-731G), Comptroller General of the United States, Chapter 8, Section 83.02, page 299, July 2007

Per GAGAS, when an auditor complies with all applicable GAGAS requirements during the performance of any audit the following attestation quoted below is to be included within the report prepared and issued by the auditor. If during the planning or execution of the performance audit the auditor deviates from the GAGAS requirements those deviations are to be noted within the attestation.⁸¹

“Pegasus-Global conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that Pegasus-Global plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for Pegasus-Global’s findings and conclusions based on Pegasus-Global’s audit objectives. Pegasus-Global believes that the evidence obtained provides a reasonable basis for our findings and conclusions based on Pegasus-Global’s audit objectives.”

There were no deviations from the GAGAS requirements during the planning or execution of Pegasus-Global’s audit of the Court Capital Construction Program. Pegasus-Global was provided full and free access to personnel and document records by the CFWG, AOC and OCCM during the execution of the audit. The personnel interviewed responded fully to every issue raised and question asked by Pegasus-Global during the audit. The findings contained within this audit were based upon the documentary and oral evidence provided by the CFWG, AOC and OCCM during the execution of the audit as planned.

⁸¹ Government Auditing Standards (GAO-12-331G), Comptroller General of the United States, Chapter 7, Section 7.30, page 173, December 2011

5.0 PART I – MANAGEMENT AUDIT OF PROGRAM LEVEL POLICIES, PROCEDURES AND PROCESSES

5.1 INTRODUCTION

Pegasus-Global reviewed the policies and procedures at the program level which guide the execution of the Capital Courthouse Construction Program. Those policies and procedures and the Program Manual under which those policies and procedures are developed are discussed below. Pegasus-Global, for ease in review of its findings, has organized its assessment as follows:

- Program Management Manual
- Capital Construction Policies and Procedures by Project Phase
- Facility Modification Policies and Procedures

Pegasus-Global has included recommendations for strengthening each policy examined, noting in particular recommendations improving the uniformity, transparency and accountability for each policy where applicable.

In some cases, various policies and procedures have been reviewed in context of subject matter for ease in understanding of the assessment of those policies and procedures within a particular topic area regardless of phase. For those particular

policies, the grouping of policies is discussed within the phase where they first appear with reference to the other project phases in which they are used.

5.2 PROGRAM LEVEL POLICIES, PROCEDURES AND PROCESSES EXAMINED

The **Audit Review Table** at **Exhibit F** summarizes the findings of this comparative audit specifically noting:

- Whether or not a specific comparative SOC within the industry is adequately addressed within the policies, procedures and processes in existence within OCCM; and,
- Whether or not a formal policy, procedure or process in existence within the OCCM is uniform, transparent and has a single point of accountability;

Pegasus-Global summarized its findings relative to those formal policies, procedures or processes which OCCM provided in response to Pegasus-Global's document requests using each of the primary SOC published by PMI, CMAA, and AIA as a basis of comparison. There are also findings relative to any SOC program policies, procedures and processes which were not in evident to Pegasus-Global during the audit within the OCCM megaprogram.

The findings which follow below represent program wide topical issues which have implications for the entire Court Capital Construction Program and all of the projects which are executed or to be executed under that Program. As such, there are issues raised which Pegasus-Global finds should be addressed as quickly as possible to ensure that the Program as a whole is executed uniformly, transparently and with clear identification of accountability.

Pegasus-Global has divided its review of the Court Capital Construction documents into program-level and project-level sections, the program-level documents were reviewed

here within **Section 5.0**, while the project-level Documents were reviewed later in **Section 6.0**. An index to the program-level documents reviewed, along with the corresponding section their review is found, is presented here as **Table 5.2, Program-Level Policies, Procedures and Processes Reviewed Index**.

Table 5.2 Program-Level Policies, Procedures and Processes Reviewed Index		
Part I Section	Document Name	Document Date
5.2	Program Level Policies, Procedures and Processes	
5.2.1	Strategic Plan	November 2009
5.2.2	OCCM Staff	Undated
5.2.3	Document Control System	Undated
5.2.4	Identification of the Program Owner	Undated
5.2.5	Delegation of Authority	Undated
5.2.6	Comprehensive and Complete Set of Program Policies, Procedures and Processes	Undated
5.2.7	Program and Project Risk Management	Undated
5.2.8	Program Management Manual	October 7, 2009
5.2.9	Court Facilities Delivery Methodologies and Contracting Policies and Procedures	N/A
5.2.10	Project Delivery Methodology and Contract Formation	N/A
5.2.10.1	Memorandum Policy 3.40	July 28, 2009
5.2.10.2	Policy 333.00 Construction Delivery Methods	April 4, 2011
5.2.11	Contracting Policies and Procedures	N/A
5.2.11.1	Court Facilities Contracting Policies and Procedures	December 2, 2007
5.2.11.2	Judicial Branch Contracting Manual	October 1, 2011
5.2.12	Management Plan and Project Definition Report	Undated
5.2.13	7.00 Project Feasibility Report (Draft)	June 6, 2011
5.2.14	AOC Change Order Process (Revised to include iProcurement)	March 4, 2011
5.2.15	Adoption of a Mitigated Negative Declaration of the New Santa Rosa Criminal Courthouse (Memo)	July 19, 2011
5.2.16	Judicial Branch AB 1473 Five-Year Infrastructure Plan Fiscal Year 2011-2012 (Adopted by the Judicial Council August 27, 2010)	August 27, 2010

Table 5.2
Program-Level Policies, Procedures and
Processes Reviewed Index

Part I Section	Document Name	Document Date
5.2.17	State Administrative Manual	Varies by Section
5.2.18	Courthouse Naming Policy	May 11, 2009
5.2.19	Prioritization Methodology for Trial Court Capital-Outlay Projects	October 24, 2008
5.2.20	Court Facilities Planning: Update to Trial Court Capital-Outlay Plan and Prioritization Methodology and Projects Funded by Senate Bill 1407 (Action Required)	October 24, 2008

5.2.1 STRATEGIC PLAN

In November 2009, the “Strategic Plan-California Courthouse Facilities Program” as released by the Director of OCCM, says the strategic plan is:

“...designed to set a clear direction for the California Courthouse Facilities Program, consistent with the Judicial Council’s strategic goal of branchwide infrastructure for service excellence. It provides us with an important tool akin to something that many of us work with every day on behalf of our clients, the courts: a clear, detailed, and actionable blueprint to guide our work.”

The Strategic Plan document sets forth the mission of the Judicial Branch, including missions for the Judicial Council and the AOC. The mission and vision of the OCCM are also listed noting that:

“This strategic plan helps OCCM focus attention and effort on the guiding principles, goals, and objectives that will lead us toward achieving our vision and fulfilling our mission. Every member of the OCCM team is expected to connect his or her individual team goals, objectives, and action plans with the direction set forth in this strategic plan.”

The Strategic Plan further identifies seven strategic goals for the OCCM consisting of:

1. *Create and deliver the best courthouse facilities program in the United States.*
2. *Exceed the expectations of our key stakeholders and customers: the courts, justice system partners, and the public.*
3. *Continuously improve our relationships with regulatory, legislative, and other government agency partners.*
4. *Develop and use effective internal procedures.*
5. *Be an active resource for other courthouse facilities programs.*
6. *Execute the program in an environmentally responsible manner.*
7. *Hire and retain great people.*

The Program Management Plan (“PgMP”) describes the Mission Statement and the Program Goals in its Section 1.1 and 12. However, the PgMP and the goals do not reference, list or refer to the mission and goals of the OCCM for the Program as described above. While there are Program goals listed in PgMP Section 1.2, it is unclear whether these goals are meant to be in addition to, or overlap with the Program goals described in the Strategic Plan. As discussed herein, the purpose of a Program Management Manual is to set the foundation for how the program is to be managed and identification of and reference to the policies and procedures that are to be used to execute the program to ensure uniformity, transparency and accountability. A SOC would expect that the PgMP would incorporate those program goals as outlined and discussed within the Strategic Plan for the Program and included as an Appendix thereto similar to PgMP Appendix A which is the Program organizational chart.

The specific Strategic Plan goal which is relevant to this deliverable is Goal 4: “*Develop and use effective internal procedures.*” There are ten specific steps outlined under Goal 4 as follows:

- a. *Maintain adequate checks and balances in all aspects of the program.*
- b. *Maintain a positive, encouraging, and productive relationship with all other AOC divisions and continually improve interdivisional processes.*
- c. *Establish a contracts review team drawn from all AOC stakeholder divisions to develop fair and reasonable contracts.*
- d. *Ensure compliance with the conditions of all contracts, including effective management oversight.*
- e. *Maintain an inclusive facility risk management program that protects both physical and personnel assets associated with the construction and operation of court facilities.*
- f. *Establish an OCCM policies and procedures program.*
- g. *Establish a process improvement team to update policies and procedures as needed to incorporate lessons learned.*
- h. *Establish and implement Building Information Modeling program that uses technology to improve design effectiveness.*
- i. *Continue to develop and maintain an accurate, efficient, and effective computer-aided facility management program.*
- j. *Develop and implement an incident review and claims management program.*

Findings⁸²:

- **V1-F-4.1-1** Pegasus-Global finds the specific steps outlined under Goal 4 of the Strategic Plan to be consistent with the expectations for industry practice for program goals relative to internal policies and procedures.
- **V1-F-4.1-2** Pegasus-Global also finds as discussed throughout this Report that the policy and procedure development program has not been consistent across the Program and has not yet been finalized for many of the policies and procedures.
- **V1-F-4.1-3** While the Facility Modification policies make reference to specific goals and objectives of the Strategic Plan within each of the draft policies, the capital construction policies discussed at **Section 5.3.4** below for the most part, do not.
- **V1-F-4.1-4** Pegasus-Global would expect the PgMP to tie each individual policy back to the specific Strategic Plan goal and objective, which in turn, would allow the user to understand how to use the policy to ensure uniformity, transparency and accountability of the steps and processes described within the respective policies across the Program.

Summary Conclusion:

Pegasus-Global concludes that with some minor adjustments the Strategic Plan is basically a sound foundation upon which to build the other Program policies and procedures, linking the entire body of policies and procedures to a single comment set of goals and objectives. Because that was not done early in the development of the Program and project policies and procedures, portions of the work done to date in the

⁸² Finding and Recommendation numbering relate to field working reviews and thus are not meant to correlate with the Report section numbering. AOC/OCCM requested that the individual Findings and Recommendation be numbered to make it more efficient for them to respond to the findings and recommendations. The numbering convention is as follows: Findings = **V1** (Part I) -**F** (Finding) -**4.1-1** (Section 4.1 – of the Draft Report, Finding 1). Recommendations = **V2** (Part I) -**R** (Recommendation No.) -**4.1-1** (Section 4.1 – of the Draft Report, Recommendation 1)

development of those policies and procedures should be revised to align with the PgMP.

5.2.2 OCCM STAFF

Any program or project is ultimately as strong as the staff it has to execute the program or project. A strength that Pegasus-Global identified in the current Program rested in some of the attributes of the current OCCM program and project level staff as a whole. However, as PMI notes:⁸³

“Important consideration should be given to the availability of, or competition for, scarce or limited human resources.”

There are two elements to human resource management:

1. Staffing the program and projects with sufficient qualified staff to effectively and efficiently execute the functions of the program and projects; and,
2. Using that staff actually available to in the most effective and efficient manner possible.

PMI and other industry sources essentially begin the process by identifying the functional roles required to address all of the critical requirements of the program and projects. The functional roles are then grouped into categories which group like functions into the primary structural units. Next, the primary structural units are broken into discrete activities. At that point the primary structural units are examined in a relational manner to one another to ensure that while all of the functional roles and activities critical to execution of the program and project responsibilities are accounted for none are duplicated across the primary structural units or the project management units. At this point program management identifies specific staff positions that will be necessary to execute the activities necessary to fulfill the roles necessary to execute the program and projects successfully. The final step is to prepare component organization

⁸³ PMI, PMBOK®, Chapter 9, Section 9.1, page 218, 2008

charts for each of the primary functional units, including identification of formal lines of communication and interaction among the primary structural units and the activity position level. All of this is captured in a formal Human Resource Plan.⁸⁴

Pegasus-Global did not evaluate the current OCCM staff as individuals nor attempted to evaluate the staffing positions as held in the current organizational structure. The findings and recommendations expressed below address the policies, procedures and processes which Pegasus-Global finds will strengthen the planning and management of OCCM staff at both the program and project levels and will establish some uniformity, transparency and accountability for this element of the program and project management.

Findings:

- **V1-F-4.2-1** The program staff is dedicated to the execution of the Program and its individual projects, often bearing a program or project load which is at, and in certain cases beyond, the limits of an individual's reasonable span of control under the current organizational structure. This requires the hiring of various "consultants" under contract to discharge certain responsibilities which normally would fall to the Program or Project Manager and staff.
- **V1-F-4.2-2** The program staff is generally well qualified to execute the scope of their assignments at both the program levels and the individual project level.
- **V1-F-4.2-3** The program staff has a generally entrepreneurial perspective, taking initiative, ownership, and responsibility for their respective scopes of work. This perspective has enabled the staff at the program level to work around several issues which may have had an impact on OCCM's ability to deliver the new courts per the legislative mandates. Pegasus-Global does not advocate the development of a strict, unyielding set of policies, procedures or processes which would result in a diminution of the entrepreneurial perspective currently in place,

⁸⁴ PMI, PMBOK®, Chapter 9, Section 9.1, page 218, 2008

however there has to be enough structure in place to ensure the uniformity and transparency of the program operations and to enable replacement or augmentation staff that may not have the same levels of experience or perspective as the current program staff to function effectively and efficiently.

- **V1-F-4.2-4** These same strengths and attributes listed in the bullet points immediately above to some extent contribute to the lack of uniformity and transparency Pegasus-Global encountered during this audit of policies, procedures and processes. In the longer term, problems will arise for the Program as the current staff is replaced and/or augmented over time, which is a normal occurrence on every megaproject program which is executed over such an extended timeframe. Should the replacement staff or augmentation staff not have the same attributes and abilities as the current staff, the results could be significantly different than those being achieved by the current staff.
- **V1-F-4.2-5** While organizational charts were provided and explained by Program Management, Pegasus-Global was not provided a formal Human Resource Management Plan. Simply identifying positions and diagramming structural relationships is not sufficient to meet all of the expectations for human resource management set within the SOC promulgated within the industry. Equally critical to the organizational structure are the other elements of a comprehensive Human Resource Plan, as summarized above.
- **V1-F-4.2-6** While Pegasus-Global was informed, and agrees, that there was insufficient staff to execute all of the functions required for a megaproject exceeding \$5 billion (USD) and over 40 individual projects, the Program Management needs to be able to demonstrate that it is making the best, most efficient and effective use of the current staff in order to demonstrate that the current staff is sufficient to execute the full functional responsibilities of the program or the projects. This is most effectively done by comparing a formal Human Resource Plan against the current staffing available to execute the required program and project functions with a review to determine whether the

current organizational structure is the most appropriate structure given the constraints placed upon the Court Construction Program. With that comparison should be an explanation of what decisions were made relative to which functional positions would remain unstaffed, giving the rational for why the staffing positions which were filled were of a greater priority to the Program or project than the unfilled positions.

Recommendations:

- **V1-R-4.2-1** OCCM should prepare and adopt a formal Human Resource Plan which follows the industry SOC.
- **V1-R-4.2-2** OCCM should, where indicated by the Human Resource Plan, realign staff to ensure it is making the most effective and efficient use of the current staff either under the current organizational structure, or an alternative organizational structure that better aligns with current resources.
- **V1-R-4.2-3** Using the Human Resource Plan OCCM should identify those vacant functional positions which are impacting OCCM's ability to achieve its functional responsibilities and showing how the decisions were made to staff some positions over other critical positions.

5.2.3 DOCUMENT CONTROL SYSTEM

One of the crucial management and control processes of any capital construction program or project is being able to communicate critical information quickly, comprehensively and effectively across the entire program and among all of the program and project stakeholders. Critical information would include such topical areas as the setting of, and status of, program and project goals, objectives, policies, procedures, processes, cost, schedule, quality, etc. In order for program and project management to make informed, prudent decisions, it must rely on accurate, timely and comprehensive information and data relative to the real time conditions of the program and the individual projects. The process, by which that information is identified, captured

and disseminated for use in formulating decisions and taking appropriate actions, is the *Document Control System*.

In a program environment, the Document Control System normally consists of two elements: The Organizational Process Assets and the Project Specific Documents. According to the PMI's Global Standard for Program Management:

"[The] Organizational process assets, sometimes called the Process Asset Library (PAL) are composed of a set of formal and informal program management processes, related plans, policies, procedures, and guidelines that are developed, documented, and institutionalized by the organization. These assets may also include an organization's knowledge bases, such as lessons learned and historical information. Assets may exist as paper documents or in electronic form in an automated repository."⁸⁵

OCCM, as the Program Manager, is expected to manage documents produced and reviewed during the Program. The Program Manager, responsible for managing a program the size and complexity of the Court Capital Construction Program, should be maintaining, storing and be able to retrieve in a comprehensible and timely manner the documents created, sent and received over the course of the Program in an electronic document control system.

As the Program is funded by public funds, the Program Manager is expected to maintain a documented "paper trail" of Program execution to demonstrate that the decisions made and actions taken by Program Management and the Project Managers of the individual projects, were in accordance with the overall Program's goals, objectives, policies, procedures, processes and industry standards, and that the public monies appropriated for that Program were reasonably and prudently expended. In addition, such document control systems enable the Judicial Council, CFWG, AOC and the OCCM to make informed decisions and take considered actions relative to the Program and its projects. Equally important in the management and control of the Program is the ability to track, monitor and react in a timely fashion to issues that may

⁸⁵ The Standard for Program Management, PMI Global Standard, Chapter 3, Section 3.3.1.4, page 34, 2006

arise with the architect, CM@Risk and/or contractors for a particular project. Individual computer software programs such as Microsoft Access, Excel or Word cannot be effectively used for document control or management for a program the size and complexity of the Court Capital Construction Program.

Ultimately, the purpose of document control is to:

- Allow for efficient document storage and retrieval;
- Store and file all relevant information;
- Allow for efficient access to information;
- Maintain a complete and updated library of the formal policies, procedures and processes by which the Program and its individual projects are to be managed and controlled;
- Maintain complete and current sets of all contract and project documents;
- Allow for original documentation to be filed in a Master set of records, not the individual Project Manager's files, in order to ensure uniformity, transparency and accountability on how each of the individual projects is managed and controlled;
- Increase productivity, since documents can be easily accessed and stored on-line, reducing confusion between the field and the AOC/OCCM Program office;
- Enable better control for reviewing, monitoring and controlling job costs, change orders, contract milestones, and tracking of late or missing information, thus better managing risk exposure;
- Assist all parties to be accountable; and,
- Assist in the roll-up of individual project information regarding cost and schedule in order to ascertain any impacts of a particular project to the overall Program.

One way in which Pegasus-Global tests the efficacy of a document control system is evaluating how the organization responds to the document requests submitted by Pegasus-Global in preparing for and conducting the audit (See **Exhibit G** for the original document request submitted by Pegasus-Global to OCCM). In this instance OCCM was very open with Pegasus-Global noting that fulfilling the initial document request had proven to be difficult for a variety of reasons, among them:

- Policies, procedures and processes had not been fully completed, with some still in draft form and others non-existent;
- Policies, procedures and processes had not been centrally located (hard copy or electronically) and had to be tracked down and gathered prior to transmittal to Pegasus-Global;
- OCCM was unable to determine if it had gathered the entire body of policies, procedures and processes at the time of the response to the original document request and later during the interview process several additional policies, procedures and processes were identified and provided to Pegasus-Global;

It is of note that as late as March 27, 2012, OCCM forwarded 10 additional policies which had been cited in earlier policies received in response to Pegasus-Global's document requests or had been identified during interviews held with OCCM staff. Although Pegasus-Global very much appreciates the effort and time which OCCM staff has expended in attempting to fulfill the documentation requests, had a formal document control system been in place fulfilling the requests should have been as simple as providing Pegasus-Global access to the electronic master file system enabling Pegasus-Global to identify and request documents more efficiently and at the expenditure of far less valuable OCCM staff time.

Pegasus-Global saw evidence that critical program and project documents, such as cost reports, budgets, schedule's etc., had been generated and distributed, however the overall conclusion given the difficulty OCCM had in responding to the document requests demonstrates Pegasus-Global's finding that the generation, distribution,

management and control of program and project documents is not uniform, transparent nor are specific personnel identified as accountable for the management or control of critical program and project documents.

Findings:

- **V1-F-4.3-1** OCCM does not have a document control system which is capable of performing at the SOC expected of a megaprogram. It was confirmed by OCCM that there was no formal document control procedure, policy or process in place at the program level.
- **V1-F-4.3-2** In response to the initial document request for project level documents, OCCM noted that it was having difficulty locating all of the required documents for a number of reasons; however the most consistent reason given was lack of personnel time to file those documents in the electronic folders established for each project.
- **V1-F-4.3-3** OCCM identified a “standard file folder system” for project document retention, but OCCM had no formal policy, procedure or process for managing and controlling the content of those project file folders. Upon receipt of those standard file folders for the six test projects, Pegasus-Global found several of those folders provided to be empty, with OCCM explaining that the required documents had not been deposited in the files as of the date of Pegasus-Global’s document request and that the documents would have to be identified, found and added to those folders.
- **V1-F-4.3-4** In response questions by the audit team, program and project level staff stated that certain routine program and project documents were prepared by, and should have been filed by, consultants hired to fulfill management roles which traditionally within the industry would be discharged by the program or project management staff of an organization like OCCM. Pegasus-Global recognizes and has cited the lack of sufficient staff within the OCCM and can understand how what seems to be a clerical function would receive less attention

and be a lesser priority than the actual management of the program or the projects. However, the lack of a formal document control system actually exacerbates the document production, retention and production problems by not providing the direct program and project staff, or upper level management, structured control process to follow in managing, controlling or locating crucial program or project documents.

- **V1-F-4.3-5** A review of program and/or project documents revealed significant differences among and between the same category of document, for instance, the formal policy documents:
 - Program and project policy documents are not uniform across the Program or the projects, for example: the various policy and procedure documents provided to Pegasus-Global did not have a uniform format or content presentation (*i.e.*, a statement summarizing the reason for the policy or the accountable party for ensuring the policy was enforced). Further, some policies were issued as memos to staff while others were prepared and issued following a more formal (but not uniform) procedure template. Without a uniform template and a common numbering system it is difficult to determine which policies are being cross referenced (or should be crossed referenced).
 - All documents, including policies and procedures should be dated, and should contain a list and the date(s) of every revision to that policy or procedure. As some policy documents were dated and others were not, it was difficult to establish precedence between or among the body of the policies or procedures. At each update of a policy or procedure there should be a “Summary” of what was revised, added or deleted from the policy or procedure which resulted in issuing an update. Due to the lack of dates or identification of the changes made, Pegasus-Global had to manually compare policies in an attempt to determine which policy or procedure was the one currently in place, then try to ascertain what

alterations had been made to the “newer” version of the policy or procedure.

- Inside of the policy, some have a background statement first, others do not. Some policies provide a statement of “purpose”; some do not, but may include a statement of “goals”; (which appear to address the “purpose”); others seem to entitle the “purpose as the “intent”; and, finally, some policies seem to have nothing which provides a statement as to why the policy exists.
- Several of the policies then follow with a section for definitions of terms used within the policy, which would be an expected SOC, although not all policies have this section or the section is not complete with all definitions of terms found in the policy.
- The next sections within the policies reviewed vary depending on the specific policy, for example; some stakeholder organizations are defined by positions, groups, departments or units; other policies may have no listing of the parties involved in the policy or procedure. Several policies then lay out specific standards or procedures, followed by the process to be followed under the policy, some policies do not. Often the different policies reviewed had no common presentation, with some element missing, some elements named differently and some elements in different positions across the various policies.
- **V1-F-4.3-6** There are multiple points of accountability at the program and project level as essentially every individual within the program and project structure is responsible to generate and maintain their individual files for their individual duties and responsibilities. However, there is no specific individual responsible to manage or control document generation, storage or retrieval across the entire program or the individual projects, which contributes significantly to the lack of uniformity, transparency and accountability relative to document management and control.

- **V1-F-4.3-7** Documentation prepared during the planning and execution of a megaprogram and the attendant individual projects provide the only formal evidence that the funds appropriated to finance the megaprogram and the individual projects have been reasonably and prudently spent. While Pegasus-Global was eventually able to find some of the more critical documents during the interview process, the fact that the documents were maintained by individuals and not resident in a formal coordinated document control system meant that if the individuals in question had not been interviewed during the audit process the documents would not have been produced during the audit. Further, had those documents not been produced during the interviews Pegasus-Global would have concluded that those critical program or project documents had not been prepared or used by program or project management in their decision making process; which may have led to a significantly more serious finding insofar as OCCM's management of the Program.
- **V1-F-4.3-8** Given the documents eventually produced by OCCM during interviews and additions to the document request lists submitted by Pegasus-Global to OCCM, it is apparent that OCCM has many more critical documents than originally assumed by Pegasus-Global early in the audit process. However, those documents were not clearly identified or readily accessible in response to Pegasus-Global's requests and many appeared to be in the sole custody of the individuals that had produced the document in question. There may still be documents which Pegasus-Global has not seen in relation to this audit. Beyond those documents provided by OCCM in response to the document requests or during individual interviews, Pegasus-Global has no way to determine whether or not additional documents of interest for the Capital Program audit may exist. Had there been a document control system in place Pegasus-Global could have refined its document request based on the index of that document control system and the OCCM would not have encountered the difficulty it had identifying, locating and producing those documents to Pegasus-Global.

- **V1-F-4.3-9** Pegasus-Global found that OCCM has not met the standard of care within the industry for document management and control. Pegasus-Global found that the management and control of program and project documentation was not uniform or transparent and did not reflect a single point of accountability.

Recommendations:

- **V1-R-4.3-1** OCCM should adopt a formal, electronic document control system, preferably one of the commercially available systems which can be quickly installed. While various industry entities and agencies have developed and installed custom programmed electronic document control systems, it is expensive and time consuming to undertake such an effort. Given the urgent need to install and populate such a matrixed electronic system and the need to quickly train the users of the system, the commercially available systems represent a much more reasonable approach for the Court Capital Construction Program.
- **V1-R-4.3-2** There should be a standard format for cross referencing the policies which site any function or create any link between the policy under review and all other intersecting policies.
- **V1-R-4.3-3** Similar documents should have a common format, for example:

Each policy should have on its front cover the policy name and, if the policies are to be numbered, a logically flowing numbering scheme, as the current numbering scheme for those with numbers does not provide a logical flow among policies or procedures. Then the original approval date, followed with any revisions and the revision dates should be added to the cover sheet of the policy. A standard policy template for the Program should be developed and agreed by AOC and OCCM – in short, the content sections should be identical across every policy. Once the standard template has been developed, all policies should be revised to be consistent with this standard template. It is recommended that this effort be done upon completion of the

Program Management Manual so that the uniformity between policies can be done at the same time as the gap review between the policies and the Program Management Manual for efficiencies and to avoid any duplication of effort.

- **V1-R-4.3-4** Pegasus-Global was given the policies and procedures in two formats: electronically by policy and in hard copy in two three ring binders. Neither the electronic or hard copy of policies and procedures were provided in a uniform organized structure. Policies should be filed (electronically and hard copy) in an order of precedence so that the reviewer is able to quickly and efficiently determine the order of precedence among multiple policies and procedures. The primary foundation document – the Program Management Manual – should include an Appendix which lists all subsequent policies and procedures in precedent number order, giving the policy or procedure title and showing the most current revision date.
- **V1-R-4.3-5** OCCM should take action to identify, gather and organize those documents critical to the Process Access Library (“PAL”), the Program Level operational requirements (*i.e.*, Site Acquisition, Appropriations and Planning, etc.) and project execution for installation into an electronic document control system. This will serve two functions: (1) creation of a full catalogue of the critical program and project documents, and (2) enable OCCM to establish the structure and organization of the electronic document control system.⁸⁶
- **V1-R-4.3-6** OCCM Program Management should develop and issue a document preparation, management and control procedure which will ensure the timely and comprehensive preparation, distribution and capture (filing) of critical program and project document sets [there is no evidence that such a policy and procedure exists]. The document control requirements should include policy statements addressing the preparation and retention of program and project documents, the

⁸⁶ Note that even though commercially available electronic document control systems generally come with an established control matrix, most are to some extent customizable to the purchasers needs.

procedures by which program and project documents are prepared, distributed, captured and retrieved, and the processes for preparation, distribution, capture and retrieval of program and project documents. The document control guidelines should clearly identify the party accountable for preparation, distribution, capture and retrieval of program and project documents, and just as importantly, identify those individuals empowered to edit, revise or update critical program or project documents (*i.e.*, the Five-Year Plan, the DOF required reports, the project execution budget, etc.).

- **V1-R-4.3-7** Policies and procedures which address similar topical areas (*i.e.*, estimating, cost management and control, invoicing and project/program cost status) should be linked within the electronic and/or hard copy files and, if possible have a numbering order or format which enables the reviewer to efficiently pull all of those policies without having to review the titles or attempt to guess the relationship between the policies and procedures (*i.e.*, the linked cost policies could have a predecessor number of “29”, followed by a unique policy number – for example “estimating” could have a number of 29-001).

Within the industry at large, document management and control are identified as the primary basis from which the uniformity, transparency and accountability of a program or project can be established; however the only real demonstrable evidence of any of those three fundamental management standards is captured by formal documents which are easily identifiable, locatable and producible.

5.2.4 IDENTIFICATION OF THE PROGRAM OWNER

There is no uniform understanding (or acceptance) of the Program or project “Owner” within the program stakeholder organizations. As noted earlier above the Owner is one of the three critical positions in executing any megaprogram, along with the Program Manager and the Project Managers. During the document review portion of this phase of the audit, Pegasus-Global found that legislation specifically identified the Judicial Branch, through the Judicial Council, as the Program Owner, with full responsibility to

fulfill an Owner's typical roles, authorities and responsibilities under both the SB 1732 and SB 1407 legislation. However, during its review Pegasus-Global found that the "Owner" of the Program (and thus the individual facility projects) was variously identified at both the program and project management levels as any one of the following entities:

- The State of California;
- The Judicial Branch;
- The Judicial Council;
- The individual "Judges" of the facility under execution;
- The AOC;
- The OCCM; and
- The Project Manager.

The failure to have a uniform and transparent identification of the Program Owner, and the lack of definition relative to the roles, responsibilities and authority of the Program "Owner", results in confusion as to which stakeholder operating within the Program is ultimately responsible for establishing Program goals and objectives and, ultimately responsible for the achievement of those goals and objectives. Further, the level of inconsistency in identification of the Program "Owner" found by Pegasus-Global leads to a lack of uniformity across the program and project level as to who ultimately controls the Program and each project within the Program.

As a matter of standard industry practice all policies, procedures and processes developed and implemented at both the program and project levels must be founded on and driven by the decisions and actions of the Owner in setting program and project goals and objectives, and in the Owner specifying, or confirming, those specific policies, procedures and processes to be followed during the execution of the program and the individual projects. SOC within the industry is to consider the Owner the ultimate point of accountability for the achievement all program and project goals and objectives, and

as such, is the only entity empowered to set the parameters which establish those policies, procedures and process that guide the management, control and execution of the Program and the projects.

Finding:

- **V1-F-4.4-1** There is no universally acknowledged agreement or understanding within the Program (at any level) as to the ultimate Owner of the Program.

Recommendation:

- **V1-R-4.4-1** The Judicial Council in consultation with the AOC and in recognition of the legislative actions in effect, should clearly establish the ultimate Owner of the Program and all of the projects which comprise that megaprogram.

5.2.5 DELEGATION OF AUTHORITY

Delegations of authority and responsibility have not been formalized nor codified within many of those policies, procedures or processes which exist within the Program. During the audit Pegasus-Global found inconsistency across the Owner, program and project management levels relative to who (by position, not individuals) within the total stakeholder organization had the authority to, and responsibility for, making certain decisions and taking certain actions critical to the management of the Program. For example, there were individuals which asserted that the Project Manager had the complete responsibility and authority to make all decisions concerning design and construction of a court facility project, while others noted that the local PJs controlled the design elements of “their” court project, with the Project Manager having responsibility to meet the design elements set and manage the construction of the court facility.

In a megaprogram authorities and responsibilities must be specifically defined and delegated, starting with the Owner and flowing through both the program and project levels. Otherwise each project becomes an independent enterprise under which

authorities and responsibilities are *assumed and interpreted* by individuals rather than by set by *definition and delegation*. The absence of clearly defined and delegated authorities and responsibilities contributes to a lack of uniformity, transparency and accountability within the program and the project management levels.

Finding:

- **V1-F-4.5-1** There is no formal delegation of authority and responsibility at either the Program or project levels. This has resulted in confusion and some disagreement as to who within the Program and project structures are accountable for the decisions made and actions taken on behalf of the Program and each project.

Recommendation:

- **V1-R-4.5-1** Once the identification of the Owner has been resolved, the Owner, working with the AOC and OCCM should establish formal, detailed delegations of authority which clearly delineates the party within the Program and projects with the authority to make decisions and take actions on behalf of the Owner. Those delegations must also specifically identify the limits of each delegated authority.

5.2.6 COMPREHENSIVE AND COMPLETE SET OF PROGRAM POLICIES, PROCEDURES AND PROCESSES

As discussed earlier, a megaprogram is unique in that there are two levels of management beyond the Owner; program management and project management. As a result there should be a cohesive and comprehensive set of *program* policies, procedures and processes which set the foundation for the *project* specific practices. In order to ensure uniformity, transparency and accountability of those sets of policies, procedures, processes, and practices all policies, procedures and processes must be coordinated and mutually supportive at both the program and project levels. Pegasus-Global found that the condition at the program level management was generally

following certain policies, procedures and processes in executing its primary program functions; likewise the condition at the project level management was generally following certain policies, procedures and processes in executing its primary project functions. However, Pegasus-Global found no direct, transparent link between the two sets of policies, procedures or processes nor uniformity in how policies, procedures and processes are being practiced. For example, the goals and objectives contained in the Program's Strategic Plan are not uniformly reflected in the project-level policy goals and objectives.

Findings:

- **V1-F-4.6-1** Pegasus-Global's review of the existing policies, procedures and process found a number of them to be incomplete or identified as in "Draft" form. Certain policies, procedures and processes which Pegasus-Global expected to see were not found or had not been identified by program level management or project level management (See **Section 5.3** below). OCCM acknowledged gaps in its formal policies, procedures and processes but explained the cause for the existence of those gaps as follows:
 - The Program was initiated on a very fast track under SB 1732 and was significantly expanded under SB 1407. During that period there were a number of major requirements within the legislation which had a higher priority than the development of program or project level policies, procedures or processes (*i.e.*, the transfer of the county trial courts to the Judicial Branch, development of the Prioritization Methodology, the development of the Five-Year Plan, the establishment of the OCCM as the executing agency, establishing basic operational relationships and processes with other state agencies, etc.). Almost immediately work specific to certain projects authorized under SB 1732 was initiated by the OCCM. The drive to meet all of the legislative and pure operational requirements and needs made the codification of policies, procedures and

processes a secondary priority, where it has essentially remained to the present day.

- Due to funding constraints, the OCCM has never staffed to the planned levels or for all of the operational positions identified. The lack of staff since the inception of the Program resulted in a further prioritization of tasks, focusing the existing staff even more on a limited number of what were considered the more critical elements of the Program.

While Pegasus-Global fully acknowledges both of those conditions and accepts the basis of the cause upon which Program Management set its priorities in the face of a demanding schedule and a lack of staffing, Pegasus-Global has experience within the industry which demonstrates that the potential effect of megaprograms without complete, concise, uniform, and transparent policies, procedures and processes is that they may ultimately fail to meet all of the goals and objectives established for the megaprogram.

- **V1-F-4.6-2** Pegasus-Global found it difficult to follow the relationship and progression of policies, procedures and processes as they transitioned from the program level through the project level of the Court Capital Construction Program (See **Section 5.3** below). For example, Pegasus-Global identified some decisions and actions taken by the OCCM at the program level which were guided by California SAM procedures and processes; however, adherence to those procedures and processes was at least in part described by program level staff as “voluntary.”

Attempting to follow a direct link between the voluntarily accepted procedures and processes adopted by the program management level to the individual project management level proved difficult, requiring explanation by program and project management level staff, which occasionally provided different explanations as to why and how those program level procedures and processes guided or were relevant to an individual project. As a result, Pegasus-Global was, in some instances, unable to confirm that there was uniformity across those

procedures or processes, which in turn, made it difficult to confirm the transparency of those procedures or processes. In any project environment, but most particularly in a megaprogram environment it is essential that a direct transparent relationship between program level procedures and project level procedures be easily identifiable and traceable.

Recommendation:

- **V1-R-4.6-1** OCCM should finalize and in some cases develop or reissue its policies, procedures and processes in order to provide a complete set of relevant program and project policies, procedures and processes for the Court Capital Construction Program and its constituent projects. Such action will address a number of the issues raised by Pegasus-Global relative to the uniformity, transparency and accountability during this audit.

5.2.7 PROGRAM AND PROJECT RISK MANAGEMENT

SOC within the industry for any major construction project is to undertake, complete and manage the project using a full risk management plan which identifies the risk elements which have the potential to impact the achievement of project goals and objectives. In a megaproject comprised of multiple independent projects such a risk program is viewed as an important element of SOC. According to PMI project risk management plans:

“...increase the probability and impact of positive events, and decrease the probability and impact of negative events in the project.”⁸⁷

The PMI PMBOK[®] contains an entire chapter to the details on how to develop a risk management program and how to manage and control a project using that risk management tool. From a program perspective a risk management planning and management:⁸⁸

⁸⁷ PMI PMBOK[®], Chapter 11, pages 273, 2008

⁸⁸ PMI Global Standard for Program Management, Chapter 3, Section 3.5.12, page 48, 2006

“...is the process of deciding how to plan and analyze risk management activities for a program, including risks identified in the individual program components [in this instance construction projects].

Ultimately the Owner is responsible to ensure that an adequate risk management program is installed and used within its megaproject and each of the projects which comprise the total program scope.

Pegasus-Global did not find a comprehensive risk management program in place at either the program or project levels of the Court Capital Construction Program. While there was a limited risk checklist contained in a Project Description Template, such checklists are not appropriate for large complex construction programs or projects. There was also a specific Risk Management Template, however it was limited to an examination of the security risk elements which must be considered when designing a courthouse (Note however that the risk program used within that Security risk management template did employ many of the elements of a typical risk management program in identifying, quantifying the impact of risk elements should they occur, and establishing risk mitigation plans).

Finding:

- **V1-F-4.7-1** Pegasus-Global did not find a formal risk management program in place for the Court Capital Construction Program, which would be expected in a megaprogram as a critical element for management and control.

Recommendation:

- **V1-R-4.7-1** Establish a formal, comprehensive risk management program for the Court Capital Construction Program that extends through the Program to the project level.

Summary Conclusion:

The industry SOC recognizes the magnitude of the risks which can impact the achievement of goals and objectives set for individual projects and further recognizes that megaprogram goals and objectives can be impacted both as a result of the risks that impact individual projects and the risks that are inherent at the program level in every megaprogram. The industry's response to that high level of risks is to anticipate the risk elements, quantify the impact of those risks to the program and project goals and objectives, then establish plans to enable program and project staff to mitigate the impact of those risks should they occur.

5.2.8 PROGRAM MANAGEMENT MANUAL

According to PMI:

“The project management plan integrates and consolidates all of the subsidiary management plans and baselines from the planning processes and includes but is not limited to:

- *The life cycle selected for the project and the processes that will be applied to each phase,*
- *Results of the tailoring by the project management team as follows:*
 - *Project management processes selected by the project management team.*
 - *Level of implementation of each selected process,*
 - *Descriptions of the tools and techniques to be used for accomplishing those processes, and*
 - *How the selected processes will be used to manage the specific project, including the dependencies and interactions among those processes, and the essential inputs and outputs.*

- *How the work will be executed to accomplish the project objectives,*
- *A change management plan that documents how changes will be monitored and controlled,*
- *A configuration management plan that documents how configuration management will be performed,*
- *How integrity of the performance measurement baselines will be maintained,*
- *Need and techniques for communication among stakeholders, and*
- *Key management reviews for content, extent, and timing to facilitate addressing open issues and pending decisions.”⁸⁹*

According to the PMI Global Standard for Program Management, a program management plan involves:

“...the process of consolidating the outputs of the other Planning Processes, including strategic planning, to create a consistent, coherent set of documents that can be used to guide both program execution and program control. This set of plans includes the following subsidiary plans:

- ...
- *Communications management plan*
- *Cost management plan*
- *Contracts management plan*
- *Interface management plan*
- *Scope management plan*

⁸⁹ PMI PMBOK[®], Chapter 4, Section 4.2.3.1, pages 81 and 82, 2008

- *Procurement management plan*
- *Quality management plan,*
- *Resource management plan,*
- *Risk response plan,*
- *Schedule management plan*
- *Staffing management plan.*⁹⁰

The CMAA also has issued standards for a Program Management Plan:

“One of the mainstays of program management is a written plan, approved by the Owner, which establishes the direction of the program. The [program management plan] sets the procedures and standards that will be enforced during the life of the program. It establishes the framework for conducting business. The [program management plan] is the master reference document for the program management team and provides guidance to the consultants engaged throughout the program. The [program management plan] is a compilation of procedures and standards, schedules, project descriptions, budgets, and strategy papers that address administrative as well as technical issues from a global perspective.”⁹¹

Ultimately the Program Management Plan establishes the entire foundation for the program and all of the projects to be undertaken and executed under that program. To that end, the Program Management Plan must be comprehensive and coordinated with all of the policies, procedures and processes which should enable the program management organization to establish and execute the program and its projects so as to meet all legislative and regulatory requirements while achieving the Owner’s program goals and objectives.

⁹⁰ PMI, The Standard for Program Management, Global Standard, Chapter 3, Section 3.5.1, page 40, 2006

⁹¹ CMAA, CM Standards of Practice, Chapter 8, Section 8.2, page 69, 2008

In response to a Pegasus-Global document request OCCM produced a document entitled “*Capital Courthouse Construction Program Management Plan: Organizational Overview*”, dated October 2007. According to the forward to the OCCM PgMP:⁹²

“This document was written as a guide for organizing individual court projects into a program to gain efficiencies and economies of scale and to support the mission of the Office of Court Construction and Management, which is to create and maintain court buildings that reflect the highest standards of excellence.”

In the executive summary to the PgMP it noted that:⁹³

“The purpose of this Program Management Plan (PgMP) is to delineate an organizational framework and the overall roles and responsibilities of key management participants for implementing all of the capital projects managed by the Administrative Office of the Courts (AOC), Office of Court Construction and Management (OCCM). This includes all of the projects identified under SB 1407 and projects under way before that legislation was enacted.”

Section 1.3 of the PgMP stated that:

This Program Management Plan... is written at the strategic program level. It describes the organization that will apply program management to each of the projects and key functions and responsibilities as they related to program management...⁹⁴

The overarching PgMP will help AOC OCCM develop projects of the highest standard. It describes the organizational structure, roles, responsibilities, and approaches to key procedures that will best take advantage of the common

⁹² Capital Courthouse Construction, Program Management Plan: Organizational Overview, Forward, page 1, October 7, 2009

⁹³ Capital Courthouse Construction, Program Management Plan: Organizational Overview, Executive Summary, page 2, October 7, 2009

⁹⁴ Capital Courthouse Construction, Program Management Plan: Organizational Overview, Chapter 1, Section 1.3 1, page 3, October 7, 2009

characteristics and requirements of the individual projects within the Program, and it continually incorporates lessons learned and industry best practices.”⁹⁵

Finally, OCCM states that the PgMP is:⁹⁶

“...an evolving document and may be updated at any time under the direction of the Program Manager. As the PgMP is implemented, new insights will be realized and improvements to the PgMP will be determined ...

In order for the PgMP to be a functional tool, it must be updated as appropriate. The Program Manager is responsible for keeping the document up to date... In addition, the Program Manager will rely on the continuous improvement function, as shown on the organization chart, to review the document and propose revisions or updates as appropriate as part of the program’s continuous improvement process.”

The PgMP addressed the following topical areas:

- **Section 2 – Background**, provided a legislative history of the Program and a summary of the funding process from appropriation through construction funding.
- **Section 3 – Organizational Overview**, provided a summary of the Management Strategies, Roles and Responsibilities for the following:
 - Regional Offices
 - Program Management Team
 - Project Delivery Team
 - Organizational Chart

⁹⁵ Capital Courthouse Construction, Program Management Plan: Organizational Overview, Chapter 1, Section 1.3 1, page 4, October 7, 2009

⁹⁶ Capital Courthouse Construction, Program Management Plan: Organizational Overview, Chapter 1, Section 1.4, page 4, October 7, 2009

- Key Position Descriptions (Note that some of the positions had named individuals while others noted the individual was *To Be Determined* (“TBD”))
- **Appendices A – F**
 - A – Capital Construction Program Organization Chart
 - B – Capital Construction Program Strategy Flow Chart
 - C – Pre-SB 1407 Capital-Outlay Projects
 - D – SB 1407 Capital-Outlay Projects
 - E – Regional Acquisition Teams Organizational Chart
 - F – Project Manager Organization Charts

Pegasus-Global examined the PgMP in detail and compared the content of the PgMP against the SOC established by PMI and CMAA for a Program Management Manual. To the best of Pegasus-Global’s knowledge the PgMP provided by OCCM has not been updated or expanded since its original release in October 2009.

Findings:

Pegasus-Global reviewed and evaluated the PgMP prepared and provided by OCCM in response to its document request and determined that the PgMP did not fully meet the SOC established for a Program Management Manual within the industry. Although the current version of the PgMP contains the primary organizational structure and functional description of the various positions and is a starting point for a full Program Management Manual, it does not yet contain all of the information or materials necessary to manage or control the Program or the independent projects being executed under the Program, in general:

- **V1-F-4.8-1** The PgMP does not provide a list nor a discussion regarding the various policies and procedures which have been drafted or are in use for

various aspects of the Program. The PgMP should serve as the foundation document that links the various program policies and procedures to the respective sub-units and the respective position that is accountable for ensuring that the respective policy or procedure is being implemented as written. In some instances the PgMP identified the position accountable for the development and implementation of program and project policies, procedures and processes; however the PgMP in general does not clearly define nor specifically identify those policies, procedures and processes for which the position is accountable by name or reference to any specific policy, procedure or process.

- **V1-F-4.8-2** The PgMP is incomplete and has not been routinely updated to reflect actual Program and project conditions, as required within the PgMP itself.
- **V1-F-4.8-3** The PgMP is not uniform or transparent, with some internal inconsistencies and no direct link to any policies, procedures or processes actually developed and employed during the management of the Program or the execution of the individual projects.
- **V1-F-4.8-4** The PgMP provides little guidance as to how the program policies and procedures are developed and updated, nor provides any reference as to where the policies and procedures can be located. Because the PgMP does not address the policies and procedures being used (or to be used) to execute the Program or align those policies and procedures with the respective sub-units and positions accountable, the policies and procedures currently in existence lack uniformity, which may result in gaps or inconsistencies among those policies and procedures.
- **V1-F-4.8-5** The PgMP has not been updated since its original release although the PgMP states that the PgMP is a “living” and “evolving” document. For example, a number of the key positions either state that the position has not been filled (TBD) or lists no individual as responsible for that key position. The PgMP was also to be edited to reflect the “policies and procedures” under which the Program and individual projects were to be executed or the “lessons learned”

by OCCM during execution of the Program and the individual projects as a means to increase the effectiveness and efficiency of the Program and projects; however Pegasus-Global did not identify any update to the PgMP which addressed changes or additions to policies and procedures, or adopted lessons learned. During interviews it was noted that while most OCCM staff had read the PgMP at some point in time, no one relied on the PgMP as a comprehensive or complete source document for the management or control of the Program or projects.

- **V1-F-4.8-6** The PgMP lacks comprehensive definitions of key positions, structural divisions and certain key management and control tasks, for example:
 - The introduction introduces the term “Project Team”, however the term is not defined, the composition and responsibility of the Project Team is not clearly established and there is no structural or organizational process provided. In addition, the composition of the Project Team does not appear consistent with the individual management roles defined later in the PgMP.
 - The Executive Summary discussion of the role of the Project Manager does not contain a detailed definition of that role in the Program and in some regards conflicts with a more detailed description of the role contained later in the PgMP.
 - The Executive Summary also refers to the “appropriate manager”, yet does not name or identify the “appropriate manager” by position.

The lack of full definitions and continuity relative to definitions given in different sections of the PgMP impact both the uniformity of the PgMP and the transparency of the PgMP as it currently stands.

- **V1-F-4.8-7** There is no discussion of program or project data and information gathering or reporting within the PgMP, including what data and information is to be gathered and disseminated; who (by position) is responsible and accountable

for the gathering and dissemination of that data and information; how the data and information generated at the program or project level is “rolled” up into a cohesive statement of the progress of the Program and projects and the status of the program and project goals and objectives; and, there is no mention made of a document control system under which the data and information can be retained and recalled.

- **V1-F-4.8-8** There are incomplete and to some extent conflicting messages within the PgMP, for example:
 - The mission statement indicates that the “highest standards” are met through state-of-the-art planning, design, and project execution. Without a definition of state-of-the-art, that phrase can be interpreted to mean anything, without any consideration of cost, effectiveness or efficiency, which are discussed as program goals elsewhere in the PgMP.
 - The PgMP states that its goals are consistent with expected industry standards, without identifying the source of industry standards for the “goals” established for the Program or the projects.
 - The PgMP discusses capture and dissemination of “lessons learned” over the course of the Program and project execution, noting that those lessons will be added to later versions of the PgMP. However, the PgMP does not describe the process by which the lessons learned will be identified, documented and shared within the Program or the project management. While the PgMP makes reference to a lessons learned database it does not describe how the lessons learned process is to function, noting only that it is one of the Project Managers most significant responsibilities. Concerning lessons learned, Pegasus-Global noted other statements within the PgMP which were not uniform or transparent:
 - At Section 3.3.8 it was noted that the Program Planning Manager was responsible for documenting lessons learned, updating the

policy development and be the communication liaison with the project level of the program. However it was not clear from documents reviewed or the interviews conducted that the process was in place; that the assignment was being executed in the manner identified in the PgMP; or that the lessons learned were actively referenced during the planning and execution of a project.

- At Section 3.3.12 the PgMP notes relative to lessons learned that *“In order for the project delivery process to continually improve over time it is imperative that every project manager document lessons learned. Throughout the life of the project, excellent communication, document control, and reporting will allow the recording of information back into the lessons learned database during the project and at its close. This is one of the project manager’s most important responsibilities.”* However, the PgMP provides no guidance concerning how the Project Manager is to record the lessons learned, or how those lessons are to be disseminated and used to improve the planning or execution of the Program or the individual projects.
- **V1-F-4.8-9** The PgMP identifies the position of “Design and Construction Manager” as responsible for *“ensuring that design and construction are executed efficiently, cost-effectively, and safely. This position is responsible for ensuring the consistent application of program-level design and construction standards of excellence across all projects”* (Section 3.3.10). However no guidance is provided as to how the Design and Construction Manager is to ensure that design and construction are executed efficiently, cost-effectively and safely or that there is consistent application of program level design and construction standards of excellence. The PgMP provides no guidance or definition of “efficiently”, “cost-effective” or “safe” which can be used by the Design and Construction Manager in judging whether or not there is consistent application of program-level design and construction standards of excellence.

- **V1-F-4.8-10** The PgMP does not provide guidance or a procedure for rolling up individual project information or data from the individual project schedules and budgets into program level report summaries. The PgMP does not provide any mechanism to assure that such information is accurately captured and reported.
- **V1-F-4.8-11** In Section 3.1.1 the PgMP states that *“At this point, many commonly understood program management techniques are already in place as a result of using sound management practices. Consequently, this PgMP focuses on discrete, additional program management techniques that will help achieve the previously stated program-level goals of efficiency, economies of scale, consistent application of resources, capturing and applying best practices and lessons learned, and becoming the owner of choice.”* Pegasus-Global noted the following:
 - There was no identification of the *“commonly understood program management techniques”* already in place, which impacts the transparency of the PgMP and the basis of those *“commonly understood program management techniques”*.
 - There was no identification of *“sound management practices”* upon which those commonly understood program management technique are based. This again impacts the transparency of the PgMP. There are other OCCM policies and procedures in existence, as noted in the Audit Review Table at **Exhibit F**. However, there is no reference to those other policies and procedures within the PgMP, nor does the PgMP cite any link to any other repository of *“sound management practices”* or *“commonly understood program management techniques”*.
 - Pegasus-Global did find reference to program goals of efficiency, economies of scale, consistent application of resources, capturing and applying best practices and lessons learned later in the PgMP; however those were addressed as goals assigned to various positions within the PgMP. Those goals were not defined (*i.e.*, what is meant by *“economies of*

scale”) nor were the processes by which those goals were to be set or judged ever specified or identified within the PgMP.

- Finally, there is no context within which to define “owner of choice” as used in Section 3.1.1 of the PgMP. As summarized earlier and addressed in more detail within of this Report, there is no consistent definition or understanding as to who actually is the “Owner” of the Program and its individual projects.
- **V1-F-4.8-12** The PgMP requires that the Program and the individual projects meet unspecified goals set for such things as efficiency, budget, schedule, economy, etc. however no guidance, or project template is provided which are specifically aimed at assisting program and project personnel to establish quantifiable goals and objectives against which success can be measured as to the achievement of those goals or objectives. Setting quantifiable goals and objectives which can be evaluated and measured across a megaprogram of multiple projects requires that, at a minimum, a template exists which enables the program and project to establish quantifiable goals and objectives uniformly across all projects.
- **V1-F-4.8-13** Section 3.3.3 of the PgMP states that the program goals are consistent with the program design standards and “... *should reference a methodology to accurately analyze and estimate operational costs of facility management and security labor in order to keep the courts fully apprised of their operational budget responsibilities when the courthouse facility is completed and operational.*”

The PgMP does not give any guidance as to what methodology is to be referenced; how that methodology is to be applied to or translated by the design or construction consultants; and how the data to be reported to and used by the Judicial Branch.

- **V1-F-4.8-14** Section 3.3.3 of the PgMP states that OCCM will develop “... *prototypical designs for building components of common function across the program to reduce costs and improve quality through standardization*”. There was no further definition of “prototype designs for building components of common function” to guide Program and Project Managers attempting to apply this requirement. During the audit Pegasus-Global identified no prototype designs being applied to the projects executed.
- **V1-F-4.8-15** Within the PgMP the placement of certain staff positions relative to Program Management and Project Management within the organizational structure that appear to be incomplete. For example, the relationships between the positions identified below have not been fully defined:
 - Communications Specialist;
 - Legal Specialist;
 - Business Services Manager;
 - Technical Support Manager; and
 - Facilities Manager.⁹⁷

The authority, organizational relationships and spans of control among all OCCM personnel should be comprehensively defined within the Program Management Manual.

- **V1-F-4.8-16** The discussion of Technical Resources in Section 4 of the PgMP generally meets the industry SOC, however, it is unclear how these support services are achieved within the Program, who is responsible, and who is accountable for ensuring that the technical services identified are implemented.

⁹⁷ Note: the PgMP identified Fred Stetson as the Facilities Manager, yet during the audit Pat McGrath was identified as the Facilities Manager. This is another indication that the PgMP was not being updated as required within the PgMP itself.

Recommendations:

- **V1-R-4.8-1** The PgMP should be finalized, expanded and updated to reflect the following:
 - Expanded and consistent definitions across and throughout the PgMP with regard to positions, functions, responsibilities, etc., based on the current operational parameters in effect (or to be developed) within the Program and projects.
 - Specific positions with roles and responsibilities should be defined along with a complete and comprehensive organizational chart that can be easily modified and be included as an Appendix to the PgMP in replacement of an earlier organizational chart.
 - A specific listing with dates of original approval and any revisions should be included for all regulatory requirements, policies, procedures and processes currently in place and those regulatory requirements, policies, procedures and processes yet to be finalized, updated or developed in the future along with anticipated date of completion.
- **V1-R-4.8-2** Specific, measurable goals and objectives for the Program and the projects should be included in the PgMP.
- **V1-R-4.8-3** Specific, measurable goals and objectives for each position identified within the PgMP should be included in the PgMP.
- **V1-R-4.8-4** The PgMP should define, formalize, and specify in greater detail the roles and functions of each of the Program sub-units, noting specific requirements, standards, and expectations for each Program sub-unit. The PgMP should contain statements of the relationship to, and interaction among, the various Program sub-units, which clearly delineate those functions which intersect and the required coordination with among the various Program sub-units.

- **V1-R-4.8-5** The PgMP should provide each functional position with direction to those policies, procedures and processes applicable and necessary to the achievement of that position's functions and responsibilities.
- **V1-R-4.8-6** The PgMP should identify each of the functional systems in place and use to manage the Program and projects, in particular the following:
 - Document Control System;
 - General Program Procedures;
 - General Program Structure (*i.e.*, relationship of OCCM to the Judicial Council and CFWG, AOC, regional offices, etc.);
 - Cost and Budget Control System;
 - Schedule Control System;
 - Design Phase Procedures;
 - Construction Phase Procedures;
 - Furnishings, Fixtures and Equipment ("FF&E") Procedures;
 - Scope Control System;
 - Quality Control System;
 - Claims and Dispute Procedures;
 - Procurement Control System; and
 - Contracting Control System.
- **V1-R-4.8-7** A review of the PgMP should be undertaken to determine what gaps and/or inconsistencies exist among the issued and draft policies and procedures against the final approved PgMP.

Summary Conclusion:

The Program Management Manual is perhaps the single most important management and control document on a megaproject as it serves as the foundation to every other policy, procedure and process developed and implemented to manage and control the program and the individual projects. In addition, the Program Management Manual sets the goals and objectives for the program as a whole and each of the individual projects and provides the roadmap through the policies, procedures, processes and relationships among the various sub-units which make up the megaproject planning and execution organization.

Expanding and finalizing the Program Management Manual should be one of the first improvement actions implemented by the OCCM, taking advantage of the work already done within the Program and at the project level (*i.e.*, lessons learned, processed developed, etc.) as the Program Management Manual is expanded and finalized.

5.2.9 COURT FACILITIES DELIVERY METHODOLOGIES AND CONTRACTING POLICIES AND PROCEDURES

According to the PMI PMBOK®:

“A contract represents a mutually binding agreement that obligates the seller to provide the specified products, services or results, and obligates the buyer to provide monetary or other valuable consideration. The agreement can be simple or complex, and can reflect the simplicity or complexity of the deliverables and required effort.

A procurement contract will include terms and conditions, and may incorporate other items that the buyer specifies to establish what the seller is to perform or provide. It is the project management team’s responsibility to make certain that all

procurements meet the specific needs of the project while adhering to organizational procurement policies.”⁹⁸

The Construction Extension to PMI’s PMBOK® notes that a sound contracting plan involves the following:⁹⁹

- Procurement Documents;
- Evaluation Criteria; and
- Contract Statement of Work,

The PMI Global Standard for Program Management states that:¹⁰⁰

“Program contract administration is the process of managing the relationship with sellers and buyers at the program level, excluding such processes performed at the component level. The process includes purchases and procurement of outside resources that span the program domain and that are not covered by a specific project.

The program management team must be aware of the legal, political, and managerial implications during implementation, since contractual issues can affect deadlines, have legal and costly consequences, and can produce adverse publicity. The team must communicate with [stakeholders], governing bodies and the project and program management teams.

At the program level, program contract administration relies on the interaction of other program and project processes.”

CMAA devoted an entire manual, “*Contract Administration Procedures*”, to the topic of contract management and control. In summary, CMAA noted that to achieve project objectives construction management is:¹⁰¹

⁹⁸ PMI PMBOK®, Chapter 12, page 315, 2008

⁹⁹ PMI PMBOK® Construction Extension, Chapter 12, Section 12.3, page 109 – 110, 2007

¹⁰⁰ PMI Global Standard for Program Management, Chapter 3, Section 3.7.12, page 64

“...systems, policies and procedures necessary to ensure adequate project controls are in place. Specifically, the CM must understand the basic responsibilities and interrelationships of all team members; i.e. the Owner (both project management and user), the Designer(s), the Contractor(s), and others, such as consultants and the CM. Additionally, the CM must have the functional knowledge to define the interrelationships between such management components as time, cost, information, quality, safety, and risk.”

Each of those industry standards go into detail relative to procurement, contract methodologies, selection of the appropriate contracting methodology, and management and control of the contracting process and contract execution.

Pegasus-Global was provided four overlapping contracting policy and procedure documents by OCCM:

- *Court Facilities Contracting Policies and Procedures (December 7, 2007);*
- *Policy 3.40 Court Delivery Method and Contractor Selection (DRAFT, July 28, 2009);*
- *Policy 333.00 Construction Delivery Methods (April 4, 2011); and*
- *Judicial Branch Contracting Manual (October 11, 2011, submitted to the legislature as of January 1, 2012).*

Two of those policies address the *contracting delivery methods* (July 28, 2009 and April 4, 2011) and are referred to as the “delivery method policies” in this audit section.

Two of those policies address *contracting policies and procedures* (December 7, 2007 and October 11, 2011) and are referred to as the “contracting policies” in this audit section.

¹⁰¹ CMAA Contract Administration Procedures, Chapter 6, Section 6.1, page 1

Because of the overlap between those policy and procedure documents; because all those policies and procedures appeared to be still in force; and because all those policies were produced by OCCM as the contracting policies and procedures, Pegasus-Global reviewed them by topical subject matter simultaneously in **Sections 5.2.10 and 5.2.11** of this Report.

5.2.10 PROJECT DELIVERY METHODOLOGY AND CONTRACT FORMATION

5.2.10.1 MEMORANDUM POLICY 3.40 (JULY 28, 2009)

According to CMAA, “A *project delivery method is a system design to achieve the satisfactory completion of a construction project from conception to occupancy*”.¹⁰² In summary a delivery methodology identifies the primary execution parties (Owner, designer, constructor, etc.) and their respective roles and positions within a project. CMAA identifies four basis types of delivery methods:¹⁰³

- Traditional (Design-Bid-Build);
- At-Risk Construction Management (CM@Risk);
- Multiple-Prime Contracting; and
- Design-Build (also for larger facilities Engineer-Procure-Construct (“EPC”)).

While CMAA acknowledges that there are variations on each of the methodologies, most of them have their foundation in one of those four methodologies.

As noted earlier above OCCM issued two policies which address delivery method polices:

¹⁰² CMAA, Capstone: The History of Construction Management Practices and Procedures, Chapter 2.0, page 15, 2003

¹⁰³ CMAA, Capstone: The History of Construction Management Practices and Procedures, Chapter 2.0, page 15, 2003

1. A memorandum from S. Ernest Swickard to Design and Construction (“D&C”) Staff, dated July 28, 2009, with the subject matter identified as “*Delivery Method and Contractor Selection*”, 3.40 Policy
2. Policy 333.0 *Construction Delivery Methods*, dated March 1, 2011, by OCCM.

The 2009 Policy 3.40 states that:¹⁰⁴

“These procedures involve selecting how to deliver a complete court construction project and who will deliver it... OCCM management will determine which delivery method is best.”

The 2009 Policy 3.40 proceeds from that point to present the following four delivery methodologies and the process by which the work will be apportioned, advertised for bids, bids reviewed and awards made by OCCM. The four allowable delivery methods were identified as:

- Design-Bid-Build (Traditional);¹⁰⁵
- Design-Build;¹⁰⁶
- CM@Risk;¹⁰⁷ and
- Indefinite Delivery/Indefinite Quantity (“ID/IQ”).¹⁰⁸

For each of the delivery methods Policy 3.40 contains a very detailed process by which the consultant and contractor bids will be solicited, reviewed, and contracted. It is in total a very structured and comprehensive 21-page presentation of a delivery methodology policy. However, beyond simply stating that OCCM management will choose the delivery methodology to be used, there is no presentation of the factors which

¹⁰⁴ S. Ernest Swickard to Design and Construction Staff, July 28, 2009, Procedure 34.0, Section A, page 3

¹⁰⁵ S. Ernest Swickard to Design and Construction Staff, July 28, 2009, Procedure 34.0, Section D, page 3

¹⁰⁶ S. Ernest Swickard to Design and Construction Staff, July 28, 2009, Procedure 34.0, Section E, page 3

¹⁰⁷ S. Ernest Swickard to Design and Construction Staff, July 28, 2009, Procedure 34.0, Section F, page 15

¹⁰⁸ S. Ernest Swickard to Design and Construction Staff, July 28, 2009, Procedure 34.0, Section G, page 18

will govern the choice or specifically who in the OCCM management structure will make that decision.

Findings:

- **V1-F-4.10.1-1** Policy 3.40 is identified as a “*DRAFT*”, and Pegasus-Global found no indication that the policy was ever formally adopted or enforced at any time after its distribution on July 28, 2009. While some of the “Design and Construction Staff” to whom the memo was addressed knew of and recalled the memo, others were not aware of its existence.
- **V1-F-4.10.1-2** According to Policy 3.40: “*It is the intent of OCCM that a project delivery method be selected which results in the best value for the court, the Judicial Branch and all Californians.*”¹⁰⁹ However, the memorandum actually does not elaborate a procedure by which a particular project delivery method will be judged to be the “best value” for each of those parties listed. Pegasus-Global found no indication of the actual factors to be considered during the process by which the delivery method selection was to be made.
- **V1-F-4.10.1-3** The statement that “*OCCM staff and management will determine the appropriate delivery method for each project*” does not establish uniformity, transparency or accountability for the approval of the delivery method for a project.¹¹⁰
- **V1-F-4.10.1-4** The statement that “*The selection of the delivery method will be based on the overall complexity and cost of the project*” does not establish the uniformity of the decision making process across the entire Program.
- **V1-F-4.10.1-5** The project delivery method definitions provided in Policy 3.40 match those in use throughout the industry.

¹⁰⁹ S. Ernest Swickard to Design and Construction Staff, July 28, 2009, Procedure 34.0, page 2

¹¹⁰ S. Ernest Swickard to Design and Construction Staff, July 28, 2009, Procedure 34.0, Section C, page 2

- **V1-F-4.10.1-6** While the procedures for bidding, reviewing and awarding the various delivery methodologies is addressed in some detail within Policy 3.40, there is no indication of how these procedures align with the AOC procedures or the SAM, both of which are cited in other procedures as the source of procurement and contracting policies, procedures and processes.

5.2.10.2 POLICY 333.00 CONSTRUCTION DELIVERY METHODS (APRIL 4, 2011)

Policy 333.00 was issued in the form generally use across most of the formal OCCM policies, noting that:¹¹¹

“Selecting a project delivery method is a strategic decision made by OCCM management. Once decided, a project manager determines the selection criteria and proceeds with the solicitation and selection process. The Court Facilities Contracting Policies and Procedures grants flexibility to OCCM in both delivery methods and the selection process.”

Interestingly, Policy 333.00 has the identical statement of intent as that provided in the Memorandum of July 28, 2009, cited directly above: *“It is the intent of OCCM that a project delivery method be selected which results in the best value for the court, the Judicial Branch and all Californians.”*¹¹² However, unlike Policy 3.40, this Policy 333.00 does not address the actual procurement processes or procedures, limiting its content to a definitions of, and diagrams for, each of five allowable delivery methods:

- Design-Bid-Build;
- Design-Build;
- CM@Risk;
- Public Private Partnerships; and,

¹¹¹ OCCM, 333.00 Construction Delivery Methods, page 3, March 2011

¹¹² OCCM, 333.00 Construction Delivery Methods, page 4, March 2011

- ID/IQ.

Findings:

- **V1-F-4.10.2-1** This policy contains only a definition of each of the five acceptable delivery methods and beyond statements that (1) unidentified (by name or position) OCCM management staff will decided which delivery method is to be used on a project and (2) that the Project Manager will decided how to bid, review, award and contract for the project. Ultimately, Policy 333.00 is not actually a policy or procedure as understood within the industry as it gives no guidance, procedure or process by which the delivery method will be chosen or the procurement action will be executed.

Recommendations:

- **V1-R-4.10-1** Policy 3.40 should be formally retired as the acceptable delivery methods have been expanded by Policy 333.00.
- **V1-R-4.10-2** Policy 333.00 should be expanded to provide the factors to be considered and the process by which the delivery method will be selected for each project. Policy 333.0 should include specific delegations of authority (by position) for each decision to be made and each action to be required in the process. Without that information Policy 333.00 serves no function other than to define the various delivery methodologies.

Summary Conclusion:

Although both of the delivery method policies define the construction delivery methodologies correctly, neither addresses how the actual decision is to be made in order to provide “*the court, the Judicial Branch and all Californians*” with the best value. These two policies are not uniform, transparent or identify a definitive point of accountability relative to the selection of a construction delivery method.

5.2.11 CONTRACTING POLICIES AND PROCEDURES

5.2.11.1 COURT FACILITIES CONTRACTING POLICIES AND PROCEDURES (DECEMBER 2, 2007)

The *Court Facilities Contracting Policies and Procedures* (December 7, 2007) provided to Pegasus-Global in response to a document request noted that the document contained:¹¹³

“...procedures that the AOC will typically follow when seeking to contract for planning, acquisition, design, construction, operations, and/or maintenance of court facilities. These procedures are intended to assist the AOC in its evaluation of Proposer’s products or services and qualifications in order to contract with firms and individuals having the demonstrated capacity to reliably meet contractual obligations thereby securing the best value for the AOC and the public.”

The December 7, 2007 contracting policies and procedures addressed the following topical areas:

- Policy Statement;
- Background;
- Definitions;
- Process (Selection and Contracting);
- Contract Types;
- Contract Award; and
- Contract Notice to Proceed.

¹¹³ Court Facilities Contracting Policies and Procedures, AOC, Section IV, page 9, December 7, 2007

There followed a fairly detailed, yet concise set of the procedural steps through which the procurement of services necessary to the execution of a court construction project would pass.

Findings:

- **V1-F-4.11.1-1** Although somewhat brief, Pegasus-Global was able to track all of the processes through the procurement and contracting process which would be expected per the industry general SOC.
- **V1-F-4.11.1-2** While the process injected uniformity and transparency into the policy and process, there were no statements which identified a formal delegation of authority or the point of accountability other than simply stating the authority rested with “*the AOC*”.

Recommendations:

Pegasus-Global has no formal recommendations relative to this policy or procedure.

5.2.11.2 JUDICIAL BRANCH CONTRACTING MANUAL (OCTOBER 1, 2011)

As required under SB 78 (2009) the Court Capital Construction Program was to generally follow the policies and procedures codified under the SAM, until the Judicial Council developed and submitted its own Contracting Manual. According to SB 78, the Judicial Council Contracting Manual was to be submitted by January 1, 2012. Pegasus-Global was informed during the audit that the Contracting Manual had been produced and submitted as required by SB 78 by the date required. OCCM provided Pegasus-Global with a copy of the Judicial Council Contracting Manual for examination during this audit. According to the Judicial Council Contracting Manual:¹¹⁴

¹¹⁴ Judicial Branch Contracting Manual, Introduction, Section 2, page 3 of 7, October 1, 2011

“Development of this Manual was guided by the principles reflected in the findings and declarations of the Legislature in enacting the PCC [Public Contract Code], which express the legislative intent to achieve the following objectives as set forth in PCC 100:

- To clarify the law with respect to competitive bidding requirements;*
- To ensure full compliance with competitive bidding statutes as a means of protecting the public from misuse of public funds;*
- To provide all qualified bidders with a fair opportunity to enter the bidding process, thereby stimulating competition in a manner conducive to sound fiscal practices; and*
- To eliminate favoritism, fraud, and corruption in the awarding of public contracts.*

In addition, the Legislature has declared that California public contract law “should be efficient and the product of the best of modern practice and research (PCC 101) and that, to encourage competition and to aid in the efficient administration of public contracting, “to the maximum extent possible, for similar work performed for similar agencies, California’s public contract law should be uniform.”

The Judicial Council Contracting Manual covers the following content in at a significant level of detail:

- Purchasing Authority;
- Procurement Planning;
- Socioeconomic and Environmental Programs;
- Competitive Solicitation;
- Non-Competitively Bid Procurements;

- Leveraged Procurement;
- Protest and Post-Award Disputes;
- Contracts and Contract-Related Documents;
- Disbursements and Payment Programs;
- Receiving, Inspection, and Acceptance/Rejection of Goods and Services;
- Contract Administration; and
- Reporting Requirements.

Note that in **Subsection 5.2.1.10** directly above Pegasus-Global reviewed the AOC Contracting Policies and Procedures (2007); this manual appears to be separate and apart from the Judicial Council Contracting Manual (2011) reviewed in this **Subsection 5.2.1.11**. Pegasus-Global is uncertain of the relationship between those two policies, if any.

Findings:

In general, the Judicial Council Contracting Manual was consistent with the industry established SOC. Pegasus-Global's observations relative to those two separate Contracting Policies and Procedures include:

- **V1-F-4.11.2-1** It appears that the Judicial Council Contract Manual (2011) supersedes the earlier AOC Contracting Manual (2007); however Pegasus-Global was somewhat confused by the wording included within the Judicial Council Contract Manual, which appears to supersede all AOC procurement procedures except for the Capital Court Construction Program:
 - *"... this Manual supersedes (a) the AOC Policy Regarding Legal Review of Procurement Matters, and (b) AOC Policy "7.2.1, Procurement of Goods and Services, for all procurement and contracting purposes except*

as those policies apply to planning, design, construction, rehabilitation, renovation, replacement, lease, or acquisition of trial court facilities.”¹¹⁵

- *“Finally, this Manual supersedes the **Court Facilities Contracting Policies and Procedures**, adopted by the Judicial Council December 7, 2007, for all facilities-related procurement and contracting purposes except for planning, design construction, rehabilitation, renovation, replacement, lease, or acquisition of trial court facilities.”¹¹⁶ [Bold Highlight Added; Underline Added]*
- *“The Manual does not address:*
 - *Procurement and contracting for planning, design, construction, rehabilitation, renovation, replacement, lease, or acquisition of trial court facilities, as those activities are expressly excluded from coverage under Part 2.5 by PCC 1920(c);*
 - *Procurement and contracting specific to planning, design, construction, rehabilitation, renovation, replacement, lease, or acquisition of trial court facilities other than trial court facilities and maintenance of facilities, as those activities are the responsibility of the AOC and will be addressed in the AOC’s Local Contracting Manual ...”¹¹⁷*

Reading those provisions, Pegasus-Global is unsure of the relationship between the Judicial Council Contracting Manual to the AOC Court Facilities Contracting Policies and Procedures. However, Pegasus-Global notes that the Judicial Branch Contracting Manual is by far the most comprehensive and complete of the two contracting documents reviewed concerning contracting and contract administration.

¹¹⁵ Judicial Branch Contracting Manual, Introduction, Section 5, page 5 of 7, 2011

¹¹⁶ Judicial Branch Contracting Manual, Introduction, Section 5, page 5 of 7, 2011

¹¹⁷ Judicial Branch Contracting Manual, Introduction, Section 5, page 4 of 7, 2011

- **V1-F-4.11.2-2** Pegasus-Global assumed that the Judicial Council Contracting Manual is intended to replace the AOC Contracting Policies and Procedures; however, if that is not the case, then the two documents need to be aligned as both address some of the exact same processes and procedures, and the AOC contracting procedures do not appear to have been updated since December 7, 2007. If the two documents are to be mutually supportive of the contracting policies, procedures and process – and given the later release of the Judicial Council Contracting Manual (2012) – this would be a propitious time to realign the AOC Contracting Policies and Procedures to conform to the much more detailed Judicial Council Contracting Manual.
- **V1-F-4.11.2-3** The two contracting policy documents are not aligned or specific relative to whom (Judicial Council, AOC or OCCM) is delegated authority and responsibility for the various decisions and actions identified within or among each of the policy documents. While those policies taken as a whole do address all of the SOC contracting best industry practices, the unit or position of authority and accountability should be clarified in order to be more uniform and transparent.
- **V1-F-4.11.2-4** Exceptions to the policies and procedures are defined within each policy document; however, those exceptions appear to be somewhat inconsistent. For example, within the Judicial Branch Contracting Manual it states: *“Procurement of Goods and Services, for all procurement and contracting purposes except as those policies apply to planning, design, construction, rehabilitation, renovation, replacement, lease, or acquisition of trial court facilities.”*

Recommendation:

- **V1-R-4.11-1** Of the two separate sources of contracting policies and procedures the Judicial Council Contracting Manual is by far the more comprehensive and complete, and generally meets the industry SOC. However, given the wording of some of the provisions contained within the Judicial Branch Contracting Manual it

may not be applicable to certain elements of the Court Capital Construction Program. If the Judicial Branch Contracting Manual is not applicable to the Court Capital Construction Program, at a minimum the AOC Court Facilities Contracting Policies and Procedures should be updated, aligned, and coordinated with the Judicial Council Contracting Manual.

5.2.12 MANAGEMENT PLAN AND PROJECT DEFINITION REPORT

The Management Plan and Project Definition Report (“Project Definition Report”) is actually a template issued by OCCM Program Management “... to serve as a guide for the administration of [a] project.”¹¹⁸ While not identified as a formal policy, procedure or process, the document does provide a structure for the various elements to be addressed during the planning and execution of a specific project. The Project Definition Report also addresses certain requirements, formats, processes, goals and objectives that could be taken to be, or are indicative of policies, procedures or processes for a specific Court Capital Construction project. Because of the unique structure of the Project Definition Report it most closely addresses SOCs focused on Scope Control at a very high level.

According to the PMI’s PMBOK[®]:¹¹⁹

“Project Scope Management includes the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully. Managing the project scope is primarily concerned with defining and controlling what is and is not included in the project.”

PMI defined scope as: *“The process of developing a detailed description of the project and the product [courthouses].”*¹²⁰ PMI defined scope control as: *“The process of*

¹¹⁸ Management Plan and Project Definition Report, Memorandum, paragraph 1, undated

¹¹⁹ PMI PMBOK[®], Chapter 5, page 103, 2008

¹²⁰ PMI PMBOK[®], Chapter 5, Section 5.1, page 103, 2008

monitoring the status of the project and product scope and managing changes to the scope baseline.”¹²¹

The Construction Extension to the PMBOK® states that:¹²²

“For a construction project to be successful, project scope planning should involve all the key players at all levels, the owner, the consultant, the general contractor, subcontractors, and suppliers. Although each will only be involved in their respective areas, success increases with interactive involvement.”

Pegasus-Global found that the Project Definition Report delineated and to some extent defined all of the project stakeholders, with a significant portion the Project Definition Report summarizing the respective areas of responsibility. According the Project Definition Report:¹²³

“The Project Manager is responsible for the management of all activities to ensure that the project is constructed within the approved project scope ...”

Even though the Project Definition Report does not lend itself to a direct comparison to an industry SOC concerning the management and control of program or project scope, Pegasus-Global undertook a review of the Project Definition Report to provide observations raised following the review of the document in order to (1) acknowledge the existence of the Project Definition Report; and, (2) to provide the CFWG, AOC and OCCM with feedback relevant to the document and its place in the among the formal policies, procedures and processes formalized by OCCM.

Findings:

- **V1-F-4.12-1** The Project Definition Report is undated and provides no information as to its distribution or use. Thus, it is unclear when this template was prepared, whether it has been updated based on lessons learned, to whom it has been

¹²¹ PMI PMBOK®, Chapter 5, Section 5.5, page 103, 2008

¹²² PMI PMBOK® Construction Extension, Chapter 5, Section 5.1, page 37, 2007

¹²³ AOC - OCCM, Management Plan and Project Definition Report, Section 11, page 13, (undated)

distributed, how the template is to be used or how the process for using this process document is monitored at the program or project levels.

- **V1-F-4.12-2** The Project Definition Report states that it is intended to be a “... *single source manual that provides:*
 - *Description of the origin and purpose of this project*
 - *Project goals*
 - *List of project participants and their responsibilities*
 - *Lines of communications*
 - *Schedule information*
 - *Budget information*
 - *Description of quality control procedures*
 - *Procedures for making changes”*

While Pegasus-Global finds that the content of the Project Definition Report provide an excellent summary definition of the individual project, it does not reference those policies, procedures and processes which govern the planning, management or execution of the project. There are a number of policies, procedures and processes which are applicable to the execution of the project and which actually govern the planning, management, control and execution of a project.

- **V1-F-4.12-3** There appears to be some inconsistencies with the content of the Project Definition Report and the body of the policies, procedures and processes currently in place within the OCCM. For example, under “Design” the Project Definition Report states only that “*The Courthouse will function equally well as a setting for the delivery of justice, as a public services center, as a community landmark and as a statement of the community’s heritage.*” While these are

laudable goals this statement does not limit a courthouse project design to the design requirements established within the “*California Trial Court Facilities Standards*” (“Design Standards”) first adopted by the Judicial Council on April 21, 2006 and amended on March 1, 2010.

- **V1-F-4.12-4** The Project Definition Report contains no description addressing how the individual elements contained within the Project Definition Report were established, who participated in establishing each element and process by which the individual elements were adopted. For example: how were the project goals established, who participate in establishing those project goals, and how were those project goals adopted?
- **V1-F-4.12-5** The Project Definition Report provides for the PJ, the Executive Officer of the Court, the principle architect, the principle CM@Risk, the Assistant Division Director of the OCCM for Design and Construction and the Project Manager assigned from OCCM to sign off on the management plan. There is no indication as to who among those individuals was delegated the actual authority to approve the template as completed for implementation. In a typical project that responsibility and authority would be the sole province of the Owner; however, there should be one specifically named position accountable for approving the Project Definition Report.
- **V1-F-4.12-6** The Project Definition Report addressed the contracting plan and agreements that are expected to be executed for the Project, but does not reference the various contracting policies and procedures which define the procurement strictures which have been developed and adopted at the program level.
- **V1-F-4.12-7** The Project Definition Report identifies six Project Management Teams, providing information relative to each team’s roles and responsibilities:
 - The Executive Team;
 - The Project Advisory Group;

- The Management Team;
- The Design Team;
- The Funding Team; and
- The Construction Team.

Pegasus-Global found this element of the Project Definition Report very helpful and a good addition to the Project Definition Report. However, in this instance Pegasus-Global is not aware of a consolidated program level policy which establishes that full team structure or the roles and responsibilities of each Project Team.¹²⁴ The plans, policies and procedures adopted at the project level should link to and be supported by policies and procedures developed and promulgated by Program Management.

- **V1-F-4.12-8** There is an organizational chart provided within the Project Definition Report, which could be enhanced by addressing the following:
 - Add formal lines of communication among the various positions identified in the organizational chart.
 - Identify the formal reporting deliverables, such as the Monthly Progress Report, should be reflected in the organizational chart to identify the position responsible to prepare and disseminate the report; the distribution of the report; and when the report is to be prepared and distributed.
 - There should be a specific, clear “chain of command” reflected in the organizational chart. For example, who has the final approval authority for decisions made by the Project Management Teams; who is responsible for resolving disputes among which might arise within the various Project Teams, or among the different Project Teams.

¹²⁴ Note that in some instances, such as the establishment of the PAG, there is formal legislation and/or OCCM policies governing the formation and membership of Management Project Teams.

- **V1-F-4.12-9** The process would be strengthened if it contained the following:
 - Identification as to which Management Team or position is responsible for preparing the project master schedule, (a combination of the site acquisition schedule, the design schedule and the construction schedule).
 - Identification as to which Management Team or position is responsible to review and monitor the schedule to ensure that the project stays on schedule.
 - Development of a uniform process or procedure which addresses how the master schedule is to be prepared or the system/tool which is to be used to develop the master project schedule. The inclusion of this level of detail would improve the development of the schedule and provide a significant level of schedule management and control over the execution of the project to a definitive schedule.
- **V1-F-4.12-10** The exact same observations that are raised relative to schedule in V1-F-4.12-9 above can be made concerning the project cost and budgeting procedures adopted for the project.
- **V1-F-4.12-11** The change section of the template is only one paragraph and provides no specifics relative to the change management process to be followed during the execution of the project (*i.e.*, delegations of authority to receive, review or approve/reject changes submitted, estimation of the scope, cost, and schedule impacts changes flowing from such changes, etc).
- **V1-F-4.12-12** The specifics of the various project phases of a project are briefly defined, however, additional detail should be provided with those definitions.¹²⁵ It would improve uniformity and transparency if the project phase definitions included a reference to the formal policies, procedures and processes at the program level which govern the project phases. For example, the site acquisition

¹²⁵ Note: The design phase definition does include a chart which addresses the review and approval responsibilities by individual organization.

phase has a very good formal policy, procedure and process developed at the program level which identifies the procedure and process for the specific steps that are required during acquisition of property for the project.

- **V1-F-4.12-13** Pegasus-Global noted that the Facilities Maintenance Group (“FMG”) is not cited as a member of the Design Team and the phase description provided does not cite any role for the FMG during the design phase (FMG is cited as a member of the Superior Court Team but with no definition of its role or responsibility as a member of that team). As policies issued by the Judicial Council specifically state that the FMG is to provide input during design to ensure that facility maintenance is considered during design some reference to the role and responsibility to be filled by the FMG should be included.
- **V1-F-4.12-14** For each of the phase descriptions there should be a named position within the Project Team with the authority delegated and accountability for the work of that team during the various project phases. This could be done in a summary table which also identified the basic responsibilities of the Project Teams, cite references to existing or foundation program policies, procedures and processes and identify the position accountable for the work of that Project Team. Such a table would assist in improving the uniformity with other Project Team assignments and the relevant program level policies, procedures and processes.
- **V1-F-4.12-15** The construction phase includes a discussion relative to the lessons learned database, indicating that all members of the Project Teams are required to participate in the lessons learned program and every project is to contribute at least one lesson learned to the lesson learned database per month. However, there are no specifics provided as to who collects the lessons learned, who has final approval of the lessons learned to be included in the database, and who is accountable for seeing that the lessons learned program is implemented during the execution of the project.

- **V1-F-4.12-16** Quality control has only a single paragraph in the Project Definition Report, which at a minimum should reference to the program level quality control policies, procedures and processes. **Section 5.3.4.3** below contains additional findings relative to Quality Control including those quality control elements contained in the California Trial Court Facility Standards.
- **V1-F-4.12-17** Environmental compliance appears insufficient for an activity which is so heavily stressed and visible within the program level policies, procedures and process and so visible to the public in California in general. Any section on environmental compliance should reference to the program level environmental policies, procedures and processes, including those contained in the California Trial Court Facility Standards.
- **V1-F-4.12-18** There is a section on facility performance evaluation entitled “survey”; however the Project Definition Report does not provide any detailed information about, or a template summarizing the survey requirements such as:
 - What is required to be surveyed;
 - Who conducts the survey;
 - To whom is the survey produced and who is responsible to produce the survey;
 - What is the form of the survey report;
 - Who determines if the building met its goals and functional needs (and if not, why not);
 - Who identifies the actions necessary to formulate and follow up on corrective actions;
 - Finally, there is no discussion of how the survey information rolls up into the overall program and what impacts, if any, the survey results may have on the overall program (*i.e.*, lessons learned).

- **V1-F-4.12-19** The Project Definition Report notated that OCCM is responsible for preparing and updating (as needed) the Project Definition Report, including a directory of project stakeholders and their contact information. However, there is no identification as to the actual position(s) delegated the authority to prepare or update the Project Definition Report, nor is detail provided as to the process by which the Project Definition Report is to be reviewed and updated as necessary.

Recommendations:

The observations given above contain a number of recommendations for improving the Project Definition Report. Those recommendations which follow below represent what Pegasus-Global has determined are the recommendations which would have the most beneficial impact on the Project Definition Report.

- **V1-R-4.12-1** The Project Definition Report should have a section devoted to the establishment, management, and control of project scope. This is a critical element of any project and as such should involve all of the stakeholders identified within the Project Definition Report. Specific attention should be paid to the following scope elements:
 - Setting the scope of the project, including goals, objectives, size, budget, schedule, etc.
 - Communicating the project scope to Program Management and all stakeholders identified within the Project Definition Report.
 - Identifying the roles and responsibilities that each stakeholder identified within the Project Definition Report assume relative to managing and controlling project scope.
 - Defining “scope change” within the Project Definition Report and the role that each of the stakeholders assume relative to monitoring, reviewing and acting relative to proposed scope changes.

- Identifying those processes by which the Program Manager and other stakeholders will manage and control scope.
- **V1-R-4.12-2** Reference those program level policies, procedures and processes which govern the tasks enumerated within various sections of the Project Definition Report. By citing the program level policies, procedures and processes the volume of the Project Definition Report would increase only slightly, but critical information would be included in the Project Definition Report which would lay the foundation and provide a control source for many of the activities identified in the Project Definition Report.
- **V1-R-4.12-3** Ensure that the contents of the Project Definition Report are consistent with the policies, procedures and processes which exist at the program level. This includes consistency of content, terminology, direction and limitations.
- **V1-R-4.12-4** Identify the party (or parties) with the delegated authority to make decisions and be accountable for those decisions. This would include identification of any limitations on that decision making authority.
- **V1-R-4.12-5** Adding of a table that includes a summary of the responsibility and authority given to each Project Management Team, identification of the individuals within the Project Team(s) which are accountable for the decisions and actions of the Project Team(s) and citations to the program level policies, procedures and processes which guide the execution of each project team's scope of work and authority.

Summary Conclusion:

In general Pegasus-Global found the Project Definition Report to be helpful in explaining the organization and structure of the individual projects. The most notable elements missing within the Project Definition Report was a reference to the listed requirements, duties, and responsibilities back to those program level policies, procedures and

processes which provide the foundation and requirements which govern the operations of the Project Teams, and any formal delegations of authority and accountability.

5.2.13 POLICY 7.00 PROJECT FEASIBILITY REPORT (JUNE 6, 2011 DRAFT)¹²⁶

According to Policy 7.00 (Feasibility Report):

“Project Feasibility Reports determine the feasibility of a new project.”¹²⁷

For the reasons noted in Findings, below, Pegasus-Global was unable to conduct any comparative analysis of Policy 7.00 (Feasibility Report).

Findings:

- **V1-F-4.13-1** The policy is identified as a “Template Draft”, and as such appears to be a very early draft (actually only an outline) of the Feasibility Report and process. The draft given to Pegasus Global still contains internal comments in redline form, such as:¹²⁸

“Comment [PM9]: Sometimes it may be useful to look at more than one stacking configuration, two floors v. three floors for example, and thus more than one site program as the building footprint changes.”

- **V1-F-4.13-2** Through interviews Pegasus-Global is aware that OCCM does conduct feasibility reviews of proposed projects. However, there was nothing contained within Policy 7.0 for Pegasus-Global to review or evaluate.

¹²⁶ Note: Pegasus-Global received two policies, both with the number 7.0 one covering the COBCP and this policy covering the Project Feasibility Report

¹²⁷ OCCM, 7.0 Project Feasibility Report, Section 1, page 4, June 2011

¹²⁸ OCCM, 7.0 Project Feasibility Report, Section 1.2.6, page 4, June 2011

Recommendations:

- **V1-R-4.13-1** This appears to be a situation that, while everyone understands the importance of this procedure and process, here-to-for has not developed, codified or distributed a formal policy, procedure or process covering that requirement. This policy, procedure and process should be completed by OCCM.

Summary Conclusion:

The document provided to Pegasus-Global is not, in fact, a policy, procedure or process which can be reviewed and evaluated.

5.2.14 AOC CHANGE ORDER PROCESS (REVISED TO INCLUDE IPROCUREMENT) (MARCH 4, 2011 STANDALONE DOCUMENT)

Pegasus-Global was given a single sheet of paper entitled “AOC Change Order Process revised To Include iProcurement” within the formal set of policies provided by OCCM for the purposes of this audit. According to the document:¹²⁹

“Through the collaborative efforts of the represented parties of the AOC change order committee (OCCM, BP, Finance, Contracts, OGC [Office of the General Counsel]) the change order process outline as developed, reviewed and accepted by all parties as follows:...”

What follows that statement is a list of 13 items, which start with a meeting to “*get a concurrence on the Change Order Form... and associated default cost and funding codes*” and ends with “*Contracts proceeds to get Accounting Certification and sends appropriate documentation to the State Controllers’ Office (“SCO”) and AOC Accounts Payable.*” However, there is no context provided within which enables Pegasus-Global to compare the document supplied by OCCM to the formal change management and

¹²⁹ OCCM, AOC Change Order Process Revised to Include iProcurement, March 4, 2011

control to the formal SOC change order process and procedure which is generally accepted within the industry.

Findings:

- **V1-F-4.14-1** The relationship of this document to Policy 4.20 is unclear. This one page policy or procedure does not reference any formal change management policy or procedure. As a result it is not possible to determine exactly how two change management documents reviewed for this program management audit are linked or related.
- **V1-F-4.14-2** The presentation follows none of the formats (memo or formally identified policy document) used to distribute formal policies.

Recommendation:

- **V1-R-4.14-1** Without a frame of reference for the document Pegasus-Global has no recommendations to suggest.

Summary Conclusion:

Too little is known or understood relative to this single page document to reach any summary conclusions.

5.2.15 ADOPTION OF A MITIGATED NEGATIVE DECLARATION OF THE NEW SANTA ROSA CRIMINAL COURTHOUSE (JULY 19, 2011 MEMO)

Pegasus-Global is unclear as to whether this memo represents an actual policy; or is indicative of a standard memo addressing California Environmental Quality Act (“CEQA”) standards that is required for each project; or is a unique request for an exception to a policy CEQA. As a result Pegasus-Global did not have sufficient information from which to review or evaluate this memo.

5.2.16 JUDICIAL BRANCH AB 1473 FIVE-YEAR INFRASTRUCTURE PLAN FISCAL YEAR 2011-2012 (ADOPTED BY THE JUDICIAL COUNCIL AUGUST 27, 2010)¹³⁰

The Five-Year Plan is required by the California legislature (under SB 1407) to be submitted annually by the Judicial Council. As a result it is up to the Judicial Council and the legislature to establish the parameters of the Five-Year Plan and agree upon an acceptable template and content for the Five-Year Plan.

Any examination for the purposes of this audit would require Pegasus-Global to compare the actual contents of the Five-Year Plan against the policies, procedures, processes and templates agreed between the Judicial Council and the legislature. Pegasus-Global has not seen or been provided a policy, procedure, process, or template which governs the development, preparation or content required for the development of the Five-Year Plan, and thus is unable to provide any Findings or Recommendations as to whether or not the Five-Year Plans meet the requirements established.

Summary Conclusion:

Since the Five-Year Plan has been adopted by the Judicial Council each year for submission to the legislature, and since the legislature has apparently accepted each Five-Year Plan as filed Pegasus-Global assumes that the Five-Year Plans as prepared and submitted have been fulfilling the intent of the requirement as established within the applicable legislation.

5.2.17 STATE ADMINISTRATIVE MANUAL

The State of California, through the Department of General Services (“DGS”), created the SAM in 1953 to *“respond to the need by Government to effectively provide uniform*

¹³⁰ Pegasus-Global understands and has received the updated Five-Year Plan for Fiscal Year 2012-2013; however, the Five-Year Infrastructure Plan for Fiscal Year 2001-2012 was the Five-Year Plan which was contained in the hard copy binders of policies that were received from OCCM.

*guidance to State Agencies in their fiscal and business management affairs...*¹³¹ Part of the policies and procedures turned over for Pegasus-Global to examine included selected sections of the SAM, the bulk of these selected chapters relate to the administrative process for the acquisition, planning, design, construction, and equipping of capital projects. Pegasus-Global further examined in greater detail portions of the SAM, particularly Chapter 6800, which is indicated by the overview contained in Section 6801 to be divided into five parts:¹³²

1. ***An overview of capital outlay and capitalized asset financing** (SAM Sections 680-6809);*
2. ***Budgeting** capital projects (SAM Sections 6810-6839);*
3. *The administrative approval process for **implementing** acquisition, planning, design, construction, and equipping of capital projects (SAM Sections 6840-6868);*
4. ***Long-term financing** of capitalized assets (SAM Sections 6870-6888); and*
5. ***Glossary** and cross-index of capital outlay terminology, acronyms, and forms (SAM Section 6899)”*

[Bold emphasis in original]

This composes of the following list of sections:

- 6801 Overview of Capitalized Assets
- 6805 Capitalized Assets: Who Does What
- 6806 Capital Outlay Versus State Operations and Local Assistance
- 6807 Minor Capital Outlay

¹³¹ State of California, State Administration Manual, foreword

¹³² State of California, State Administration Manual, Section 6801 Overview of Capitalized Assets

- 6808 The Capital Outlay Process in Brief
- 6809 Legal Citations for Capitalized Assets and Financing
- 6810 Capitalized Assets Planning and Budgeting
- 6812 Capitalized Asset Budget Development Highlights
- 6814 Budget Preparation and Enactment Timetable
- 6816 Documents Required to Request Capital Outlay Funding
- 6818 Capital Outlay Budget Change Proposals (“COBCP”)
- 6820 Five-Year Capitalized Asset Plan
- 6821 Prototype Development/Changes
- 6822 Historical Resources
- 6823 Use of Consultants
- 6824 DGS’ Feasibility Review
- 6826 Scope Meetings
- 6828 Budget Package Preparation, Budget Estimates
- 6830 Budget Hearings, Final Budget Document Preparation
- 6832 Governor’s Budget and Legislative Approval
- 6834 Capital Outlay Reappropriations
- 6837 Ten-Year Survey of Capital Outlay and Infrastructure Needs
- 6839 Capital Outlay Coding Structures

- 6840 Administration of the Capital Outlay Program
- 6841 Methods of Project Delivery
- 6842 State Public Works Board Overview
- 6844 Monthly Public Works Board Process
- 6845 Standard Information Required When Requesting PWB or DOF Action
- 6846 Typical Project Phases, Related Forms and Board Items
- 6847 Starting Projects
- 6848 Studies
- 6849 Site Selection and Acquisition
- 6850 Environmental Impact Review Process
- 6851 Preliminary Plans Review
- 6852 Approve Working Drawings and Proceed to Bid
- 6853 Award Construction Contract
- 6854 Construction
- 6855 Equipment
- 6856 Project Completion
- 6860 Board Items for Interim Financing and Bond Sale
- 6861 Augmentation, Additional Costs (Within Appropriation) and Recognition of Deficits
- 6862 Bid Savings, Project Savings, and Reversions

- 6863 Scope Changes
- 6864 Quarterly Report
- 6865 Inmate Day Labor
- 6866 Condemnations (Exercise of Eminent Domain)
- 6867 Energy Service Contracts
- 6868 Transfer of Funds to the Architecture Revolving Fund (“ARF”)
- 6870 Capitalized Assets Financing
- 6871 General Obligation (“GO”) Bonds
- 6872 Lease-Revenue Bonds
- 6873 State Public Works Board Lease-Revenue Bond Programs
- 6874 Joint Powers Authority (“JPA”) Lease-Revenue Bond Programs
- 6876 Financing Leases Versus Operating Leases/Contracts
- 6878 Interim Financing
- 6800 The Bond Sale
- 6882 Post-Sale Activities
- 6884 Continuing Disclosure
- 6886 Client Department’s Responsibilities
- 6888 Budget Treatment of Lease-Revenue Debt Service Payments

SAM Chapter 6800 has a logical flow of the included sections and each provides clear information to its respective subject. In addition, relevant “illustrations” are included (typically these are examples of forms) to further explain the process being covered.

Findings:

- **V1-F-4.17-1** It is unclear whether the SAM is a document that is to be followed as a procedure, or if it merely provides a guideline that is used to fill in gaps in existing procedures within the OCCM.
- **V1-F-4.17-2** In some cases there is a SAM Section that directly overlaps an OCCM procedure, for example the COBCP:
 - SAM Section 6818 COBCP is a thorough explanation of the COBCP process, covering: an overview of the COBCP; when it is required; timing of submittals and updates; instructions for COBCP completion; and, a sample COBCP.
 - OCCM Procedure 7.00 Capital Outlay Budget Change Proposal (COBCP) [examined in **Section 5.3.5.2**] identifies the COBCP the steps taken by the OCCM in completing a COBCP, but appears to be an early draft providing few details for the individual steps.

OCCM Procedure 7.0 indicates the COBCP is to include, among other things, the project cost estimate, with the only detail being that the project cost estimate is to be provided by OCCM D&C. SAM Section 6818 notes the COBCP is to include: approximate cost by phase, indicating the basis on which the estimate was prepared; the proposed funding source for each phase; and, a complete funding history – including past project history and future funding requirements. OCCM Procedure 7.0, in its draft form contains no mention of the SAM Section 6818 or any indication that SAM 6818 is to be followed.

- **V1-F-4.17-3** During interviews with various AOC and OCCM personnel, Pegasus-Global inquired about the use of SAM within the OCCM Program.

Responses indicated the utilization of SAM was “voluntary” further suggesting that there is no formal method for the implementation or integration of SAM.

Recommendations

- **V1-R-4.17-1** As the SAM is a document created by the DGS outside of the AOC, Pegasus-Global does not provide recommendations to the specific procedures within the SAM. Pegasus-Global does recommend the role of the SAM as it is used by the OCCM be clearly established either by an over-arching policy statement, if possible, or by use of specific reference within the individual procedures that correlate to SAM policies, such as the COBCP examined above.

Summary Conclusion

The SAM creates an effective policy that presents uniform guidelines to the various state agencies. However, in order for it to effectively align with the procedures created and followed by the OCCM, the OCCM must clearly define how and when the SAM is to be utilized.

5.2.18 COURTHOUSE NAMING POLICY (MAY 11, 2009)

To Pegasus-Global’s knowledge there is no SOC within the industry as to the naming policy of a facility. As a result no direct comparative evaluation was possible. However, Pegasus-Global offers that following findings/observations relative to this policy.

Findings:

- **V1-F-4.18-1** The Courthouse Naming Policy appears without an indication as to a procedure number, which was one of the inconsistencies identified within many of the policies and procedures reviewed by Pegasus-Global.
- **V1-F-4.18-2** The policy makes no reference to any other document, additionally has no indication as to the timing of using the procedure other than when *“the council has financed, in whole or in part, where the judicial branch is the facility*

*owner or majority tenant.” Adding, “[t]hese standards also will apply to existing courthouses”.*¹³³ It is unclear when an existing courthouse (which presumably has previously been named) would need to change or update its name.

- **V1-F-4.18-3** The policy outlines the process to be followed for naming a courthouse from beginning to the presentation of a recommendation to the Judicial Council, only missing what outside occurrence initiates this activity.
- **V1-F-4.18-4** The policy provides all the definitions that are relevant to this procedure, including defining the Court Facilities Working Group and the Subcommittee on Courthouse Names, which are the primary groups involved in the naming of courthouses.
- **V1-F-4.18-5** The policy sets forth a very clear outline of the naming standards to be followed for trial and appellate courthouses, including the use of examples and explaining when different name preferences (location, deceased person, or living person) can be used.

Recommendations:

- **V1-R-4.18-1** To make this policy uniform, it should be either incorporated to an existing procedure or provided a procedure number system that would establish where it fits in the overall Program.
- **V1-R-4.18-2** Expand the application of this policy to explain when it would be used on an existing courthouse and indicate the timing of using it on a new courthouse facility.

Summary Conclusion:

As there is no comparative SOC, Pegasus-Global’s findings/observations and recommendations are somewhat general; OCCM has established a sound policy for the naming of a courthouse, and when taken with the findings/observations and

¹³³ Courthouse Naming Policy, May 11, 2009, page 2

recommendations noted here could make a policy that would provide benefit to the Program execution.

5.2.19 PRIORITIZATION METHODOLOGY FOR TRIAL COURT CAPITAL-OUTLAY PROJECTS (OCTOBER 24, 2008)

This document is included as an attachment within Court Facilities Planning: Update to Trial Court Capital-Outlay Plan and Prioritization Methodology and Projects Funded by Senate Bill 1407 (Action Required) (October 24, 2008) and is an update to the methodology adopted August 25, 2006.

The three main components listed for this methodology are:¹³⁴

- *Establish criteria that furthers the main objectives of the trial court capital-outlay program;*
- *Develop prioritized groups of projects rather than an individually ranked projects list; and*
- *Establish guidelines for recommending capital-outlay projects for funding consistent with Senate Bill 1407.*

The objectives of the Program are to improve security, reduce overcrowding, correct physical hazards, and improve access to court services. Projects were rated on those criteria and ultimately categorized into five groups to develop a prioritized list of trial court capital projects.

Findings:

- **V1-F-4.19-1** This procedure was submitted for adoption by the Judicial Council in late 2008. A review of the documents provided to Pegasus-Global gave no indication that it has even been officially adopted.

¹³⁴ *Prioritization Methodology for Trial Court Capital-Outlay Projects, October 24, 2008, page 1*

- **V1-F-4.19-2** The procedure provided the relevant definitions and a suitable explanation of the scoring process that is applied to the trial court capital projects, including examples of the scoring in each of the criteria that are evaluated.
- **V1-F-4.19-3** Although it is not clear who among the AOC staff has the responsibility to complete the scoring and evaluation of the projects, the process is fairly well explained, but it is only indicated that AOC staff is responsible. In addition, the list of projects is said to be included in the Five-Year Infrastructure Plan adopted annually by the Judicial Council and submitted to the DOF, suggesting that the process is to be completed at least once per year, but that is not clearly expressed.
- **V1-F-4.19-4** The procedure utilizes the *Review of Capital Project* (“RCP”) ratings that were tabulated in 2004, and were “based on information from the Task Force on Court Facilities (the task force) and the 2002-2003 Facilities Master Plans (Master Plans).”¹³⁵ There is no indication to when or how these ratings are to be updated, except to note “Courts and counties may provide updated information on current area through the Senate Bill 1732 facility transfer process or when conditions have changed.”¹³⁶

Recommendations:

- **V1-R-4.19-1** The procedure should be expanded to more clearly identify who is accountable for and who is delegated the authority to perform the scoring and evaluate, and update the prioritization methodology.
- **V1-R-4.19-2** The RCP ratings, which are the foundation for the scoring and evaluation are explained fairly well, including examples of the RCP forms used, however it is unclear who has the delegated authority to perform the RCP ratings and when they are to be updated. It would be beneficial to

¹³⁵ *Prioritization Methodology for Trial Court Capital-Outlay Projects*, October 24, 2008, page 2

¹³⁶ *Prioritization Methodology for Trial Court Capital-Outlay Projects*, October 24, 2008, page 2, footnote 3

establish a formal policy for assigning the RCP ratings to be performed at a set interval by a specific team.

Summary Conclusion:

The *Prioritization Methodology for Trial Court Capital-Outlay Project* is a useful procedure that should be updated to address the recommendations above and ultimately be formally adopted as an official procedure.

5.2.20 COURT FACILITIES PLANNING: UPDATE TO TRIAL COURT CAPITAL-OUTLAY PLAN AND PRIORITIZATION METHODOLOGY AND PROJECTS FUNDED BY SENATE BILL 1407 (ACTION REQUIRED) (OCTOBER 24, 2008)

This document is a report produced by the OCCM for the Judicial Council. In essence it was produced in response to the passage of SB 1407 which was enacted on September 26, 2008 and authorized \$5 billion in lease revenue bonds for trial court facility construction. This report recommends certain measures be taken to plan and implement SB 1407, including:

- an updated *Trial Court Capital-Outlay Plan*;
- an updated *Prioritization Methodology for Trial Court Capital-Outlay Projects*;
- a list of 41 trial court capital projects to be funded by SB 1407;
- authority to the Administrative Director on when to submit projects from the list above to the DOF for funding approval; and,
- direction to the AOC to present an updated plan, with any technical updates, in the *Judicial Branch AB 1473 Five-Year Infrastructure Plan* for FY 2010-2011 and the selected FY 2010-2011 funding requests for trial court capital projects;

- Both the *Judicial Branch AB 1473 Five-Year Infrastructure Plan* for FY 2010-2011 and any funding requests submitted to the DOF in mid-2009.

Six attachments are included with the report, including:

- Milestones in California's Courthouse Capital Planning and Funding (October 24, 2008);
- Expanded Rationale for Recommendation 1: Reevaluation of One Project and Addition of Another Project;
- Trial Court Capital-Outlay Plan, October 24, 2008: Sorted by Total Score and Sorted by Court;
- *Prioritization Methodology for Trial Court Capital-Outlay Projects* (October 24, 2008);
- List of Trial Court Capital Projects to be Funded by SB 1407;
 - Attached list of 41 projects recommended for funding from SB 1407 including 25 Immediate Need and 16 Critical Need projects;
 - 12 of these projects were previously approved by the Judicial Council for submission to the executive and legislative branches for FY 2008-2009 and FY 2009-2010;
 - AOC intended to initiate these 41 projects over a period of three to four funding years; and,
- Immediate and Critical Need Projects Not Funded by SB 1407.

Findings:

- **V1-F-4.20-1** The Court Facilities Planning policy has not been updated to reflect any changes to that policy which may have occurred since October 2008.

- **V1-F-4.20-2** The Court Facilities Planning policy was generally uniform and transparent.

Recommendations:

- **V1-R-4.20-1** The prioritization methodology should be updated to reflect that SB 1407 indicates funds are applied to both Immediate Need and Critical Need Priority Group projects (*i.e.*, previously Immediate Need had priority over Critical Need).
- **V1-R-4.20-2** SB 1407 emphasized economic opportunity, as such Pegasus-Global recommends the prioritization methodology be updated to give preference to projects with one or more economic opportunities, and only if assured that the economic opportunity is viable and can be realized.
- **V1-R-4.20-3** The Judicial Council may wish to consider delegating authority to the Administrative Director on when to submit projects from the list of 41 to the executive branch for funding approval, based on the updated methodology and the availability of project funding.
- **V1-R-4.20-4** The Administrative Director should report to the Judicial Council annually at a minimum, and other times as deemed necessary as to whether or not the Prioritization Methodology reflects the current program objectives and goals as set by the Judicial Council.

Summary Conclusion:

The Court Facilities Planning was a sound policy and procedure and, if updated, provides information as to how decisions have been made concerning the prioritization of projects.

5.3 PROJECT LEVEL POLICIES, PROCEDURES AND PROCESSES

The project level policies and procedures reviewed include those identified in **Table 5.3, Project-Level Policies, Procedures and Processes Reviewed Index.**

Table 5.3 Project-Level Policies, Procedures and Processes Reviewed Index		
Part I Section	Document Name	Document Date
5.3	Project Level Policies, Procedures and Processes	
5.3.1	<i>Site Selection and Acquisition Phase</i>	
5.3.1.1	Site Selection and Acquisition Policy for Judicial Branch Facilities	June 29, 2007 / August 14, 2009
5.3.1.2	Court Facilities: Rules and Regulations for Relocation Payments and Assistance Regarding Real Property Acquisition	November 19, 2010
5.3.2	<i>Preliminary Plans Phase</i>	
5.3.2.1	The Gross Areas of a Building: Methods of Measurements	Varies
5.3.2.2	California Trial Court Facilities Standards	August 2011
5.3.2.3	Design Plan Check Process (Draft)	May 10, 2010
5.3.3	<i>Working Drawings Phase</i>	
5.3.3.1	Policy 4.15 Selection, Procurement and Installation of Furniture (Draft)	January 19, 2012
5.3.4	<i>Construction Phase</i>	
5.3.4.1	Policy 4.10 Construction Management (Draft)	June 23, 2009
5.3.4.2	333.20 Construction Manager at Risk (CM@Risk) Process (Conversion from 3.40 D&C Document)	April 4, 2011
5.3.4.3	D&C Quality Assurance Consultant Management (Draft)	October 5, 2011
5.3.4.4	1106.00 Facility Performance Evaluation Program (Draft)	February 19, 2010
5.3.4.5	1106.10 Post Occupancy Evaluation (“POE”) (Draft)	February 19, 2010
5.3.4.6	1302.10 Informal Inspection Process (Draft)	September 27, 2010

Table 5.3 Project-Level Policies, Procedures and Processes Reviewed Index		
Part I Section	Document Name	Document Date
5.3.4.7	1302.20 Inspection Request Process (Draft)	May 27, 2010
5.3.4.8	1302.30 Final Verified Report Process	November 1, 2010
5.3.4.9	Procedure 4.20 Change Order Process	May 26, 2009
5.3.4.10	Risk Assessment for [NAME] Courthouse, [NAME] County (Template)	2011
5.3.4.11	Project Safety Program Manual	February 2011
5.3.4.12	Owner Controlled Insurance Program	Undated
5.3.5	<i>Overlapping Policies, Procedures and Processes</i>	
5.3.5.1	Invoice Payment Procedure (Policy Number 2.1)	October 26, 2010
5.3.5.2	7.00 Capital Outlay Budget Change Proposal (COBCP) (Draft)	April 27, 2010
5.3.5.3	OCCM Approval Process for Augmentation and 20-Day Letter Requests (Memo)	September 20, 2010
5.3.5.4	Progress Report Template	Undated
5.3.5.5	Project Description	Undated
5.3.5.6	Preparing Oracle Reports – Expenditures	Undated
5.3.6	<i>Facility Modification Policies, Procedures and Processes</i>	

Pegasus-Global reviewed the project specific policies, procedures and processes by phase of the project life cycle as defined by OCCM:

- Site Selection and Acquisition;
- Preliminary Plans;
- Working Drawings; and
- Construction.

In instances where a policy, procedure or process appears to overlap life cycle phases they have been addressed beginning at **Section 5.3.5** of this **Part I**.

5.3.1 SITE SELECTION AND ACQUISITION PHASE

5.3.1.1 SITE ACQUISITION POLICY FOR JUDICIAL BRANCH FACILITIES

Although there is no specific industry SOC specifically addressing site selection and acquisition against which Pegasus-Global can compare the policies, procedures and processes as practiced by OCCM, Pegasus-Global reviewed the Site Selection and Acquisition Policy (“SSAP”) to determine if the SSAP met the generally accepted elements involved in setting standards and establishing processes by which site selection and acquisition were established and executed. According to PMI a standard:¹³⁷

“...provides guidance for managing multiple programs (that is multiple project and non-project activities within a program environment). The processes documented within [a] standard are generally accepted as the necessary steps to successfully manage a program. In addition [a] standard provides a common lexicon leading to a detailed leading to a detailed understanding of program management among the following groups to promote efficient and effective communication and coordination:

- *Project managers...*
- *Program managers...*
- *Portfolio managers...*
- *Stakeholders...*
- *Senior managers...*

PMI defines a process as a series of discrete elements:¹³⁸

¹³⁷ PMI, Global Standard for Program Management, Chapter 1, Section 1.1, pages 3 – 4, 2006

¹³⁸ PMI PMBOK®, Chapter 8, Section 8.1.3, page 201, 2008

***“Process boundaries.** Describes the purpose of processes, their start and end, their inputs/outputs, the data required, the owner, and the stakeholders.*

***Process configuration.** A graphic depiction of processes, with interfaces identified, used to facilitate analysis.*

***Process metrics.** Along with control limits, allows analysis of process efficiency.*

...

Pegasus-Global applied those definitions when reviewing the SSAP produced by OCCM.

Findings:

- **V1-F-5.1.1-1** This policy was originally issued on June 29, 2007 and was updated on August 14, 2009. A comparison of the 2007 and 2009 SSAP revealed the following:
 - The 2009 SSAP had been reorganized to present a better flow outlining the goals, the definitions, roles and responsibilities, the criteria, and the process.
 - The 2009 SSAP includes additional definitions of the terms used in the SSAP.
 - The 2009 SSAP includes additional decision making authority of the AOC and the role of the PAG in the selection and acquisition of the site.
 - The 2009 SSAP has a new section on the evaluation and selection of site types including downtown sites, sites near jail facilities, green field sites and conditions and characteristics of sites that will not be selected, including:

- *“5.5.6 Will result in cost increases to the project that will not be paid for by either another entity or the current property owner and would, therefore, result in a reduction to project scope;*
- *5.5.7 Create schedule delays that will unreasonably negatively affect court operations and potentially increase construction costs.”*
- The 2009 SSAP addresses the use of eminent domain as well as selection of competitive sites for PWB approval.
- The 2009 SSAP adds steps to site evaluation, selection and acquisition processes, including site investigation and due diligence, the AOC approval of the site selected, selection of sites and presentation to the SPWB and the AOC for site acquisition.
- The 2009 SSAP provides additional detail to the site selection criteria, completely revised the ranking and approval form, and is more user friendly.
- **V1-F-5.1.1-2** The 2009 SSAP is a good guide and sets good policy. However, there are some sections where Pegasus-Global suggests improvement:
 - Section 9.1 entitled “Use of Standardized Site Criteria”, does not define who within AOC is delegated the authority to, and accountability for, establishing the priority and full set of criteria prior to conducting any property identification of solutions. For example, in the 2007 SSAP the Project Team was listed as the accountable individual but the 2009 SSAP simply established AOC as the acting (and therefore accountable) party. Section 9.1 also states that the PJ will approve the weighting system and does not address under what exceptions the PJ can alter the weighting system from that established by AOC.
- **V1-F-5.1.1-3** Both the 2007 and 2009 SSAP discuss controversial sites involving unresolved issues or disputes about criteria, location and potential impacts that

are raised by the staff of AOC, PAG, the court or local and regional jurisdictions. However, the policy does not identify who has been delegated the authority to, and responsibility for, negotiating and approving decisions, actions or resolution of such “unresolved issues”.

- **V1-F-5.1.1-4** Neither the 2007 or 2009 SSAP policy provide any insight as to how impacts to budget or schedule in the site acquisition phase are then transferred to an overall master budget and schedule for the Program in order to determine impact to the Program as a whole.

Recommendations:

Ultimately the 2009 SSAP meets the SOC for the establishment of policies and procedures within the Program consisting of multiple independent projects. As a result, Pegasus-Global determined that the only recommendations would be to address the last two bullet points in the Findings section regarding:

- **V1-R-5.1.1-1** Controversial sites and the process by which the controversy can be remedied and who has the ultimate authority to resolve and act to select a site when such controversies arise.
- **V1-R-5.1.1-2** How impacts to budget and schedule which occur during the site selection and acquisition are managed, especially relative to the project budget and schedule. For example, Pegasus-Global was informed of one site selection and acquisition which took six years from start to final acquisition (which coincidentally involve a controversial site selection). Such a delay had to have an impact on the project budget and schedule, and, ultimately may have impacted the program budget and schedule, which in turn may have impacted the ability of the program to meet some of the goals and objectives set for the Program.

Summary Conclusion:

Overall the SSAP meets the industry definition for establishing policies and processes. Pegasus-Global found the SSAP to be uniform, transparent and has, with one possible

exception (resolution of controversial site selection), a formally delegated single point of authority and accountability. Despite the Findings noted earlier in this Section, this policy could stand as written as among the best practices currently followed within the industry and is the most uniform and transparent policy and procedure currently in use within the Court Capital Construction Program.

5.3.1.2 COURT FACILITIES: RULES AND REGULATIONS FOR RELOCATION PAYMENTS AND ASSISTANCE REGARDING REAL PROPERTY ACQUISITION (NOVEMBER 19, 2010)

This document is a report produced by the AOC for a meeting with the Judicial Council that took place on December 14, 2010. The report provides as an attachment [Attachment A] a document titled *Rules and Regulations for Relocation Payments and Assistance for Judicial Branch Capital-Outlay Projects*. Within this document is a recommendation to the Judicial Council that Attachment A be adopted as a new section to the *Site Selection and Acquisition Policy for Judicial Branch Facilities*. The report also provides an attachment [Attachment B] entitled *Reference Government Codes and Regulations*, this contains:

- California Government Code Section 7267.8, which stipulates that all public entities are to adopt rules and regulations that implement relocation payments and administer relocation advisory assistance.
- California Government Code Section 7272.3, which stipulates any public entity may make any relocation assistance payment in an amount which exceeds the maximum amount authorized if the making of such payment is required under federal law to secure federal funds.
- California Code of Regulations Title 25 § 6002, which provides a guideline to assist public entities in the development of regulations and procedures that implement relocation assistance.

The basis for the recommendation of these proposed rules is that without their implementation, the AOC must rely on local redevelopment agencies to make relocation payments for those displaced by site acquisition activities; a problem arises when a preferred location is unsuitable because the local government is unable to afford the cost of relocation. Further, the AOC determined that *“to engage its own relocation consultants and administer its own relocation activities would also be more cost-effective than to incur the cost of relocation staff and administrative fees that another public entity would charge.”*¹³⁹

Findings:

- **V1-F-5.1.2-1** It is unknown if these rules were adopted since the way they were presented to Pegasus-Global as part of a report suggest that they may not yet have been formally adopted.
- **V1-F-5.1.2-2** Provides a thorough description of the eligibility requirements and financial relocation benefits available to individual persons or businesses.
- **V1-F-5.1.2-3** Provides the processes to be taken by the AOC, through a relocation consultant, to provide relocation advisory assistance to the displaced individuals or businesses.
- **V1-F-5.1.2-4** Notes that the AOC issues the financial relocation benefits; however, it does not establish a specific position that is accountable for this disbursement.
 - Also notes that the Administrative Director of the Courts is authorized to approve additional assistance and payments based on AOC staff analysis.
- **V1-F-5.1.2-5** Establishes that receipts of issued payments are to be maintained in a relocation case file; however, it is not clear what other documentation will be

¹³⁹ Court Facilities: Rules and Regulations for Relocation Payments and Assistance Regarding Real Property Acquisition, November 19, 2010, page 4

placed in this file, nor is it clear who is accountable for maintaining the file and what becomes of the file when the relocation process is complete.

Recommendations:

- **V1-R-5.1.2-1** In order for the policy to address delegated authority and accountability, the positions within the AOC that are responsible for its implementation, including who engages the relocation consultant, who reviews and approves claims for payment, and who manages and disburses any relocation payments need to be identified. Additionally, elaborating on the “relocation case file” will provide for stronger document control on this policy.

Summary Conclusion:

This is a generally comprehensive policy that addresses potential conflict between the acquisition of new sites and the California codes and regulations that direct reimbursement advisory assistance and payments to be provided for displaced individuals and businesses. With the noted recommendations taken into account it will meet industry standards and will fit appropriately in the *Site Selection and Acquisition Policy for Judicial Branch Facilities* as suggested by the report that contains these rules.

5.3.2 PRELIMINARY PLANS PHASE

5.3.2.1 THE GROSS AREAS OF A BUILDING: METHODS OF MEASUREMENTS

According to PMI:¹⁴⁰

“A quality metric is an operational definition that describes, in very specific terms, a project or product attribute and how the quality control process will measure it.”

¹⁴⁰ PMI, PMBOK®, Chapter 8, Section 8.1.3.2, page 200, 2008

One quality control metric used in the construction industry is the area (square footage) of the structure or facility to be constructed. OCCM provided Pegasus-Global with three documents which addressed calculation of building area calculations:

- “The Gross Areas of a Building, Methods of Measurement”, by the Building Owners and Managers Association (BOMA) International (2009)¹⁴¹
- A BOMA Gross Area Summary Table (2009)¹⁴²
- Procedure 3.11, Building Area Calculations (March 4, 2010)¹⁴³

OCCM Procedure 3.11 states that:¹⁴⁴

“Accurate and timely calculations of building area are essential to keeping check on the designed area of a building as a building is being defined. Periodically the current designed area of a building must be compared to the authorized Building Gross Square Feet (BGSF) as specified in the project’s COBCP. If the designed area is not within the authorized BGSF, the design team must modify the design to conform with the BGSF prior to proceeding to the next phase of work.”

The procedure then establishes when the BGSF calculations are to be done:¹⁴⁵

- During the acquisition phase
- During the preliminary plans phase
- At the completion of the working drawings phase

The procedure identified the BOMA 2009 standard cited above as the method by which all BGSF calculations were to be executed.

¹⁴¹ The Gross Management of a Building, Methods of Measurement, BOMA, 2008

¹⁴² The Gross Management of a Building, Methods of Measurement, BOMA, 2008

¹⁴³ S. Ernest Swickard to Design and Construction Services Staff, Policy 3.11, March 4, 2010

¹⁴⁴ S. Ernest Swickard to Design and Construction Services Staff, Policy 3.11, page 1, March 4, 2010

¹⁴⁵ S. Ernest Swickard to Design and Construction Services Staff, Policy 3.11, page 2, March 4, 2010

Finally, the procedure identified the “Project Team” as responsible to meet the requirement.

Findings:

- **V1-F-5.2.1-1** It is neither unusual nor uncommon for policies and procedures to cite to or even adopt outside sources as an internal policy or procedure; therefore Pegasus-Global finds that OCCM’s adoption of the BOMA methodology represents a sound industry standard practice. This injected both uniformity and transparency into the procedure and process.
- **V1-F-5.2.1-2** Pegasus-Global found that by specifying the points at which the BGSF calculations would be executed OCCM had established a sound quality control tool which provided it with sufficient time to make corrections to the design prior to the initiation of construction. Once again this enhanced the uniformity and transparency of the procedure and the process.
- **V1-F-5.2.1-3** Pegasus-Global does not find that simply stating the “Project Team” is responsible for ensuring the calculations of BGSF are correctly run or that the “Project Team” is responsible for ensuring that the calculations are executed at the phases identified adequately identifies the delegated authority to make decisions or the single point of accountability normally required of policies, procedures and processes.

Recommendation:

- **V1-R-5.2.1-1** OCCM should identify by positions the party with the formally delegated authority to make decisions and the responsibility to execute the calculations in alignment with the BOMA process and at the scheduled points in the project phases.

Summary Conclusion:

In all but one instance, as noted in the last bullet above, this policy and procedure meets the industry SOC.

5.3.2.2 CALIFORNIA TRIAL COURT FACILITIES STANDARDS (AUGUST 2011)

This edition of the *California Trial Court Facilities Standards* (2011) replaces the prior edition which was adopted by the Judicial Council in April 2006.

As noted above in the **Executive Summary**, the *California Trial Court Facilities Standards* indicate that all new courthouse projects are to be designed in conformance with Cal Green as well as be designed at a minimum to the standards of a LEED® Certified™ rating. It expands to note that:

*“Depending upon the project’s program needs and construction cost budget, projects may be required to meet the standards for a LEED v 3 ‘Silver’ rating. Projects designed to achieve a LEED ‘Silver’ rating shall do so without an increase in the authorized project budget or long-term operating costs. At the outset of a project, the AOC will determine whether a project will participate in the formal LEED certification process of the [USGBC]”.*¹⁴⁶

The specific design criteria and performance goals listed in the *California Trial Court Facilities Standards* are said to be applicable to “all court buildings” and “shall provide a direct benefit to building occupants and reduce ownership costs”.¹⁴⁷ Additionally, this document is to be utilized “with professional care as defined in the Agreement for Services between the AOC and consultants retained for specific projects, and shall be

¹⁴⁶ Judicial Council of California, *California Trial Court Facilities Standards*, August 2011, page 1.4

¹⁴⁷ Judicial Council of California, *California Trial Court Facilities Standards*, August 2011, page 1.4

used in conjunction with applicable code and project requirements as the basis of design for new court facilities in California.”¹⁴⁸

Findings:

- **V1-F-5.2.2-1** Although mentioned as an update to the prior document, *California Trial Court Facilities Standards* (2006), it appears that the updated standard had not been officially adopted by the Judicial Council as of the date of this audit.
 - The 2006 version also is referenced by the *Management Plan and Project Definition Report* (template) under “Project Goals”.¹⁴⁹ Other than this brief reference, it is unclear how this document is integrated into the other policies and procedures of the OCCM.
- **V1-F-5.2.2-2** The AOC and the affected court for an individual project establish an advisory group (in accordance with California Rules of Court, Rule 10.184(d)) that assists the AOC with implementing these Facilities Standards in that building.
- **V1-F-5.2.2-3** In the General Principles section under Objectives, it notes the minimum design standards to be met (LEED[®] Certified[™] and Cal Green), but says some projects may be required for LEED Silver[®]. It is unclear who is delegated the authority to make this decision, the basis for the decision reached, and what process has been established to ensure the design meets the standard in these cases where the project moves beyond LEED Certified[™] to LEED Silver[®].
- **V1-F-5.2.2-4** The document is divided into two primary sections, Design Criteria and Technical Criteria. This is a logical categorization of the key elements that go into a trial court facility. Additionally, while the document is divided into sections, which, in turn, are divided into chapters, it maintains an overall integration with

¹⁴⁸ Judicial Council of California, *California Trial Court Facilities Standards*, August 2011, page vi

¹⁴⁹ Superior Court of California, *Management Plan and Project Definition Report* (template), Undated, page 3

the document as a whole as well as with the referenced codes, standards, and guidelines.

- Design Criteria generally establishes the basis for a trial court facility design and includes such chapters as: Site Design, Courthouse Security, and Jury Facilities and Court Administration, among others. Each of these chapters includes a description of its scope, with the majority of the chapters including objectives and well explained definitions of the relevant areas, for example:
 - Chapter 5 – Court Set contains:
 - A brief description of the court set, which is defined to include courtrooms, judicial offices, chambers support space, jury deliberation rooms, witness waiting, attorney conference rooms, evidence storage, and equipment storage. This includes a figure showing a typical courtroom floor plan to demonstrate how these areas can be laid out.
 - Courtroom objectives, which provides who the users of a courtroom are, and what the design shall do to accommodate their various needs.
 - The courtroom itself, which explains basic courtroom types (multipurpose, large, arraignment being the most common, specialized courtrooms are also mentioned) and provides typical dimensions for the basic types, as well as factors for considering courtroom entries and the location of the courtroom within the facility.
 - Accessibility to the courtroom, which is to ensure that all of the courtroom users have sufficient access to and throughout the courtroom as necessary.

- Components of the courtroom, for example the judge's bench, jury box, or spectator area. Each component is well defined with the requirements and necessary specifications.
 - Figures are provided that illustrate examples of courtroom layouts that clearly illustrate the components that were defined earlier.
- Technical Criteria, as the name suggests, contains the technical aspects of trial court facility design. It is laid out similar to the Design Criteria with each of the chapters including a description of its scope, with the majority of the chapters including objectives and well explained definitions of the relevant components and requirements. For example:
- Chapter 15 – Electrical Criteria contains:
 - A brief overview of the scope of the chapter.
 - Objectives of this chapter, which explains what the electrical system design is to be based upon.
 - Electrical criteria, including the minimum load power requirements and spare capacity requirements for the various elements of the courthouse facility.
 - Specific detail of the electrical system components, such as: *“All wire and cable for secondary power distribution shall be 600 volt insulated type THHN, or THWN for #8 and smaller...”*¹⁵⁰
 - Emergency and standby power requirements, with a description of the scope of this sub-process as well as specific requirements and what is to be evaluated.

¹⁵⁰ Judicial Council of California, California Trial Court Facilities Standards, August 2011, page 15.4

- **V1-F-5.2.2-5** This document takes on the massive task of bringing together the numerous codes, standards, and guidelines that must be taken into account with the design of each courtroom facility. To put this in perspective, the Telecommunications Standards and Reference Documents listed in the Appendix under 21.F include 24 separate documents.
 - A note attached to the Appendix indicates some of the standards, guidelines and codes are available as a separate PDF from the AOC website, one is attached within the Appendix itself, and others are not indicated as to where they are found.
 - The only code, standard, or guideline attached to this document is the “Integrated Architecture Network Diagram”

Recommendations:

- **V1-R-5.2.2-1** Officially adopt the 2011 version of the California Trial Court Facilities Standard to replace the prior 2006 version to eliminate any possible confusion in regards to which document is to be used.
- **V1-R-5.2.2-2** Include other codes, standards, and guidelines as attachments, specifically those designed by or for the AOC, for example, the “Office of Court Construction and Management Facilities Design Guidelines – Instrumentation and Control for Heating, Ventilating Air Conditioning Systems – Building Automation Systems: Direct Digital Control, July 27, 2010 Program Requirements Overview” could easily be an attachment to this document.
- **V1-R-5.2.2-3** Integrate with other project policies and procedures. For example:
 - The Judicial Council issued a report which included “Guidelines for Energy Conservation in California Court Facilities”¹⁵¹, which addresses energy usage and should be aligned with the requirements in the *California Trial*

¹⁵¹ Judicial Council Policy on Energy Conservation in the Courts Report, July 3, 2011, Attachment “Guidelines for Energy Conservation in California Court Facilities”

Court Facilities Standards to ensure the energy conservation goal from both documents does not result in a conflict or additional and unnecessary work.

- The *Capital Outlay Budget Change Proposal* (April 27, 2011 – Initial Draft) is said to describe the project and the amount of the funding request.¹⁵² This could include designating whether the project is going to be LEED[®] Certified[™] or LEED Silver[®].

Summary Conclusion:

Pegasus-Global found that the *California Trial Court Facilities Standards* (2011) is a well formulated document that provides the needed descriptions of implementing the standards that are followed when designing a courtroom facility. This document includes substantial references to other codes, standards, and guidelines to help ensure that each facility meets or exceeds all applicable standards and codes, as well as meets the requirements of Cal Green and LEED Certified[™].

5.3.2.3 POLICY 1301.30 DESIGN PLAN CHECK PROCESS (MAY 10, 2010 DRAFT)

According to OCCM Policy 1301.30 is intended to:¹⁵³

“Ensure that construction documents comply with applicable code.”

According to the California Trial Court Facilities Standard (2011):¹⁵⁴

“All new facilities designed and constructed using the Facilities Standards shall comply with the following codes, standards and guidelines, and any other applicable nationally recognized code, standard and guideline.”

¹⁵² COBCP, Scope Statement, page 3

¹⁵³ OCCM, Policy 1301.30, Design Plan Check, Purpose, page 3, May 10, 2010

¹⁵⁴ California Trial Court Facilities Standard, Appendix 21, page 21.2, 2011

While PMI, CMAA and AIA all address design reviews and, to different extents, code compliance in designs, the applicable standard is that set within the California Trial Court Facilities Standard. In Appendix 21 to the California Trial Court Facilities Standard the specific codes to be met are enumerated in detail and, because Appendix 21 is presented as a “*shall comply*” requirement of design, it is OCCM’s ultimate responsibility as the Judicial Council’s executing agent to assure that the codes listed and applicable are met within the designs prepared by the consulting architects. Checking designs for code compliance is generally identified as a specialized element of the quality control/quality assurance function which is guided by the applicable codes required rather than by a standard industry practice.

Findings:

- **V1-F-5.2.3-1** Policy 1301.30 does not contain any definitions for terms used in the policy.
- **V1-F-5.2.3-2** While Policy 1301.30 identifies the Project Manager as the initiator of the design process, there is no identification of the OCCM person that is accountable for overseeing managing, controlling and completing the design plan check.
- **V1-F-5.2.3-3** This policy is identified as an “initial draft” and is presented in what appears to be outline form with a presentation of 30 “*Process Steps*” to be followed in conducting a design plan check. Given the very high level of the process steps outlined, there is a significant amount of work to be done to meet the seminal requirement that all designs “*shall*” meet all of the applicable codes identified in Appendix 21. For example, at Process Step 1.30.2.6 it states:

“Is the appropriate Plans check contract in place?”

That implies that OCCM has decided to outsource the plan check to a third party agent. However, the process for that outsourcing, including the position delegated the authority to make the decision to outsource the plan check and select the firm to whom the plan check is outsourced, is not addressed in Policy

1301.30. Nor does Policy 1301.30 address how the third party agent will be instructed, directed, managed or controlled in such a way as to achieve the requirement that all designs “*shall*” meet the required codes.

Recommendation:

- **V1-R-5.2.3-1** Expand, enhance and complete Policy 1301.30 as currently outlined and drafted to finalize and formalize the procedures and processes, including specific delegation of authority to decide to outsource the plan check, choose the firm to whom the plan check will be outsourced, give direction to the outsource firm as to how the plan check is to be executed, and ultimately accept or reject the results of the plan check.

Summary Conclusion:

Pegasus-Global found that Policy 1301.30 should be expanded as noted above in order to establish a more comprehensive policy, procedure or process for management or control a formal design compliance check.

5.3.3 WORKING DRAWINGS PHASE

Pegasus-Global found only two policies which specifically addressed the Working Drawings Phase of a project:

- The California Trial Court Facilities Standards, discussed previously in **Section 5.3.2.2** above; and
- Policy 4.15 discussed immediately below.

Ultimately relative to both of the design phase policies, procedures and process Pegasus-Global found no document which actually addresses the design phases to the level of detail which was reflected in the Construction Phase and which was expected by Pegasus-Global. Policies, procedures and processes should address and delineate the goals and objectives for design and how OCCM intends to manage and control the

design scopes of work. The policies, procedures and processes do not address those items in specific detail.

5.3.3.1 POLICY 4.15 SELECTION, PROCUREMENT AND INSTALLATION OF FURNITURE (JANUARY 19, 2012 DRAFT)

To Pegasus-Global's knowledge there is no SOC within the industry as to the selection, procurement and installation of furniture. As a result no direct comparative evaluation was possible. However, Pegasus-Global suggests the following general findings/observations relative to this Policy.

Findings/Observations:

- **V1-F-5.3.1-1** As with some other OCCM policies and procedures this Policy 4.15 was not issued in the format by which other OCCM policies were issued; rather it was issued as a memo from the Assistant Division Director for Design and Construction to his staff. As noted elsewhere policies and procedures need to be developed and issued in a standard format and following a standard template to ensure uniformity, transparency and accountability.
- **V1-F-5.3.1-2** As with some other OCCM policies and procedures this Policy 4.15 is marked as a "DRAFT" dated June 19, 2011, with no indication that the policy has been completed or adopted by OCCM.
- **V1-F-5.3.1-3** Policy 4.15 does not have any definitions of terms used within the policy.
- **V1-F-5.3.1-4** Refers to the Judicial Council's Contracting Policies and Procedures (December 7, 2007) for the selection procedure. However, the Judicial Council recently issued its "Judicial Council Contracting Manual"

(October 2011). Pegasus-Global is unclear as to why a 2007 policy would be used as a reference rather than the 2011 Policy.¹⁵⁵

- **V1-F-5.3.1-5** Although the selection (identification and evaluation criteria) and procurement are well-defined in Policy 4.15, some aspects remain unclear, such as:
 - The AOC Business Services team is to execute procurement of furniture for major capital-outlay projects with furniture budgets under \$4 million on a *“case-by-case basis as established by OCCM and Business Services.”* Similarly, the CMAR is responsible for budgets over \$4 million, except on a case-by-case basis. The parameters of the case-by-case basis are unclear. There was no indication as to who had been delegated the authority to make decisions on a “case-by-case” basis.
- **V1-F-5.3.1-6** Policy 4.15 refers to a “Project Cost Responsibility Matrix” that is said to be included with the memo as an attachment, but was not produced to Pegasus-Global as part of this policy. Likewise there is reference to a “Furniture Evaluation Criteria Matrix, which was also missing from Policy 4.15 as received.

Recommendations:

- **V1-R-5.3.1-1** Policy 4.15 should be finalized and issued as a formal policy.
- **V1-R-5.3.1-2** As with all policies reviewed by Pegasus-Global, there should be a definition of terms used within the policy.
- **V1-R-5.3.1-3** OCCM may want to examine the 2007 Judicial Contracting Policy and the 2011 Judicial Council Contracting Manual to ascertain what, if any differences there are between those two documents, and if there are such differences, how best to address those differences.

¹⁵⁵ Note that in Section 4.4.2.2 Pegasus-Global stated that the relationship of the 2007 and 2011 contracting procedures is unclear and this finding is indicative of that relationship issue.

- **V1-R-5.3.1-4** While it is possible that the two matrices cited in the Findings exist, as cited components of the policy the document control system should maintain all of those documents in a common Policy 4.15 common electronic folder and/or physical location.

Summary Conclusion:

As there is no comparative SOC as a basis for any comparative analysis of Pegasus-Global's findings and recommendations, which are very general; OCCM may wish to consider adopting those recommendations as OCCM moves to finalize this policy.

5.3.4 CONSTRUCTION PHASE

5.3.4.1 POLICY 4.10 CONSTRUCTION MANAGEMENT (JUNE 23, 2009 DRAFT)

According to CMAA:¹⁵⁶

“The Construction Management Plan typically establishes the project scope, budget, schedule environmental conditions, and the basis systems to be utilized and the methods and procedures to be followed. ...

A typical Construction Management Plan includes the following basic components:

- *Project description*
- *Milestone Schedule*
- *Master Schedule*
- *Quality Management Approach*
- *Reference to project documents*

¹⁵⁶ CMAA, Construction Management Standards of Practice, Section 2.2, pages 17 – 18, 2008

- *Project organization chart and staffing plan*
- *Explanation of roles, responsibilities and authority of team members*
- *Project budget/work breakdown structure*
- *Environmental/archaeological considerations*
- *Reference to the Project Procedures Manual*
- *Management information system*
- *Communications protocol*
- *Bid packaging and contracting strategy*
- *Site mobilization and utilization phase.”*

CMAA then delineated each of those basic components within its body of standard practices.

OCCM Policy 4.10 was issued on June 23, 2009, as a memo to “Design and Construction Staff” noting the procedure was to be immediately implemented. Procedure 4.10 stated that:¹⁵⁷

“Responsibilities described are considered typical for large projects. The procedures may be scaled down to match the complexity of a particular project. Each project has its own unique circumstances and negotiated contract. The project circumstances and the signed contracts control the project. These procedures are to assist the OCCM staff or contracted Construction Management firm assigned construction management duties in the overall thoroughness and consistency regardless of the scope of a the particular project.”

Under the heading “Intent” OCCM noted that:¹⁵⁸

¹⁵⁷ S. Ernest Swickard to Design and Construction Services Staff, Policy 4.10, page 2, June 23, 2009

“It is the intent of the OCCM to use industry accepted methods to manage, integrate, coordinate and leverage construction project delivery systems for the benefit of the court.”

Pegasus-Global used the CMAA standard as a reference during the reviews of the OCCM Policy 4.10, Construction Management.

Findings:

- **V1-F-5.4.1-1** As with some other OCCM policies and procedures this Policy 4.10 was not issued in the format by which other OCCM policies were issued; rather it was issued as a memo from S. Ernest Swickard to his Design and Construction Staff. As noted elsewhere policies and procedures need to be developed and issued in a standard format and following a standard template to ensure uniformity, transparency and accountability.
- **V1-F-5.4.1-2** As with some other OCCM policies and procedures this Policy 4.10 is marked as a “DRAFT” dated June 23, 2009, with no indication that the policy was ever completed or formally adopted by OCCM.
- **V1-F-5.4.1-3** In the “Background” section is the statement that *“Responsibilities described are considered typical for large projects.¹⁵⁸ The procedures may be scaled down to match the complexity of a particular project.”* There were no parameters or metrics provided to give guidance of when a project’s CM requirements can be “scaled down”. There is no indication as to who has the authority to determine that the complexity of any project is such that the procedures contained in Policy 4.10 can be “scaled down” for that project, or who has the delegated authority to approve any such “scale down”.
- **V1-F-5.4.1-4** The primary focus of Policy 4.10 appears to be a listing of “Typical Responsibilities of the CM during Construction”, with minimal guidance as to how those responsibilities are to be undertaken or executed. There are some specific

¹⁵⁸ S. Ernest Swickard to Design and Construction Services Staff, Policy 4.10, page 2, June 23, 2009

¹⁵⁹ S. Ernest Swickard to Design and Construction Services Staff, Policy 4.10, page 2, June 23, 2009

references to other policies and procedures, however too many of the responsibilities simply state the CM is “responsible for” or “must submit” or “shall approve” or “process” something without providing any detail as to how those responsibilities, submissions or approvals are to be conducted and executed.

- **V1-F-5.4.1-5** According to Policy 4.10 the project CM can be:
 - The Project Manager
 - A different OCCM staff member
 - An individual contracted by OCCM to fulfill the CM role
 - A contracted Construction Management firm
 - Full time (projects over \$50 million) or part-time (projects under \$50 million)

One of the projects reviewed by Pegasus-Global noted that there was both a CM@Risk and a contracted CM engaged on the project. During the interviews, the CM@Risk was unable to identify the difference between what the CM@Risk and the contracted CM were each assigned to do or for which each was ultimately responsible. However, given the tenants of Policy 4.10, it was entirely possible and acceptable for such a situation to occur. Such duplication of duties, authority, responsibilities, etc., impacts the uniformity and transparency of the CM@Risk’s and/or CM’s actual delegated authority and responsibility during the project, and ultimately makes it difficult to allocate or enforce duplicative contract provisions in the event of any issue arising a project involving impacts to scope, cost, schedule or quality.

- **V1-F-5.4.1-6** The policy does not provide any definitions for terms used within the policy. Terms including the OCCM filing system, are undefined and thus unclear as to what the filing system is, where it is located, how it is accessed, and who is responsible for maintaining the system.

- **V1-F-5.4.1-7** While the CM is required to attempt to resolve claims, there is no process outlined on how the CM “will attempt” to resolve those claims nor any clear path to resolution and approval of any such resolution. There is no clear delegation of authority naming who within the Program or project may approve any such resolution of claims. The only limit as to the CM’s authority to resolve claims is that the CM “*must consult with the OCCM Project Manager or the OCCM Regional Manager regarding the resolution of claims.*”

Recommendations:

- **V1-R-5.4.1-1** Policy 4.10 should be updated, expanded and issued as a formal statement of policy, with specific procedures and processes contained within the policy or cross referenced with to other relevant policies.
- **V1-R-5.4.1-2** A definitive process should be set for the CM relative to their role in the resolution of claims to ensure uniformity in the process and then to provide a point of contact for resolution should the CM not be successful. It should align with the chain of command defined in the Program Management Manual which would typically follow a step process through a specific line of communication through the Project Manager, and then at a higher authority should the Project Manager not be able to resolve. In addition, there is typically a dollar level of authority for change order and resolution of claims with increased authority required for increased claim amounts. Further a dispute resolution process is typically tied to the Change Order policy.
- **V1-R-5.4.1-3** The updated CM policy should be based on lessons learned during the execution of the initial Court Capital Construction projects.
- **V1-R-5.4.1-4** The updated CM policy should contain a clear delegation of authorities and responsibilities with specific limits set on the CM’s approval and acceptance authorities. The authorities and responsibilities should not duplicate nor impinge on the authorities or responsibilities of the Project Manager or Program Management.

Summary Conclusion

Policies, procedures and processes should be established which ensure that there cannot be both a CM@Risk and a contract CM assigned to the same project. A CM@Risk has certain guaranteed (at risk) performance requirements, which if impinged by an entirely separate CM hired by OCCM to essentially fulfill many of the same functions puts the clarity of the CM@Risk contract in jeopardy. Ultimately, assigning both a CM@Risk and an agent CM to a project creates confusion as to “whose really in charge of, and responsible for management of the construction phase of the project.” Such confusion often leads to construction contract claims and counter-claims among the OCCM, the CM@Risk and the agent CM; all too often such complex contractual issues are cannot be resolved except through formal litigation or arbitration.

5.3.4.2 POLICY 333.20 CONSTRUCTION MANAGER AT RISK (CM@RISK) PROCESS (APRIL 4, 2011 CONVERSION FROM 3.40 D&C DOCUMENT)

This policy appears to be an expansion of Policy 333.00 which identified and defined the five acceptable Construction Delivery Methods; however this Policy 333.20 expands on the basic definition contained in Policy 333.00, including the following:¹⁶⁰

- The process by which the CM@Risk will be selected (Section 1.2.1);
- A summary listing of CM@Risk pre-construction services (Section 1.2.2);
- The CM@Risk bid process (Section 1.2.3) ; and
- The CM@Risk Construction Services (Section 1.2.4).

Pegasus-Global has previously addressed Policy 333.00, Construction Delivery Methods (April 4, 2001) and will not repeat those findings. In addition **Section 5.3.4.1** above summarizes Pegasus-Global’s findings relative to OCCM Policy 4.10, which

¹⁶⁰ OCCM, 333.20 Construction Manager at Risk (CM@RISK) Process, March 1, 2011

specifically examines Construction Management from a basic project responsibility perspective. The findings for all three policies should be examined in tandem by OCCM.

Findings:

- **V1-F-5.4.2-1** The number 333.20 assigned to this policy reflects back to the foundation Policy 333.00 and thus provides an excellent demonstration of how policies addressing a common topic should be linked by both numbering and content. Such numbering makes it relatively simple for any reviewer to quickly identify and gather all of the policies which have a direct relationship to one another, making the entire review process more efficient and effective.
- **V1-F-5.4.2-2** There was a second policy which also has a bearing on construction management, Policy 4.10, which delineates the roles and responsibilities for construction management, but is not cross referenced within Policy 333.00 or 333.20. As noted in the review findings for Policy 4.10, there is some confusion between the role of the “CM@Risk” and the “CM” designated in Policy 4.10. Policy 4.10 also addresses the basic functions of a CM on a project, and that policy is not identified as a common topical policy to either Policy 333.00 or 333.20. Although Policy 4.10 is not specific to a CM@Risk within the industry the operational functions typical of a CM or a CM@Risk are essentially identical; the only real difference is that a CM@Risk has placed some portion of its fee “at risk” against meeting certain cost, schedule and/or quality goals set for the execution of the project.
- **V1-F-5.4.2-3** The policy does not provide any definitions of terms.
- **V1-F-5.4.2-4** This policy has a goal, scope and purpose, whereas other policies may have just a purpose or just a goal section. Again, there needs to be consistency and uniformity between and among the policies.
- **V1-F-5.4.2-5** In general, while the information provided within Policy 333.20 is a good start for a more detailed (or coordinated) process and responsibility

perspective (*i.e.*, selection and services), there is almost no information provided as to when a CM@Risk delivery method will be used, why a CM@Risk delivery method is an appropriate choice for a specific project, how the Project Manager will manage and control the CM@Risk using the contract agreement put in place and, finally, the roles, responsibilities and authorities of the CM@Risk throughout the execution of the project.

- **V1-F-5.4.2-6** At Section 1.2.4 CM@Risk Construction Services it states that the “*CM@R performs ordinary oversight as a General Contractor for the construction, according to the approved construction documents ... [and the] CM@R may not self-perform any of the construction.*”¹⁶¹ The second provision, that a CM@Risk cannot self-perform any of the work, is typical of the industry CM@Risk contracts, as confirmed by CMAA:¹⁶²

“The agency CM does not perform design or actual construction work.”

However, reducing the CM@Risk’s role to that of a General Contractor appears to Pegasus-Global to defeat the purpose of engaging a CM@Risk and may further explain why on a single project it is possible to have both a CM@Risk and a contracted CM representing OCCM. As noted by CMAA:¹⁶³

“...the CM is acting as the Owner’s principal agent.”

Part of the issue relative to a CM or a CM@Risk is that in Policy 333.20 OCCM has determined that once the Design Phase is over and the Construction Phase starts, the CM@Risk ceases to be CM and is relegated to the role of General Contractor. This switch from CM to General Contractor assumes that the CM@Risk is no longer acting as the Owner’s *principal agent* and thus calls into question whether or not a CM@Risk, once stripped of its CM roles and responsibilities, can still be held accountable to meet those goals set if that

¹⁶¹ OCCM, 333.20 Construction Manager at Risk (CM@Risk) Process, Section 1.2.4, page 6, March 1, 2011

¹⁶² CMAA, Construction Management Standards of Practice, Section 1.1, page 2, 2008

¹⁶³ CMAA, Construction Management Standards of Practice, Section 1.1, page 2, 2008

CM@Risk no long has the authority or responsibility to act as the Owner's principal agent on the project.

Within the industry it is difficult to hold a consultant, CM, or contractor to a penalty clause if it can be shown that the consultant, CM, or contractor had no control over the issue or circumstance which was the root cause leading to the invocation of that penalty. For example, Clause 1.2.3.3.5 of Policy 333.20 states:¹⁶⁴

“The CM@R shall guarantee to the OCCM that the project shall be built for no more than the available construction budget where the aggregate of all trade contractor bids, including alternatives, shall be less than, but close to the construction budget, and within the construction duration identified.”

In reality, how does one impose a penalty on a CM@Risk, when that CM@Risk no longer has the authority to develop and execute plans, give direction, enforce actions or make changes in execution to meet changing circumstances? By reducing the CM@Risk to the status of a General Contractor and allocating the agency CM role to a third party (whether an OCCM employee or a contracted consultant) the CM@Risk no longer has the ability to execute the project as the Owner's (agent), which means that decisions made by the third party CM which may be the root cause of the cost increase or the schedule delay cannot lead to the imposition of a penalty on the risk.

- **V1-F-5.4.2-7** Another reason to cross reference Policy 4.10 to this Policy 333.20 is the depth and detail of the duties, responsibilities and authorities listed in Policy 4.10 is significantly more than the more general statements contained in Policy 333.20. Although Policy 4.10 is focused on construction management as a function, and Policy 333.20 is focused on the CM@Risk, the functions listed in Policy 4.10 would be those expected of a CM@Risk as the Owner's agent,

¹⁶⁴ OCCM, 333.20 Construction Manager at Risk (CM@RISK) Process, Section 1.2.3.3.5, page 6, March 1, 2011

(notwithstanding the conversion of the CM@Risk to a General Contractor, someone has to discharged the functions listed in Policy 3.10).

Recommendations:

- **V1-R-5.4.2-1** As noted previously in this audit and immediately above, the policies and procedures for management of construction are confusing, and based on Pegasus-Global's experience do not conform within the industry standards from a number of perspectives, which have been discussed at length within the body of this Report. The OCCM needs to re-consider all of its current policies and procedures regarding the "CM", the "CM@Risk" and the actual roles and responsibilities necessary to manage, control, and execute a project through design and construction to completion.
- **V1-R-5.4.2-2** Once OCCM has determined the full role of a CM@Risk (or has decided to drop the CM@Risk delivery method), a set of consolidated, coordinated policies and procedures needs to be developed which when linked will lay out the entire construction management process, from determination of construction management methodology to be adopted, through engagement of the CM (or CM@Risk), to actual construction management, and ultimately, to project close out and acceptance.

Summary Conclusion:

Construction management and control are among the least developed and least coordinated of the OCCM formal policies and procedures. As a result, there is built into those existing policies and procedures an opportunity for confusion, misunderstanding, duplication of effort (*i.e.*, a CM@Risk and a CM assigned to the same project) and inefficiency. Regardless of the methodology adopted, a formal delegation of the authority and responsibility to manage and control construction, guided by a comprehensive and coordinated set of procedures and processes.

5.3.4.3 D&C QUALITY ASSURANCE CONSULTANT MANAGEMENT (OCTOBER 5, 2011 DRAFT)

According to PMI, quality assurance at the program level is:¹⁶⁵

“...is the process of evaluating overall program performance on a regular basis to provide confidence that the program will comply with the relevant quality policies and standards. It is performed throughout the life cycle of the program.”

According to PMI, quality assurance at the project level is:¹⁶⁶

“...the process of auditing the quality requirements and the results from quality control measurements to ensure appropriate quality standards and operation definitions are used.”

According to PMI’s Construction Extension quality assurance involves the planning and execution of quality audits, which involve conducting structured and independent reviews of whether or not performing organizations are complying with the project quality control policies, procedures and processes. The ultimate purpose of quality assurance audits:¹⁶⁷

“...are used to effect changes and improvements to those elements of the project management system that are not performing satisfactorily.”

CMAA devotes an entire manual to quality management noting that quality assurance is:¹⁶⁸

“The application of planned and systematic reviews which demonstrate that quality control practices are being effectively implemented.”

¹⁶⁵ PMI, Global Standard for Program Management, Chapter 3, Section 3.6.2, page 52, 2006

¹⁶⁶ PMI, PMBOK[®], Chapter 8, Section 8.2, page 2008

¹⁶⁷ PMI, Construction Extension to the PMBOK[®], Chapter 8.2.2.2, page 65, 2007

¹⁶⁸ CMAA, Quality Management Guidelines, Chapter 5, Section 5.1.6, page 2, 2008

Although the AIA does not specifically address quality assurance as a separate function, it notes that quality management programs:¹⁶⁹

“Quality cannot be improved without a way to measure improvement, yet this step is often overlooked.

...

“Auditing is critical... because it helps identify problem areas and successes, and can be used to verify adherence to [Quality Management] policy requirements.”

OCCM Policy 341.00 is actually directed toward the engagement of an independent quality assurance consultant:¹⁷⁰

“Quality Assurance for a construction project requires a team of specialists led by the construction inspector. Whenever possible the construction inspector will be an OCCM staff member, but when that is not possible, the construction inspector may be a contract inspector to OCCM.”

Policy 341.00 does not actually address quality assurance as it is to be defined and executed at either the program or project levels.

Findings:

- **V1-F-5.4.3-1** Pegasus-Global found no indication that Policy 341.00 had been completed or formally adopted. In some instances, requirements are unknown, as demonstrated by the content of Section 5 of the policy, which states:

“What is critical to the internal/external customer of this process? How do you know?”

“How do you know the performance quality of this process? What are the critical measurements that define the quality of this process?”

¹⁶⁹ AIA, The Architect’s Handbook of Professional Practice, Part 3, Chapter 14, page 764, 2008

¹⁷⁰ OCCM, Policy 341, D&C Quality Assurance Consultant Management, Section 1, page 4, October 5, 2011

“What are the industry benchmarks? What is the baseline for this process or the best past performance measure?”

To date OCCM has not identified or defined what it is the quality assurance consultant is to examine or audit, how those undefined elements to be audited are to be measured, or what does the industry expect in terms of quality performance.

- **V1-F-5.4.3-2** Pegasus-Global found that OCCM has not yet fully developed a quality management program that meets the industry SOC to manage and control quality across the entire Court Capital Construction Program. As addressed later below, there are certain policies and procedures promulgated by OCCM that address discrete elements of quality management and should be included into a comprehensive quality management program address in both quality control and quality assurance.

Recommendation:

- **V1-R-5.4.3-1** OCCM should develop a comprehensive, formal quality management program consisting of linked and mutually supportive policies, procedures and processes for both the Program and project level which addresses both quality control and quality assurance as practiced within the industry at large. PMI, CMAA and AIA have all addressed quality management at some length and Pegasus-Global suggests that OCCM reference to those three standards as a guide while expanding and completing a quality management plan for the Program at- large and the individual projects.

Summary Conclusion:

Pegasus-Global found that Policy 341.00 does not meet the industry SOC for a quality management policy, procedure or process either at the Program or the project levels. The absence of a formal, comprehensive quality management program is necessary to

conform to industry SOC in executing megaprojects like the Court House Construction Program.

5.3.4.4 POLICY 1106.00 FACILITY PERFORMANCE EVALUATION (“FPE”) PROGRAM (FEBRUARY 19, 2010 DRAFT)

According to OCCM Policy 1106.00:¹⁷¹

“The purpose of the FPE program is to convey the characteristics of buildings that work well and best and focus on the ones that should not be repeated in future designs of buildings. The major focuses of the program are to better understand the impact of early design delivery decisions on long term efficiency and effectiveness of building. Also to better understand the impact of building delivery processes and decisions on customer responses both initially and over the lifecycle of the building.

The desired outcome is to improve the design, construction and operations of court facility modifications and new capital projects.”

This is in effect a specific element of what the industry generally terms a lessons learned procedure. Both PMI and CMAA formally address lessons learned programs within their respective SOCs, although not strictly from a post construction completion functional perspective. Later in Policy 1106.00 OCCM uses the term “lessons learned” in describing the expected outcome of the process.¹⁷²

Findings:

- **V1-F-5.4.4-1** Policy 1106.00 is identified as an “Operational Draft” and is being used by the Program and projects. However, among the provisions included in the Operational Draft Pegasus-Global took specific note of the following statement:

¹⁷¹ OCCM, Policy 1106.00, Facility Performance Evaluation, Purpose, page 4, February 19, 2010

¹⁷² OCCM, Policy 1106.00, Facility Performance Evaluation, Section 1.6.24, page 57, February 19, 2010

Sections 1.1 through 1.6, which identify each of the project phases to be examined is the same statement under each provision:¹⁷³ “*Future implementation*”.

Pegasus-Global found the policies, procedures or processes contained in Policy 1106.00 were not complete and had not been formally adopted by OCCM. Incomplete, informal policies, procedures and processes call into question the uniformity, transparency and accountability of the management or control of the requirement in question.

- **V1-F-5.4.4-2** The policy does not define terms used in the policy.
- **V1-F-5.4.4-3** The policy indicated that it was:
 - A guidance document for any person involved in large facility modification or capital construction project that can benefit from a Post Facility Occupancy Evaluation.
 - A directional document for all OCCM staff and construction partners embarking on a new project.

Pegasus-Global is unsure of the distinction between a guidance document and a directional document.

- **V1-F-5.4.4-4** Pegasus-Global noted that all of the elements of an effective and comprehensive lessons learned program were identified within draft Policy 1106.00 and believes it is a good basis for finalizing a comprehensive lessons learned program.

Recommendation:

- **V1-R-5.4.4-1** Complete Policy 1106.00 as currently outlined and drafted to finalize and formalize the procedures and processes. Pegasus-Global also recommends that OCCM examine the lessons learned SOCs promulgated by

¹⁷³ OCCM, Policy 1106.00, Facility Performance Evaluation, Sections 1.2 – 1.6, page 5, February 19, 2010

PMI and CMAA as a check guide of standard industry practices while completing Policy 1106.00.

Summary Conclusion:

Pegasus-Global found that Policy 1106.00 was not complete to the point where it represents a comprehensive policy, procedure or process for management or control a formal lessons learned program.

5.3.4.5 POLICY 1106.10 POST OCCUPANCY EVALUATION (POE) (FEBRUARY 19, 2010 DRAFT)

According to Policy 1106.10:¹⁷⁴

“The purpose of the POE is to identify the characteristics of buildings that work well and best, and understand what should not be repeated in future designs of buildings. Also, to better understand the impact of building delivery processes and decisions on occupants over the lifecycle of the building.

The desired outcome is to improve the design, construction and operations of court facility modifications and new capital projects.”

With the exception of one sentence and a slight wording change, Policy 1106.10 and 1106.00 are nearly identical insofar as the purpose is defined. The difference is in the fact that Policy 1106.00 appears to primarily focus on the execution of the project through to commissioning and turnover while Policy 1106.10 appears to primarily focus on how the facility actually operates once turned over for occupancy. Again the primary goal appears to develop a set of lessons learned which can be entered into the lessons learned data base for use in future projects.

¹⁷⁴ OCCM, Policy 1106.10, Post Occupancy Evaluation, Purpose, page 4, February 19, 2010

Findings:

- **V1-F-5.4.5-1** Policy 1106.10 is identified as an “Initial Draft”, however during its audit Pegasus-Global found that the POE had been used for the six projects examined during this management audit. Policy 1106.10 consists of a series of 22 “steps” which effectively make up the POE survey process. Most of those steps are describe with a single sentence, for example:

“6.1.4 The Quality Staff (QS) makes contact with the court liaison to introduce survey”

There is little explanation given for each of the steps, the process by which each step will be executed, managed or controlled, or how the steps interrelate to one another. That lack of detail raised some questions for Pegasus-Global, the most important being how (or if) the results of the survey were actually being analyzed for commonly identified strengths and weaknesses in the opinion of the ultimate residents of the facility and were those common strengths and weaknesses being captured in the lessons learned database and used as a tool to improve future projects (e.g., a basis for revising the Court Facilities Standards).

- **V1-F-5.4.5-2** The procedure does not appear to present a strictly sequential set of steps, providing no reference to timing, links between steps, etc.
- **V1-F-5.4.5-3** There is no link between Policy 1106.00 and 1106.10 presented in either Policy 1106.00 or 1106.10. As the two policies share a comment purpose the interrelationship between the two polices should be developed and presented.
- **V1-F-5.4.5-4** The policy does not provide a point of accountability for ensuring the post evaluation is completed, and input into the program system and then used for future projects.

Recommendation:

- **V1-R-5.4.5-1** Complete and expand Policy 1106.10 as currently outlined and drafted to finalize and formally adopt the procedures and processes summarized in the policy. Pegasus-Global also recommends that OCCM examine the lessons learned SOCs promulgated by PMI and CMAA as a check guide of standard industry practices while completing Policy 1106.10.

Summary Conclusion:

Pegasus-Global found that Policy 1106.10 was not complete to the point where it represents a comprehensive policy, procedure or process for management or control a formal lessons learned program. However, as currently in practice the POE appears to be capturing valuable information on the strengths and weaknesses identified by the ultimate occupants of the facility, which could be addressed and improvements applied to subsequent projects.

5.3.4.6 POLICY 1302.10 INFORMAL INSPECTION PROCESS (SEPTEMBER 27, 2010 DRAFT)

According to Policy 1302.10, it is intended to provide a process formalizing:¹⁷⁵

“Informal inspections [which] seek to proactively identify and resolve problems in the shortest amount of time, and ensure compliance with the approved plans and the applicable codes.”

From the review of this policy it appears that the informal inspections involves only the construction portion of the project and not the design phase of the project. According to Policy 1302.10:

“...if an observation is made of questionable construction, this will prompt further action.”

¹⁷⁵ OCCM, Policy 1302.10, Informal Inspection Process, Purpose, page 3, September 27, 2010

That “further action” is defined in Section 2.10.2.5 as a Notice of Non-compliance to the contractor followed by a “Notice of Correction”. Pegasus-Global assumes that at the point a formal Notice is transmitted to the contractor that the inspection is no longer “informal”.

This particular process appears to be another element of quality control and quality assurance but is not addressed as such in this policy. As such the SOCs promulgated by PMI and CMAA provide the basic elements of quality control/quality assurance program.

Findings:

- **V1-F-5.4.6-1** Policy 1302.10 is presented as an “Initial Draft” and basically presents a series of high-level steps and reactions to conducting an informal inspection (right up until some defect is identified). Working under draft, incomplete policies, procedures and processes may impact the uniformity, transparency and accountability for that policy.
- **V1-F-5.4.6-2** The policy does not contain any definitions for terms used in the policy.
- **V1-F-5.4.6-3** The policy does not identify who within OCCM has been formally delegated the authority and responsibility for the management and control of the informal inspection process, including the decision to elevate the informal findings into the more formal Notice of Non-compliance.

Recommendation:

- **V1-R-5.4.6-1** Expand, enhance and complete Policy 1302.10 as currently outlined and drafted to finalize and formalize the procedures and processes, including specific direction as to how the plan check is to be executed, when it is to be executed, by whom it will be executed, etc.

Summary Conclusion:

Pegasus-Global found that Policy 1302.10 was not complete to the point where it represents a comprehensive policy, procedure or process for management or control for an informal inspection process.

5.3.4.7 POLICY 1302.20 INSPECTION REQUEST PROCESS (MAY 27, 2010 DRAFT)

As noted in **Section 5.3.4.6** directly above, Policy 1302.20 is also a policy statement which appears to address a process which most closely falls within the industry definition of a quality management program, as the purpose of the policy is to:¹⁷⁶

“Ensure that construction complies with the applicable code.”

Unlike Policy 1302.10 which was, at least in part, devoted to informal inspections, Policy 1302.20 is focused on a formal inspection process. While the title would suggest that the policy is limited to the process by which a request for any inspection would be submitted and acted upon, the policy covers not only the request process but also certain steps to be taken after the inspection has actually been conducted and completed. At Section 2.20.2.3 the process step is identified simply a *“Physically inspect the work described in the [Inspection Request Form].”*¹⁷⁷

This policy and process appears to be another element of quality control and quality assurance, but is not addressed as such in this policy. For OCCM’s consideration both PMI and CMAA provide the basic elements of the generally accepted industry SOC for a quality control/quality assurance program.

Findings:

- **V1-F-5.4.7-1** The policy does not define terms used within the policy.

¹⁷⁶ OCCM, Policy 1302.20, Inspection Request Process, Purpose, page 3, May 27, 2010

¹⁷⁷ OCCM, Policy 1302.20, Inspection Request Process, Section 2.20.2.3, page 4, May 27, 2010

- **V1-F-5.4.7-2** Policy 1301.20 is presented as an “Initial Draft”. As stated previously working under draft, incomplete policies, procedures and processes may impact the uniformity, transparency and accountability for that policy.
- **V1-F-5.4.7-3** Policy 1301.20 contains some references which are too cryptic to assist someone not familiar with OCCM effectively or efficiently use the procedure. For example at Section 2.20.1 it notes that the “*Inspection Request Process begins with the Inspection Request Form...*” and then at some undefined point in the process “*Larry completes inspection*”.¹⁷⁸

Recommendation:

- **V1-R-5.4.7-1** Expand, enhance and complete Policy 1301.20 as currently outlined and drafted to finalize and formalize the procedures and processes, including specific direction as to how the inspections are to be executed, when they are to be executed, and by whom it will be executed.

Summary Conclusion:

Pegasus-Global found that Policy 1301.20 was not complete to the point where it represents a comprehensive policy, procedure or process for management or control a formal inspection process. However, taken in concert with other policies identified above, this policy could form part of the basis for a more complete and comprehensive quality management program.

5.3.4.8 POLICY 1302.30 FINAL VERIFIED REPORT PROCESS

Policy 1302.30 is intended to:¹⁷⁹

“... clearly establish the termination of an assignment, to provide quality assurance, and document that the inspections were personally witnessed by the individual and establish their scope of technical observations.”

¹⁷⁸ OCCM, Policy 1302.20, Inspection Request Process, Section 2.20.2.1, page 4, May 27, 2010

¹⁷⁹ OCCM, Policy 1302.30, Final Verified Report Process, Purpose, page 4, November 1, 2010

Unlike the policies discussed above (341.00, 1106.00, 1106.10, 1301.30, 1301.10 and 1302.20) Policy 1302.30 is not identified as a draft but as a final policy. However, like those policies it is actually presented as a series of general steps required to achieve inspection closeout with minimal detail provided for each of those steps. While the document is identified as a final draft, Pegasus-Global found a note that indicated a link to a “(...larger formal project closeout process; document XXXX.XX Title) but noted that the actual document number and title had never been identified.¹⁸⁰

This policy appears to be another element of quality control and quality assurance but is not addressed as such in this policy.

Findings:

- **V1-F-5.4.8-1** The policy does not define terms used within the policy.
- **V1-F-5.4.8-2** While the policy implies that the Inspector of Record (“IOR”) is responsible for and accountable for the Final Verified Report, there is no detailed provided as to whom the IOR is, who they report to or who they are responsible to within OCCM. From interviews Pegasus-Global understood that the IOR could be a contracted consultant, in which case there should be some link between this requirement and the consulting contract in place, yet there is no mention of such an arrangement within this policy. The identification, authority, responsibility and lines of reporting for this IOR needs to be addressed in more detail in either this policy or in a policy which is clearly linked to this Policy 1302.30.
- **V1-F-5.4.8-3** Pegasus-Global’s review of Policies 341.00, 1106.00, 1106.10, 1302.30, 1302.10 and 1302.20 leads to the conclusion that each of those policies address some procedure which in context is part of what should be an overall quality control/quality assurance processes (the quality management program) to be followed for the Court Capital Construction Program. However, those policies are presented as discrete procedures rather than within the larger, broader context of quality management and control. When taken together those policies

¹⁸⁰ OCCM, Policy 1302.30, Final Verified Report Process, Section 2.30.2.12, page 5, November 1, 2010

actually provide a sound basis for the detailed elements of a more complete and comprehensive quality management program, and as such could effectively be melded into a total quality management and control policy, procedure and process.

Recommendation:

- **V1-R-5.4.8-1** Rather than simply completing each of the policies which have been potentially identified by Pegasus-Global as elements of a broader quality management program as individual pieces, Pegasus-Global recommends that OCCM consider merging Policies 341.00, 1106.00, 1106.10, 1301.30, 1301.10, 1302.20 and 1302.30 into a more complete and comprehensive quality management program under which each of those discrete policies could be expanded and, to some extent, merged into a full quality control/quality assurance program.

Summary Conclusion:

As noted above, as a group those policies addressed in **Sections 5.3.4.3** through this **Section 5.3.4.8** of this Report all appear to be addressing various elements of what is a full quality management program. By working on those disparate policies as a group, and combining those policies with additional policies yet to be identified by Pegasus-Global or developed by OCCM, a comprehensive quality management program could be formulated and issued which would meet the industry SOC.

5.3.4.9 PROCEDURE 4.20 CHANGE ORDER PROCESS (MAY 26, 2009)

According to PMI:¹⁸¹

“One of the most important aspects of plan execution in construction is the control of changes to the project.

¹⁸¹ PMI, Construction Extension to the PMBOK[®], Chapter 4, Section 4.6, page 33, 2007

...

In construction, ultimate control or approval of changes is usually the responsibility of the owner, who is often the source of changes to the project.”

PMI defined integrated change control as:¹⁸²

“... the process of reviewing all change requests, approving changes and managing changes to the deliverables, organizational process assets, project documents and the project management plan... Change Control... is conducted from project inception through completion. The project management plan, the project scope statement, and other relevant deliverables are maintained by carefully and continuously managing changes, either by rejecting changes or by approving changes thereby assuring that only approved changes are incorporated into a revised baseline.”

Establishing and enforcing strict change management policies, procedures and processes are the only viable check against changes in design, scope, construction, cost and schedule. Those change management policies, procedures and processes must apply to every stakeholder involved in a major project and change control must be managed at all levels of the program or project, beginning with the owner and flowing right down through to the architects, consultants, contractors and individual vendors and suppliers. Managing and controlling change on a single project is difficult; however managing and controlling change across a megaproject consisting of multiple discrete projects is even more difficult, but much more critical, as every change made to a single project may have ripple impacts on other projects within the full Program.

PMI identifies seven activities which are core to change management:¹⁸³

- *“Influencing the factors that circumvent integrated change control so that only approved changes are implemented;*

¹⁸² PMI, PMBOK®, Chapter 4, Section 4.5, page 93, 2007

¹⁸³ PMI, PMBOK®, Chapter 4, Section 4.5, page 93, 2007

- *Reviewing, analyzing, and approving change requests promptly, which is essential, as slow decision making may negatively affect time, cost, or the feasibility of a change;*
- *Managing the approved change;*
- *Maintaining the integrity of baselines by releasing only approved changes for incorporation into the project management plan and project documents;*
- *Reviewing, approving, or denying all recommended corrective and preventative actions;*
- *Coordinating changes across the entire project (e.g., a proposed schedule change will often affect cost, risk, quality, and staffing); and,*
- *Documenting the complete impact of change requests.”*

As an additional check on changes over a *program of multiple projects* PMI recommends that the formal integrated change management procedure contains process controls under which:¹⁸⁴

“... the approval and refusal of requests for change, escalates requests in line with authority thresholds, determines when changes have occurred, influences factors that create changes, and makes sure those changes are beneficial and agreed-up, and manages how and when the approved changes are applied.”

Finally from a program perspective PMI stressed that:¹⁸⁵

“Stakeholder management is an important factor in implementing successful organizational change. In this context, program plans should clearly show an understanding of an integration with general accepted methods of organizational change management. This includes identifying the key individuals who have an interest in or will be affected by the changes and ensuring they are aware of,

¹⁸⁴ PMI, Global Standard for Program Management, Chapter 3, Section 3.7.1, page 56, 2006

¹⁸⁵ PMI, The Standard for Program Management – Second Edition, Chapter 14, page 227, 2008

supportive of, and part of the change process. To facilitate the change process, the program manager must communicate to stakeholders a clear vision of the need for change, as well as the initiative's specific objectives and the resources required. The program manager must utilize strong leadership skills to set clear goals, assess readiness for change, plan for the change, provide resources/support, monitor the change, obtain and evaluate feedback from those affected by the change, and manage issues with people who are not fully embracing the change."

CMAA's Cost Management Procedures note there is no exact solution to the issue of change control, but does lay out some elements of successful change management, including:¹⁸⁶

- *Written notice requirements – The contract documents should have strong, strict and enforceable written notice requirements. That is, whenever the contractor believes it has been directed to make a change...it is required to notify the CM in writing and await the CM's direction...*
- *Written change order requirement – Contract language should be included which states the contractor is not entitled to payment for changed work unless it is in receipt of a properly executed change order or a written directive to proceed with the changed work. This is intended to stop "verbal changes"...the CM and the owner will be required to create a set of change documents and use them promptly when they want changed work performed.*
- *Project warrants - Each project team member authorized to deal with the contractor should have a "warrant" (written document) signed by the owner setting forth their duties and responsibilities...The concept is to let everyone on the project know who has the authority to direct changes and who does not, a point that is delineated in the project's procedures manual.*
- *Delegation of authority – Delay in the decision making process concerning changes can be very expensive in the long run. To avoid such situations, the CM*

¹⁸⁶ CMAA, Cost Management Procedures, Chapter 7, Section 7.7, pages 42-43, 2001

and the owner may negotiate a delegation of authority policy. For example, a field project manager may have authority to issue change orders with a value not to exceed \$25,000 on their own signature...The idea is that if delay in change orders can be reduced, the cost of the changes can also be kept down.

- *Change Control Board – On some megaprojects, Change Order Control Boards are created for the specific purpose of reviewing and approving the larger, more complex, design-related changes...Such Boards are generally made up of senior staff involved in project design and operations, along with top management officials from the owner staff who have ultimate budget authority and responsibility...The role of the CM in situations such as this is most likely to be limited to preparing revised budget and schedule estimates for the Board...*
- *Change Order Policy – Some owners have established a policy that whoever proposes the change order has to personally appear before the owner’s decision – making body to justify why the change should be made.*
- *Budget contingency – All CMs are aware that change is going to happen during construction. Most owners know this as well. However, some owners fail to establish a budget contingency at the time of award to handle the cost of changes...The CM should work with the owner during the time between bid opening and contract award to establish a management reserve or budget contingency to handle changes to the work. A process also should be in place to refill the budget contingency if, during the course of the project, the initial contingency funds are entirely depleted.*

Ultimately the management of change must be done from an anticipatory position which stresses avoidance of change first and reaction to change a distant second. Industry practice to control change in a program is by identifying the most likely sources and reasons for change across the program and then eliminating as many of those sources and reasons as possible at a program wide level. Part of any “lessons learned” program should be focused on capturing a changes made during the execution of every project being executed under the megaprogram. Using those lessons learned will aid the

Owner and other stakeholders to identify those common categories of change which are arising on across the megaprogram projects and ultimately assist in establishing responses to those changes from an anticipatory perspective for the subsequent projects to be executed under the megaprogram.

However, even with a strong anticipatory change control process in place there will still be changes during construction projects and in response to those unavoidable changes the Owner (and its agent) must have an equally strong change management system in place during the execution of all phases of a project.

The PMI PMBOK®, the Construction Extension and the Global Program Standard, together with the CMAA Cost Management Procedures contain extensive information relative to industry standards of care addressing change control and management. In addition, there are multiple sources of SOC addressing change management throughout the industry, including those published by the Construction Industry Institute (“CII”), a research institution which has studied the impact of changes during construction projects and programs extensively.

The OCCM Project Definition Report are essentially silent on the issue of change control and management. OCCM Policy 4.10, Construction Management addresses change management at a summary level, noting that the CM is responsible to:¹⁸⁷

“... [manage] ... *Change Orders*...”

Process requests for Change Orders”.

Maintain a Change Order log that includes a cumulative total of changes to the contract, and reconcile the Change Order costs with contractor payment requests.”

Policy 4.10 also states that the CM’s “... *responsibilities regarding Change Orders*” are contained in Procedure 4.20, Change Order Process.¹⁸⁸ Pegasus-Global reviewed

¹⁸⁷ OCCM, Policy 4.10, Section 3, items N, O and Q, page 5, June 23, 2009

¹⁸⁸ OCCM, Policy 4.10, Section 4, page 6, June 23, 2009

Policy 4.20 against the basic change control and change management SOC generally accepted within the industry.

Findings:

- **V1-F-5.4.9-1** Procedure 4.20 was issued on May 26, 2009 as a memo from the Assistant Division Director of Design and Construction to the Design and Construction Staff. As noted previously within this Report, policies and procedures should be issued using a standard format and content presentation to promote uniformity across and among the entire body of policies, procedures and processes under which the Program and the individual projects are to be managed and controlled.
- **V1-F-5.4.9-2** Procedure 4.20 included a general description of what a change order does, also noting this process was developed through collaborate efforts of the “AOC change order committee (OCCM, BP, Finance, Contracts, and OGC [Office of General Counsel])”.¹⁸⁹ By restricting the distribution to the parties specifically named other primary stakeholders in the Program, including the Judicial Branch participants, the PAG and others that have a critical role to play in controlling and managing change, appear to have been excluded from the process.
- **V1-F-5.4.9-3** As noted above, the industry SOC acknowledges the crucial role that all stakeholders must fill at every level to control and manage change and the importance of involving all stakeholders in the control and management of change. In limiting the involvement in developing the change order process to the “AOC change order committee” OCCM has effectively eliminated an opportunity to enlist the active cooperation of other Program and project stakeholders into the control and management of change from either the Program or individual project perspective.

¹⁸⁹ OCCM, Policy 4.20, Background, page 1, May 26, 2009

The party with the greatest interest in and the most control over change at either a program and project level is presumed within the industry at large to be the program/project Owner. If one accepts that AOC or OCCM is the Owner of the Court Capital Construction Program, as was stated by some individual's interviewed, then those parties were involved in the formation of Policy 4.20; however, if one accepts the Owner as the Judicial Council, as was stated by other individuals and as appears to have been established through legislation, then the most important stakeholder of the Program was not directly involved the development of Policy 4.20.

- **V1-F-5.4.9-4** Policy 4.20 is a reactive change management procedure, limited to how a change will be managed once it is identified and/or actually manifest on a project. According to Policy 4.20 change will be managed through a series of steps:¹⁹⁰
 - Initial Meeting to establish the Change Order Form and codes;
 - Identification of the Proposed Change in Writing;
 - Review of the Change/Comparison to Contract Documents;
 - If proposed change is not within the scope of the project or requires an augmentation of project funds, the change order must first be discussed with the Regional Design and Construction Manager (D&C Manager).
 - If proposed change is within the scope of the project, and funds are available, the Project Manager begins preparation for a change order and its related package documents.
 - Development of Proposed Change Order;
 - Proposed Change Order sent to Contractor;

¹⁹⁰ OCCM, Policy 4.20, Procedure, pages 2-4, May 26, 2009

- Review Contractor’s Proposal (cost and schedule);
 - If the proposal is accepted, agree to proceed on a not to exceed basis (if proposed work is difficult to quantify), negotiate with contractor for an agreed cost and schedule impact, or prepare unilateral change order (if other options do not work).
- Revise Budget to Reflect Cost of Change;
- Prepare the Official Change Order;
- Approve the Official Change Order; and
- Distribute the Official Change Order for Execution.

Policy 4.20 does not address anticipatory (proactive) based decisions or actions which may be taken to control changes (preplanned avoidance actions) or manage changes (preplanned mitigation actions). The process steps identified in Policy 4.20 are essentially an administrative response to a situation where a change has already occurred (at least from the contractor’s perspective) and must therefore be processed following the procedural steps established.

- **V1-F-5.4.9-5** Policy 4.20 does not establish any formal authority thresholds for approval or rejection of a proposed change, which is not normal within a megaprogram consisting of multiple projects. While Policy 4.20 identifies a number of “discussions” taking place among various entities during the administrative process, if the change is determined by the Project Manager to be “*within the scope of the project and sufficient funds are available*”, then the Project Manager can prepare and issue the Propose Change Order but has to “*work closely with the OCCM Budget Analyst to confirm fund coding and verification*”. There are two primary concerns with this element of the process:
 - First, the fact that the budget (which Pegasus-Global interpreted to mean the budget contingency) **could** support a change does not automatically

mean that the available contingency budget **should** be expended on that change. While from a *project perspective* such an action may be reasonable, from a *program perspective* where decisions and choices must constantly be adjusted to fit funding realities, even seemingly minor amounts of money can impact decisions regarding other projects. For example: assume that a change for a large project is found to be “within scope” and the contingency is available to fund that change at a cost of \$100,000. Assume further that the change while desirable exceeds the original scope set for the project. Then assume that a smaller project that is later in the execution queue goes through preliminary design only to find it is \$100,000 short of meeting its true estimated functional cost. The question facing *program management* is should the change to the larger project costing \$100,000 be approved even if that change is more for aesthetics than function, or should that change be rejected in order to reserve those funds in order to fully fund the true functional cost of the subsequent smaller project.

- Second, in a megaprogram consisting of multiple projects, each with its own needs and functional requirements, it is the **Owner** that must determine where the limited funds available are to be invested. From the legislation it appears to Pegasus-Global that the legislature specifically empowered and required the Judicial Council to perform as the Owner of the Program, and in logical extension, of each project within that Program. One of the fallouts of the fact that the Program has not clearly or formally established who owns the Court Capital Construction Program (and therefore all of the individual projects within that program) is that the actual **Owner** may not be exercising its responsibility to examine and make those crucial funding decisions from a *program perspective*. While the Judicial Council may delegate its authority and responsibility to the AOC and OCCM to act as its agent, under the industry SOC the ultimate responsibility to manage and control Program investment decisions would **not** be delegated to another party, except in very limited and controlled

situations (*i.e.*, a dollar limited delegation of authority). Certainly the Owner may charge the agent with collecting data and making recommendations, however the ultimate authority as to where and when to invest the capital is and always has been exercised by the Owner throughout the industry.

- **V1-F-5.4.9-6** As written, Policy 4.20 implies that the contractor is the source of changes to a project. In reality the single biggest generator of change in a project is the generally the Owner, followed by the contractor and designer. Policy 4.20 makes no mention of how changes directed by the Owner or the designer of record will be managed, controlled or administered.
- **V1-F-5.4.9-7** As written, Policy 4.20 does not address (or cite to) a process which will be followed if a request for change is rejected by the Project Manager and a protest or actual claim is subsequently filed by the requesting party. In programs of this magnitude the SOC provides that some type of ultimate authority such as an independent review committee or board to which a protesting party can appeal the initial ruling.

Recommendation:

- **V1-R-5.4.9-1** Although Policy 4.20 is in many respects an acceptable administrative process it does not meet the industry SOC regarding management or control of change on a project. For that reason Pegasus-Global recommends that Policy 4.20 be expanded with the full input of the primary stakeholders (Judicial Council, AOC, and OCCM) during the development, formalization and adoption of a change control and a management program. As noted earlier, both PMI and CMAA have addressed change management and control at some length, setting forth the elements of what constitutes a change management and control system which meets the expected SOC.

Summary Conclusion:

The current change policies, procedures and processes do not meet the industry SOC for a change management and control system expected in a megaprogram. As controlling change is a critical element of every construction program and project Pegasus-Global recommends that the current procedure be expanded to meet the industry SOC.

5.3.4.10 RISK ASSESSMENT FOR [NAME] COURTHOUSE, [NAME] COUNTY (2011)

This policy is not a risk assessment as traditionally defined within the construction industry; rather it is a template form intended to provide recommendations for a specifically named project relative to:¹⁹¹

“... architectural/physical and electronic security measures or elements ... prepared by the Office of Emergency Response and Security (OERS). This report will be provided to and reviewed with the Office of Court Construction and Management project manager prior to finalization. Upon request, OERS can develop a security assessment that addresses operational policies and procedures.”

As a template for a security report it addresses such issues as:

- A general asset, threat, vulnerability and risk identification;
- Users of the facility including judicial staff, Sheriff’s Department, Attorney’s, Plaintiffs, Defendants, etc.;
- Equipment;
- Infrastructure;
- Threat Identification;

¹⁹¹ OCCM, Risk Assessment for [NAME] Courthouse, [Name] County, page 2, 2011

- Vulnerability Identification;
- Specific Risks, Mitigation Strategies, and Recommendations; and
- Summary of Findings.

Pegasus-Global has not reviewed the policy from a technical, expert view regarding security risks or responses and whether the policy is technically complete. However, there are some general findings from a management audit perspective concerning this policy.

Findings:

- **V1-F-5.4.10-1** From the pure layman's perspective the policy appears to be well thought out, comprehensive and detailed relative to the security risks anticipated for a specific courthouse.
- **V1-F-5.4.10-2** The risk policy contains all of the standard elements of any risk management plan in that it:
 - Identifies the specific risk element;
 - Quantifies the likelihood that any specific risk element (threat) will occur within the facility and prioritizes those risk elements by likelihood and impact ratings; and
 - Identifies specific mitigation actions which will reduce the impact of any risk element (threat) should it actually occur within the facility.
- **V1-F-5.4.10-3** The risk policy template meets the SOC for a risk management program and plan, not just as practiced in the construction industry, but as practiced in most industry settings.

Recommendations:

- **V1-R-5.4.10-1** Pegasus-Global has no recommendations relative to this specific Risk Assessment Template.

Summary Conclusion:

The Risk Assessment template meets the industry standard of care and is uniform, transparent and identifies the accountable parties responsible to both executing the risk assessment and completing the template.

5.3.4.11 PROJECT SAFETY PROGRAM MANUAL (FEBRUARY 2011)

According to the PMI Construction Extension to the PMBOK®:¹⁹²

“Project Safety Management processes include all activities of the project sponsor/owner and the performing organization which determine safety policies, objectives, and, responsibilities so that the project is planned and executed in a manner which prevents accidents, which case, or have the potential to cause, personal injury, fatalities, or property damage.”

PMI then lists the primary constituents of a sound safety management program, among them:¹⁹³

- Establishment of safety policies and procedures, setting contractual safety requirements, and establishing and implementing a safety assurance program.
- Developing a project safety plan, including a safety staffing plan, a safety budget, safety reporting and documentation requirements, identification of key site safety concerns and agreed safety performance and acceptance criteria.
- Finally, monitoring and controlling safety on the project including conducting safety assurance reviews and audits, identifying specific hazards, performing

¹⁹² PMI, Construction Extension to PMBOK®, Chapter 13, page 119, 2007

¹⁹³ PMI, Construction Extension to PMBOK®, Chapter 13, page 119 through , 2007

routine safety inspections, conducting safety training and, capturing and reporting safety metrics.

CMAA advocates an “aggressive” and “proactive” approach to project safety which begins during the initial organizational stages of the project (even prior to final design) and continues through to the completion and turnover of the project for operations.¹⁹⁴ CMAA then identifies the safety related activities which should take place at each phase of the project. Some of the activities identified by CMAA include the following:

- Establish the Owner’s level of commitment to project safety;
- Develop the project safety organizational structure and staffing plan;
- Prepare a project safety plan with specific written requirements (*i.e.*, compliance with OSHA and or state safety laws, rules, regulations, etc.);
- Identify safety planning and programs as a bid requirement during procurement;
- Draft contractual safety provisions;
- Prepare the required routine safety reports to be prepared and routinely submitted during the project;
- Audit safety during the execution of the project; and
- Impose and/or take action to remove safety hazards during the execution of the project.

There are numerous organizations which promulgate standards of safety on construction projects, from the very formal such as Occupational Safety and Health Administration (“OSHA”) to the more educational such as those released by CII. OCCM provided Pegasus-Global with the “Judicial Council of California Administrative Office of the Courts Courthouse Construction Program Project Safety Manual” (“Project Safety Manual”) dated February 2011 for the purposes of this audit.

¹⁹⁴ CMAA, Construction Management Standards of Practice, Chapter 7, Section 7.1, page 59

Findings:

- **V1-F-5.4.11-1** Immediately noticeable is that the Project Safety Manual does not follow the formats of any of the other policies developed by OCCM. However, Pegasus-Global generally found that the Project Safety Manual was clear, concise and relatively easy to follow. The Project Safety Manual immediately identified the entities to whom the policy and procedure applied, which enhanced the transparency of the policy as well as making it clear what was expected of each of those parties. Likewise, the Project Safety Manual unambiguously identified specific responsibilities for various parties executing the Project. For example:¹⁹⁵

“The Contractor is to incorporate the provisions of this Manual into its Project Safety Program.”

- **V1-F-5.4.11-2** The Safety Manual immediately set the link to the Program Owner Controlled Insurance Program (“OCIP”), noting that AOC would assign an OCIP Safety Consultant to, among other things, *“Act as the AOC’s safety representative at the Project Site.”*¹⁹⁶ The scope of the AOC OCIP Safety Consultant was explained in some detail, including representing AOC in discussions as to any portions of the Project Safety Manual or the OCIP program. However, it was specifically stated that:¹⁹⁷

“By performing a review of the Contractor’s Project Safety Program, the OCIP Safety Consultant’s review in no way relieves any Contractor of their total and complete responsibility for accident prevention and safety related to their work at the Project Site.”

¹⁹⁵ Judicial Council of California Administrative Office of the Courts Courthouse Construction Program Project Safety Manual, Section 3.2, page 7, 2011

¹⁹⁶ Judicial Council of California Administrative Office of the Courts Courthouse Construction Program Project Safety Manual, Section 3.3, page 7, 2011

¹⁹⁷ Judicial Council of California Administrative Office of the Courts Courthouse Construction Program Project Safety Manual, Section 3.5, page 8

Provisions such as that cited above are critical in establishing clear lines of both authority and responsibility under any policy, and as such greatly improve the transparency and points of accountability for the execution and enforcement of policies, procedure and processes.

- **V1-F-5.4.11-3** The Project Safety Manual contained clearly delineated statements of responsibility as it applied to all participants to project execution, while retaining the right and responsibility to set the general site safety requirements to be met by those participants.¹⁹⁸
- **V1-F-5.4.11-4** The Project Safety Manual consistently cited to industry generated safety standards which were to be applied during the execution of the project, for example at Section 6.14, (d) it was specifically noted that “*High visibility/reflective vests (i.e. ANSI certified Class 2) or attire should be worn by any worker who is exposes to public vehicular traffic, construction vehicle operations or traffic, or involved with crane activities.*” Citing to specific industry established standards greatly enhances the uniformity and transparency of a policy, while simultaneously establishing an industry accepted agency as the source of the requirement (rather appearing to rely solely on personal preference in setting such policies).
- **V1-F-5.4.11-5** The Project Safety Manual ends by providing a complete list of reporting and recordkeeping requirements, with template copies of each required report along with instructions on how to prepare and submit those reports.

Recommendations:

- **V1-R-5.4.11-1** The only recommendation is that the format used for all policies, procedures and processes across all topical or issues areas should be uniform across the entire Program. Although Pegasus-Global had no issues with the format used for the Project Safety Manual and found that the contents included

¹⁹⁸ Judicial Council of California Administrative Office of the Courts Courthouse Construction Program Project Safety Manual, Section 6.0, page 17, 2003

what Pegasus-Global would expect in a program policy and procedure manual, and further found that the format used had a logical flow and was easy to navigate, it is up to the Judicial Council and AOC to determine the format and template to be applied to all policies, procedures and processes.

Summary Conclusion:

The Project Safety Manual met the SOC established within the industry for safety management and control and was internally uniform, transparent and identified specific points of accountability.

5.3.4.12 OWNER CONTROLLED INSURANCE PROGRAM

According to CMAA:¹⁹⁹

“The Owner ... must decide ... which types and amounts of [insurance] coverage are to be provided by the Owner, Contractor’s and others.”

There are a variety of ways in which insurance can be packaged for a project or across a program consisting of multiple projects. For many megaprojects the only viable way to ensure that there is adequate insurance coverage for each of the individual projects in the program is for the Owner to essentially “self-insure” the projects through OCIP. Within the industry an OCIP is defined as:²⁰⁰

“Insurance obtained by an owner to cover a large, complex project typically involving many participants. Covers all risks and obviates the need for contractors and subcontractors to obtain their own insurance. It is presumed to promote safety on projects and efficient claims handling.”

A megaprogram of multiple projects involving literally hundreds of contracts and subcontracts is simply too big and too complex to expect one agency such as OCCM to

¹⁹⁹ CMAA, Capstone: The History of Construction Management Practice and Procedures, Chapter 5, Section 5.3, Insurance Requirements for Projects, page 169, 2003

²⁰⁰ Fundamentals of Construction Law, American Bar Association, Carina Y. Enhada, et al, Appendix G, Glossary, page 345, 2001

attempt to manage, control or “deal with” differing insurance requirements involving multiple insurance agents covering a host of contractors and subcontractors. By far the simpler and more efficient insurance program is one that gives the Owner the control of the program, as is confirmed by the American Bar Association.²⁰¹

“The major goal of [an OCIP] is to eliminate or minimize problems or disputes that arise all too frequently on major projects as a result of inadequate limits, and restrictive, overlapping or lapses in coverage, indemnity provisions, and problems related to ‘additional insured’ status.

[OCIPs] may also be financially advantageous, both in terms of overall premiums paid and due to more efficient administration of claims. Typically, however, [OCIP] insurance programs are implemented only on certain large-scale projects.”

It would be highly unusual to find any megaproject, and in particular a megaprogram consisting of multiple projects of varying size, cost and complexity, which was not under an OCIP. According to documents provided by OCCM:²⁰²

“The State of California acting by and through the Judicial Council of California and its administering agency the Administrative Office of the Courts (AOC) has elected to implement an Owner Controlled Insurance Program (OCIP) for Enrolled Contractors providing direct labor at the project site.”

As is normal within the industry, the Judicial Council and AOC engaged an insurance agent to establish and administer the OCIP on its behalf across the entire Court Capital Construction Program and the individual projects. The agent selected was Willis Insurance Services of California, Inc. (“Willis”). While Pegasus-Global has not seen the contract which exists between the Judicial Council and Willis, the documents reviewed in relation to the OCIP are typical of those Pegasus-Global has reviewed on other megaprojects. As an agent with superior knowledge, it would be normal for the Judicial

²⁰¹ Fundamentals of Construction Law, American Bar Association, Chapter 12, Construction Insurance: An Introduction, James P. Wagner, Section I. D, page 298, 2001

²⁰² Owner Controlled Insurance Program Manual, Judicial Council of California, Administrative Office of the Courts, by Willis Insurance Services of California, Inc, Section 1, Introduction, page 1, undated

Council through AOC to essentially pass the responsibility for administration of the OCIP to an agent such as Willis, and from the documents provided that appears to be what was done by the Judicial Council and AOC.

Pegasus-Global received a total of four documents which can definitively attributed to Willis, although it is entirely possible that Willis prepared or at a minimum assisted in the preparation of the Project Safety Manual reviewed in **Section 5.3.4.11** of this Report directly above; it is normal within the industry for there to be a very close link between project safety programs and project insurance programs. The other four documents consisted of the following:

- Owner Controlled Insurance Program Manual by Willis (undated);
- Owner Controlled Insurance Program Manual by Willis (Rev. 9, “updated by Eddie 06-08-11”);
- Owner Controlled Insurance Program Pre-Bid Information by Willis (Pre-Bid Packet Template 10-03-11); and
- AOC – OCIP Standard Operating Procedure Overview, author unknown but assume Willis (undated).

Pegasus-Global was unable to establish the point in time when the OCIP was officially adopted, contracted for and put into place.

Findings:

- **V1-F-5.4.12-1** Pegasus-Global has not reviewed this policy relative to its technical compliance to standard industry OCIP insurance programs. However the documents reviewed are consistent with those OCIP policies Pegasus-Global has reviewed during other program management audits and, as a result Pegasus-Global found no reason to question the accuracy or comprehensiveness of those documents provided to Pegasus-Global.

- **V1-F-5.4.12-2** From the point of view of uniformity, transparency and accountability Pegasus-Global encountered no problems understanding or following the policies, procedures or processes presented in those documents.
- **V1-F-5.4.12-3** The flow of responsibility was from the OCCM Senior Facilities Risk Manager to Willis, the agent named as the OCIP Program Manager and thence to the individual insurance carriers providing the specific coverage purchased. However, the exact relationship between the OCIP principles (Judicial Council, AOC, OCCM and Willis) was not fully described in the documents reviewed, which would have improved the transparency of the program relationships and responsibilities.
- **V1-F-5.4.12-4** There was no indication of the date at which the program went into effect, which would again improve the transparency of the program.

Recommendations:

- **V1-R-5.4.12-1** Pegasus-Global recommends that OCCM prepare a short introductory document which describes the reason an OCIP was put into effect; the benefits expected from establishing an OCIP; the process by which OCCM (or AOC) solicited for and OCIP agent; in broad terms the responsibilities assigned to each of the OCIP parties (including the Judicial Council, AOC, OCCM, PM's, Willis, etc.); and, finally the date the OCIP was adopted. This recommendation is made as a way of expanding the transparency of the decision and the process followed in developing, adopting and installing the OCIP.

Summary Conclusion:

Everything reviewed by Pegasus-Global from a project and program management perspective appeared to meet the SOC currently followed within the industry for large, complex programs or projects.

5.3.5 OVERLAPPING POLICIES, PROCEDURES AND PROCESSES

5.3.5.1 INVOICE PAYMENT PROCEDURE (POLICY NUMBER 2.1, OCTOBER 26, 2010)

According to AIA an invoice is simply: “A bill, usually itemized, received or sent for goods or services.”²⁰³ AIA also notes that “Requirements for billing – how often invoices are prepared, what they include, the amount of time the owner has to pay them, interest rates on overdue invoices, and related matters...” are included in the contract(s) executed between the Owner and the consultant or contractor.²⁰⁴ Perhaps the most important element of any Owner invoicing and payment procedure is:²⁰⁵

“...the ability to verify that [the Owner] has received the value of goods and services for which you authorize payment. Project management procedures should include provisions... [which] enable the [Owner] to evaluate in detail whether [the Owner has] received what [was] asked for at the quality level... specified, when... scheduled that it should be received. Contractually there is little practical recourse once a payment is made. [The Project Manager should] spend the time to carefully review requests for payment, and conduct tests as necessary to verify that the [deliverables] meet specifications.”

An invoice is simply the document which enables the exchange of money between the Owner and its consultants and contractors on a construction project. The Owner sets the invoice and payment policies, procedures and processes by which the invoices are prepared and submitted for payment. The Owner also sets the conditions against which an invoice is reviewed and accepted (or rejected) and the process by which payment is authorized from the established program or project budget. Most governmental

²⁰³ AIA, The Architect’s Handbook of Professional Practice, Appendix E, page 994, Fourteenth Edition, 2008

²⁰⁴ AIA, The Architect’s Handbook of Professional Practice, Part 3, page 724, Fourteenth Edition, 2008

²⁰⁵ The Engineer’s Cost Handbook, Chapter IV, Section D, page 510, 1999

agencies have standard, regulated invoicing and payment policies, procedures and processes. According to the Invoice Payment Procedures (October 26, 2010).²⁰⁶

“This [invoice payment] process is maintained in the Business and Finance Unit and includes administrative coordinators, general staff, budget analysts, and the AOC Accounting Unit. The Administrative Coordinator Team is responsible for movement of all invoices throughout the approval process.

Once the invoice is processed and approved, the administrative coordinator sends the invoice to the AOC Accounting Unit. The AOC Accounting Unit reviews and approves before sending the invoice batch to the State Controller’s Office. The State Controller’s Office issues warrants payment for each invoice and sends to the vendors.”

From an organizational flow perspective the process steps described above are typical of governmental programs and projects.

Findings:

- **V1-F-5.5.1-1** There is no statement which identifies to whom this procedure is applicable, for example, is it applicable to all external parties engaged in program execution, including consultants, architects, CM@Risk, contactors, vendors, suppliers?
- **V1-F-5.5.1-2** Invoice payment procedures are normally a subsection of the program cost control policy and procedure; however, this policy and procedure is identified as a stand-alone procedure, without links to estimates, budgets or progress reporting. The industry SOC is to record the links between all related procedures in order to provide a *transparent* relational link between all of the elements which address related procedures, both identifying the relationship and referencing the procedural flow of the related policies (*i.e.*, how the invoice

²⁰⁶ OCCM/AOC, 2.1 Invoice Payment Procedures, page 3, October 26, 2010

process is linked to the project budget and monthly cost reports, and what the transitional process flow is between those two procedures).

- **V1-F-5.5.1-3** If the procedure applies to all of the above parties, then which party is accountable for which elements of the procedure? For example, does the architect receive, review and verify the invoice from the CM@Risk is “correct and payment is authorized” or is that the sole responsibility of OCCM or AOC accounting? The SOC would be to define specific delegations of authority, responsibility or accountability within the invoice procedure.
- **V1-F-5.5.1-4** There is no clear presentation of the sequence of actions or decisions which the user of this procedure should follow. While there is a “checklist” it is unclear if that checklist is in sequential order; in summary from the point of preparation of the invoice how does it move through the various process steps? For example, while Section 2.1.1.2 indicates that the Administrative Coordinator is responsible to distribute the invoices to “BANCRO” and “SRO”, prior to that listing of responsibility in Section 2.1.1.2 is Section 2.1.1.1 which says that “BANCRO” and “NCRO” and “SRO” each have a designated team to open, date stamp, and distribute the mail on a daily basis. If “BANCRO” and “SRO” open, date stamp and distribute the mail (presumably including invoices) then why is it necessary for the Administrative Coordinator responsible for distributing the invoice to “BANCRO”, “NCRO” and “SRO”?
- **V1-F-5.5.1-5** There is no definition of acronyms provided which leaves a reviewer (or first time user of the procedure) with no idea of who certain parties are or their position in the process (sequentially). For example:
 - Who is “BANCRO”, “NCRO”, or “SRO”?
 - Who is the administrative coordinator, what agency do they work for, what is their function (and does it extend beyond receiving invoices)?
 - What “staff” receives an invoice “directly”: the Project Manager, someone in OCCM or AOC, someone in DOF?

- Who makes up the Administrative Coordinator Team?
- What are the elements of the approval process?
- Etc.

Unless one is intimately knowledgeable as to what or who is involved, when they are involved, and what they do relative to an invoice it is not possible to follow the flow of the invoice through the submittal, review, approval and payment process, which affects the transparency of the procedure

- **V1-F-5.5.1-6** Some of the information contained in the process is incomplete for example:
 - Section 2.1.1.3 Invoice Logs does not show the “path” within which the “separate logs” are to be filed (or defines what a “log” is or its purpose); the space is left blank.
 - Section 2.1.1.3.3 Phone Invoices indicates that this portion “(may be taken out later)”:
 - What is a phone invoice?
 - Why might it be taken out later?
 - Was it ever taken out?
 - Section 2.1.2.3 “*Scan and save here*” is blank.
 - Section 2.1.2.3 “*Invoices should be scanned before approvals are obtained by appropriate staff and budget analysts.*” Who is the “appropriate staff”?
 - Section 2.1.2.3 “*Final invoices should be scanned to replace the original scan once the invoice is approved. (Save in CAFM?)*” [Computer Aided Facility Management System]. Was a scan location ever identified?

- Section 2.1.2.3 “*Invoices that do not need to be scanned and saved to G: Drive. Dependent on what is scanned into CAFM and what is and what is not retained as a hard copy.*” This exemplifies the lack of a comprehensive document control system.

All policies and procedures should be complete before the issuance of the procedure. It is dangerous to issue any policy or procedure in draft form or incomplete, if for no other reason than the author may leave or the press of greater priorities may result in the policy or procedure remaining incomplete, which results in newly hired staff being unable to determine what it is they are responsible for or how the full, coordinated process is intended to work. There are a number of such blanks and unresolved procedural steps in this procedure, which should be addressed as the procedure is finalized and formally adopted.

Summary Conclusion:

The Invoice Payment procedures represent a workable start to the development of a comprehensive policy and procedure. However, there remains a significant amount of work remaining to be done before the policy and procedure meets the industry SOC for cost management and, in particular the process by which invoices are received, reviewed, acted upon (accepted or rejected) and payment is rendered.

5.3.5.2 POLICY 7.00 CAPITAL OUTLAY BUDGET CHANGE PROPOSAL (COBCP) (APRIL 27, 2011 DRAFT)²⁰⁷

According to Policy 7.00 (Capital Outlay):²⁰⁸

“The COBCP is the official funding request to the State Department of Finance for Judicial Branch projects.”

²⁰⁷ Note: Pegasus-Global received two policies, both with the number 7.0 one covering the COBCP and this policy covering the Project Feasibility Report

²⁰⁸ OCCM, 7.00 Capital Outlay Budget Change Proposal (COBCP), page 3, April 27, 2011

For the reasons noted in Findings, below, Pegasus-Global was unable to conduct any comparative analysis of Policy 7.00 (Capital Outlay).

Findings:

- **V1-F-5.5.2-1** The policy is identified as a “Template Draft”, and as such appears to be a very early draft (actually only an outline) of the Capital Outlay Budget Change Proposal policy. The draft given to Pegasus Global still contains internal comments in redline form, such as:²⁰⁹

“Comment [KB10] The following page is layout of Sections, Subsections, and the numbering methodology. The number of Sections and Subsections will be determined by the topic.”

- **V1-F-5.5.2-2** Through interviews Pegasus-Global is aware that OCCM does use the COBCP process to request funding for the Court Capital Construction Program by individual project. However, there was nothing contained within Policy 7.0 for Pegasus-Global to review or evaluate.

Recommendations:

- **V1-R-5.5.2-1** This appears to be a situation where everyone understands the critical importance of this procedure and process, but here-to-for has not developed, codified or distributed a formal policy, procedure or process covering that requirement. Given the critical importance of requesting a change in budget it is imperative that this policy, procedure and process be completed as quickly as possible.

Summary Conclusion:

The document provided to Pegasus-Global is not a policy, procedure or process which can be reviewed and evaluated.

²⁰⁹ OCCM, 7.00 Capital Outlay Budget Change Proposal (COBCP), Redline Comment, page 4, April 27, 2011

5.3.5.3 OCCM APPROVAL PROCESS FOR AUGMENTATIONS AND 20-DAY LETTER REQUESTS (SEPTEMBER 20, 2010 MEMO)

According to the OCCM Approval Process for Augmentations and the 20-Day Letter Requests is a procedure:²¹⁰

“... needed to ensure that any changes to project scopes or budgets be thoroughly examined by the project teams and then reviewed and approved by the Director of the Office of Court Construction and Management (OCCM). This memorandum sets forth this process.”

The procedure consists of a single page which essentially sets out the following:

- That the weekly Director and Assistant Division Director (“AD”) meetings will include a standing agenda item to review all proposed augmentations and 20-day letter requests for review and approval decision.
- The fact that *“one or more ADs will need to be thoroughly briefed”* by the Project Manager on any propose augmentation or 20-day letter requests in advance of the meeting.²¹¹
- The goal is to *“ensure that not only all budget, schedule and scope issues are articulated and considered, but that the written augmentation or 20-day letter request itself is reviewed and approved by one or more as before it is sent to DOF...”*²¹²

²¹⁰ Lee Willoughby to OCCM Management Team, OCCM Approval Process for Augmentations and 20-Day Letter Requests, page 1, September 20, 2010

²¹¹ Lee Willoughby to OCCM Management Team, OCCM Approval Process for Augmentations and 20-Day Letter Requests, page 1, September 20, 2010

²¹² Lee Willoughby to OCCM Management Team, OCCM Approval Process for Augmentations and 20-Day Letter Requests, page 2, September 20, 2010

- The policy does define “*augmentation*”, the “*20-day letter*” and “*scope changes*”.²¹³
 - Pegasus-Global notes that there is a formal process in place for project augmentation (SAM Chapter 6861) and assumes that this policy is a precursor to the SAM requirement for augmentations to the project scope.
 - The only reference to 20 days, is the SAM requirement that “*If the request [for augmentation] requires [PWB] action (i.e. not delegated to PWB staff, it must be submitted to DOF 20 working days preceding the PWB meeting.*”²¹⁴
 - Pegasus-Global notes that there is a formal process in place for project scope changes (SAM Chapter 6863) and assumes that this policy is a precursor to the SAM requirement for the submittal of formal scope change requests.

As Pegasus-Global reads the memorandum it is not strictly a policy, procedure or process encompassing the entire Program; rather it appears to be a management direction to OCCM Assistant Division Directors.

Finding:

- **V1-F-5.5.3-1** Pegasus-Global assumed this to be a process directive to staff and not a formal statement of program policy or procedure.

Recommendation:

- **V1-R-5.5.3-1** As a process directive it should be included in the formal policies, procedures and processes which address augmentation and scope change decisions and actions taken by the OCCM under the SAM requirements.

²¹³ Lee Willoughby to OCCM Management Team, OCCM Approval Process for Augmentations and 20-Day Letter Requests, page 2, September 20, 2010

²¹⁴ SAM Chapter 6861, page 3

Summary Conclusion:

To preserve the process directive beyond the memorandum it should be formally adopted into those policies, procedures and processes which address project augmentation and/or project scope change.

5.3.5.4 PROGRESS REPORT TEMPLATE (UNDATED)

According to the PMI PMBOK[®] project performance involves the process:²¹⁵

“... of collecting and distributing performance information, including status reports, progress measurements, and forecasts ... The performance reporting process involves the periodic collection and analysis of baseline versus actual data to understand and communicate the project progress and performance as well as to forecast the project results.”

The PMI Global Standard for Program Management generally agrees with the PMBOK[®] but from the perspective of a program of individual projects:

“Performance reporting is the process of consolidating performance data to provide stakeholders with information about how resources are being used to deliver program benefits.

Performance reporting aggregates all performance across projects and non-project activity to provide a clear picture of the program performance as a whole.”

CMAA states that a progress report is part of a:²¹⁶

“... management information system that will keep the team informed as to the overall status and forecast of the project compared to the established Construction Management Plan. ... The system should provide a sound basis for managing the project and identifying and evaluating problem areas and variances.”

²¹⁵ PMI, PMBOK[®], Chapter 10, Section 10.5, page 266, 2008

PMI, Global Standard for Program Management, Chapter 3, Section 3.7.10, page 62, 2006

²¹⁶ CMAA, Construction Management Standards of Practice, Chapter 2, Section 2.2, pages 18-19, 2008

The common factors among those SOCs include:

- Collection of information and data in real time during the execution of the program and/or project;
- Actual progress is measured against the original project plans, goals and objectives;
- The progress to-date is used to forecast the conditions of the project at completion and compare that forecast to the original project goals and objectives set for the project upon achieving completion; and
- Progress and forecast information is used by program and/or project management to identify potential problems or issues in a timely manner in order to enable program and/or project management to formulate and implement corrective actions which will enable the program or project to achieve the ultimate goals and objectives set for the program and/or project.

OCCM's Monthly Progress Report ("MPR") is essentially a template Monthly Progress Report presumably to be used to report progress on a specific Court Capital Construction project.

Findings:

- **V1-F-5.5.4-1** The MPR is not dated so there is no indication of when the template was adopted and first put into use. The version supplied to Pegasus-Global included strikethroughs, redlines and additions to the template; however, it is not known when, or if, those alterations to the document were made, if they were adopted and if they ever went into effect as there is no revision history within the template.
- **V1-F-5.5.4-2** There is no definition of terms used within the MPR, leaving the untrained reviewer to puzzle out what data is being reported and against what that data it is being compared.

- **V1-F-5.5.4-3** It appears that not all data is being compared against the original planned data (*i.e.*, “Currently Authorized BGSF”), which does not meet the SOC which measures progress (or status) against the original, planned data metrics. This is not true for all data, as schedule and cost are reported against both the originally approved amount and the currently approved amount. This comparison to the originally planned amount is critical for Owners and Program Managers who are responsible for identification of Program-wide variances to the Program plan, which should always be measured against the original plan goals and objectives. Without that data neither the Owner nor the Program Management can identify impacts to the Program (or subsequent planned projects) without being able to ascertain where the Program is in relation to the original Program plan.
- **V1-F-5.5.4-4** There are acronyms used in the MPR which are not defined or explained, which again to the untrained reviewer are difficult to understand.
- **V1-F-5.5.4-5** There is no policy statement provided with the MPR which establishes how the information is to be identified and gathered, when the information is to be gathered (or by whom), how the information is to be verified, how the information it to be analyzed and when the MPR is to be submitted.
- **V1-F-5.5.4-6** Pegasus-Global found no reference to how, for if, the data from the individual projects would be rolled up into a Program-wide MPR which would enable the Owner and Program Management to identify issues critical to the Program as a whole, thus enabling Program Management to develop and implement mitigation plans to those Program issues and concerns in a timely and effective manner.
- **V1-F-5.5.4-7** The MPR template had a section for reporting progress but no section for reporting concerns, issues or problems on a project which should be brought to the Program Manager’s attention.

- **V1-F-5.5.4-8** The MPR template contained no forecast sections (or information) under which the forecast at completion data or information was to be calculated and reported.
- **V1-F-5.5.4-9** As currently formulated the MPR is, in essence, a high level summary of “to date project conditions” with little analysis included beyond gross figures. It would be entirely possible for someone not familiar with a project to assume that because the “numbers” all balanced in the MPR the project was being executed to the original plan, when in fact the actual progress if measured against the original plan might impart a much different conclusion.

Recommendations:

- **V1-R-5.5.4-1** The SOC for reporting Program and project progress are easily available within various published industry sources and easily customized to the needs of a megaprogram like the Court Capital Construction Program. Pegasus-Global recommends that OCCM identify a suitable set of MPR standards and templates, and then customize those templates so as to meet both the Project Management and Program Management needs.
- **V1-R-5.5.4-2** The MPR templates for the projects and the Program should be presented as part of a full, detailed statement of policies, procedures and processes so that there is a full understanding of not only how to fill in the blanks in a specific project MPR, but also how to use that report to forecast conditions at completion, how to anticipate problems before they fully manifest and how to develop specific mitigation actions in response to those potential problems.
- **V1-R-5.5.4-3** While the MPR is founded on reporting data from the past (the month just past) an MPR’s greatest value is as a predictor of the future; simply reporting historical events has little real time anticipatory management or control value to project or Program Management.

- **V1-R-5.5.4-4** Because it is simply a template for reporting data from a specific project it has limited value to the Owner or Program Management as they attempt to make mid-Program decisions in an effort to preserve the goals and objectives of the entire Program. For that reason, the Monthly Project Report and the resulting Monthly Program Report should be aligned so that critical data can be efficiently and effectively “rolled up” to the program level from the project level. There must be a transparent link between the Monthly Project Reports and the Monthly Program Reports so that the Owner and management at all levels can clearly identify negative trends and events and react in time to mitigate those trends and events. To that end a consolidated Progress Reporting Policy, Procedure and Process Manual should be developed.

Summary Conclusion:

The current MPR does not fully meet the SOC within the industry for reporting current conditions and forecasting conditions at completion. Rather than simply addressing the MPR template in isolation it should be addressed as part of a program-wide progress and forecasting policy, procedure and process document. As it currently stands the procedure is uniform from the perspective of the project level. The data contained within the MPR is not transparent or easily convertible into program relevant data. There is no single point of accountability as Pegasus-Global was informed during interviews that a wide range of positions from the Project Manager to the contracting CM to the CM@Risk may be responsible for preparing and submitting the MPR.

5.3.5.5 PROJECT DESCRIPTION (UNDATED)

Pegasus-Global is unsure as to the purpose of this report relative to management of the Program or the individual project. Likewise Pegasus-Global is not sure of the link of this policy to the Project Definition Report addressed earlier in this Report. The Project

Description template provides a numbered series of project topical areas (13 in total) which are to be filled out which includes the following information, for example:²¹⁷

- Project Description (no content specified);
- Project Address;
- Project Design and Construction Contractors;
- Current Phase Summary;
- Program (no content specified);
- Costs;
- Project Milestones;
- Etc.

There is no identification as to the position delegated the authority or responsibility to prepare this document.

Parts of the template require a narrative response while other parts of the template are checklists of various project attributes. The last topical area appears to require the submittal of project progress photographs and drawings. On the cover of the Project Description Template it states that the document content is:²¹⁸

“Derived from the newest copy of the Project Managers’ Monthly Progress Reports”

As the information in this template is apparently derived from the MPRs Pegasus-Global is uncertain as to whether or not this Project Description is duplicative of the project MPR.

²¹⁷ OCCM, Template Project Description, pages 2 through 5, Undated

²¹⁸ OCCM, Template Project Description, Cover Page, Undated

Findings:

- **V1-F-5.5.5-1** The Project Description report does not contain the information needed to determine the purpose of the document, for whom the document is intended or who is accountable for completing the template (though Pegasus-Global assumes it is the Project Manager). This is an instance where the formats of the various policies, procedures and processes are not uniform, which also impacts transparency.
- **V1-F-5.5.5-2** There are two documents – the project MPR and the Project Plan and Definition Report - which seem in certain respects to duplicate the information contained in the Project Description Template, yet none of those three documents are cross referenced or appear to be part of a common subset of procedures.
- **V1-F-5.5.5-3** Some of the information to be contained within the Project Description Template suggests the existence of other project documents, for example: known project related risk features.²¹⁹ However, Pegasus-Global has not seen a policy or procedure addresses a formal project risk management and mitigation system (with the exception of the security risk management template).

The procedure is not uniform to other policies and procedures which appear to address the some of the same topical areas. The procedure is not transparent as it did not include a statement of purpose or intent, nor was there any identification of the intended recipient. There was no single point of accountability, though Pegasus-Global assumes the ultimate accountable party is the Project Manager.

Recommendations:

- **V1-R-5.5.5-1** The Project Description Template should be reviewed in conjunction with other policies which at least in part seem to be duplicative of the

²¹⁹ OCCM, Template Project Description, page 3, Undated

procedure. If possible those duplications should be deleted in order to reduce such duplication of effort by OCCM staff.

- **V1-R-5.5.5-2** The Project Description Template should be revised and expanded to include information which will improve the uniformity and transparency of the procedure.

Summary Conclusion:

While the document as a template for recording and reporting information is reasonable, as part of a total body of policies, procedures and processes it appears to be duplicative, and therefore to some extent redundant, of other policies and procedures which provide the same or very similar information.

5.3.5.6 PREPARING ORACLE REPORTS – EXPENDITURES (UNDATED)

This document simply states that it is a procedure for “*Preparing Oracle Reports – Expenditures*”.²²⁰ The procedure has no introduction of any kind which provides any context relative to who issued the procedure, to whom or what is the procedure applicable, the intent, purpose, or bases for requirement (if it is in fact a required report), etc. All that can be ascertained from the document is that the report is populated in a preformatted Oracle database, the apparently involves some type of expenditure report named CRARF (there is no definition as to what the acronym CRARF stands for).

The sum total of the procedure as received by Pegasus-Global is a list of 12 steps for preparing an Oracle Report of expenditures; a list of 4 steps for preparing an Oracle Report of Unliquidated Encumbrances; a list of six steps for updating the CRARF report; a list of two steps for reporting ARF Transfers; and a list of three steps for Finalizing the CRARF report.

²²⁰ Issuing Agency Not Specified, Procedure for CFARF Reports, page 1, Date Unknown

Findings:

- **V1-F-5.5.6-1** Without a context which includes information relative to such things as why this procedure exists, what this procedure is intended to do, and to whom this procedure applies, Pegasus-Global is unable to develop any meaningful findings relative to the actual content of the procedure.

Summary Conclusion:

The Procedure for CRARF Reports appears to be a directions or instructions for completing a specific report and not a general program or project policy, procedure or process.

5.3.6 FACILITY MODIFICATION POLICIES

There were a series of policy documents provided to Pegasus-Global that specifically dealt with the modification to existing facilities. Because of their unique topical subject Pegasus-Global decided that the best way in which to address these policies was as a single unique category of policy. Because the Facility Modification (“FM”) policies appear to have been developed at approximately the same time and follow a consistent template as discussed below, these policies will be discussed as a whole in this Section of this Report.

Findings:

- **V1-F-5.6-1** Unlike the capital construction policies discussed above, these policies have been drafted according to a SOC to provide a logical progression of policies that walk the users working on Facility Modifications through the various steps for a Facility Modification starting with the identification of FM Candidates through to Close out of a FM project and finally the update and preventative maintenance process for a FM as shown in **Table 5.3.6, Facility Modification Policies** below.

Table 5.3.6 Facility Modification Policies		
Policy Name	Policy Date/Revision	Policy Summary
501.00 Identify Facility Modification (FM) Candidates	<p>Final Draft January 13, 2010</p> <p>August 1, 2011 [Operational Draft, Annual Rev. 1.3]</p> <p><i>Note: Appears nearly complete</i></p>	<ul style="list-style-type: none"> • Strategic goal is to “differentiate service requires entered into the Computer Aided Facility Management System (CAFM) into the correct work type...” • The process of services entering CAFM is somewhat explained, but there should be somewhere else that explains in more detail the CAFM system itself. • Policy relies on the Priority 1-6 identified/explained in the <i>Priority Methodology for Facility Modification</i>, but doesn’t call this policy out as a source. • Discusses when process ends and which policies follow next depending on final decision within policy. • This policy also notes that using Best Practices will provide consistency and a common voice. • Assures fairly that modification work descriptions are consistent and measureable. • Indicates to avoid words such as “maintenance” as implies a facility and not a facility modification. • The policy also notes that all Facility Modifications created as of 6/15/2011 that do not adhere to the format described in the Quality Assurance of Work Description Policy, will be returned via CAFM. • Section 1.4 notes that not all steps included within the policy are yet defined or fully developed. • Section 1.5 is Proven Performance Metrics with questions, however, no other information as to who asks, how information is obtained, and what is done with the information once obtained.
501.10 Facility Modification Naming Convention: Quality Assurance of Work	<p>April 8, 2011 [Final]</p>	<ul style="list-style-type: none"> • Though Pegasus-Global has reviewed a few Quality Assurance procedures, this procedure establishes the proper method for documenting facility modification requirements, such as word

Table 5.3.6 Facility Modification Policies		
Policy Name	Policy Date/Revision	Policy Summary
Descriptions		<p>usage and format.</p> <ul style="list-style-type: none"> • Does contain a statement that policy overrides any and all previous guidance on titling Facility Modifications. • Purpose is to adhere to a standardized description format that is recognized to all stakeholders. Other purposes are to “ensure consistency”, “implement measurable quality assurance effort”, and to “provide reporting capability.”
502.00 FM Scope: Facility Modification Coordination Committee & Conceptual Estimate Process (FMCC &CE)	<p>2nd Draft January 21, 2010</p> <p>August 1, 2011 [Operational Draft, Annual Rev. 1.2]</p> <p><i>Note: Outline only</i></p>	<ul style="list-style-type: none"> • Outline of process used to route facility modifications relevant to cost criteria, and to estimate the cost of facility modifications believed to be over \$25k (if preliminary cost estimate is over \$50k, a conceptual estimate will be developed). • Primarily an administrative step outline. • Process ends with direction of what policy to go to next depending on actions taken. • Several sections provide an action, but no discussion of that item. For example, Section 2.2.2 provides that FMCC members review and comment; however, there is no guidance of what to look for in the review. How is uniformity and transparency maintained? Similarly, Section 2.2.6 notes a question as to whether all FMCC issues are resolved. However, there is no prior step that discusses issues. What kind of issues? What is the process for resolving issues? Section 2.2.7 discusses that comments received from FMCC are updated by the FM Administrator into CAFM. However, how does this input get used? What happens once comments are entered into CAFM? Section 2.2.11 notes the FM enters into Progen. However, there is no definition of Progen or how it might be useful to those using this policy. Section 2.2.14 mentions the

Table 5.3.6 Facility Modification Policies		
Policy Name	Policy Date/Revision	Policy Summary
		<p>Conceptual Estimate however, there is no mention of a policy which describes how the Conceptual Estimate is performed nor how the Conceptual Estimates are uniform in their preparation across all projects. Likewise, Section 2.2.17 notes that the Project Manager reviews the Conceptual Estimate as appropriate. What is the Project Manager reviewing within the Conceptual Estimate and what does “appropriate” mean?</p> <ul style="list-style-type: none"> • Section 2.4 highlights many of the outstanding work to still be done as discussed above on the policy and which steps in the policy require this action. • Section 2.5 contains the same questions under Process Performance Metrics as shown in Policy 501.00 however, as discussed above, there is no discussion as to who asks the questions and of whom, how the information is obtained, what is done with the information once gathered, how and where does the information go and what is done with it once captured.
503.00 FM Ranking & Scoring (Prioritization)	<p>January 21, 2010 [2nd Draft]</p> <p><i>Note: Outline only</i></p>	<ul style="list-style-type: none"> • Uses the procedures defined by the <i>Trial Court Methodology for Prioritizing and Ranking Facility Modifications</i> to list unfunded projects and prepare a recommendation for the Trial Court Facility Modification Working Group. • Outline only. • Main benefit listed is the fair and equitable distribution of available FM funding across all unfunded FMs. • Section 3.1.1 discusses that initial score may be submitted in earlier Policies 501 and 502. • Draft policy contains comments from reviewers within policy and could not be in position to use this policy at this time (March 2011).
503.10 Trial Court	January 13,	<ul style="list-style-type: none"> • Describes the TCFMWG and the process they

Table 5.3.6 Facility Modification Policies		
Policy Name	Policy Date/Revision	Policy Summary
Facility Modification Working Group (“TCFMWG”) Meeting	2010 [Final Draft] <i>Note: Appears nearly complete</i>	<p>use for determining which facility modifications from the list created in Policy 503.00 (above) to decide on the funding.</p> <ul style="list-style-type: none"> • Defines composition of TCFMWG. • Discusses when complete what policies to go to next depending on decisions made. • Provides to who the policy is for information, for guidance and describes in detail the process for preparing for the working group meeting. • References Appendix B which is titled “<i>Trial Court Methodology for Prioritizing and Ranking Facility Modifications</i>”. Upon review, this Appendix appears to replace the policy discussed later in this table. However, the dates and adoption for both of these policies makes this unclear. For example, Appendix B is more detailed than the Prioritization Policy discussed later and includes similar verbiage. It was also adopted by the TCFMWG on February 20, 2009 and refers to a Judicial Council report dated December 2, 2005. However, the later Prioritization Policy says it was adopted by the Judicial Council on April 24, 2009, two months later, and says it replaces the policy adopted on December 2, 2005. • Although this is marked as a final draft and appears to be one of the most detailed and complete policies within the Facility Modification set of policies, Step 3.10.4 Predetermined and Non-Formal Processes notes “<i>Some of the steps included in this procedure are complex and/or not well established and need further clarification, which will be defined or developed in a future project.</i>” (It then lists the specific steps needing more definition).
504.00 FM Funding	2 nd Draft January 21,	<ul style="list-style-type: none"> • Divided by the type of facility modification and funding source: Court Funded Requires (CFR);

Table 5.3.6 Facility Modification Policies		
Policy Name	Policy Date/Revision	Policy Summary
	2010 July 5, 2011 [Process Cycle, Rev. 2.0 of 2 nd Draft] <i>Note: Outline only</i>	Funding source other than OCCM, FMU [Facility Management Unit], or Court; or, Approved by TCFMWG. <ul style="list-style-type: none"> References Policy 1301.10 Project Notification Process (included in the Capital Construction Policies). Is in outline form only. Please refer to comments noted for Policies 502, 503, and 503.10 regarding state of completion.
504.10 Shared Cost Approvals	Initial Draft 2011 March 22, 2012 [Final Draft Review, Rev. 1.7] <i>Note: Appears nearly complete</i>	<ul style="list-style-type: none"> Describes in detail the process used to inform the county of the shared cost they are responsible for on a facility modification (after it has been approved by TCFMWG), covers the entire process from how to address the letter to the county, to handling the response if approved or denied. Purpose is to provide tracking process that multiple parties can follow start to finish Ensures that Finance is able to invoice the County by having the correct documentation.
505.00 FM Contracting	January 19, 2010 [2 nd Draft] <i>Note: Outline only</i>	<ul style="list-style-type: none"> Identifies contracting method to be used, and process for selected method. Purpose is to ensure the proper protocol is followed to ensure a valid contract is in place and that the proper authorizing entities have signed the contract making it a legal and binding contract. Process ensures all appropriate contract documents are distributed and archived. Outline form only. Section 5.4 notes several steps that are not yet defined or complete. Section 5.5 provides the same questions regarding process performance metrics, however, no further information is provided as discussed in Policy 502 above.

Table 5.3.6 Facility Modification Policies		
Policy Name	Policy Date/Revision	Policy Summary
506.00 FM Execution	January 25, 2010 [2 nd Draft] <i>Note: Outline only</i>	<ul style="list-style-type: none"> • Purpose of this policy is to manage every aspect of the facility modification execution phase. Includes team assembly, billing, inspections, documentation, and more. • Sketchy outline only. • Still includes reviewer comments within policy.
507.00 FM Close Out	January 27, 2010 [2 nd Draft] <i>Note: Outline only</i>	<p>Note: this procedure is similar (outline only) to the capital construction policy</p> <ul style="list-style-type: none"> • Purpose is to finalize a facility modification, including payment to contractor, capturing lessons learned, updating CAFM status, identifying new assets, capturing project documentation, and more. • Outline form only with many comments from reviewers still included within sections of the policy. • Section 7.4 notes: <i>“There are noticeable gaps between the completion of 3.6 Execution and the finalization of the project in 3.7 Close-Out.”</i>
507.10 FM Asset Update & Preventative Maintenance Process	January 25, 2010 [2 nd Draft] <i>Note: Outline only</i>	<ul style="list-style-type: none"> • Tracks any new assets in place as a result of a facility modification. • Includes a preventative maintenance procedure with note that it is technically not a part of the asset update sub-procedure, although it is in the title of this policy. • Outline only. • <i>“The desired outcome using the asset update process is to allow for proper and accurate documentation of the mainstream history and ongoing condition of building assets.”</i> • This policy is the last step in the Policies for Facility Modification.

Table 5.3.6 Facility Modification Policies		
Policy Name	Policy Date/Revision	Policy Summary
Prioritization Methodology for Modification to Court Facilities	<p>April 24, 2009</p> <p><i>Note: No initial page as other modification procedures with dates of drafts, etc. However, appears to be replaced by Appendix B to Policy 503.10 Trial Court Modification Working Group (TCFMWG) Meeting</i></p>	<p>Note: this policy has been seen before in the Capital Construction Program Policies</p> <ul style="list-style-type: none"> • Although similar in name to <i>Prioritization Methodology for Trial Court Capital-Outlay Projects</i> (October 24, 2008), the process is somewhat different. For example, the rating system for Modification defines what the results could be (Immediately or Potentially Critical, Recommended, etc.), where the Capital-Outlay defines what the objectives are (Overcrowding, Physical Condition, etc.). <ul style="list-style-type: none"> ○ Modification has a “Priority 1-6” rating system and also uses the services of a “Trial Court Facility Modifications Working Group”. ○ Capital-Outlay uses a <i>Review of Capital Project</i> (RCP) rating system and is based on: improving security, reducing overcrowding, correcting physical hazards, and improving access to court services. This leads to the development of “priority groups”. • See discussion on FM Policies relative to this version of this policy.

- **V1-F-5.6-2 Policy Template**

The policies have been developed in a manner consistent with SOC industry practice and as recommended are undertaken for the capital construction policies discussed earlier. The FM policies follow a consistent template across all FM policies for development using a title page for the Policy with its title and latest date. While Pegasus-Global has made some observations below

regarding the information contained in the Revision Management Section, Pegasus-Global observes that each FM policy is uniform regarding the information about the respective policy development. Inside each policy provides a page with the revision management information identifying:

- Responsible Office;
 - File Location on server;
 - Author;
 - Approved by;
 - Process Owner;
 - Process Review Cycle; and
 - Revision number, description, date and who the revision was by.
- **V1-F-5.6-3 Strategic Goal, Scope and Purpose**

Each policy has a clear Table of Contents followed by a Strategic Goal, Scope and Purpose Statement. This introduction section is followed by a Preliminary Considerations and/or Requirements Section and then a Section describing the steps and processes in the policy/procedure. Each policy then concludes with an Appendix that contains a flow chart visualizing the process described in the policy.

Under the Strategic Goal, Scope and Purpose Statement, each policy references the applicable goals of the California Judicial Branch and the applicable goals of the OCCM Strategic Goals and allows the user to be aware upfront of the expectations of the OCCM Program Management in execution of this policy in order to meet the goals and objectives of the overall Program.

The scope clearly outlines for each policy the respective users of the policy and their role with respect to information, guidance or direction; and the logical

progression through the next policies to be used once the process within the respective policy has been completed. The purpose of each policy also clearly and simply states the purpose of the policy.

- **V1-F-5.6-4 Policy Development**

Review of the policy development dates of the policies reveals that the effort undertaken for the development of the FM policies appears to have taken place over the period of December 2009 through January 2010. However, with the exception of Policy 501.10, *Facility Modification Naming Convention: Quality Assurance of Work Descriptions*, none of the policies show the policy as “Final”. All appeared to remain in some draft form. There are three additional policies, Policy 501.00 *Identify Facility Modification (FM) Candidates*, 503.10 *Trial Court Facility Modification Working Group (TCFMWG) Meeting*, and Policy 504.10 *Shared Cost Approvals*, which appear nearly complete and also appear to possibly being currently used. However, none of the policies have been formally adopted, although Appendix B in the 503.10 *TCFMWG Meeting* policy does indicate it has been adopted by the TCFMWG.

Appendix B and its adoption by the TCFMWG raises some confusion as identified in **Table 5.3.6**, as there is another FM policy, unnumbered and drafted similarly to what Pegasus-Global observed in the capital construction policies, which appears to be similar to Appendix B in 503.10. However, it is unclear which policy is actually in affect and being used. For example, Appendix B refers to a Judicial Council report dated December 2, 2005 and notes that it was adopted by the TCFMWG on February 20, 2009. Adoption typically signifies that the policy is in use. However, the similar unnumbered policy with essentially the same title but significant less detail, notes that it was adopted by the Judicial Council on April 24, 2009 and replaces the policy dated December 2, 2005. The questions that remain are, “Does the TCFMWG know that there is a similar policy, but with much less detail that is shown as being adopted by the Judicial Council two months later than the policy the TCFMWG adopted and is apparently

using?” and “Who submitted the apparently older and less detailed Prioritization Policy to the Judicial Council for their adoption of the policy?” and finally, “Does the Judicial Council know that there is another more detailed policy adopted by and being used by the TCFMWG?”

While the policies remain in draft form, revision numbers are being applied to the latest draft reflecting work conducted on some of the policies in 2011. This is unconventional language and not standard in the industry, as policies and procedures before they are put out for use, should be finalized and approved, typically by the Director of the Division ultimately responsible for the projects/program being executed based on the policies, before they can be used for execution. The user then recognizes that a formal process of review and approval has been undertaken for the policy and that the policy then reflects a uniform, transparent and accountable means of executing the work defined within that particular policy.

It is unclear to Pegasus-Global why the policies have not been finalized or adopted for use on the Program, especially for the four specific policies that are either noted as “final” or nearly complete. Use of un-adopted policies and procedures and use of policies and procedures which are not final or complete may lead to potential confusion with users as to whether they should or should not follow what is currently included and/or can lead to inconsistencies in the execution and application of particular steps so outlined in the draft policy as sufficient detail does not exist to provide for the expected SOC of uniformity, transparency and accountability.

- **V1-F-5.6-5 Revision Management**

Pegasus-Global also observes within the Revision Management Section of the draft FM policies that the author noted is often “FM Staff Collaboration”. While this may actually be the way the policy was developed, there must be a specific individual that becomes accountable for the policy, including its development and revisions. First, someone must take responsibility for ensuring the policy is

actually complete before approval. Second, that same individual must be available should questions arise from users and further as recommendations are made which then need to result in potential revisions to the policy. It would appear that this step has been applied with the specific policy revisions as a specific name is typically provided by the Revision number and date.

Pegasus-Global also noted that the policies have been in nearly if not all, approved by Gerald Pfab, Senior Manager, Facility Management Unit. It would be SOC for the ultimate approval of all OCCM policies to be approved by the OCCM Director. This assures that the OCCM Director has seen all OCCM policies and procedures for the entire Program and has assured that all policies and procedures are uniform, transparent and accountable across all projects whether they are capital construction projects or FM projects. Without this approval, it is unclear whether the OCCM Director has read or agrees with the processes so described within the policies.

The Process Owner within the Revision Management Page is sometimes noted as simply a position within the FM Unit, or sometimes lists a name along with the position. As is discussed earlier in this Report, it is preferable to only note the position that is responsible for the policy and not a specific individual name as over the life of a program, specific individuals may come and go.

- **V1-F-5.6-6 Policy Completion**

As discussed in **Table 5.3.6**, nearly all the FM policies remain to be completed and nearly all have a section which contains a similar statement, *“Some of the steps included in this procedure are complex and/or not well established and need further clarification, which will be defined or developed in a future project.”* The section then continues with a listing of those steps within the policy that fall into that category.

Nearly every policy also contains a section titled “Process Performance Metrics” which contain the following questions:

- *“How do we know the process is working efficiently?”*
- *“What is critical to the internal/external customer of this process?”*
- *“What are the critical measurements that define the quality of this process?”*
- *“Are there any baseline metrics available or industry benchmarks?”*

These are excellent questions to be asking for each policy. However, it is unclear as to whether this section is to provide specifics to these questions respective to each policy, in which case that information would need to be developed for each policy, or whether each policy intends to reach out to the users of the policy to obtain information that can be input into a database for lessons learned and applied to future projects. If so, additional information would also need to be defined as to who and how this information is obtained, how it is then captured into the system and then how it would be used for future projects.

Several of the FM policies contain actual observations and comments from various reviewers of the policy and remain unanswered. As the FM policies are in essence only in outline form, with the exception of the one that is final and the other three which appear nearly complete, it is difficult to compare the policy against industry standards as there is insufficient information from which to compare. Thus, as noted earlier, Pegasus-Global finds that the development work to date is good and the development process of the FM policies does follow a process for policy development that follows an expected SOC practice and should continue accordingly in their finalization.

Recommendations:

- **V1-R-5.6-1** The FM policies would benefit from a Definitional Section following the Goal, Scope and Purpose Section which would define the various terms applicable and used within the specific policy. This would also include the various

units that are discussed in the Scope Section that would be informed by the policy, would be guided by the policy or would be directed by the policy.

- **V1-R-5.6-2** An overall recommendation of the FM policies in development completion is the need for specific identification of positions within the various steps outlined in the policies that is accountable for assuring the overall policy and the various steps are actually undertaken and performed in accordance with the steps outlined in the policy.
- **V1-R-5.6-3** Pegasus-Global recommends that the FM policies be finalized and adopted for use on the Program which will provide a uniform and transparent set of policies that will provide the accountability of execution of each step within the FM process and within each policy of the FM process.

5.4 PART I SUMMARY

Pegasus-Global found that while several of the Program level policies, procedures and processes had been drafted, few had been completed and/or formally adopted as of the date of this management audit. As a result, there was a lack of uniformity, transparency, and consistency within and across those policies, procedures and processes. As was determined during Pegasus-Global's review of the Project level practices the lack of uniformity, transparency, and consistency at the Program level resulted in the Project management and control practices were also not uniform, transparent, or consistent.

The Court Capital Construction Program faces a significant change in the execution environment as a result of the economic conditions being experienced in the State of California. To mitigate the impact of those environmental conditions the CFWG, AOC and OCCM will have to focus on increasing the effectiveness and efficiency of the respective organizations, which will in great part depend upon establishing a coordinated, mutually supporting set of program policies, procedures and processes to govern the management and control of both the Program and the projects.

6.0 PART II – MANAGEMENT AUDIT OF INDIVIDUAL PROJECT TEAM PRACTICES

6.1 INTRODUCTION

In this **Part II** of the Court Capital Construction Program Management Audit Pegasus-Global presents its findings and recommendations in accordance with audit **Deliverable 1.a.2** relative to how the individual projects are planned, managed and controlled during the execution of those projects based on Pegasus-Global's selected audit projects identified in its work plan.

Audits of multiple projects within a megaproject program are, by necessity, limited to tests of various management practices spread over a selected number of individual test projects in accordance with GAGAS. This is primarily due to the fact that a comprehensive, detailed audit of every project within a megaprogram would be both prohibitively expensive and take an inordinate amount of time to complete. As a result findings cannot and should not be attributed to any one project or group of projects; the findings are limited to those which are the most critical to the execution of projects in a megaprogram but which may not be an attribute which was common among all the test projects reviewed.

Pegasus-Global would have been unable to conduct this phase of the management audit without the full cooperation and participation of managers and staff members of OCCM. Pegasus-Global found that Program and Project Managers interviewed were

willing to answer questions in a very open and comprehensive manner, without regard to how those answers might reflect on either the specific project under audit or the program as a whole. Likewise the Program and Project Managers acknowledged what they considered to be gaps in the governance of the Program and the projects, often sharing suggestions which they believed would strengthen both the program and the projects.

At the same time the Program and Project Managers were not unanimous in their positions relative to management strengths and weaknesses they felt existed at the program or project levels. For example, Project Managers differed in their opinions relative to what procedures and processes should be more formalized. One set of Project Managers was of the opinion that there should be almost complete autonomy for the Project Manager to act as they saw fit, to the point of stating that the Project Manager was the ultimate “Owner” of the project and as such should have complete authority to act as they believed proper at all stages of the project. Other Project Managers felt that there needed to be additional structure to the Program and the projects within the Program; their position was that they felt that the lack of more formalized guidance left them at the whim of competing stakeholder groups, with few checks and balances established at the Program Management level.

As noted in **Part I**, policies, procedures and processes do not need to be so stringent as to leave the Project Manager with no ability to respond to the uniqueness of their projects; however, there must be boundaries set on that autonomy if the Program as a whole is to meet the Program objectives.

To be effective and efficient at the project level, Program Management must adopt the tools and techniques which are necessary to manage and control the Program and its projects, while at the same time be willing to adapt policies, procedures and processes to the actual conditions which arise (and to some extent have already arisen) during the execution of the Program and projects. This is not an easy balance to strike on any megaprogram, primarily due to the large number of stakeholders directly involved in the programs and the projects; however it is a critical for the ultimate success of the

program for that task to be undertaken before moving much further into execution of the current round of projects.

6.2 RELATIONSHIP BETWEEN THE PROGRAM AND PROJECT MANAGEMENT LEVELS

There are four objectives which are common to every capital construction program:

1. **Scope** – completing the full scope of work necessary to meet the intended purpose of the facilities that, in total, comprise the program.
2. **Cost** – completing the entire program within the budget established for that program.
3. **Schedule** – completing the entire program within the time set for execution of that program.
4. **Quality** – completing the program that meets the functional standards established for the program.

The individual projects which comprise the program must meet, or exceed those same objectives as set for the individual project in order for the program to successfully attain those four objectives. Every project which does not meet any or all of its four objectives may directly impact the program's successful achievement of those same four objectives at the program level. In fact, the relationship between the program level objectives and project level objectives is reciprocal. To repeat the example given in **Part I**:²²¹

Every decision made or action taken at the program level has the possibility of impacting the achievement of goals and objectives set at the individual project level. Likewise, every decision made or action taken on an individual project level has the

²²¹ State of California, Judicial Council of the Courts, Administrative Office of the Courts, Court Capital Construction Program Management Audit, Pegasus Global Holdings, Inc. Section 3.2, page 37, July 2012.

possibility of impacting the achievement of goals and objectives set at the total program level.

Regardless of this reciprocal objective relationship, when any of those four objectives are not met, either at the program or project level may be attributed to **Program Management's** perceived (or actual) inability to manage and control the execution of the individual projects. Even though Program Management may have delegated the authority to manage and control a specific program task or the entire execution of a specific project to a staff position, and even though Program Management may hold a staff position responsible and accountable for achieving the program or project objectives, the Owner and investors in the program may hold program management directly responsible for the inability to achieve program or project objectives.

There are any number of management concerns and issues which need to be addressed by Program Management relative to the planning and execution of a program consisting of multiple discrete projects. In addition to developing and disseminating those policies, procedures and processes necessary to govern the execution of the program and its constituent projects, there are three primary functions which Program Management must fulfill to improve the chances of successfully meeting the program objectives:

- Establishing a reasonable span of control within the program and projects.
- Testing the implementation of policies, procedures and processes at the project level.
- Instituting a continuous improvement loop which strengthens the program as lessons are learned on every project executed.

Those three elements are discussed briefly below to establish the context of the relationship between program and project management and control. That relationship is, in part, a critical element of any program, but especially a megaprogram where the expectations at both the program level and the project level are directly tied to the ultimate success of the program.

6.2.1 SPAN OF CONTROL WITHIN THE PROGRAM AND PROJECTS

Having noted above that Program Management is ultimately held responsible for the inability to achieve program or project objectives, the issue becomes what the industry refers to as program and project management's actual **span of control** over the program and the individual projects. As defined by the *Economist*:²²²

"A manager's span of control is the number of employees that he or she can effectively be in control of at any one time."

Prior to the growth in the number, size and complexity of construction megaprojects and megaprograms, management theory held that:²²³

"... an effective span of control is five to seven people [or functional positions]."

That traditional limit on span of control results in a *vertical organizational structure* composed of multiple layers of management within which each manager manages and controls a specifically limited number of responsibilities and staff positions.

According to the *Economist*:²²⁴

"Over the years ... there have been so many differing views about the optimum span of control that the unavoidable conclusion is that it is a matter of horses for the courses. The ideal span is partly determined by the nature of the work involved."

A vertical organization relies on multi-layered tiers of management with each descending layer of management having authority, control and responsibility limited to less and less of the total program or project management responsibility required to successfully achieve program objectives. At each layer down through the vertical

²²² The Economist, November 9, 2009, adopted from "The Economists Guide to Management Ideas and Gurus", Tom Hindel (Profile Books)

²²³ Project Management, A Systems Approach to Planning, Scheduling and Controlling, Harold Kerzner, John Wiley and Sons, Sixth Edition, Chapter 3, page 122,1998

²²⁴ The Economist, November 9, 2009, adopted from "The Economists Guide to Management Ideas and Gurus", Tom Hindel (Profile Books)

organization managements function and control sphere is confined to an ever shrinking set of authorities and responsibilities.

The traditional theories relative to span of control and a vertical, multi-tiered management structure simply do not work effectively or efficiently in a megaprogram or megaproject setting. In a megaprogram context each added layer of (vertical) management significantly adds to the cost and complexity of managing and executing the megaprogram or megaproject, which by their very definition are larger and more complex than any traditional construction project. For example, one of the most critical elements in every megaprogram consisting of multiple projects is the effective, efficient and timely collection and dissemination of program and project status information. There are several impediments to effective, efficient and timely communication of critical program and project information in a vertical management structure, among them:

- The filtration of information as it travels through the management layers. At each management level the information being communicated is filtered by that management layer to align with that management layer's *interpretation* of the information. With each interpretation the information becomes more and more diluted, to the point where the urgency and import of the original communications may be lost.
- Vertical management structures inevitably delay the movement of communications up through the organization, with a similar delay imposed as the response to those communications pass back down through the organization. The delay is part processed based, as each management level imposes its own communications processes to move communications through the organization; and, part of the delay is that at each management level management must formulate and implement a response to the communication (*i.e.*, pass the communication upward or sideways through the management structure or develop a proposed response to the communication prior to moving the communication forward for final action).

Time is the enemy of every construction project, but losing time in a megaprogram can have a devastating effect on the program or projects ability to successfully identify and take actions that may enable the project to avoid or mitigate an impact to the successful attainment of project objectives.

The reliance on the traditional, vertical management structure in construction megaprograms and megaprojects began to change in the early 1960s as the industry began to adopt horizontal management structures which were more efficient and cost effective than a traditional vertical organizational structure. However, the adoption of a horizontal management structure was not immediately or completely successful:²²⁵

“The span of control has expanded [and] the results have ranged from mass confusion in some companies to complete success in others.”

One of the reasons for the “mass confusion” which was evident in the early years of the switch to a horizontal organization was that:²²⁶

“Flatter organizations mandate better communications, more cooperation, and an atmosphere of trust. In other words, mature project management organizations advocate flatter structures mainly because of the presence of multidirectional, cooperative work flow.”

Successfully achieving that cooperative work flow requires that program and project management is given:²²⁷

“...authority and power ... in written form; formal project management policies and procedures ... and [the] documentation [that] is necessary even for simple tasks.

The successful adoption of the horizontal organizational structure became more widely achievable with:²²⁸

²²⁵ Project Management, A Systems Approach to Planning, Scheduling and Controlling, Harold Kerzner, John Wiley and Sons, Sixth Edition, Chapter 21, page 1016,1998

²²⁶ Project Management, A Systems Approach to Planning, Scheduling and Controlling, Harold Kerzner, John Wiley and Sons, Sixth Edition, Chapter 21, page 1016,1998

²²⁷ Project Management, A Systems Approach to Planning, Scheduling and Controlling, Harold Kerzner, John Wiley and Sons, Sixth Edition, Chapter 21, page 1016,1998

“The coming of the virtual organization... In a virtual organization people work as independent self-contained units, either individually or in small teams. They have access to (electronic) information that lays down the boundaries within which they can be autonomous. But at the same time they are allowed to be completely free within those boundaries. In such an environment, the ideal span of control can be very large. Indeed, it can scarcely be called a span of control any longer; it is more a span of loose links and alliances.”

Virtual management is organized in a horizontal structure within which there are far fewer management levels, but with each level having management and control responsibility and authority over a wider set of functions. The horizontal organization essentially depends on fewer people controlling and managing the same amount of work required of any megaprogram. There are two keys to a successful horizontal structure in a megaprogram, as summarized from the sources quoted above:

- Access to **electronic information** in order to install and maintain the effective, efficient, and timely communication of critical program and project information; and,
- The **establishment of boundaries** within which each manager acts autonomously to execute their delegated authorities.

Electronic information is not confined to such tasks as scheduling or cost control systems, but requires careful development and implementation of a document control system which provides a Program or Project Manager with the sophisticated tools necessary to fulfill a number of retention and communication functions which in the past would have required much more management attention and higher support staff levels. In **Part I** of this audit Pegasus-Global identified the critical role of the electronic document control system primarily because sound document control can enable a single manager to not only store critical information, but also enables the project and

²²⁸ The Economist, November 9, 2009, adopted from “The Economists Guide to Management Ideas and Gurus”, Tom Hindel (Profile Books)

program to integrate and speed communication of critical project and program information and data.

Boundaries in a megaprogram are established in the development, distribution and enforcement of policies, procedures and processes and the formal delegations of authority by Program Management. Enabling a manager to act autonomously does not mean Program Management cedes total control and authority over any element of the megaprogram or its various management elements, including total control or authority over any individual project within that megaprogram. As noted above in this **Part II**, Program Management (which in this instance includes the Owner) may ultimately be held responsible for the success or the inability to meet goals or objectives of the program and each of its constituent projects. For that reason, Program Management must clearly and formally (in writing) define both the **expectations** for the program and each individual project, and the **boundaries** within which those program and project managers have the authority and responsibility to make decisions and take actions in executing their specifically assigned functions including the execution of the individual project levels.

Autonomy in a megaprogram setting works if:

1. Program Management has **clearly defined and formally delegated authority** to the Project Management to make decisions and take actions during their execution of a project, which includes formally setting the limits on those delegated authorities. Program Management cannot simply tell a Project Manager that they are solely responsible for the successful execution of a particular project; Program Management must specifically list those decisions and actions delegated to the Project Manager within which the Project Manager may act with autonomy.
2. The formal delegations of authority must clearly cite any **limitations to the autonomy** for making decisions and taking actions. Those limitations should be based on Program Management's need to protect the entire program from any impacts at the project level which could have a reciprocal impact on the

entire program. If Program Management does not formally delegate to the Project Manager authority to act and/or does not establish the limitations within which the Project Manager has the authority to act with autonomy on a given project, then Program Management cannot expect the Project Manager to be accountable for any decision made or action taken on a project which ultimately impacts the program as a whole.

Project Managers acting autonomously without limitations on their autonomy will naturally base their decisions and actions on the needs of their project(s) without regard for the broader needs of the program; and that is how it should be. Conversely, Program Managers must put the needs of the program above the needs of any one project; and that also is how it should be. To achieve both project and program objectives those two layers of management must have a very clear understanding of how they will work in concert to achieve both project and program goals. In short, both levels of management must understand and accept the delegations of authority and the boundaries set on those delegated authorities.

OCCM was essentially forced into a horizontal organizational structure by its limited staffing; however such horizontal organizational structures are actually becoming more and more accepted and prevalent in megaprograms primarily due to the advances in electronic management support systems. OCCM's selection of personnel to fill its horizontal positions was sound from the perspective of that staff's ability to perform demanding tasks with a professional and personal dedication to the successful completion of functions, projects and the Program as a whole. Pegasus-Global found that the individuals filling crucial roles did not "work the clock" (to the traditional work day hours required); worked with an entrepreneurial perspective (focusing on maximizing the benefits achieved to the costs invested); and took full responsibility for every decision made or action taken in fulfillment of their functional roles.

Pegasus-Global also found that the current core staff positions of the Court Capital Construction program and projects had immersed themselves into the Program execution quickly even through the program essentially had literally no ramp-up phase,

which traditionally enables program management to establish and implement those policies and procedures which formally delegate authority and set the boundaries on autonomy for each functional Program and Project Manager. Since the initiation of the Program in 2002, OCCM has initiated work (site acquisition funded) on 59 projects with a total budgeted value of \$6.6 billion. During that same period OCCM has completed eight projects with a total budgeted value of \$300 million. Pegasus-Global observes that while the number of completed projects through the first ten years of the Program sounds low, to have initiated and completed that many projects representing that level of investment is an accomplishment not typically expected for a megaprogram the size of the Court Capital Construction program.

Industry practice agrees on the importance of investing a significant amount of time establishing the foundation upon which a megaprogram and the individual projects will be managed and controlled prior to initiating any execution of the individual projects. The period during which the foundation of the megaprogram is laid is referred to as program “ramp-up”; which includes planning, staffing and setting the policies, procedures and practices within which the program and its projects will be managed and controlled.

The depth and length of the ramp-up phase of a megaprogram is determined by the intricacy and complexity of the management and control functions required by the megaprogram. Within the industry the generally accepted sequence of management actions during program ramp-up for a megaprogram is as follows:

- Set the program objectives from all perspectives and with a maximum of stakeholder input;
- Perform a formal risk review to identify and quantify the risk elements which have the potential to impact the successful attainment of the program objectives;
- Identify and establish the functional management roles and responsibilities necessary to fulfill management and operational control tasks and

successfully overcome risks and impediments to the successful execution of those functional requirements;

- Prepare preliminary program management and execution plans;
- Establish formal policies, procedures and processes under which the program and project management will function to successfully meet the program obligations and objectives. This includes setting and formalizing delegations of authority and boundaries on autonomy for each functional management position at both the program and project management levels.
- Recruit and hire staff that has the background and qualifications necessary to fill the functional positions at both the program and project management levels given the objectives of the program, the risk profile of the program and under the delegations of authority and boundaries on autonomy set for the functional program and project management positions.

The Judicial Council mandate from the legislature was to immediately initiate work at both the Program and project levels, including the transfer of all trial courts to the Judicial Branch, the creation of a prioritization methodology to identify the immediate and necessary trial court projects, and actually initiate execution of individual capital projects. All of those tasks were initiated within such a compressed timeframe that AOC and OCCM did not have the luxury to fully complete the traditional ramp-up phase expected in the life cycle of a megaprogram before embarking on the execution of projects identified for the Program. As a result, the Judicial Council, AOC and OCCM had to focus primarily on those actions that were deemed critical to achievement of the immediate objectives set for the Program and its individual projects. Ultimately, Program Management had to choose where to focus its attention with the limited time and staff resources available, and chose to focus on the actions which would most quickly meet the objectives mandated, in the most expeditious manner possible.

However, in doing so, a large number of the policies, procedures and processes necessary to effectively and efficiently manage and control a megaprogram comprised

of numerous independent projects has not yet been fully completed, integrated or implemented. Accordingly, formal delegations of authority and boundaries on autonomy as set forth in those policies, procedures and processes have not yet been fully developed or implemented. In addition, the electronic document control systems to support Program and Project Management in a horizontal organizational structure have also not been fully developed or implemented. While the OCCM has not yet been able to fully complete and thus implement the draft policies, procedures and processes currently in place (including written delegations of authority and boundaries set on autonomy), the Program has essentially fulfilled its primary mandates including initiating work on 59 projects and completing eight projects.

Pegasus-Global credits this accomplishment to the staff currently occupying the functional Program and Project Management positions. However, as the Program enters its next phase, in the longer term the Program cannot depend solely on its choices in staffing those critical positions to ensure the successful attainment of program or project objectives. Based on its findings, Pegasus-Global recommends that Program Management complete the development, and implementation of standardizing policies, procedures, processes, formal delegations of authority and boundaries to autonomy (in total, “program governance documents”) as discussed in **Part I** to ensure that the current success not only continues, but improves the effectiveness and efficiency of the management processes necessary within a horizontal management structure.

As discussed in **Part I**, the foundations for many of those program governance documents already exist, but still need to be expanded, formalized, completed and integrated. Two advantages that Program Management has relative to completing the program governance documents for the Capital Court Construction Program at this point in the Program are:

- Program Management now has specific lessons learned at both the program and project levels which can be used during the finalization and formal implementation of those governance documents;

- Program Management now has experienced management staff at both the program and project levels that have been executing their functional responsibilities since the inception of the Program and can provide valuable perspectives from their experience and assist in development of those governance documents

The findings which follow in this **Part II**, in accordance with GAGAS, identify the gaps between the program governance documents and the actual project practices being followed in the field. Likewise this **Part II** identifies instances where decisions, processes and actions taken by different Project Managers are not uniform or consistent across all projects audited. Pegasus-Global finds that the gaps and inconsistencies identified in project management are primarily due to gaps which exist in the current program governance document set, as delineated in **Part I** of this Report. Recognizing that the set of governance documents is not yet fully complete and implemented, Pegasus-Global did not find it unusual that individual Project Managers developed their own methodologies and practices for executing their assigned projects. In fact, one of the strengths of the current Program is that the Project Managers actually moved to fill those gaps and take responsibility for their decisions and actions instead of pushing all authority and responsibility back onto Program Management.

Ultimately however, that very individuality which is currently present at the Project Management level may also prove to be a significant weakness in the Program in the future if steps are not taken to complete and implement the current draft policies, procedures and processes. This is primarily due to the extended duration of megaprograms such as the Court Capital Construction Program. During extended megaprojects managers leave and new managers take their place. Pegasus-Global cautions that OCCM should not assume that those new managers will have the same skill sets or perspectives that exist in its current management staff. Likewise, OCCM cannot afford to have every manager added to the Program (through either replacement or augmentation) develop and implement their own governance practices. For this reason Pegasus-Global recommends that OCCM complete and implement a

comprehensive set of governance documents based on the recommendations set forth in **Part I**.

Pegasus-Global also observes that even in horizontal management structures there is a limit on how much any management or staff functional position can effectively manage and control. During the audit Pegasus-Global encountered several instances where program or project management and control staff appeared to be at or beyond a reasonable level of control and responsibility. During the interviews, no one expressed any inability to execute their respective scope of work or responsibilities. Pegasus-Global observed that staff at every management level was having to make hard decisions relative to what was, and was not critical to their respective scopes of work. This accounts for much of the difference in the management practices observed at the project management and control level and the fact that formal communications and document control were one of the major weaknesses identified by Pegasus-Global at both the program and project management levels. For example, management at every level acknowledged that sound, formal communications and document control were important program management tools, yet almost every manager noted that the preparation of formal documents and control of those documents was at best a secondary issue to what were considered the more critical demands upon their actual available time.

6.2.2 TESTING IMPLEMENTATION OF POLICIES, PROCEDURES AND PROCESSES AT THE PROJECT LEVEL

As noted in **Section 6.2.1** directly above, boundaries are set through the formalization of policies, procedures and processes which are promulgated and enforced by Program Management. As noted in **Part I**, to be effective the policies, procedures and processes which are established at the program level must be uniform, transparent and reflect a single point of accountability. Part of the reason for building *uniformity* into every policy, procedure and process is to give the Project Manager a clear path though the various policies, procedures and processes which taken as a whole, establish the boundaries of the Project Managers autonomy relative to management and control of

their specific project(s). Uniformity also reflects the boundary within each Project Manager is free to exercise autonomy in their decisions and actions in managing and controlling the project(s) for which they are accountable and responsible.

Part of the reason for **transparency** into each policy, procedure or process is to:

- Establish how and why those policies, procedures and processes were developed;
- How and when they are to be applied; and,
- How the functional manager is to execute their functional assignments within the boundaries set by those formal policies, procedures and processes.

Transparency also enables Program Management to review and evaluate the execution of all projects against a standard set of governance documents, which enables Program Management not only to maintain ultimate control over the projects, but also enables Program Management to adjust those policies, procedures and processes if and when necessary to increase the effectiveness and efficiency of the program and the project management and control.

Accountability identifies those elements of a project for which a Project Manager will be held responsible as delineated within the authorities and boundaries established at the program level. Given the current level of autonomy granted to each Project Manager under a horizontal organizational structure it can be difficult for Program Management to demonstrate accountability if there are no formal, clear authorities delegated and boundaries set within the policies, procedures and processes that have been implemented. Remembering that policies, procedures and processes are in place to establish the boundaries on the autonomy exercised by a Project Manager, Program Management must judge a project or functional manager against those delegated authorities and boundaries established within the governance documents and not simply on a personal opinion as to whether or not the Program Manager believes the Project Manager has done a good job or poor job during the execution of a project.

Ultimately, unless expectations relative to performance are set and the Project Manager formally delegated authority (with boundaries) within which that performance is to be accomplished it is very difficult to hold a functional or Project Manager accountable for the results actually achieved.

Just as important to Program Management is the ability to judge whether or not the authorities delegated and boundaries established within the policies, procedures and processes are working as intended, or need to be modified to be effective in enabling Project Management in meeting both the project and the program objectives.

In the case of program level functional management positions, Program Management has direct supervisory control over the decisions made and actions taken by the staff assigned specific program management and control tasks; and as a result Program Management should have intimate and almost immediate knowledge of any violation of, or weakness in, those policies, procedures or processes.

At the project level however, the Project Manager has much more autonomy as most of the decisions made and actions taken on a project are allocated (formally or by default) to the Project Manager. However that autonomy is not (or should not be) limitless and Program Management cannot simply grant autonomy to the Project Manager without evaluating the results of the level of autonomy granted to a Project Manager.

Effective and efficient management of a megaproject requires there be some level of autonomy; however, it is up to Program Management to ensure that the level of autonomy is reasonable and that the Project Management staff is operating within the level of autonomy granted by Program Management. Pegasus-Global has found that the best way for Program Management to ensure that the boundaries established on that autonomy are reasonable (via the governance documents established) and are being followed at the project level is to audit performance on each project at certain critical points during the planning and execution of that project.

Typical audit programs are focused on determining if the actual practices being implemented and followed at the Project Management level conform to the formal

policies, procedures and processes established at the Program Management. Project Management audits are generally conducted at crucial points during project execution. For example:

- An audit of the completed **project plan** to assure that the project scope, cost, schedule and quality were developed following the applicable policies, procedures and processes and met the objectives of the program overall.
- An audit of the **project procurement plan** and actions to ensure that they meet the conditions set within the policies, procedures and processes set by program management; meet the objectives set for the project; and the meet the program objectives overall.
- At least two audits, depending upon the size and scope of the project, of the **project execution** (based upon the approved project plan):
 - One conducted at the completion of design,
 - One conducted at approximately one third of the way through the planned construction phase.
- Finally, an audit of the project at **final completion** to determine whether or not the project met its objectives and to ascertain the impact the project final results on the program plan (positive or negative) and to identify specific lessons learned which should be integrated into the program and disseminated to every project (though a formal process).

Such audits can be conducted in a reasonably short time span following specific “templates” developed for each of the various elements of the project to be audited and using the documents resident in the projects formal document control files. That document review need not be done at the project site, thereby minimizing the amount of disruption to the execution of the project.²²⁹ Once the document review is complete a one day site visit to the project is generally all that is necessary to address any

²²⁹ Note further that starting the audit with a document review serves a second purpose in that it tests whether or not the project is maintaining its document files per the document policies, procedures and processes.

questions or concerns Program Management may have relative to the document review findings. After the audit is complete the Project Manager should receive a written report of results which should be based on the template employed on each audit, identifying any gaps in the management of the project, and containing specific actions to be taken by the Project Manager to overcome any deficiencies.

As OCCM moves into this next phase of program execution Pegasus-Global recommends that OCCM consider implementing a project audit program as it is the best method to assure that the projects individually are performing within the tenants of the formal policies, procedures and processes and at the same time identify any situation which may impact any of the project or program objectives at a point in time when it is still possible to avoid or mitigate those impacts. Pegasus-Global observes that a carefully designed audit program with specific templates and performance parameters may ultimately save Program Management time by reducing the time necessary to respond to issues which arise after the fact of an impact to project and program objectives.

6.2.3 THE PERFORMANCE IMPROVEMENT LOOP

Program and Project Management walk a fine line between science and art. There are hundreds (if not thousands) of books and articles which advocate the use of very prescriptive methods for making every decision or taking any action during the execution of a capital construction project. For those authors, Project and Program Management are more science than art. There are fewer authors which have addressed Program and Project Management as more an art than a science. The reality is somewhere in the middle and involves both science and art. According to PMI:²³⁰

“Project Management is the application of knowledge, skills, tools and techniques to project activities to meet the project requirements.”

²³⁰ PMI PMBOK®, Fourth Edition, Chapter 1, page 6, 2008

Knowledge and skills are based on personal experience, which involves less scientific rigor than it does personal (artistic) application of a learned pattern of successful behavior. Tools and techniques involve a higher degree of scientific rigor in that a formal, organized methodology is employed to develop and test a tool or technique and then apply that tool or technique in a regimented progression.

The science of Program or Project Management is generally **adoptive** in that Program Management adopts a specific tool or technique to address a specific program or project need. A computerized CPM schedule is a tool and technique adopted by a program to meet the need to deconstruct a Program or Project into manageable activities (*i.e.*, a Work Breakdown Structure) that can be placed in sequence in order to achieve the schedule objectives at both the program and project levels. A formal document control system is a tool to meet the collection, retention and communication demands within a megaprogram and its constituent projects.

The art of Program or Project Management is generally **adaptive** in that the individual Program or Project Manager uses knowledge and skills gained primarily through direct experience to modify a policy, procedure, process or practice in order to address a specific impact to the program or project, or to improve the chances of meeting or exceeding the objectives set for the program or project.

Both science and art are required to execute a successful project or program. Recognizing and focusing on the need for Program and Project Management to be able to identify potential impacts or opportunities by **adopting** the tools and techniques which can be used to identify and manage those potential impacts or opportunities is important. But tools and techniques do not make decisions or take actions which are focused on overcoming threats or taking advantage of opportunities. In addition to adopting the right tools and techniques for the program, management must continuously **adapt** its policies, procedures, processes and practices based on actual contemporaneous experience thereby altering the basis of decisions and actions in response to those potential impacts or opportunities.

Adoption and adaption are both key elements in what is sometimes referred to as a performance improvement loop. In the simplest terms managers learn by experiencing successes and inabilities to meet planned goals and objectives as they execute programs and projects and then sharing those successes and inabilities to meet planned goals and objectives continuously in a repeating, sustained loop focused on improvements in the execution of the program and the projects.

A continuous improvement loop is dependent on developing, installing and using a formal, updated “lessons learned” program. PMI describes lessons learned as a “*process asset*” which contributes to, or influences, a projects - or programs - ultimate success (e.g., the achievement of program and project objectives).²³¹ Lessons learned systems involve the formal transfer of knowledge learned during one project (or one phase of a project) to subsequent projects (or phases of a project).²³²

Lessons learned systems depend on **capture**, **consolidation** and **communication** actions by Program and Project Managers:

1. The Manager must **capture** the lessons learned during the execution of the program or project. Capture requires both thought and action – thinking through events and issues which arose during the execution of a project or portion of the program and capturing those lessons formally in order to share them across the projects and the program. This is more difficult than one would think because it requires the identification of the situation, the response action taken, the subsequent result of the decisions and actions and the presentation of the lesson learned (positive or negative) as a consequence of the decision or action. Too often Program and Project Managers are too busy managing the project or program to devote time to lessons learned and put that task off to the end of the project or program (or never undertake the effort involved), at which point the issue, the action and the result are no longer fresh in the manager’s mind.

²³¹ PMI, PMBOK®, Fourth Edition, Chapter 2, page 32, 2008

²³² PMI, PMBOK®, Fourth Edition, Chapter 4, page 102, 2008

2. Management must **consolidate** the lessons learned across the program and projects into a formal repository in an organized fashion which enables other managers to easily identify and access those lessons. It is when a similar situation arises on another project or in some other portion of the program that a Program or Project Manager is most likely to search the lessons learned repository in an effort to identify those responses to similar issues that worked and those responses which did not work. To do that the lessons learned must be consolidated into a central repository with open access to the entire program and project management structure.
3. Management at all levels must proactively **communicate** the existence of and contents of the lessons learned repository. This does not mean that Program Management simply sends out a notice that there is a “data base” of lessons learned available in an electronic file folder. It involves the development of a specific process of informing Program and Project Managers of the content of a lessons learned repository and categorizing the lessons learned into situations and applications, thereby making it easier for the user to quickly identify and locate those lessons learned that might be applied (or avoided) in that manager’s specific situation.

Capturing, consolidating and communicating lessons learned is one of those activities which must cross the boundary between Program Management and Project Management. At both of the management levels lessons are learned; at both levels those lessons must be captured; but it is at the program level that the lessons learned system must be managed and the central repository of the lessons must be housed.

It is especially critical to capture, consolidate and communicate lessons that are learned involving formal policies, procedures and processes so that those governance documents can be modified to meet the actual conditions which exist across the projects. Simply setting a set of policies, procedures and processes in place without constantly checking to determine how those policies, procedures or processes may be helping or hindering the execution of the program or projects exacerbates the difficulty

that already exists in bringing a megaprogram or its constituent projects to a successful conclusion. The art of Program and Project Management is reflected in the ability of those program and project managers to adapt to actual conditions encountered during the execution of the program as a whole, or individual projects which make up the program.

6.2.4 SUMMARY

Pegasus-Global's examination of the audit test projects chosen extended beyond simply examining whether or not the projects chosen for the test were executed in accordance with the program level policies, procedures or processes which set the boundaries of Project Management's autonomy, authority and responsibility. In addition:

- Pegasus-Global examined those projects in an effort to identify those policies, procedures and processes which were not fully aligned with the realities of the environment within which those individual projects have been or are being executed.
- Pegasus-Global examined those projects in an effort to identify practices used by Project Management to execute their responsibilities in an effort to identify practices which may be working well for the projects but which may not be aligned with the program level policies, procedures or practices (but should be considered for adoption at the program level).
- Finally, Pegasus-Global examined those projects to identify situations where clear boundaries to the Project Managers autonomy have not been established by Program Management or adopted by Project Management.

Throughout the examination of the test projects Pegasus-Global recognized that every project is unique and faces a unique environment during planning and execution of the project. While Pegasus-Global did review the test projects to observe whether there was uniformity, transparency and accountability across the projects as to how the

projects were executed, Pegasus-Global did not make comparative evaluations between individual projects or between individual Project Managers.

6.3 PROJECT PRACTICES AUDIT METHODOLOGY

As discussed earlier, in **Part II** Pegasus-Global evaluates the practices by which Project Management actually manages and controls the execution of a project in contrast to the framework established by Program Management through the governance documents. It is entirely possible for a program to have complete, comprehensive governance documents in place, yet during execution of the projects those governance documents are not followed by Project Management. Likewise, in Pegasus-Global's experience it is entirely possible that there may be a situation in which there may be gaps in the program level policies, procedures and process which do not provide Project Managers clear delegations of authority and boundaries to autonomy, Project Managers will develop and implement their own management practices to fill those gaps in the program governance documents.

The first step in conducting a management audit of project practices is to determine what formal policies, procedures and processes have been put in place by Program Management to establish the boundaries within which the Project Manager has the autonomy to make decisions and take actions relative to that project. In instances where Program Management has developed and installed a complete and comprehensive set of policies, procedures and processes with formal delegations of authority and boundaries set on Project Management autonomy, Pegasus-Global compares Project Management's actual practices during a project against those governing documents prepared and disseminated by Program Management.

In situations where a set of complete and comprehensive governing documents do not exist, are incomplete, or may not be in alignment with normal industry practices, Pegasus-Global must attempt to evaluate those project level practices against accepted industry policies, procedures and processes, adjusting the evaluation as

necessary in recognition of the uniqueness of the particular capital program being audited. For example, the Court Capital Construction Program was enabled by specific legislation which established specific mandates and priorities for that Program. One of the requirements in this audit was that Pegasus-Global considered that the Program and its projects must follow some of the requirements resident in, and controlled by other state agencies that are independent of the AOC or OCCM. Because of that requirement, it would be unfair for Pegasus-Global to hold the Program or projects accountable for the inability to meet a set of accepted industry practices simply because they did not specifically align with those practices mandated by legislation or other California State Agencies.

As noted in **Part I** Pegasus-Global did identify gaps in the policies, procedures and processes currently developed and under development at the program level. In response to those gaps, OCCM's Project Management could react in one of two ways:

1. Project Managers could use those gaps as a ready excuse for not executing a project successfully, while at the same time asserting that the gaps in policies, procedures and processes, combined with the lack of formal delegations of authority, relieves them of accountability for any of the decisions made (or not made) or actions taken (or not taken) during the execution of the project.
2. Project Managers could acknowledge the gaps in the program governing documents and develop and implement practices specifically to address and overcome those gaps during the execution of their assigned project(s).

A Project Manger's safe choice is to use the gaps as a ready excuse, pushing all responsibility back to Program Management. A Project Manager that chooses to acknowledge the gaps and implement practices designed to overcome those gaps takes the risk that in doing so they are accepting the entire responsible for the outcome of the project simply because they chose the option which shifted accountability away from Program Management and on to Project Management. In Pegasus-Global's

experience Project Managers that make the riskier choice generally believe that doing so will provide them the greatest chance of meeting the project and program objectives.

From a Program Manager's perspective there is a risk in Project Managers taking individual action to fill gaps in the governing documents through the development of practices devised and implemented by the individual Project Manager. The primary risk taken by Program Management in such a situation depends entirely on qualifications, experience and qualities of the staff filling the Project Manager positions. There is a very real likelihood that at least part of that Project Management staff may not be qualified, or have sufficient practical experience that enables them to understand the potential impact and/or devise optimum responses to that potential impact or has the personal qualities which make a good Project Manager.

As noted in **Part I** and as repeated here in **Part II**, Pegasus-Global observed that the current individuals selected to manage the projects have proven themselves to be willing to take the risks involved in attempting to fill the gaps in the program governance documents, and are capable of devising and implementing practices which have, to some extent, enabled them to overcome those gaps and successfully achieve their project objectives. However, as discussed earlier, should those same practices not be uniform or transparent, potentially not align with the program policies, procedures or processes, and/or do not potentially align with generally accepted industry practices there may still be potential impacts to effectiveness and efficiencies to the success of the overall program.

6.3.1 THE PROJECT AUDIT PROCESS

Unlike the audit of the program level policies, procedures and processes which examined all of the documents made available by OCCM, the audit of the practices actually in effect at the project level was by testing a representative sample of the total project population completed or still being executed. OCCM provided a listing of representative projects from which Pegasus-Global selected six projects as the test projects for this audit.

Per the Request for Proposal (as Amended December 1, 2011):

“In completing its review, the Consultant shall provide objective analysis of the efficiency and effectiveness of the OCCM management of the Program. Of the six projects 3 must be of Completed Capital Projects and 3 must be of Active Capital Projects – Funded by SB1732.”

OCCM provided a list from which Pegasus-Global was to choose the test projects; the only completed projects identified had been funded by SB 1732. Pegasus-Global examined the SB 1407 list and found the following:

- One project was yet to be funded;
- 27 were still in the acquisition phase; and,
- 13 were still in the design phase.

To conduct a test examination Pegasus-Global needed projects which were representative of the Program which were reported with at least design complete or to be moving toward completion of design prior to the start of the audit. The reason for that benchmark is that prior to the completion (or near completion) of design a project manager under this Program has very little control over cost, schedule or quality of the project (site acquisition and early scoping design involve a higher direct level of involvement and control over the choice of site and establishing the basis necessary in order to apply for funding of the project). This limited Pegasus-Global’s selections to the SB 1732 listed projects. The projects selected and the rationale for their selection during development of the audit plan include:

- **B.F. Sisk Renovation Project** (Status: **Completed** under SB 1732). As the largest completed project and one executed within an existing physical structure (Renovation), this project provided some of the more complex management issues and risk management challenges faced by Program and Project

Management. The use of CM@Risk delivery meant that contract formation and administration should align to the risk profile of the project (as completed).

- **New Mammoth Lakes Courthouse** (Status: **Completed** under SB 1732). A smaller sized project, which enabled an evaluation relative to how scope (complexity and size) affected management processes and practices under a CM@Risk delivery methodology. The project's recent completion provided access to Project Management personnel involved in a recently completed project; which usually means a better source of lessons learned information. This project was also selected to provide direct access to the CM@Risk contractor during the interview segment of the audit.
- **New Portola/Loyalton Courthouse** (Status: **Completed** under SB 1732). The small size of the facility made it a good contrast to any changes in processes, procedures or practices over the large and medium sized projects. The full scope of work (planning through construction completion) was open to review with over a year of operations against which to evaluate warranty processes and enforcement. As a Design-Bid-Build project, ("D/B/B") this facility provided a contrast to the CM@Risk methodology employed on the other completed projects selected for audit.
- **New San Bernardino Courthouse** (Status: **Design Complete by 1st Quarter 2012, Awaiting Bond Sale** under SB 1732). The largest SB 1732 project which had completed design; however, construction was delayed due to lack of a state budget (preventing sale of bonds). This same condition was reported for five projects, which indicated that funding/budget are a significant risk element which should be examined for impacts/adjustments to processes, procedures and practices. As a planned CM@Risk, the construction planning and contracting/delivery methods may have been impacted by the delay in construction funding.
- **New Susanville Courthouse** (Status: **In Construction** under SB 1732). A smaller sized project using traditional D/B/B with both acquisition and Design

complete, but still fresh. Construction at the mid-point of execution, which would reflect changes in processes and practices as risk profile for project evolved between design and construction.

- **New Madera Courthouse** (Status: **In Design** under SB 1732). A medium sized project using CM@Risk and design nearing completion for handoff to construction, which provided an opportunity to examine the handoff process at the point at which interaction actually happens. Integration of management structures through contract formation for execution, a high stress transition point which enabled a good test of process to practice interface.

Table 6.3.1-A, Project Summary Data, contains a summary of the relevant data on each of those projects:

Table 6.3.1-A Project Summary Data				
Project	Scope	Authorized Budget	Square Ft.	Delivery Method
B. F. Sisk	Large renovation	\$70,898,000	191,866	CM@Risk
Mammoth Lakes	Small new courthouse	\$21,422,000	19,854	CM@Risk
Portola/Loyalton	Small new courthouse	\$6,496,000	6,500	D/B/B
San Bernardino	Large new courthouse	\$339,822,000	383,745	CM@Risk
Susanville	Small new courthouse	\$38,937,000	42,316	D/B/B
Madera	Medium new courthouse	\$100,208,000	110,883	CM@Risk
Totals		\$577,783,000	755,164	

Table 6.3.1-B, Project Schedules, shows the projects reviewed by Pegasus-Global and compares the timing of the major phases of the projects.

Table 6.3.1-B Project Schedules						
Phase	Project Name					
	B.F. Sisk²³³	Madera²³⁴	Mammoth Lakes²³⁵	Portola/Loyalton²³⁶	San Bernardino²³⁷	Susanville²³⁸
Site Selection & Acquisition	March 2006 – September 2007	July 2007 – June 2009	July 2006 – February 2008	February 2007 – October 2007	July 2007 – June 2008	August 2007 – October 2008
Preliminary Plans	September 2007 – October 2007	December 2009 – September 2010	February 2008 – April 2009	October 2007 – March 2008	September 2008 – October 2009	October 2008 – August 2009
Working Drawings (includes Bidding & Contract Award)	October 2007 – July 2008	March 2011 – July 2012	April 2009 – April 2010	March 2008 – October 2008	October 2009 – November 2011	August 2009 – May 2010
Construction	July 2008 – October 2010	July 2012 – March 2014	April 2010 – August 2011	October 2008 – November 2009	November 2011 – April 2014	August 2010 – March 2012
Move-In	November 2010	April 2014	September 2011	December 2009	May 2014	April 2012

Pegasus-Global initiated the project practices audit by submitting a document request identifying specific project documents be produced for review (this was integrated into the initial document request identified in **Part I** and attached to this Report as **Exhibit G**). As with the management audit conducted on the program management policies,

²³³ B.F. Sisk Courthouse, Superior Court of California, County of Fresno, Progress Report, June 30, 2011, page 4 [Note: Construction phase does not include “Phase 2 Chillers” which from the Progress Report is scheduled from February 2011 to August 2011]

²³⁴ New Madera Courthouse, Superior Court of California, County of Madera, Progress Report, February 29, 2012, page 3

²³⁵ New Mammoth Lakes Courthouse, Superior Court of California, County of Mono, Progress Report, March 31, 2012, page 3

²³⁶ New Plumas/Sierra Cross-Jurisdictional Courthouse, Superior Court of California, Counties of Plumas and Sierra, Progress Report, March 31, 2010, page 4

²³⁷ New San Bernardino Courthouse, Superior Court of California, County of San Francisco, Progress Report, March 31, 2012, page 5

²³⁸ New Susanville Courthouse, Superior Court of California, County of Lassen, Progress Report, February 29, 2012, page 4

procedures and processes, by requesting those documents in advance of the on-site interviews Pegasus-Global was also testing the document control system in place at the project management level of the Program.

As first reported in **Part I** OCCM initially indicated difficulty in fulfilling the document request at the program level, and that difficulty continued through the project level. While to a certain extent a standardized set electronic project file folders were set up for each project, there was no formalized document control system in place which provided complete, comprehensive policies, procedures or processes for producing, managing or controlling documents produced at the project level. The fact that many of the file folders initially reviewed were empty or sparsely populated confirmed OCCM's difficulty in providing the project documents requested.

The inability to access a cohesive document control system which included both program and project generated documents impeded Pegasus-Global's ability to readily audit the project level execution against program level policies, procedures and processes. This particular finding is discussed in greater detail in **Section 6.4.2**, below.

Having undertaken a review of the actual documents produced to Pegasus-Global, Pegasus-Global interviewed the Project Manager for each of the test projects to gather information as to the general management practices in effect for each of those projects. In addition, Pegasus-Global interviewed the D&C Division Director, who exercised program level authority over all the projects and the Senior Project Managers who exercised management oversight control relative to the projects within their respective regions. Those interviewed along with a brief explanation of their assignments are identified in **Table 6.3.1-C, OCCM Interview Summary Table**.

Table 6.3.1-C OCCM Interview Summary Table		
Name	Position	Project(s)
Ernie Swickard	Asst. Div. Director, D & C	All Projects Within Program
Rona Rothenberg	Senior Manager, D & C	All Projects Within Region
Robert Uvalle	Senior Manager, D & C	All Projects Within Region
Kim Davis	Project Manager	B. F. Sisk Renovation & New Madera
Steve Sundman	Senior Project Manager	New Mammoth Lakes
Leland Roberts	Senior Project Manager	New Portola/Loyalton & New Susanville
S. Pearl Freeman	Senior Project Manager	New San Bernardino

In addition to those OCCM staff members listed in **Table 6.3.1-C** above, Pegasus-Global interviewed two employees of a contracted CM@Risk that was awarded that contracted scope of work for one of the test projects.²³⁹ That interview was conducted to gain the perspective of a Consultant Construction Manager engaged to execute the day-to-day management of construction of an OCCM project.

Once the document review and interviews were completed at the program and project levels Pegasus-Global began its comparative analysis of the data and information gathered. During its analysis Pegasus-Global made additional inquiries of the OCCM to increase Pegasus-Global's understanding of documents reviewed or statements made during the interviews. Pegasus-Global further identified additional documents during the analysis of documents and interviews conducted, which led to additional requests for those documents to be produced.

As noted above, the projects selected for audit were all projects under SB 1732. As discussed earlier, these projects are considered to be project initiated and/or executed as part of the Phase 1 part of the California Courthouse Construction program. As part of SB 1732 and not SB 1407, Pegasus-Global found that these projects were initiated concurrently with the development of the program policies, procedures and processes.

²³⁹ Note: neither the project nor the Project Manager have been identified it is Pegasus-Global's standard audit practice intended to protect confidentiality during the interview process.

Consequently, Pegasus-Global observes that the projects that have been completed [B. F. Sisk, New Mammoth Lakes, and New Portola/Loyalton] could not reasonably have been executed in accordance with a completed set of comprehensive policies, procedures and processes. To that extent, Pegasus-Global, in its review of the six audit test projects, has made overall observations, findings and recommendations relative to its review of the project recordation available for those projects and the interviews of the Project Managers responsible for managing those projects. However, to the extent that Pegasus-Global has been able to identify projects where respective project phases have been executed in accordance with the policies, procedures and processes as discussed in **Part I**, even if still in draft stages, Pegasus-Global has identified where a particular project has been executed in accordance with those policies, procedures and processes or whether the project has been executed in accordance with industry standards.

The findings and recommendations are presented to Program and Project Management as a tool that management can consider during management's objective to improve the Program's ability to meet both program and project objectives.

The majority of the findings and recommendations actually flow from the need to finalize the policies, procedures and processes and not necessarily from the decisions and actions taken by the individual Project Managers. It is not within Pegasus-Global's scope to express an opinion for a preference for a specific management or control practice over any other management or control practice. However, in general those practices should be uniform and transparent, with a single point of accountability.

Section 6.4 directly below summarizes some general findings and recommendations which appear to be consistent across most of the test projects examined. **Section 6.5** examines each of the test projects individually in comparison to those policies, procedures and processes which were drafted by Program Management specifically to guide the management and control of projects being executed under the Court Capital Construction Program.

6.4 GENERAL FINDINGS AND RECOMMENDATIONS

This **Section 6.4** presents findings and recommendations relative to project practices, some of which are not directly tied to any specific draft policy, procedure or process promulgated by Program Management. Other project process discussed below address specific program policies, procedures and processes, yet those policies, procedures and processes are outside of a project's control. This Section also discusses those policies, procedures and processes wherein the practices of all six of the test projects were found by Pegasus-Global to be consistent. Finally, some of the observations contained in this **Section 6.4** represent gaps that Pegasus-Global identified within the practices of all six test projects insofar as addressing the program draft policies, procedures, and processes.

6.4.1 FORMAL DELEGATION OF AUTHORITIES

Delegation of authority may be defined simply as:²⁴⁰

“...assigning work, responsibility, and authority so others can make maximum utilization of their abilities.”

Delegation of authority by a Program Manager to a subordinate position first and foremost involves risk. As noted earlier, while the Program Manager may assign the authority for someone to act in their place, and may even make the person delegated that authority responsible to complete that task successfully; however, from a program perspective, the ultimate responsibility for meeting the project and program objectives from the Owner and other investor's perspective will always be the Program Manager.²⁴¹ For that reason such delegations must be carefully thought out, specifically delineated and with boundaries set on the autonomy ceded to the subordinate position. As also noted earlier, delegation does not mean that a Program Manager can simply cede all

²⁴⁰ Project Management, A Systems Approach to Planning, Scheduling and Controlling, Harold Kerzner, PhD., Chapter 5.5, Section 5.2, page 228, John Wiley & Sons, Inc., Sixth Edition, 1998

²⁴¹ The People Side of Project Management, Ralph Kliem and Irwin Ludin, Chapter 11, page 136, Glower, 1992

authority to the subordinate positions without maintaining some level of management control over the authority.

A delegation of authority, concomitant boundaries on autonomy must be formally established in writing within the policies, procedures and processes set by Program Management. Without that formal delegation, each Project Manager is free to (or forced to) develop and follow those practices to manage and control the individual projects which they think best for their projects. In such instances the uniformity, transparency and accountability of the project and the program may be compromised.

As noted in **Section 5.2.4**, there were differing opinions within both the Program and Project Management levels as to who was the actual “Owner” of the Projects to be executed under the Court Capital Construction program. A similar difference in opinions was found when Project Managers discussed the relative roles of the various stakeholder groups with whom they interacted during the planning and execution of the projects. This difference of opinion primarily focused on the following stakeholder entities (although OCCM may identify additional stakeholders to add to this list or modify this list as necessary):

- CFWG of the Judicial Council
- The PJs
- Court Administrative Staff
- Facilities Management
- The PAG for the Project
- Various State Agencies (*i.e.*, DOF and PWB)
- The permitting agencies
- Local political entities

The opinions ranged from those organizations simply being advisory, to one or more of those stakeholders actually having almost complete control over the project at any given phase or in any given situation. This has created confusion within the Pegasus-Global audit team as to the formal relationship which exists among and between those stakeholders, the actual relationship which exists between the stakeholder and the project, and the actual impact and/or level of authority each of those stakeholders has and exercises relative to the Program and in particular the projects.

For example, disagreements over the selection of project sites have resulted in some significant project delays: there are a number of instances in which a project was delayed a year or more awaiting resolution of various disagreements over the selection of a site. From the interviews it appeared that a number of stakeholders were involved in the site selection decisions (and not always the same stakeholder on different projects). Likewise, on some projects when disagreements arose relative to the project design, one set of Project Managers stated that the PJ had the final authority (within the budget) to accept the design; while other Project Managers said that while the PJs had input, the final authority rested with the Project Manager.

Findings:²⁴²

- **V2-F-4.1-1** While information relative to delegation of authority have been made to individual Project Managers, to date there has been no formalized delegation of authorities to the Project Manager. This has resulted in inconsistencies in the practices by which of the individual Project Manager defines their role in the management of the projects and inconsistencies in the practices that each individual Project Manager uses to fulfill the role they have defined for themselves. This may impact the uniformity, transparency and accountability of project management and control across the Program. Pegasus-Global finds that the Project Management cadre has been relatively stable throughout the initial

²⁴² Finding and Recommendation numbering relate to field working reviews and thus are not meant to correlate with the Report section numbering. AOC/OCCM requested that the individual Findings and Recommendation be numbered to make it more efficient for them to respond to the findings and recommendations. The numbering convention is as follows: Findings = **V2** (Part II) -**F** (Finding) -**4.1-1** (Draft Report Section 4.1, Finding 1). Recommendations = **V2** (Part II) -**R** (Recommendation No.) -**4.1-1** (Draft Report Section 4.1, Recommendation 1)

development of the program. However, as time passes during this extended megaprogram that situation may change, with staff augmentations and replacements.

- **V2-F-4.1-2** There are no clear formalized definitions of each stakeholder's roles, authorities, and responsibilities insofar as the planning and execution of a project. This leaves the definition of those roles and responsibilities to each individual Project Manager; and the Project Managers have a different understanding of those roles and responsibilities. Pegasus-Global observes this situation may impact the uniformity, transparency and point of accountability within the project structure and across the Program as a whole.

Recommendation:

- **V2-R-4.1-1** Pegasus-Global recommends that OCCM utilize the core Project Management cadre, which has gained considerable experience with the intricacies of the Court Capital Construction Program, including lessons learned, as a valuable source for formalizing delegations of authority and establishing boundaries on autonomy for the Project Management position.
- **V2-R-4.1-2** Pegasus-Global recommends OCCM take advantage of that stable condition and the knowledge gained on projects to date to develop formalized delegations of authority for Project Management.
- **V2-R-4.1-3** Starting with the Owner, Pegasus-Global recommends there be an unambiguous formalized definition of each stakeholder's role, authority and responsibility on every project with respect to project execution, from initial site selection through to project completion and commissioning and that this formalized definition be formally issued to both the stakeholders and Project Management.

6.4.2 DOCUMENT CONTROL SYSTEM

Document control is a critical component in not only tracking the ongoing progress in current projects, but also in reviewing completed projects to identify successes or failures and capturing lessons learned. The existence and utilization of a document control system must be uniform, transparent, and accountable to be successful. PMI explains that “[e]ffective and efficient administration of the documentation is critical and must be integrated throughout the life of the project...each stakeholder may have its own ritual of organizing the project records; however, a consistent document file structure is the preferred technique.”²⁴³ Pegasus-Global previously defined the purpose of document control in **Section 5.2.3**.

Comments made during the interviews consistently indicated that there is currently a lack of a central document management system. It was explained that CMs and/or the architect’s team store and maintain the project documents (e.g., RFI, change orders, shop drawing logs, etc.) during construction on their own FTP sites. The interviews also demonstrated that the CM provides the project documents to the Project Manager on disk and sometimes hard copy at the end of the project. These comments are supported by Procedure 4.10 (“Construction Management”), which indicates that one of the duties for the CM is to:

“Maintain Official Project Files, using the standard OCCM filing system. Develop procedures to initiate and maintain files documenting all aspects of the work. Files will be stored electronically on the G:/drive...Paper files will be maintained either on site (for larger projects) or in the CM’s office.”²⁴⁴

It is unknown from the material reviewed what the “standard OCCM filing system” entails, it is also unclear what procedures have been developed by the CM for maintaining files. From Procedure 4.10’s (Construction Management) direction that the

²⁴³ Construction Extension to the PMBOK® Guide Third Edition, Project Management Institute, 2nd Edition, 2007, Chapter 10, Section 10.2.5, page 88

²⁴⁴ OCCM, Procedure 4.10, Construction Management, page 5, June 23, 2009

CMs develop procedures for file documentation, it immediately gives the impression that the documentation is not uniform or transparent; the accountability for such file documentation procedures is indefinable without reviewing the actual procedures. As such, the project level filing system produced for review by Pegasus-Global indicate, that while the OCCM had initiated a standardized the document control system of project-level documents (the primary project filing system folders), that standardization has not been fully adopted by all of the projects, each of which subsequently determined for themselves the filing system that was established for their individual project. The primary project folders established at the within each of the projects is compared against the filing system set at the Program level in **Table 6.4.2, Project Documentation – Primary Folders.**

Table 6.4.2 Project Documentation – Primary Folders						
Folder Name	B.F. Sisk	Madera	Mammoth Lakes	Portola / Loyalton	San Bernardino*	Susanville
Agenda	X	X				X
Agreements – Invoices	X	X	X	X	X	
Bidding	X		X		X	X
Ceremonies					X	
Claims – Disputes	X		X			
CFP						X
Construction Administration	X	X	X	X	X	X
Consultant Selection	X	X	X	X	X	X
Correspondence	X	X	X	X	X	X
Design Items	X					
Documents	X	X		X	X	X
Due Diligence		X	X	X		
Environmental	X	X	X		X	X
Escrow Documents		X		X		
File Guide – Project Directory	X		X	X	X	X

Table 6.4.2 Project Documentation – Primary Folders						
Folder Name	B.F. Sisk	Madera	Mammoth Lakes	Portola / Loyalton	San Bernardino*	Susanville
Financial	X	X	X	X	X	X
FMU		X				
Furniture						X
Legislation	X		X			
Media					X	
Meeting Minutes	X	X	X	X	X	
Mono Art						
Other Services	X		X			
PDU Forms						X
Photographs [‡]		X	X	X		
Post-Acquisition		X	X	X	X	X
Pre-Drive Mitigation				X		
Property	X	X	X	X	X	X
Regulatory	X	X	X			
Reporting	X	X	X	X	X	X
Schedule	X	X	X	X	X	X
Sustainability	X		X			
<p>*-San Bernardino includes a primary folder titled “1 Master DCC Documents” this has not been included in the table as it is unique to this project and the folder itself is empty.</p> <p>‡-Madera has a folder titled “Images” which is considered “Photographs” for the purposes of comparison.</p> <p><i>Note: the shaded cells indicate the primary folder does not exist for that project, an “X” indicates the presence of the primary folder.</i></p>						

Ultimately, Pegasus-Global found that the filing system practices at the project level were neither uniform nor transparent.

Pegasus-Global also conducted a detailed comparison of the second level files actual established at each project and determined wither or not documents had been captured and saved within those secondary files which had been created at the project level. The result of that comparison is included as **Exhibit H, Project Documentation Comparison Table**. As can be seen in **Exhibit H**, the secondary level of files

established for each project was not uniform. Pegasus-Global also looked to determine which of those primary or secondary folders contained the documents which, by the title of the file folder could be expected to exist within that file folder. Pegasus-Global found many of the established file folders at both the primary and secondary levels contained no documents. For example, some projects had no documents in the secondary folders which would be considered critical project documents (*i.e.*, the contracts).

As shown on **Table 6.4.2** there is presently a lack of consistency in what primary folders are included for each project. The consistency issue is magnified at each projects subfolder level, as illustrated in **Exhibit H**. At this stage, these primary folders on the selected projects are not uniform across all projects; while some folders (*e.g.*, Construction Administration, Correspondence, Property, and Reporting) are present on each of the selected projects, other folders (*e.g.*, Agenda, Design Items, Regulatory, and Sustainability) are not present for all projects, and it is not clear whether the missing folders are indeed missing, or if there is another explanation for their lack of presence.

There is also some confusion regarding the organization of the folders and subfolders. For example, “Photographs” exists as a primary folder for the Mammoth Lakes and Portola/Loyalton projects and does not for the other sample projects; with the exception of Madera, which has an “Images” folder. However, all of the sample projects feature a “Progress Photos” subfolder within the “Construction Administration” primary folder. In the case of Portola/Loyalton, photos only exist in the “Photographs” primary-level folder. Mammoth Lakes on the other hand has numerous subfolders and files within both of the photo folders, a quick examination of the folders does not allow one to make a full determination as to if the photos are duplicates or unique as the individual file names have no uniformity, for example: “Mammoth 1.JPG”, “Mammoth110720d.JPG”, “MLCH-122710 001.JPG”, “1 11 6975.JPG”, and “P1010072.JPG” all appear within the primary-level “Photographs” folder, and while there is some attempt to have a clear file (where “Mammoth110720d” likely indicates the 4th photograph for July 20, 2011), it is entirely unclear what files such as “1 11 6975” are intended to mean, if anything.

Also, in the “Construction Administration” primary folder exists a “Daily Reports – Inspection” subfolder; this subfolder is present in each of the selected projects, but the contents within is not uniform from project to project. To elaborate, the Mammoth Lakes and Susanville projects contain well over a hundred daily report files. In the case of Mammoth Lakes, the files are Microsoft Word documents that are labeled by the date of the report. With Susanville, the files are Adobe PDF files labeled not only by the date of the report, but also by the overall report number; it is this labeling style that quickly shows reports numbered 59, 60, 101, 212 and 269 are missing from the folder. Unfortunately, those five files are missing, but they are identifiable as existing whereas with Mammoth Lakes it is only assumed that the set is complete and not immediately verifiable. The “Daily Reports – Inspection” is handled differently in the other selected projects: San Bernardino contains three subfolders, although one of the three is empty; BF Sisk has numerous sub-subfolders; and the Portola/Loyalton and Madera folders are entirely empty.

From reviewing the project files, and as shown in **Table 6.4.2**, each project with the exception of Susanville has a primary folder titled “Meeting Minutes”. The policies and procedures reviewed do not firmly establish the frequency for project meetings to occur making it near impossible to determine if the meeting minutes have been documented for each meeting. However, it is reasonable to assume that regular meetings occurred making the lack of even a mention of this documentation for Susanville a major gap in the document control process. Of the other projects, there is no uniform method for the meeting minutes to be contained. For example, while not identical, Mammoth Lakes, Portola/Loyalton, and BF Sisk all have some combination of subfolders for construction, county, court, and design meetings. San Bernardino takes an entirely different approach to the documentation of meeting minutes and uses subfolders for the phases of the projects (*i.e.*, acquisition, design development, working drawings, etc.). A preference to a given method has not been established at this time.

Findings:

- **V2-F-4.2-1** As confirmed by the personnel interviewed, Pegasus-Global found no central document management system for the Program. This is further verified by findings in **Section 5.2.3** which addressed the lack of an existing procedure to define such a system.
- **V2-F-4.2-2** Presently the CM maintains the project files, and aside from a limited instruction in Procedure 4.10, Construction Management, little direction is given as to what documents are to be maintained and how they are to be controlled. It is not clear if the empty folders are missing documents which have been produced but not captured or just reflect the non-existence of such documents.
- **V2-F-4.2-3** Pegasus-Global found that OCCM has taken steps standardize the document control with the selected projects. However, Pegasus-Global also found that the time commitments imposed on the limited personnel is likely delaying successful completion of the standardization efforts underway. The effects of this lack of standardization at the project level has resulted in Pegasus-Global's finding that the document management and control practices at the project level are neither uniform nor transparent.

Recommendation:

- **V2-R-4.2-1** Develop and implement a standard document control system to be used for all projects. This document control system should be uniform in how individual project files are maintained. The uniformity will increase the efficiency and transparency for each individual who utilizes the project documents.
- **V2-R-4.2-2** Clearly define what documents are to be produced for the project-side and the document control system side and who will produce them (and at what frequency) to provide accountability relative to each parties responsibilities for document control.

- **V2-R-4.2-3** Some documents (e.g., meeting minutes, inspection reports) should be standardized (prepared in a required template) and filed in a standard, easily identified file within every project.

6.4.3 SITE SELECTION AND ACQUISITION STANDARDS AND PRACTICES

Site selection and acquisition for all projects is centralized within Program Management under the Real Estate and Asset Management Division of OCCM. The Real Estate Manager oversees the site selection, financial analysis, due diligence, capital acquisitions (purchases, exchange or equity transactions), transfer of conveyances and acquisition proposals submitted to AOC, DGS, DOF and PWB.²⁴⁵

The formal policies, procedures and processes by which project sites are identified, selected and acquired was addressed in **Section 5.3.1.1** and is not repeated in this **Section 6.4.3**. In total, Pegasus-Global found the Site Selection and Acquisition policy and procedure to uniform, transparent and with a single point of accountability.

As a matter of program policy the sites selected and acquired for every project are the done through the Real Estate and Asset Management Division of OCCM Program, a policy that Pegasus-Global confirmed was in place and was uniformly adhered to during Pegasus-Global's examination of the test projects. The Project Manager is involved in that process only to the extent of working with the Real Estate Manager as the Judges and PAGs submit suggested cites, as site reviews and evaluations are completed, and to assist with any environmental studies which are required under California state statute.

However, as Pegasus-Global noted in **Section 5.3.1.1**, both Program and Project Management identified the selection and acquisition of a site for a project as one of the most significant impacts on project schedule and cost. This is in part due to the fact that a project schedule and total project cost are estimated prior to the final selection and

²⁴⁵ Organization Chart provided by Mr. Burt Hirschfeld, Assistant Division Director, Real Estate and Asset Management, during an interview conducted on February 14, 2012

acquisition of the site upon which the project will be located. Because the appropriation for the project must be granted prior to any work on the project is initiated, the initial cost estimates at the time of site acquisition are based primarily on the schematic designs and an estimated total time to completion of the project assuming an average time for each phase of the project, including site selection and acquisition. When site acquisition is extended beyond the estimated schedule there is an immediate impact to the project schedule, which in turn may impact the total estimated cost of the project.

According to OCCM, there are four situations which account for the majority of delays which impact a project during site acquisition. The first situation occurs at the point the PAG and Judges who will occupy the courthouse are consulted on the site selected. There have been instances where the PAG and/or Judges have identified site(s) other than that selected and suggested by OCCM, and then push for the acquisition of the alternative site(s).²⁴⁶ Without the consensus approval of a site, the entire acquisition process can be delayed for an extended period of time, which ultimately ripples through the entire project schedule.

The second delay situation is during the actual purchase of the property (or multiple parcels of property each owned by different entities in some instances) at a price which is within the original budget estimated for acquisition of a site for the courthouse. In some cases it has been difficult to secure multi-parcels of land with different owners without having one or more of the parcel holders resisting the sale, insisting on a price above the fair market value, and/or attempting to negotiate some additional concession by OCCM Program Management which is not directly relevant to the parcel being purchased. According to OCCM Program Management site acquisition at times requires “creative acquisition” plans and actions, which can also add to the delay in the final acquisition of a site.

The third delay situation involves gaining approval for the acquisition of the site selected from those state agencies which have the authority to approve or disapprove the acquisition of any site for a California governmental branch. According to OCCM

²⁴⁶ It was stated that there have been instances where OCCM, the Judges and the PAG each identified different sites and pushed for their site, which has significantly delayed the acquisition of any site for the project.

Program Management approximately one-third of the acquisition process involves gaining approval of the site acquisition from other those other California state agencies. For example, all acquisitions must be approved by the DGS and the PWB, either of whom may contribute to the total delay which impacts the acquisition of a particular site. This is primarily due to the fact that both of those organizations are independent of the AOC and OCCM and have specific procedures and processes they follow, none of which requires them to review or take action on any site acquisition within any specified length of time.

The fourth delay situation is during the CEQA actions which by law have to be conducted on every site prior to final acquisition of the site by the state of California. The CEQA delay can involve two delay situations:

1. The site to be acquired is contaminated and would require remediation prior to the acquisition; or
2. The parcel holder will not agree to a CEQA for fear that the site may be contaminated.

As noted in **Section 5.3.1.1**, there have been instances when projects have been delayed for as much as six years from initial appropriation to the initiation of working drawings and construction. Such extended delays will ripple into the estimated driving up the total cost of the project simply due to escalation of project cost for labor, equipment and materials.

Findings:

- **V2-F-4.3-1** As found in **Section 5.3.1.1**, the policies, procedures and processes in place for the Program are uniform, transparent and have a single point of accountability. Pegasus-Global confirmed that all six of the test projects had gone through the selection and acquisition of the site for the respective projects under the management control of the Program Real Estate Manager, following those formal policies, procedures and processes.

- **V2-F-4.3-2** Pegasus-Global found that the policy, procedure and process is in part driven by California regulations and involves state agencies outside of OCCM; because of that a portion of the delay in moving a project through site selection and acquisition and into working design and construction is not within OCCM's ability to control.
- **V2-F-4.3-3** Pegasus-Global observed during interviews with OCCM Program and Project Management staff however, that at least a portion of site selection and acquisition project delay is attributable to the project stakeholders in situations where there is disagreement among the stakeholders and/or OCCM as to the selection and acquisition of the project site. In instances such as that both OCCM and Project Management are in a very difficult position as OCCM is not in a position to make a preemptive decision concerning the selection of a particular site.

Recommendation:

- **D.2-R-4.3-1** The Judicial Council and CFWG may wish to consider development and adoption of a formal methodology to more quickly resolve site selection disputes and thus limit the amount of potential delay and the increased costs which flow from such prolonged disputes.

6.4.4 TRIAL COURT FACILITIES STANDARDS AND PRACTICES

The California Trial Court Facilities Standards ("facility design standards") were first developed and issued in 2002 and were updated in April 2006.²⁴⁷ All of the SB 1732 projects, including the six test projects were executed under those facility design standards. According to the April 2006 version.²⁴⁸

²⁴⁷ California Trial Court Facilities Standards, Preface, page vii, April 2006

²⁴⁸ California Trial Court Facilities Standards, Chapter 1, page 1, April 2006

“The Standards provide a basic understanding of the programmatic, design, operational concerns common to court facilities, and illustrate how standards may reasonably be applied to meet the needs of individual projects.”

Those facility design standards do not address the management and control of the design process; however every design element (discipline) of the typical courthouse is contained within the facility design standard, setting the minimum requirements for each design element. Pegasus-Global found that all six of the test projects were required to meet the design standards and during the review of the design the architects were monitored by the Project Manager (or the Project Manager’s designee) to ensure that the facility design standards were met. In instances where the facility design standards were not met, or the designs prepared by the architect could not be constructed within the estimated budget for construction, the architect was required to adjust the design to comply with the facility design standards and/or the construction estimated cost budget.

Any deviation from the facility design standard or the estimated construction budget had to be approved by Program Management and any increase in the estimated cost of construction had to be approved by Program Management and, in instances where the estimated construction estimates were higher than 10%, DOF had to approve the increase prior to the finalization of design and the start of construction. Ultimately, it appeared to Pegasus-Global that all six of the test projects adhered to those policies and procedures during the design of the projects. However, as noted below, Pegasus-Global found only one policy which addressed any review of the designs prior to construction. In addition, while Pegasus-Global was told of actions taken by Project Managers to enforce the code, Pegasus-Global was unable to confirm all of those enforcement actions through a review of the documentation.

6.4.4.1 DESIGN STANDARDS REVIEW AND APPROVAL PROCESS

Pegasus-Global found nothing in the facility design standard which set a formal review process during the schematic or working document phases of a project. Pegasus-Global found only one procedure which addressed any type of design review conducted prior to

the initiation of construction, Policy 1301.30, Design Plan Check Process (See **Section 5.3.2.3**). However, according to Policy 1301.30, Design Plan Check Process was not adopted until dated May 10, 2010; therefore the Design Plan Check Process was not in effect for three of the six test audit test projects (B.F. Sisk, New Portola/Loyalton, and New Mammoth Lakes). It appears that the Design Plan Check Process was in effect for the remaining three audit test projects.

Pegasus-Global's review of the Design Plan Check Process was limited to three of the audit test projects, however according to the design review process it is intended to:²⁴⁹

“Ensure that construction documents comply with the applicable code.”

Because the Design Plan Check Process was limited to the review of code compliance and because those reviews are conducted by state agencies which have oversight of those building and life safety codes, that policy and procedure does not address the issue of a standardized review or approval of the project design for compliance against the design standard (except where the design standard references the life safety and building codes.)

During interviews Pegasus-Global determined that while every Project Manager (or their designee) reviewed the project designs regularly, the timing of those reviews were not done at uniform intervals. Pegasus-Global also learned during the interviews that final design reviews (done prior to release for construction) were conducted of the entire design to ensure that the design complied with the facility design standards. Project Managers also discussed actions taken when facility design standards had been violated, most of which was requiring the architect to redo the design until compliance was achieved. However, Pegasus-Global was not able to verify most of those review and enforcement actions through a review of the project documents.

Relative to the facility design standards, the Project Managers of all six test audit projects stated that one of the reasons that architects violated facility design standards

²⁴⁹ Policy 1301.00, Design Plan Check, Purpose, page 3, May 10, 2010

was because of input from the stakeholders involved in the review of designs. During those reviews various stakeholders would request specific modifications in the design of the facility, some of which were outside of the facility design standards. The Project Managers expressed two different points of view and two different responses to the imposition of the facility design standards:

1. Design standards were too loose, giving architects and stakeholders too much freedom to direct and/or control design of a project. The Project Managers holding that perspective believed that there should be a narrower set of design standards (e.g., there should be only two standard courtroom layouts, with the stakeholders having to choose one or the other of those layouts). The primary reason given for that position was to better enable the Project Manager to control the cost and time of design, and to the extent possible exercise greater control over construction planning and execution (“*reduce the idiosyncrasy*” of the stakeholders involved in design).
2. Designs should be directly controlled by the Administrative Executives and PJs for whom the Project is being built, with the input from other stakeholders to address more aesthetic elements of the design. The Project Managers holding that position believed that as the “Owners” and “tenants” of the courthouse had a right to exercise control over the design of the facility.

Pegasus-Global does not advocate one of those positions over the other; however, OCCM should address the issue in order to make the design process more uniform, and define the stakeholder’s and the Project Manager’s roles and authorities for uniformity and transparency across the program. Issues of accountability among of the various parties involved in the planning and execution of a project will be difficult if the roles and authorities are not comprehensively defined.

As discussed in **Section 5.3.2.2**, Pegasus-Global has reviewed the latest draft of revised design standards Trial Court Facilities, dated 2011; however, while Pegasus-Global was told in interviews that the 2011 version of the facility design standards was

in final form, it was still waiting final adoption. Pegasus-Global was also told in interviews that the 2011 facility design standards had been implemented and that project architects starting work in 2011 have been, and are being, held to those 2011 draft design standards. However, the 2011 facility design standards were not in effect at the time B.F. Sisk, New Portola/Loyalton or New Mammoth Lakes were in design.

Regardless of the facility design standard in effect at the time of design, Pegasus-Global encountered the same issue; while the Project Managers discussed reviews and enforcement actions, Pegasus-Global's review of the formal policies and procedures found no policy or procedure which established a formalized design review and approval process. Likewise during the project document reviews, Pegasus-Global did not find documentation to support all of the review and enforcement actions taken by Project Managers on their respective projects.

During interviews, as supported by document review, Pegasus-Global learned the architect is not required by contract to meet any specific obligations relative to a formal design review process nor was there a standardized list of design deliverables required of the architect, nor a standard definition of what is to be submitted for each deliverable required.²⁵⁰

Findings:

- **V2-F-4.4.1-1** All six test projects were subject to, and held to, the Trial Court Facilities Standards by Project Management (either 2006 or 2011).
- **V2-F-4.4.1-2** There were instances in which actions taken in response to deviations in those standards or designs which increased the estimated cost of construction were not adequately documented. This however, may be a result of

²⁵⁰ Note: Procedure 1301.30, Design Plan Check, was issued in DRAFT in May 2010 as a result that procedure was not in effect at the time five of the six audit test projects were initiated. The Madera Project was not initiated until July 2010, so arguably was subject to Procedure 1301.30. However, as noted in **Section 5.3.2.3**, the procedure was issued as an Initial Draft and was incomplete with no indication that the procedure had been adopted by the program. For that reason Pegasus-Global did not consider Procedure 1301.30 as an adequate procedure for the design review process.

the lack of a formal document control system. As a result of the lack of full documentation the uniformity and transparency of the actions is not measurable.

- **V2-F-4.4.1-3** The role and authority of the project stakeholders insofar as the review and approval of design vis-à-vis the facility design standards has not been formalized which impacts the uniformity, transparency and accountability of the design review and approval process.
- **V2-F-4.4.1-4** The contemporaneous tracking of design costs and schedules is inconsistent and depends primarily on the CM and/or CM@Risk to monitor and document. Monitoring design cost and schedule closely enables Project Management to identify anomalies in cost or schedule, while the collection and comparison of that data enables Program Management to identify trends (positive or negative) in design cost and schedule at a program level and develop remediation and mitigation actions which may be taken to overcome negative trends. Likewise, the collection of that data on a project basis gives Project and Program Management real time benchmarks against which to evaluate the performance of architectural firms insofar as the architect's adherence to the design standards, and cost and schedule objectives set for the project.
- **V2-F-4.4.1-5** Pegasus-Global found that a standardized checklist for design submissions and deliverables had not been developed or required from a project architect. Pegasus-Global observed that the individual Project Manager appeared to decide what each submission is to contain and determine when a particular submission is considered complete; this impacts the uniformity and transparency of the required content of each design submission by the architect. Without those details in the architect's scope of work the architect may set the fee (and hours) for the work at a level which will encompass a "worst case" situation, which can impact the total cost of design.
- **V2-F-4.4.1-6** Pegasus-Global found that the design QA/QC process is sometimes delegated to the CM, the architect, or a consultant engaged to

perform QA/QC functions during design and construction, with little formal guidance (*i.e.*, a review checklist linked to design standards).

Recommendations:

- **V2-R-4.4.1-1** While Pegasus-Global found that design reviews are being conducted by Project Managers, Pegasus-Global recommends that based on lessons learned during the design review processes used to date a formal design review policy and procedure should be developed to improve the uniformity and transparency of that process.
- **V2-R-4.4.1-2** A formal design review procedure should set guidelines establishing the points in the design process when the reviews should be conducted and include a process for formally documenting the results of each design review and action taken as a result of that review.
- **V2-R-4.4.1-3** As part of the design review procedure the cost and schedule established for the execution of design should be routinely monitored to establish the exact status of each project during the design phases of a project. Pegasus-Global notes that the data relative to design cost and schedule could be used to establish normative design execution costs and schedule data from which abnormalities in those conditions on a given project can be immediately identified and addressed in order to mitigate cost or schedule impacts. The data should be used as part of an evaluation of the performance of an architect so that OCCM can identify those firms which consistently meet or exceed the expectations set for design and those firms who habitually fail to meet those expectations.
- **V2-R-4.4.1-4** A more formal and inclusive review process of the design QA/QC should be developed specifically intended to identify and communicate deviations from the facility design standards to the Project Manager for resolution.
- **V2-R-4.4.1-5** QA/QC reports should be formalized, in writing, and maintained in the project document files.

- **V2-R-4.4.1-6** OCCM should formally establish each stakeholder's role and responsibility during the project planning, design review, comment and design approval elements of the facility design plans. Further, Pegasus-Global recommends that the Project Managers not be placed in a position in which they are responsible to impose design standards in a case where the PJs or individual judges resist the imposition of a design standard; that task should be left to Program Management, the CFWG or the Judicial Council.
- **V2-R-4.4.1-7** All requests for deviation from the design standards should be accompanied by a written rationale for that deviation and an identification of the expected cost and schedule impacts resulting from that deviation. Deviations should be approved solely on the basis that project contingency is available to cover the cost of a deviation. Pegasus-Global recommends that all deviations requested should be rejected or approved by Program Management, the CFWG or the Judicial Council.
- **V2-R-4.4.1-8** OCCM should consider adopting a policy to the effect that all project contingency belongs to the program and not to the individual projects. This is necessary to ensure that contingency is used only as absolutely necessary to overcome unforeseen or unforeseeable conditions and not simply to accommodate desired, but non-essential changes to a project. Program Management should set an objective which returns the maximum contingency set for a project to the program budget in order to address other program needs.

6.4.4.2 USE OF PROTOTYPE DESIGNS

During the interviews of both Program and Project Management staff there was an almost even split between those that favored (at least to some extent) the use of prototype designs (or design elements) in the Program and those who disliked the idea of using prototypical designs. A prototype design can involve a specifically prototypical design of a particular design element to be followed in all projects (e.g., two prototypical courtroom layouts) or a full prototypical design for a certain type or size project. Those

that favored the use of prototypical designs primarily cited the reduced cost of design and construction and the schedule advantages of using such designs as the reasons for their support. Those that did not favor the use of prototypical designs primarily cited ascetic, judicial personal preference, and location design influences as the reason for not using such designs.

Ultimately, this is an Owner decision, with Program Management providing input as to the pros and cons of the use of prototypical designs as requested by the Owner. Pegasus-Global has no position on this issue; however in megaprograms of this magnitude and with this many constituent projects some level of prototypical design is normal and even expected. Most megaprograms do not (or cannot) adopt a full structure consisting of strict prototypical facility designs (*i.e.*, every project is exactly the same); but often such programs will develop and impose some prototypical design elements from which choices can be made to fit a particular need or preference. The prototypical design choice usually revolves around functional preferences and ascetic design elements (interior and exterior) but limit alteration of certain infrastructure and operational facility elements.

Findings:

- **V2-F-4.4.2-1** Pegasus-Global has no specific findings on this subject and raises it as a topic for discussion within the CFWG, the AOC and the OCCM. Pegasus-Global has presented this issue for Program Management's information and consideration, and to provide some frame of reference as to the use of prototypical designs in other megaprograms of this size and complexity on which Pegasus-Global has direct experience.

Recommendation:

- **V2-R-4.4.2-1** Pegasus-Global has no specific recommendation in support of either preference as that is an Owner's decision. However, the concept should be

considered in terms of weighing the relative impacts on the program and project goals and objectives.

6.4.4.3 CONTRACTS WITH ARCHITECTS

During interviews there were comments that contracts under which architects were currently engaged were not standardized to reflect the program and project requirements. It was also noted during the interviews that in some cases, because the deliverables are not adequately defined or reflective of the limitations of the design standards, Project Managers believe they have limited contractual basis to require specific deliverables completed to a specific standard of care.

Findings:

- **V2-F-4.4.3-1** Pegasus-Global found architectural contracts in the project document files with the exception of the New Susanville Courthouse (the file folder for the contract was empty).
- **V2-F-4.4.3-2** Pegasus-Global's review of the architectural contracts showed that the contracts were all prepared using almost identical formats. However, some of the contracts did have amendments which to some extent contained additional provisions for basic design reviews to be conducted over the course of the design.
- **V2-F-4.4.3-3** Pegasus-Global found that the contracts reviewed did not include standard provisions which established the exact deliverables to be produced, the required design review meetings (schedule and content) or established a checklist of the design deliverables due at each of the required design review meetings.

Recommendation:

- **V2-R-4.4.3-1** To the extent possible Pegasus-Global recommends that the architectural contracts contain standardized provisions which set scheduled

design review meetings, each with a list of specific deliverables to be reviewed during those design reviews. An attachment to the contract should be checklists of the required deliverables for each design review meeting.

6.4.5 RELATIONSHIP WITH FACILITIES MAINTENANCE GROUP

During interviews with both Project Management staff and the FMG staff the issue arose relative to the role and involvement of FMG during the planning and execution of a project. Per statute:

*“The costs of maintaining and operating a building over its life span are greater than the initial construction costs, so the control of these maintenance and operations costs must be factored into any responsible infrastructure development method.”*²⁵¹

In the Capital Courthouse Construction Program Management Plan OCCM specifically states that:²⁵²

“OCCM’s responsibilities include long-term facilities master planning for the trial courts, funding requests for capital outlay, management of courthouse design and construction, and facility management for California’s trial and appellate courts.”

During interviews with Project Management and FMG staff both noted that the FMG staff was not consistently involved in the design review process during a project. However, during those interviews it was also stated that FMG has neither the budget nor the staff to give more than cursory level attention to the projects as they are being designed. At times FMG is not directly involved in a project until the commissioning and turnover phase of a project, at which point it is too late to make substantive changes in the project to improve the efficiency or effectiveness of the facility structures.

As noted in **Section 5.2.12**, the Project Definition Report outlined the participants in the Project Design Team, however in reviewing the list of members of that team Pegasus-Global noted that FMG was not included in that membership listing, nor does the design

²⁵¹ SB 1732, SB 82, (2007) Section 1, provision 3, page 3, (2007)

²⁵² Capital Courthouse Construction Program Management Plan, Section 2.1.1.3, page 5, October 2009

phase definition provided in the Project Definition Report cite any role for the FMG during the design phase. As noted in **Section 5.2.12** of this Report, FMG was to be included during the reviews of the project design.

Those interviewed agreed that the infrastructure systems (e.g., mechanical, water, system locations, maintenance service and repair access) were designed as “one off” for each individual project. By not standardizing infrastructure equipment OCCM may fail to meet its objectives to:

“...gain efficiencies and economies of scale ... which is to create and maintain court building that reflect the highest standards of excellence.”²⁵³

... [take advantage of] opportunities for cost savings ...”²⁵⁴

...

“Design standards should reference a methodology to accurately analyze and estimate operational costs of facility management ...”²⁵⁵

...

“Develops prototypical designs for building components of common function across the program to reduce cost and improve quality through standardization.”²⁵⁶

Within the California Trial Court Facilities Standard it was stated that the:²⁵⁷

“Selection of building components, materials, and systems must consider long-term costs for operations and maintenance.”

Pegasus-Global observes that without the formalized policy, procedure or processes to guide the project personnel, there was a significant level of frustration from both the Project Management personnel and the FMG personnel relative to facility management

²⁵³ Capital Courthouse Construction Program Management Plan, Foreword, page 1, October 2009

²⁵⁴ Capital Courthouse Construction Program Management Plan, Section 1.1, page 3, October 2009

²⁵⁵ Capital Courthouse Construction Program Management Plan, Section 2.1.3, page 5, October 2009

²⁵⁶ Capital Courthouse Construction Program Management Plan, Section 3.3.3, page 10, October 2009

²⁵⁷ California Trial Court Facilities Standards, Chapter 1, Section 1.3, page 1-6, April 2006

design, operation, and after-the-fact identification of designs which made facility management less efficient or economical over the total life cycle of a facility.

One specific example observed by Pegasus-Global during its site visit to the Arnason Justice Center in Pittsburg, California involved the placement of certain infrastructure systems and controls within the secure holding area of the courthouse. To inspect, maintain, trouble shoot, adjust or repair infrastructure systems and controls FMG had to pass through the tight security systems (sometimes multiple times as FMG had to bring in materials and tools found to be needed during maintenance or repair) and work within an area which is supposed have very limited access to non-security personnel, was not efficient, and will not ultimately reduce maintenance cost over the life cycle of the court facility.

Finally, Pegasus-Global was informed during interviews of Project Management and FMG staff that the primary systems equipment had not been standardized across all project designs, which has direct impact on the cost to design and build the project, and the cost to maintain the facility over its entire life cycle. Pegasus-Global observed during the interviews that both Project Management and FMG recognized those impacts but was uncertain as to how to address the issue. That uncertainty appeared to be directly linked to the workloads already placed on both Project Management and FMG staff under the Program; as a result of those workloads both staffs had to prioritize where their respective resources had to be focused.

Findings:

Pegasus-Global based its examination and findings to the expressed objectives set for the Court Capital Construction Program aimed at reducing facilities maintenance costs at all phases of the project execution and extending into the long term life cycle maintenance costs of each court facility. To repeat the enabling legislation:

“The costs of maintaining and operating a building over its life span are greater than the initial construction costs, so the control of these maintenance and operations costs must be factored into any responsible infrastructure development method.”²⁵⁸

- **V2-F-4.5-1** FMG appears to be seriously understaffed and under budgeted to address all of the needs of a program of this magnitude. FMG has to choose between struggling to maintain an ever increasing number of court facilities – including both those assumed by the Judicial Council and those being built under the megaprogram - with an increasing number of different infrastructure brands, while not gaining the staff positions or budget necessary to fully execute their assigned scopes of work. FMG has attempted, where possible, to outsource certain commissioning and maintenance scope, however, that will not improve efficiency, effectiveness or reduce the costs of maintaining the court infrastructure facilities over the long term life of the court facilities.
- **V2-F-4.5-2** There are no standard infrastructure designs or equipment choices. By not limiting the choice of design and equipment the court system is ending up with a variety of infrastructure designs and infrastructure systems which means that the program is not gaining the economies of scale benefits expected of standardization during design, construction or operations.
- **V2-F-4.5-3** Limiting the choice of infrastructure equipment may have three primary effects on the long term maintenance costs:
 - Lowering the number of different systems, which the limited FMG staff would have to be trained to operate, maintain and troubleshoot. Every new or different system supplied requires specific training of FMG staff in order to ensure not only that the FMG staff can operate and maintain the systems properly, but also to prevent voiding warranties if the operations and maintenance are not done precisely to the requirements of the equipment.

²⁵⁸ SB 1732, SB 82, (2007) Section 1, Provision 3, page 3, (2007)

- Enabling the Program to gain economies of scale insofar as the purchase of replacement parts and equipment and routine maintenance materials (e.g., mechanical and water system filters). Often the larger the bulk purchase of replacement parts and routine maintenance materials the greater the price break offered by suppliers of those replacement parts and maintenance materials. Standardizing the infrastructure equipment may also reduce the procurement time as ordering would become simpler and turnaround time would be faster, which would reduce the amount of storage space needed to store multiple brands of longer lead delivery of replacement and routine maintenance materials (*i.e.*, using a centralized warehouse for all infrastructure parts and materials).
- By limiting the facility infrastructure to a maximum of two or three choices the program would be able to negotiate better prices for the initial equipment (bulk purchases) and often improved warranty and repair clauses within the contracts for that equipment (long term relationships). In addition, architects would have standard data from which to work and as architects under the program are often awarded more than one project, this would lessen the learning curve for the supporting design and placement of that standardized equipment.
- **V2-F-4.5-4** Although not charged with conducting a formal analysis of staffing levels, one of the consistent messages passed to Pegasus-Global by Judicial, Program, Project and FMG staff and management was that FMG did not have the staff or budget to fulfill the mandates set within the legislation or the objectives set for the Program. This fact will have a direct impact on the program's ability to fully address the recommendations presented below. However, even more critical is that all of the gains required and expected of FMG over the total life cycle of a court facility insofar as cost reduction and control may not be realized.

Recommendation:

- **V2-R-4.5-1** Project Management should move to capture, consolidate and communicate those lessons learned relative to FMG during the design, construction, commissioning, and operation of new court facilities. The critical lessons learned should be further organized into infrastructure design standards and design review checklists, which can be used specifically to ensure that infrastructure designs meet the standards and that design mistakes are not repeated in subsequent projects. The setting of standards and the use of an FMG checklist during design would lessen the direct involvement of FMG personnel during schematic design; however, FMG should still conduct a review of the infrastructure design prior to the finalization and release of the working design.
- **V2-R-4.5-2** To the maximum extent possible, the Program should limit the equipment choice of primary infrastructure equipment and systems which can be used within a facility. This should have an immediate impact on the cost of design, the cost of the equipment and systems, construction and, long term FMG. Without limiting the equipment choices to the greatest extent possible the Judicial Council and Program may not meet their economies of scale objectives set for long term FMG.
- **V2-R-4.5-3** Once the suppliers have been identified, Pegasus-Global recommends that OCCM consider entering into specific contracts (not purchase orders if possible) with those suppliers to set the terms of initial purchase, with specific savings identified based on a specific number of units purchased. Consideration should be given to having the contracts show extended warranty and repair provisions which may also be extended (or reflect a cost reduction) for a specific number of units purchased. It is also suggested that the contracts contain specific provisions for the cost of repair and routine replacement materials, again reflecting a reduction in unit cost based on each equipment unit purchased under the contract.

- **V2-R-4.5-4** Consideration should be given for the equipment supply contract to include a number of training slots to be provided at no cost to the Program; if possible, those slots should not be time limited, but would be stated in a total number, which can be used by FMG at any time (in order to train staff hired after the initial procurements and commissioning activities).

6.4.6 CONSTRUCTION CONTRACTS

Of the six audit test projects, four were under a CM@Risk delivery method (Madera, San Bernardino, Mammoth Lakes, and B. F. Sisk) and two were under the D/B/B delivery method (Portola/Loyalton and Susanville). The CM@Risk projects each had two contracts, one each for CM@Risk services during the design phases of the project and one each for the construction phase of the project. The D/B/B projects each had a single construction contract. In order to compare the construction contracts without attempting to normalize the two different project delivery methods, Pegasus-Global examined the two different delivery method contracts separately.

6.4.6.1 CM@RISK DESIGN RELATED CONTRACTS

As noted above, under the CM@Risk delivery method each of the contractors had two separate contracts; one for CM@Risk services during the design phases of the project and one for general contracting services during construction. Pegasus-Global has addressed the change in position from CM@Risk to General Contractor in **Section 6.4.6.4** below and will not repeat those findings and recommendations here.

To place the CM@Risk contracts into perspective it is necessary establish the effective dates of those contracts, which is addressed in **Table 6.4.6.1, CM@Risk Project Contract Dates**.²⁵⁹

²⁵⁹ Note: To make it easier to follow the examination conducted, when the designation CM@Risk is used, Pegasus-Global is referring to the contracts which were in place specifically to provide services during the design phases of the projects. When the designation "Contractor" is used, Pegasus-Global is referring to the contracts which were in place specifically to provide services during the construction phase of the projects.

Project	CM@Risk	Construction
B.F. Sisk	2007	2008
Mammoth Lakes	2008	2010
San Bernardino	2009	2010
Madera	2010	N/A

As shown in **Table 6.4.6.1** above all four of the contractors were awarded contracts for the CM@Risk scope of work during the site acquisition and design phases of their respective projects. B.F. Sisk was ultimately given an amendment to its CM@Risk contract to execute the construction scope of work, while Mammoth Lakes and San Bernardino had separate contracts awarded for the construction contractor scope of work. The fact that the Madera project had only a contract for the CM@Risk scope of work is understandable as it is still in its design phase. According to the Project Managers interviewed there are always separate contracts executed with a CM@Risk, one covering the site acquisition and design phases of the project and one covering the construction phase of the project.

Pegasus-Global's review revealed some variations in the CM@Risk contracts, however, those variations were relatively minor and appear to a result of the timing relative to when those contracts were executed. For example, while the San Bernardino, B.F. Sisk and Mammoth Lakes contracts have a "Definitions" section, there are slight differences between the San Bernardino CM@Risk contract definitions and the contract definitions in the other two projects. However, the B.F. Sisk CM@Risk contract was executed in 2007, the Mammoth Lakes CM@Risk contract was executed in 2008, while the San Bernardino CM@Risk contract was executed in 2010. In Pegasus-Global's experience contracts evolve over time as laws or regulations change or as lessons are learned during execution under those contracts. Despite those minor differences the CM@Risk contracts appeared to be uniform relative to their structure.

Pegasus-Global did observe that the “Basic Services” section of the CM@Risk contract of the two later project CM@Risk contracts had been expanded to include functions which had not been listed in the “Basic Services” section of the two earlier CM@Risk contracts for the other two projects. For example:

- The two later CM@Risk contracts required the CM@Risk to assist in the objective to gain LEED Silver[®] certification for their projects, while the earlier CM@Risk contracts did not mention LEED[®] certification.
- Both of the later CM@Risk contracts required the CM@Risk to conduct constructability reviews of the design and conduct a structural/Mechanical Peer Review of the design, while the earlier CM@Risk contracts did not.
- Each of the CM@Risk contracts had different requirements relative to preparing cost estimate updates, from a single update at 50% of the preliminary design; to 100% of preliminary design; to 50% and 100% of schematic design; and final to 100% of schematic design, and 50% and 100% of design development.
- The Mammoth Lakes, San Bernardino and Madera CM@Risk contracts all indicated that the Working Drawing phase scope of work and the Construction phase of scope of work as detailed in those contracts were “Not Authorized in Contract”. The B.F. Sisk CM@Risk contract stated that the Working Drawing phase scope of work was included in that CM@Risk contract; however as with the other three projects, the Construction Phase scope of work was “Not Authorized in Contract”.²⁶⁰
- The Mammoth Lakes, San Bernardino and Madera CM@Risk contract all indicated that a life cycle analysis was a required scope of work, while the B.F. Sisk CM@Risk contract contained no mention of a life cycle analysis being required.

²⁶⁰ Note: The B.F. Sisk CM@Risk contract noted that the Preliminary Design Work had already been completed prior to the signing of the CM@Risk contract.

Although the CM@Risk contracts were essentially uniform and transparent in respect to the scopes of work authorized, Pegasus-Global found that inserting sections for the scopes of work which were not authorized under those CM@Risk contracts was unusual and, to some extent confusing. Normal practice is to limit contract content to the scope of work which is authorized to be executed under that contract. By including scopes of work which are not authorized under one contract, but are ultimately authorized under a different contract (or amendment to the original contract in the case of B.F. Sisk) risks there being a difference between the work definitions between the two documents. Even though the work was not authorized, the case could be made that the contractors had agreed to the provisions established for those scopes of work contained in the CM@Risk contracts. Pegasus-Global found the two different scopes of work as expressed in two different contracts with one contractor to be somewhat confusing.

Findings:

- **V2-F-4.6.1-1** There were a number of minor changes or additions among the four CM@Risk contracts, however, all of those changes appeared to be a result of changes in regulations, state requirements or lessons learned on earlier projects. In total Pegasus-Global found that the CM@Risk contracts were uniform and transparent.
- **V2-F-4.6.1-2** Pegasus-Global found that the CM@Risk contracts met the current industry practices for the CM@Risk's duties and responsibilities insofar as project design is concerned.

Recommendation:

- **V2-R-4.6.1-1** Pegasus-Global recommends that OCCM consider limiting the scope of work provisions to the scope of work actually authorized under the contract.

6.4.6.2 CM@RISK RELATED CONSTRUCTION CONTRACTS

Pegasus-Global found only two CM@Risk related construction contracts in the project document files:

- San Bernardino
- Mammoth Lakes

Both of those contracts were dated 2010. The Madera project is still in design and therefore no construction contract has been let. No construction contract was found in the project document files for the B.F. Sisk project. With the exception of the hourly rates, which were different for the two projects, the general terms and conditions of the two construction contracts were identical. Likewise Exhibit D, Statement of Work in both construction contracts was identical.

Pegasus-Global also found an amendment to the B.F. Sisk CM@Risk contract which authorized the construction scope of work on the project. Again, the difference in contracting methodologies appeared to Pegasus-Global to have been a result of normal contract evolution which generally occurs on megaprograms consisting of multiple projects sequenced over an extended period of time.²⁶¹

There were some provisions of the two construction contracts reviewed that Pegasus-Global found confusing in Exhibit D, Statement of Work of those contracts. For example:

- Under Section 3 of the construction contracts for Mammoth Lakes and San Bernardino the contractor is not only to provide services for the specific project for which the contract was awarded, the contractor's scope of work was expanded to provide management services to AOC Program Management in such tasks as:

²⁶¹ Note: Even though technically the B.F. Sisk agreement for construction was technically an amendment to the original CM@Risk contract, for ease of presentation all three construction agreements are referred to as "contracts" in this subsection of the Report.

- Manage the Program to ensure that key Program Management team staff and functions are operating properly and communicating regularly
- Monitor, document and present program activities to ensure that the program status and directions are clearly and accurately understood by stakeholders, courts, governing agencies, interested third parties and the public at large
- Provide program leadership
- Monitor program cash flow
- Work with management to achieve economies of scale
- Update the Program Management Plan as required
- Etc.

Pegasus-Global's confusion stems from the fact that this element of work appears to either provide a vehicle for the contractor be assigned work that would have it actually managing and controlling the Program, which by legislation is the responsibility of the Judicial Council, through the AOC. The confusion is reinforced by the possibility that the contractor might actually be in a position to evaluate its own performance on a project assignment under the items of work listed above which appear in Section 3.

There were no such Program Management provisions in the B.F. Sisk construction contract. In this instance Pegasus-Global is unsure why there was such a dramatic change in the construction scopes of work between the B.F. Sisk contract and the other three construction contracts.

- Following Section 3, which establishes potential management and control work at the program level, Section 4 establishes potential management and control work at the project level. In Section 4 the contractor is actually supposed to execute

and complete some of the very work which, under Section 3 it is to monitor, evaluate and revise as necessary.

- In the CM@Risk contract the scope of work authorized all work assigned during the early phase of the project. What was specifically not included in the CM@Risk contract was the execution of any construction activities. However, in the construction contract the scope of work is not limited to construction, but also includes duties to be executed during the site acquisition, preliminary design and working drawings phases. Pegasus-Global does not understand how a construction contractor can retroactively be assigned and execute work under those three earlier phases.
- One of the duties assigned to the construction contractor during the preliminary design is to “*Organize, implement, participate in, and contribute to the selection process for the construction manager at risk (CM@R) or other project delivery method general contractor.*”²⁶² Pegasus-Global finds this to be an unusual task to allocate to a construction contractor when the project presumably has already gone through the site acquisition, preliminary drawings and working drawings phases under a CM@Risk.

Findings:

- **V2-F-4.6.2-1** Pegasus-Global found that, with the exception of the B.F. Sisk amendment, the construction contracts provided in the document files are uniform (identical).
- **V2-F-4.6.2-2** The scope of services set within the construction contracts at Section 3 are not transparent, and are confusing as they appear to allocate program management and control functions to the construction contractor. In addition, Section 4 of the contracts contains work scope that should have been completed prior to the effective date of the construction contract.

²⁶² Standard Agreement, Judicial Council of California, Agreement No. MA-PM CM-10, Exhibit D, Section 4.3 (a), page D-4, May 25, 2010 (San Bernardino)

Recommendation:

- **V2-R-4.6.2-1** OCCM should examine the statements of work which are not authorized in the original CM@Risk contracts to determine if those statements are necessary. If the determination is that those statements are necessary, then OCCM should confirm that the statements of work between the two contracts are consistent.
- **V2-R-4.6.2-2** Pegasus-Global recommends that the OCCM consider revising Section 4 of Exhibit D to reflect and conform to the actual progression of a project though the four phases established.

6.4.6.3 DESIGN/BID/BUILD CONTRACTS

As of the date this **Part II** of the management audit was conducted, no contracts for either of the D/B/B projects, Portola/Loyalton or Susanville were found in the project files for those respective projects.

Finding:

- **V2-F-4.6.3-1** Pegasus-Global found the contract files for Susanville and Portola/Loyalton were empty.

Recommendation:

- **V2-R-4.6.3-1** As a contract is one of the most critical of the total project document management and control process, copies should be maintained by both the Project Manager and Regional Manager, with the original maintained by the Program D&C Director's Office.

6.4.6.4 CONSTRUCTION MANAGER'S FUNCTIONS

In **Section 5.3.4.1** Pegasus-Global addressed additional issues which arose during the interviews of Project Management staff and construction managers which are addressed in greater detail in this **Section 6.4.6**. According to CMAA a CM@Risk:²⁶³

“...holds the risk of subletting the construction work to trade subcontractors and guaranteeing completion of the project for a fixed, negotiated price following completion of design in a similar manner as the traditional [CM] approach. However, in this scenario, the CM also provides advisory professional management assistance to the Owner prior to construction, offering schedule, budget and constructability advice during the pre-construction phases.

...

When the CM provides either a GMP [Guaranteed Maximum Price] or lump sum for the project it assumes the risk to deliver the project on time and within a fixed budget. The CM is also then free to act within the confines of the contract and its implied conditions.”

While there is nothing inherently wrong with that policy statement, the issue becomes complex and confusing when that same policy is applied under a CM@Risk delivery methodology; a combination which raises several questions as to ultimately who is responsible for and controls the execution of construction work. According to CMAA, a primary difference between a traditional CM and a CM@Risk is that:

“The agency CM [traditional] generally acts as the Owner’s principal agent to advise on or manage the process from project conception to completion, but does not perform design or actual construction work. When the CM’s role includes a construction performance function for an established price, it is known as the “CM-at-risk” approach ... the CM-at-risk is in fact a distinct delivery method due to its responsibility for construction performance. Agency construction management, on

²⁶³ CMAA, Capstone: The History of Construction Management Practice and Procedures, Chapter 2, Section 2.1, page 22, 2003

the other hand, is a distinct set of services that can be applied to any delivery method.”²⁶⁴

CMAA notes that during actual construction, while the CM@Risk has many of the same risks as a general contractor under a GMP or a lump sum price with a date certain completion schedule, the CM@Risk continues to fulfill its other, traditional CM roles and functions.

Project Management comments made during the interviews were diverse as to the respective roles of the CM@Risk and the CM when both are contracted to a single project. Statements were made during interviews to the effect that at the point a project moved from working drawings to construction the CM@Risk simply became a general contractor and assumed the role of the General Contractor and was no longer a CM@Risk; at that point the contract CM - on behalf of the Project Manager - took over many of the duties normally filled by the CM@Risk. Pegasus-Global has in **Section 5.3.4.1** already addressed some of the contractual issues raised by that interpretation of the CM@Risk’s actual enforceable risk penalties at the point that change occurs, with a second CM engaged for the same project.

Additional observations by Pegasus-Global:

- While some of the Project Managers stated that the contract CM had no authority to make decisions or take actions concerning the execution of construction, serving more as a vehicle for communications, Policy 4.10 does not limit the contract CM to such a role. For example, under Policy 4.10, the contract CM responsibilities include the following:
 - Provides on-site construction administration.²⁶⁵ As there is no specific definition of that role in Policy 4.10, it could be interpreted to mean that the contract CM had authority to accept or reject such things as Monthly Progress Report, Schedule updates, invoices, etc.

²⁶⁴ CMAA, Capstone: The History of Construction Management Practice and Procedures, Chapter 1, Section 1.0, pages 1 and 2, 2003

²⁶⁵ Policy 4.10, Memorandum, Construction Management (Draft), Section B-3.c, page 4, June 23, 2009

- Provides coordination and communications between the PAG, the architect, the engineers, the IOR, the contractor and OCCM Facilities Management.²⁶⁶ Controlling coordination among, and communications between, stakeholders provides the contract CM with the responsibility and authority to act as the contract CM feels necessary to control those same points of coordination and communication.
- Contract CM “*must approve*” all monthly payments to the contractor.²⁶⁷ This is most definitely more than acting as the Project Manager’s “eyes and ears” or being simply a communications vehicle. As will be discussed below, in certain situations this action presents a specific instance where a conflict of interest exists between the CM@Risk and the CM. In addition, approval of payments is a contractual issue negotiated between the OCCM and the CM@Risk. Under the CM@Risk construction contracts reviewed by Pegasus-Global it specifically notes that the contractor (CM@Risk) will submit invoices simultaneously to AOC Finance Division and the “*State Project Manager named on the Work Order.*” The CM@Risk contract payment provisions (under the construction agreement) state that the AOC may withhold payment where a contractor has failed to perform as required under the terms of the Work Order.²⁶⁸ There is nothing in those payment provisions that requires the contractor to submit the invoices to a contract CM; there is nothing in those payment provisions that give a contract CM the authority to accept or reject such invoices; there is nothing in that provision which gives the Project Management the right to delegate the review and approval of the invoices to a contracted CM.
- Management of costs, schedules, resolution of construction issues, approval of invoices, Change Orders and Requests for Information

²⁶⁶ Policy 4.10, Memorandum, Construction Management (Draft), Section B-3.e, page 4, June 23, 2009

²⁶⁷ Policy 4.10, Memorandum, Construction Management (Draft), Section B-3.j, page 4, June 23, 2009

²⁶⁸ Agreement between the State of California and Turner Construction, May 31, 2010, Exhibit C Payment Provisions, Sections 2, 3 and 5.1, pages C-7 and C-9,

(“RFIs”).²⁶⁹ None of those authorities suggests that the contract CM is only acting as the Project Managers “eyes and ears” with no authority to act on their own.

- Pegasus-Global observed a risk in a contract CM interfering with a CM@Risk’s means and methods. A CM@Risk is only at risk if they have total control over the means and methods under which they execute the full scope of work for which they have contracted. As noted in the CMAA citation above, “*The CM [at risk] is also then free to act within the confines of the contract and its implied conditions.*”²⁷⁰ Should the contract CM or the OCCM Project Manager “interfere” with the CM@Risk’s means and methods (directing work be done in a manner different that the CM@Risk had based its execution of the work) then the CM@Risk has an excellent argument (one which has held up in most legal actions) to have the risk penalties overturned. Under Policy 4.10, the contract CM has the authority to “*take appropriate action to affect the timely and cost effective completion of the project*”, which gives the contract CM the ability to direct the CM@Risk to change the means and methods in any way the contract CM believes necessary to affect schedule and cost.
- A CM@Risk or a contract CM is considered to be “*acting as the Owner’s principal agent*” within the construction industry.²⁷¹ This “agency” designation becomes very confused when a project has both a CM@Risk and a contract CM and can again lead to the inability to apply penalties if the CM@Risk can show that the CM (assuming the role as the Owner’s principle agent when the CM@Risk is demoted to the role of a General Contractor), gave any direction to the CM@Risk as to how he or she expected the work to be executed. There is no doubt under Policy 4.10 that the contract CM is empowered to act directly on behalf of the “Owner”, which the CM@Risk can exploit to its advantage during any dispute situation. For example, if the CM@Risk reports that the schedule has

²⁶⁹ Policy 4.10, Memorandum, Construction Management (Draft), Section B-3.n, page 5, June 23, 2009

²⁷⁰ CMAA, Capstone: The History of Construction Management Practice and Procedures, Chapter 2, Section 2.1, page 23, 2003

²⁷¹ CMAA, Construction Management Standards of Practice, Chapter 1, Section 1, page 2, 2008

been delayed for any reason and the contract CM directs the CM@Risk to make up the delay, then the CM@Risk as a General Contractor has a right to accept that direction as if it had been given by the Project Manager, and submit a request for change order even if the CM@Risk originally had responsibility to meet schedule or suffer a penalty for not meeting the schedule.

Ultimately Policy 4.10 cedes to a contract CM the authority to act in the place of the “Owner” with powers to approve or disapprove payment, accept or reject schedules, direct a contractor’s means and methods, etc. The statements made during the interviews that the contracted CM was simply the “eyes and ears” of the Project Manager, attending meetings, reviewing and summarizing reports or even preparing project reports, and maintaining the project documents and records does not align with the authorities and responsibilities cited in Policy 4.10. Pegasus-Global observes that an Owner would find it extremely difficult to impose any risk penalty on a CM@Risk during construction when the CM@Risk is under the direct control of a contract CM.

Pegasus-Global also heard from Project Managers that most contract CMs worked more than one project; as a result a CM’s first-hand knowledge of the project will be limited, meaning that even if all it does is summarize a report from the architect or the CM@Risk the reliability of those summaries may be called into question, with either the CM@Risk or the architect claiming that the contract CM has misunderstood the information reported or misrepresented the information reported.

Pegasus-Global observed from Project Managers that the firms with whom OCCM was contracting for CM services may also be competing for CM@Risk work on other projects against the CM@Risk they are “overseeing” on a current project engagement. This may raise questions relative to a conflict of interest on the part of the contracted CM. For example, if both the CM@Risk and the contract CM on a particular project compete on a another project and OCCM selected the contract CM as the CM@Risk on the new project, citing dissatisfaction with the work done by the CM@Risk on the earlier project, there would appear to be grounds upon which the CM@Risk on the earlier project could claim that the choice was tainted by the contract CM - as the Owner’s

principle agent – unfairly and unjustly denigrated the work done by the CM@Risk on the earlier project.

As noted earlier, the potential for specific claims relative to a conflict of interest are intensified in a situation where the prospective contract CM and future competitor has authority to control the actions of the CM@Risk and approval authority of the CM@Risk's payment invoices.

The potential conflict of interest concern is further exacerbated by the fact that a number of the Project Managers indicated the actual amount of direct time they personally spent on a project may be limited to as little as one day per month and, as a result, they relied almost totally on the contract CM to keep them apprised of the conditions on the project. The issue was demonstrated during an interview which noted the CM@Risk and the contract CM had been long time business rivals and there was a significant concern over what the contract CM was actually reporting to the Project Manager, and the legitimacy of the instructions being forwarded by the contract CM to the CM@Risk, which were represented as having flowed from the Project Manager. Even if the situation given above was not as interpreted by the CM@Risk, the mere appearance of a conflict of interest can be enough to create a significant problem for the Program.

Findings:

- **V2-F-4.6.4-1** There appears to be inconsistency as to the roles, responsibilities, authorities, and rights of the CM@Risk when compared against the industry expectations promulgated by CMAA:

“The agency CM [traditional] generally acts as the Owner’s principal agent to advise on or manage the process from project conception to completion, but does not perform design or actual construction work. When the CM’s role includes a construction performance function for an established price, it is known as the “CM-at-risk” approach ... the CM-at-risk is in fact a distinct delivery method due to its responsibility for construction performance. Agency

construction management, on the other hand, is a distinct set of services that can be applied to any delivery method.”²⁷²

- **V2-F-4.6.4-2** Policy 4.10 specifically authorizes the contract CM to act on behalf of the Owner during the execution of construction; which creates a direct threat to the ability of the OCCM to impose any penalties on a CM@Risk claiming a contract CM interfered with its ability to execute its responsibilities under the construction (or design) contracts.
- **V2-F-4.6.4-3** Pegasus-Global observed during the interviews of Project Managers that the engagement of a CM@Risk and a contract CM on the same project created confusion when trying to understand the respective roles of those two CMs. Pegasus-Global observes that, at a minimum there may a duplication of effort by having both of those positions and at worst a situation where the actual, empowered principle agent for the Owner is unclear, thus making it difficult to hold a CM@Risk liable for penalties if the CM@Risk could demonstrate that the contract CM, in any way, interfered with or directed the work of the CM@Risk.
- **V2-F-4.6.4-4** Other statements made in the interviews stated that at the end of design the CM@Risk becomes a General Contractor insofar as construction of the project may create a similar problem as within the industry a CM@Risk as defined by the industry and interpreted contractually serves a much different position and role in a construction project than a General Contractor. A CM (whether at risk or contracted) is accepted as the Owner’s principal agent insofar as the execution of the project; if a CM@Risk is changed to a General Contractor then they are not considered to be the Owner’s principal agent. Without that designation the contract CM is assumed to be the Owner’s principle agent and thus is assumed to speak for the Owner when questions are raised by the CM@Risk and answers are given by the contract CM.

²⁷² CMAA, Capstone: The History of Construction Management Practice and Procedures, Chapter 1, Section 1.0, pages 1 and 2, 2003

- **V2-F-4.6.4-5** As noted above, some descriptions provided by Project Managers limited the contract CM's scope of work to receiving project reports and communications; summarizing those reports or communications for the Project Manager; attending project meetings as the Project Managers "eyes and ears" and providing the Project Manager with minutes from those meeting; and maintaining the project document files. That description of the contract CM's scope of work is not that expected of a CM as described by CMAA, as quoted in this Section above. The scope described in this instance is that expected of what is generally identified within the industry as the "*Clerk of the Works*". The general duties filled by a Clerk of the Works include:²⁷³

"...make sure that work is carried out to the client's standards, specification and schedule. ...Clerks of the Works make sure that the correct materials and workmanship are used and that the client is given quality work and value for money.

Clerks of the Works are either on site all the time or make regular visits.

...

...they can advise the contractor about certain aspects of the work, particularly is something has gone wrong ... They cannot, though give advice that could be interpreted as an instruction, particularly if this would lead to additional expense."

In essence, a Clerk of the Works represents the Owner's "eyes and ears" on a project, but also ensures that the Owner is getting the benefit of its bargain during construction of the project. There are several sources from which OCCM could reference in developing such a position on its projects (not just for CM@Risk projects).

²⁷³ Institute of Clerks of Works and Construction Inspectorate – Version 2, March 2010

Regardless of the intent for having two CMs on a project, the fact that the roles and responsibilities assumed for those two positions is not uniform across those projects audited appears to have created confusion relative to how those two CMs are expected to function and in particular, the relationship which is expected to exist between those two CMs as the work is executed during design and construction.

Recommendation:

- **V2-R-4.6.4-1** Eliminate the role of contract CM within the project organization. If the position currently filled by the contract CM is limited to that normally identified as a “Clerk of the Works” then call the position by that title, which will to a great extent reduce the confusion created by having two CMs on a project. Pegasus-Global found no draft OCCM policy or procedure which fully described what would be considered a “Clerk of the Works,” but can recommend sources from which such a policy and procedure could be developed. Potential benefits from renaming the position from CM to Clerk of the Works and hiring an individual to fill that job:
 - Almost certainly firms contracting to provide a CM at their normal rate for a CM will be based on a CM’s traditional scope of work. The hourly rate for a Clerk of the Works may be significantly less than what is normally charged by a firm for a CM.
 - A Clerk of the Works can be hired under a personal services contract rather than through a large architectural, construction, or CM firm. Those positions are usually filled with mid-level individuals with experience and understand construction at a detailed management and control level.
 - An independent Clerk of the Works, responsible directly and only to the Project Manager, would eliminate any appearance of a conflict of interest which arises from having competitor contracting firms appear to be overseeing the work of one another.

- The Clerk of the Works can verify (in the field) the progress claimed by the Architects and CM@Risk by a one day a month visit where the verification comes through testing various progress claims for different disciplines during each monthly visit. Such confirmation can be easily added the monthly report of progress prepared for the Project Manager.
- Finally, a Clerk of the Works operating under a comprehensive set of policies and procedures which clearly define the scope of work for that position can work multiple projects using standardized systems and techniques which make the process much more efficient.
- **V2-R-4.6.4-2** Develop a specific standard contract for a CM@Risk which conforms with the industry expectations of the CM@Risk, thereby making the CM@Risk completely responsible for the execution of the project using their own means and methods (and makes them responsible for those means and methods) and with the full authority to act without the Project Manager's prior approval or consent except in situations where those actions have the potential to increase cost or schedule.
- **V2-R-4.6.4-3** Consideration should be given by OCCM to making the CM@Risk responsible to produce all of the formal project control documents and reports for submittal to the Clerk of the Works. This again shifts the responsibility for accurate, complete and comprehensive project documentation to the CM@Risk. The recommended method would be to allow the CM@Risk to use its own standard report forms consistent with the California Court Construction program policies, procedures and processes, including templates (which are generally much more detailed than that currently required by OCCM), but insuring that the CM@Risk format includes a template which enables the Clerk of the Works to summarize into the currently established OCCM forms.
- **V2-R-4.6.4-4** Pegasus-Global suggests making the CM@Risk the responsible party for the execution of construction to the standards established and the designs provided; do not reduce that responsibility by converting the CM@Risk

to a traditional general contractor function. While OCCM may have reasons for bifurcating the design portion of the CM@Risk scope of work and the construction portion of the CM@Risk scope of work into two separate contracts, consideration should be given to establishing a single, integrated contract in which the construction scope may not be fully authorized unless and until a full notice to proceed with construction has been issued by OCCM. The construction scope of work can be altered by agreement prior to the full notice to proceed if for some reason project conditions have changed (*e.g.*, scheduled completion of the project); should the CM@Risk reject the modifications to that portion of the full scope the contract can be repackaged and awarded to another contractor as a CM or General Contractor. This will enable OCCM to rationalize and extend the CM@Risk's responsibility to achieve all project objectives identified throughout the entire project or face a penalty. It also reduces the possible avenues by which the CM@Risk can assert that the failure to achieve guarantees was the responsibility of the Owner or a third party representing the Owner.

- **V2-R-4.6.4-5** Given the shortage of Project Managers, OCCM, with the Project Manager, should consider establishing a “standard oversight routine” which matches the size and complexity of the project assigned. Those routines should be established to focus on specific milestones and specific topical issues raised at each milestone. Certain elements of the routine should be identified that would benefit from the involvement of program level staff and functional program staff who share topical oversight responsibilities during certain phases of a project.

6.4.7 PROJECT SEQUENCING

Almost without exception those interviewed addressed the growing concern relative to their ability to meet all of the demands which are currently made upon Project Management, and which they expect to increase as the number of projects entering the execution stream increase. At this time all of the projects identified have been authorized with appropriations made for initiation of site selection and schematic design, with several projects entering the working drawing and construction phases in a

relatively short time. While the horizontal organizational structure, paired with comprehensive policies, procedures and processes expands the span of control of each Project Manager, there is a limit to the number of projects which any one Project Manager can effectively manage and control. Shortage of Project Management and project support staff were consistently identified as the most significant concern for the Project Managers.

To the best of Pegasus-Global's understanding all authorized projects are at some stage of planning or execution, which not only puts pressure on the Project Manager and staff, but also stresses the capability of the program functional staff and the FMG staff. Pegasus-Global observes that there are, realistically, only two practical methods to relieve the stresses currently building throughout the Program and projects:

1. To hire additional professional staff to reduce the demands on the current staff. Pegasus-Global has been informed that due to the current economic conditions which exist in California, the addition of staff is unlikely to be approved in the near term.
2. Revise the sequence and timing of the projects already approved under the Court Capital Construction Program. Examining the current universe of projects, further prioritization of those projects which have not yet passed into a meaningful stage of execution, and then based on that prioritization revising the current project schedules in order to spread the projects over a greater period of time. Pegasus-Global was also informed that re-sequencing and extending the schedule of projects would be difficult given the current objectives established for the execution of the Program.

As neither of those two options appears possible at this time Pegasus-Global suggests that OCCM and AOC attempt to maximize the effectiveness and efficiency of the staff currently in place. To do that Pegasus-Global recommends that Program Management complete and implement as many formal, comprehensive and efficient policies, procedures and process as possible in as short a time as practical. Formal repetitive systems and processes can relieve some of the routine burdens demanded of Project

Management staff, freeing time to be expended on more critical Project Management concerns and demands. Also, to the extent possible contractors should be engaged to their full potential in the execution of the individual projects.

A Clerk of the Works, working within the full definition of that task and focused on those duties can relieve a significant administrative load from the Project Manager. A CM@Risk truly fulfilling the duties and responsibilities expected of that position should be able to (and responsible for) a number of the tasks which now demand the Project Manager's attention. Setting standards and requirements of performance for all of the contracted architects, and CM@Risk contractors, and those hired under personal services contracts to provide administrative support for the project (or the Program) should relieve some stress off of Project Managers.

While this may result in an additional burden in vetting and verifying (auditing) contractor performance that is a task which can be jointly shared between both Program and Project Management staff. Such auditing can also be done by consultants under contract to OCCM or AOC, however to be of the greatest value those audits must compare actual performance against firm requirements established by the Program.

Findings:

- **V2-F-4.7-1** The consistency of the descriptions given relative to the situation which exists at the program and project levels relative to staffing, the consistency of the concerns expressed as a result of understaffing the Program, and the consistency of the to the full impact of the stresses which continue to build on Project and Program Management staff should be a cause for significant concern insofar as the successful achievement of program objectives over the full course of the program. Doing nothing is not a realistic, viable option without risking staff burnout and resignation which will greatly increase the problem as newer, less qualified individuals are brought into the Program to replace those who chose to leave.

Recommendation:

- **V2-R-4.7-1** Pegasus-Global recommends that Program Management complete and implement as many formal, comprehensive and efficient policies, procedures and processes as possible in as short a time practical. Formal repetitive systems and processes can relieve the routine burdens demanded of Project Management staff, freeing time to be expended on more critical Project Management concerns and demands. Also, to the extent possible contractors should be engaged to their full potential in the execution of the individual projects.
- **V2-R-4.7-2** Given that increasing staff and the re-sequencing and extending the project execution schedule are currently unlikely options, Pegasus-Global recommends the functional Program and Project Management staff are given the most complete tools possible through the completion and adoption of strong policies, procedures and processes designed to provide the maximum support during the execution of a project.
- **V2-R-4.7-3** OCCM should develop a complete inventory of the tasks and responsibilities of the Project Managers so that the completion of the policies, procedures and processes can be aligned with those responsibilities and reflect the valuable lessons learned through the execution of the projects completed and currently underway.
- **V2-R-4.7-4** Once that inventory recommended above is completed, Pegasus-Global recommends that Program Management turn its attention to how it structures and formalizes the duties and responsibilities of the architects and CM@Risk contractors. Those responsibilities which can be shifted under contract to the architects and CM@Risk contractors should be added to their scopes of work. This shifts a portion of Project and Program Management roles from direct control by OCCM to more of an oversight and verification (auditing) and enforcement role.

- **V2-R-4.7-5** Functional Program and Project Management staff be relieved of as many administrative functions as possible by using contract employees. It is possible to contract for Clerk of the Works services; scheduling reviews; audit, alert and recommendation service; cost and budget control review; a number of other services which are typically thought of as project administration roles and not project management roles.
- **V2-R-4.7-6** Pegasus-Global recommends that OCCM not place the contracts for these services with a single firm, unless that firm can: 1) supply those services without inflating the cost by using position descriptions which exceed the actual need for, and requirements of the positions to be filled; and 2) the services firm agrees not to seek nor accept any contract to design, manage or construct a project under the Court Capital Construction Program. Pegasus-Global further recommends that firms must, to the extent possible, not be a major competitor of any of the architects or construction contractors (or CM specialty firms) involved in the execution of a project under the Program. Although this recommendation may prove difficult to meet, the appearance of any conflict of interest needs to be avoided if at all possible. It may be possible to identify a service firm outside of California which would be willing to employ (or otherwise engage) qualified service staff resources locally, but place those staff under its umbrella contract for services to the program. That is not a simple process but does enable the program to centralize the service contract and avoid any appearance of a conflict of interest.

6.4.8 FORMALIZATION OF INTERAGENCY RELATIONSHIPS

Pegasus-Global found that Program and Project Management staff interviewed were able to clearly and concisely define and present how they work with other California state agencies such as DOF, PWB, etc., and the current plans, policies and procedures define the interactions which exist between the Program and those agencies. However, those relationships and interactions are not formalized to the extent that the processes established and generally followed between the Program and those agencies are

sufficient to manage and control the interactions between the agencies and the Program.

Much of the necessary interaction appeared to be personal relationship dependent, meaning that work got done because of the personal relationships established between the agency staff and the respective functional Program and/or Project Management staff. In most instances those relationships were identified as both mutually supportive and valuable; however, in a few instances it appeared that such relationships had not been formed nor was the interaction felt to be mutually supportive. Pegasus-Global recognizes the value that such personal relationships can contribute to the effective and efficient execution of both parties' scopes of work and would never suggest that a formalization of those relationships should such that those personal relationships would be damaged or hindered.

Findings:

- **V2-F-4.8-1** Pegasus-Global finds there should be some mutual understanding of the purpose and extent of the interaction between agencies and an acknowledgement of the respective duties and responsibilities of each agency specifically in respect to the Court Capital Construction Program and its projects. Each of the agencies has specific responsibilities and procedures which it must acknowledge and accomplish, which may not always correspond with the other agencies responsibilities and procedures. By understanding and acknowledging those difference it may be possible to further improve the effectiveness and efficiency of the working relationships which already exist.
- **V2-F-4.8-2** In all but a very few instances Pegasus-Global found that the working relationships between the Program and project staff and the other California state agencies was very good. However, Pegasus-Global finds that misunderstandings and frustrations between the Program, project and other agencies could be avoided by formalizing, to some extent, those relationships.

Recommendation:

- **V2-R-4.8-1** Program Management should work with their counterparts in the other California state agencies to establish a basic understanding of the parties' respective duties, responsibilities, functional parameters and processes. That information should then be used to formalize the points at which the program and project management interact with their counterparts in other California state agencies without destroying the personal relationships which currently exist but will, overall improve those relationships while enabling the respective agencies to improve the effectiveness and efficiency of those interactions.

6.4.9 PROJECT SCHEDULING

Every construction project has an objective linked to the achievement of the project's original time to completion estimate. In a megaprogram each individual project schedule estimate is a critical factor in achieving the Program's time objectives. In addition, the project schedule is one of the two primary project control tools available to Program and Project Managers; the other being the project's original cost estimate (See **Section 6.4.10** below). According to CMAA:²⁷⁴

"Implementation is carrying out the plan. It involves managing project progress in accordance with the plan. It may require modification of the plan to address changes during the course of the plan. It involves taking timely action to assist the team in maintaining time goals. It includes evaluation of the impact on cost and quality in cases of delay to the time management goals."

CMAA also notes that:²⁷⁵

"When managing time, the overall project goals including cost and quality must always be kept in focus. They cannot be compromised to achieve the time

²⁷⁴ CMAA, Time Management Procedures, Chapter 4, Section 4.1.1, page 1, 2008

²⁷⁵ CMAA, Time Management Procedures, Chapter 4, Section 4.1.1, page 1, 2008

management goals. The ultimate success of the project depends upon the maintenance of the established balance between quality, cost and time.”

This assumes that there is a hierarchy in project objectives, with cost first, quality second and time third. However, this is not a constant or consistent order of precedence; ultimately Program Management must decide the hierarchy of those three primary goals. One must understand, however, that those three goals are interlinked and interdependent: to contain costs a Project Manager may have to sacrifice a particular quality goal and/or the scheduled completion date. Likewise to achieve the project schedule one may have to spend more money (e.g., engaging in labor overtime at a premium not included in the original project cost estimate). Project Management, to a large degree is establishing a balance between those three project objectives; however, in a megaprogram environment the Program Manager has to set the hierarchy for the program and, at times, for each project in the megaprogram in order to meet the program objectives. Because of that program perspective, there must be very clear guidance and direction given to Project Managers relative to managing and controlling project schedule, cost and quality.

According to PMI, from a pure scheduling perspective, to produce a comprehensive schedule for a project (or a program) involves six processes.²⁷⁶

1. Defining discrete project activities necessary to execute the project;
2. Sequencing those discrete project activities into a logical progression from project start to finish;
3. Estimating the resources necessary to complete the work as scheduled;
4. Estimating the activity durations based upon the resources estimated;
5. Developing the logically linked schedule of activities from start to finish; and,
6. Monitor and Control the schedule during execution.

²⁷⁶ PMI, PMBOK[®], Chapter 6, page 129, 2008

Of the six processes listed above number 6, monitor and control a schedule during project execution, is the one most difficult to do, for three reasons

- Schedule progress reports tend to lag behind other data received by Project Management. Cost reports normally reflect the most up to date and precise data, primarily because payments are based on those reports. Schedule reports tend to be primarily based on “eyeball estimates” of work in place rather than a precise accounting of progress. Unless an activity is reported to be delayed or physical examination reveals an activity to be lagging behind, delay impacts may not be reported for a period of weeks or even months after the impact event has already occurred.
- Schedule progress reports are more difficult to verify than cost reports. While cost reports can generally be verified mathematically with only occasional direct on-site work, the only way to verify schedule progress is to conduct direct comparison between the scheduled activity estimated start and completion dates and the actual work in place on site at a given point in time.
- Cost reports are relatively easy to trend into the future against a pre-planned expenditure curve by project line items. If the project line item spend rate is “below the planned curve” a Project Manager can reasonably assume there are few immediate threats to the cost as estimated for a particular line item. If the spend rate approaches or moves “above the line” then the Project Manager is alerted to a potential direct cost impact to the project. However, it is much harder (and much more costly) to trend schedule progress against a planned line which encompasses every individual activity that make up a schedule. As a result, schedule trending tends to be done on a much broader set of base assumptions, with much less attention given to individual activities. This means specific activity delays may not manifest themselves as schedule impacts for some time after those impact issues have actually occurred.

A schedule must be monitored and controlled using the original estimated schedule:²⁷⁷

“A schedule baseline is a specific version of the project schedule developed from the schedule network analysis. It is accepted and approved by the project management team as the schedule baseline with baseline start dates and baseline finish dates. The schedule baseline is a component of the project management plan.”

While neither easy nor precise, Project Management must understand that:²⁷⁸

“It is of the utmost importance to know – at all – times where you stand in relation to where you planned to be (the baseline).”

Pegasus-Global has used a system which identifies and establishes specific “trip wire activities or situations”, which can be used to simplify the process of monitoring and controlling a program or project schedule. Essentially, specific key milestone activities within a critical logic string of activities are analyzed to identify the risk elements which are most likely to occur during the execution of that key milestone. Once the risk is identified a list of precedent conditions which preceded the occurrence of the risk element is developed, which enables Program Management or Project Management to monitor the project for those precedent conditions rather than attempt to monitor individual activities in a string of logically linked activities. In a repetitive build environment such as the Court Capital Construction Program the trip wire activities can to a significant extent be standardized and the monitoring process can be templated.

Ultimately, the ability to control and monitor a schedule involves three elements:

1. Selection and adoption of a single, standard scheduling program to be used across the entire program and projects. Given the difficulty inherent in attempting to develop, monitor and control a uniform schedule system, to use multiple systems simply increases that difficulty.

²⁷⁷ PMI, PMBOK®, Chapter 6, Section 6.5.3, page 159, 2008

²⁷⁸ Construction Project Scheduling and Control, Saleh Mubarak, Second Edition, John Wiley & Son, Chapter 1, page 6, 2010

2. A detailed, uniform set of policies, procedures and processes adopted to both standardize the development, monitoring and control a project schedule which is designed to provide Program and Project Managers with an efficient and effective methodology for reviewing, approving, monitoring and controlling the project schedule.
3. To the extent possible, standardization of the project monitoring and control processes through the use of specific monitoring and control tools and templates.

During its review of the six audit test projects Pegasus-Global found no formal policy or procedure which established the project tools to be used or processes to be followed to schedule a Court Capital Construction project. According to the Project Managers interviewed, the Program adopted the software system Microsoft Projects® as its standard scheduling tool. During its document reviews of the six test projects audited Pegasus-Global found that all six of the architectural contracts required schedules to be produced using Microsoft Projects. However, the construction contracts were not uniform relative to the construction (or master project schedule in the case of a CM@Risk) scheduling system to be used:

- B.F. Sisk required Microsoft Projects®
- Mammoth Lakes gave the contractor a choice of Microsoft Projects® or Primavera®
- San Bernardino required Primavera®
- Madera required Primavera® (however construction schedules in the document files were prepared in both Microsoft Projects® and Primavera®)
- Portola/Loyalton had no construction contract in the project files; however, there were schedules contained in the project files, all of which were in Microsoft Project®.

- Susanville had no construction contract in the project files; however, there were schedules contained in the project files, all of which were in Microsoft Projects®.

Pegasus-Global also found that the schedule section of the Monthly Progress Reports prepared by OCCM provided minimal information concerning the schedules established, and verification of progress made against those schedules by the architects and the contractor's verified progress against the original schedules. Use of two different and essentially incompatible scheduling systems the ability to monitor the project uniformly across all phases of the project, from site selection through construction completion is made much more difficult.

Findings:

- **V2-F-4.9-1** Pegasus-Global found no formal policy or procedure which addressed scheduling and schedule systems and, as a result, there appears to be no specific basis upon which scheduling system is required or the basis for that requirement; who selects the system to be required (the Program or Project Manager); mandating how often the schedules were to be updated; and to whom the schedules were to be submitted.
- **V2-F-4.9-2** Pegasus-Global found that the system used to schedule and monitor the project architect's schedule is adequate for its intended purpose. The Monthly Progress Reports are adequate summaries of project progress at a high level. However, there is not the level of detail necessary to understand total impact and root cause of the delays identified in certain projects or the potential impact to the overall program.
- **V2-F-4.9-3** Pegasus-Global found documentation which indicated that schedules are prepared for, and utilized to monitor and manage the time established to execute a project. However, without a formal policy establishing when schedules are to be produced and updated Pegasus-Global was unable to ascertain if the schedules contained in the six project files were all that had been prepared or updated for the project. Pegasus-Global found that some of the project

documentation files contained a limited number of project schedules and project Monthly Progress Reports, which makes it difficult for a third party to ascertain or understand the full schedule history of a project or determine if the information provided for a project or the Program is uniform and transparent.

- **V2-F-4.9-4** Pegasus-Global found little documentation indicating that project schedules had been monitored against the baseline schedule; little indication that the schedules had been routinely monitored during execution to identify and respond to threats to the original baseline schedule; and little indication as to corrective actions taken in response to a threat to the project schedule objectives during execution.

Recommendations:

- **V2-R-4.9-1** As noted earlier above, architects and CMs or contractors generally have processes and systems for reporting project progress at a very detailed level. Those detailed schedules and progress reports should be a standard requirement for every architect and contractor and should be produced monthly during the execution of a project. Once received the Clerk of the Works can audit the progress claimed or the impacts asserted, then summarize that information in the current Monthly Progress Report, adding only such detail needed to identify delays and the root cause for the each delay.
- **V2-R-4.9-2** OCCM may wish to consider development of a standardized monitoring and control process which would create a higher degree of uniformity in the monitoring and control of the project and program schedules across all projects.

6.4.10 ESTIMATING AND COST CONTROL

Every construction project sets, and has an objective linked to the achievement of the project's original cost estimate. In a megaprogram each individual project cost estimate is a critical factor in achieving the program's cost objectives. In addition, the project cost

estimate is one of the two primary project control tools available to Program and Project Managers; the other being the project's original master schedule (See **Section 6.4.9** above). As noted by CMAA:²⁷⁹

“One of the goals for the majority of project owners is to deliver the completed project within the budget established for that project.”

CMAA also stated that:²⁸⁰

“As overly simplistic as it may sound, the objective of cost management is to control the project cost so that the project is delivered to the owner within the owner's budget. Project cost management includes all those processes necessary to ensure that the project is completed within the approved budget.”

Cost management and control begins at the point where the project estimate is prepared, completed, and has been accepted. That original approved cost estimate remains the projects bench mark cost against which every change in the project cost (increase or decrease) is measured. The original project budget should be a direct outflow from that original estimate and should set the budget against which each phase of the project is measured. Those two original cost documents – the estimate and the budget – are never changed and remain the benchmark against which actual project cost is measured. Although actual project costs may be higher or lower than the original estimated cost and budgets, which may result in a revised estimate or budget for the project, Project Management cannot control or measure the successful attainment of a cost objective based on whether or not the project met the revised estimate and cost budget; if the cost target is moved and the final actual costs are at or below that revised estimate and cost budget does not mean that the project met its original cost objective.

Pegasus-Global reviewed documents reporting that the original estimated cost and the original cost budgets had not been met, yet when questioned Project Managers stated that the project had been identified as having been successfully completed “within

²⁷⁹ CMAA, Cost Management Procedures, Chapter 1, Section 1.1, page 1, 2001

²⁸⁰ CMAA, Cost Management Procedures, Chapter 1, Section 1.1, page 1, 2001

budget”. While the project may have been completed within a revised cost estimate and budget does not mean that the final cost as completed met the original estimated and budgeted cost objective set for the project. By measuring success against a cost target which was moved the Program Management gets a false sense of a projects success in meeting the program cost objectives.

Pegasus-Global found that the project files contained the original cost estimates and also contained periodic cost reports (although there appeared to be gaps in the cost reports in some project files). There were only two documents which are normally produced to manage and control costs which were not identified:

1. A formal document establishing the “Basis of Estimate”. A Basis of Estimate specifically identifies the source from which the line items were developed and the assumptions made by the estimator during the development of each line item. For example, an estimator may use any number of publically available pricing references for a certain function, activity or scope of work; one of most commonly used estimating references is the Means Estimating Handbook, which provides unit costs of materials and installation. The Means Estimating Handbook notes that:²⁸¹

“The purpose of this book is to provide the estimator with information to assist in estimating quantities of material as well as labor required for construction projects.”

The Means Estimating Handbook provides averaged and normalized data relative to construction costs. Using that data as a starting point the project estimator must make assumptions as to the conditions that will be encountered on the specific project being estimated. For example, while the Means Estimating Handbook will report the typical labor hours to install a unit of material, the project estimator must adjust those hours to reflect the actual labor productivity assumed for the location of the project (e.g., union rules are not uniform and daily work hours agreed may be different from location to location). Likewise the

²⁸¹ Means Estimating Handbook, Estimating Review, page 3, Undated

normalize cost of a unit of material may be higher (or lower) as a result of differences in delivery and handling charges. A Basis of Estimate document details the source of the baseline data and the assumptions upon which adjustments to that baseline data were determined.

The Basis of Estimate information is crucial to Project and Program Management because it enables management to compare the actual line item costs against the estimated line item costs to determine which assumptions were incorrect; which in turn enables subsequent estimates to be adjusted to align more closely with actual conditions encountered. With each estimate analyzed the accuracy of the subsequent estimates should improve.

2. An analysis comparing the estimate line items against the actual line item costs to ascertain if, and how, as those line item costs changed during the project and at project completion. In this instance the goal is to develop the true root cause for the increase (or decrease) in that line item cost. Such analysis will provide lessons learned concerning the estimating, management and control of costs, and the early warning signs that a cost line item has either been under (or over) estimated or that the Architect or Contractor has for some reason missed the estimated and budgeted costs.

To identify and adjust the true cost of the projects and the program is with a clear understanding of the how the original estimate was developed, how the final cost of the project compares to that original estimate, and the root cause(s) for any of those cost differences. This basic level of understanding is necessary to make adjustments in the program and project management to correct any systemic problems with the project cost management and control system.

Findings:

- **V2-F-4.10-1** Of all the documents reviewed during this audit the cost documentation contained in the project folders was the most complete and comprehensive.

- **V2-F-4.10-2** All the necessary information and data to support a comparative analysis of original estimate to cost variations during execution appears to have been captured by Project Management with the exception of the Basis of Estimate documentation.
- **V2-F-4.10-3** There was no apparent comparative analysis of the original estimate assumptions to cost adjustments made to the project budgets during execution. Such analyses would enable Project and Program Management to adjust estimate assumptions to gain additional confidence in early project estimates.
- **V2-F-4.10-4** There were no apparent lessons learned which addressed cost variations from the original cost estimate.
- **V2-F-4.10-5** No program-level consolidation of, or analysis of, variations between the original project cost estimates and the final actual project costs were identified.

Recommendation:

- **V2-R-4.10-1** Project and Program Management should use the data already collected by Project Manager's during the development of the original estimates and budgets, and the final actual costs to execute a project to analyze the accuracy of the original estimates; the root causes for any variations in line item costs over or under the original cost estimate; any common trends in cost estimating or management and control of project costs which should be addressed at a program level; and capture, consolidate and communicate the

cost estimating, management and control lessons being learned as projects are executed.²⁸²

6.5 ADDITIONAL PROJECT POLICIES REVIEWED

In addition to those policies, procedures and processes addressed in **Section 6.4** above, Pegasus-Global examined each of the remaining policies and procedures issued at the program level to determine whether or not the six test projects were in conformance with the policies, procedures and processes listed below:

- Strategic Plan
- Project Feasibility Report
- The Gross Areas of a Building: Methods of Measurements
- Project Delivery Methodologies and Contracting Policies and Procedures
- State Administrative Manual
- Management Plan and Project Definition Report
- Selection, Procurement and Installation of Furniture (Policy 4.15)
- D&C Quality Assurance Consultant Management
- Facility Performance Evaluation Program
- Post Occupancy Evaluation
- Informal Inspection Program (1302.10)
- Inspection Request Form (1320.20)
- Final Verification Report Process (1320.30)
- AOC Change Order Process (4.14)

²⁸² Note: Pegasus-Global did not specifically examine cost estimates, or budgets as related to project phases, however one observation during the general review seemed to isolate a specific trend - the fact that some of the greatest increases over the original estimate were realized during, or just after, site acquisition (greater than 10% in some instances). Though no specific analysis of the cost increases was undertaken by Pegasus-Global one of the primary causes appeared to be escalation in material and labor costs between the acceptance of the original estimate and the start of design. OCCM may wish to consider having the estimator add a statement as to expected construction escalation over the three years following the development of the estimate to specifically identify the potential cost impact for each year that site acquisition is delayed after appropriation. Program Management can use those escalation figures to establish an "escalation envelope" (percentage estimated increase) which will provide some forewarning of projected project cost increases in the event that the project is delayed due longer than planned site acquisition.

- Change Order Process (4.20)
- Invoice Payment Procedure (2.1)
- Capital Outlay Budget Change Proposal
- OCCM Approval Process for Augmentation and 20-Day Letter Request
- Preparing Oracle Report – Expenditures

Each of those policies, procedures or process are addressed below, with Pegasus-Global's findings relative to whether or not a test Project appeared to have aligned its practices to coincide with those draft program policies, procedures and processes, all of which were address from a program perspective in **Part I** of this Report.

6.5.1 STRATEGIC PLAN

This policy was initially addressed in **Section 5.2.1**.

Findings:

- **V2-F-5.1-1** The Strategic Plan contained no provisions which were directly applicable to the management and control of a project.
- **V2-F-5.1-2** During interviews with Project Management it was stated that some of the Project Managers were aware of and had read at one time the Strategic Plan, while others had not known of the existence of the Strategic Plan.

Recommendation:

- **V2-R-5.1-1** Pegasus-Global has no substantial recommendations beyond those provided in **Section 5.2.1**. However, OCCM may wish to consider developing a book of Program Foundation Documents similar to the Strategic Plan for distribution to every OCCM employee and manager in order to establish a shared sense of purpose under the Program.

6.5.2 PROJECT FEASIBILITY REPORT

The OCCM policy, “7.00 Project Feasibility Report” dated June 6, 2011, first addressed in **Section 5.2.13**, is identified as an initial draft and is simply an outline of the creation process for a feasibility report.

Of the projects reviewed, feasibility reports were identified for: Madera, San Bernardino, Susanville, and Mammoth Lakes. These feasibility reports are all dated September 8, 2006, with the exception of Mammoth Lakes which is dated April 5, 2006. The level of this evaluation is therefore limited by the feasibility reports being examined outdating the policy by approximately five years and the policy itself being in an early draft form.

Findings:

- **V2-F-5.2-1** The Project Feasibility Report Policy identifies in its scope that a project feasibility report “documents the need for a project, describes alternative ways to meet the underlying need, and describes the recommended project.” The process itself is not well-defined in this policy, but it notes it includes sections including: Executive Summary, Statement of Project Need, Options Analysis, Recommended Project, and Appendices. These sections are present in each of the project feasibility reports examined. Additionally, the policy calls for the creation of the Building Space Program, a Project Cost Estimate, and a Project Schedule. While the policy again does not establish the actual process, these sections are featured in the project feasibility reports that were examined.
- **V2-F-5.2-2** The Project Feasibility Reports for Madera, San Bernardino, Susanville, and Mammoth Lakes are near identical in appearance and content. They also contain all the appropriate information identified in the scope of the Policy 7.00 Project Feasibility Report. However, as the policy is in such an early draft form, the projects cannot be evaluated as fulfilling this policy. Furthermore, the date of the draft policy is well beyond the dates of the Project Feasibility Reports for the selected projects.

Recommendation:

- **V2-R-5.2-1** With Project Feasibility Reports successfully being created years before the draft version of this policy there appears not be an immediate or critical need to formally implement this policy. However, the policy should ultimately be finalized and implemented in order to properly track each projects use and completion of the project feasibility report.

6.5.3 GROSS AREA OF A BUILDING: METHODS OF MEASUREMENTS

As noted in this management audit report in **Section 5.3.2.1**, this policy was distributed in memo form and essentially established a standard procedure for the calculation of a project “allowable” BGSF requiring that a specific formula be used at specific points in time during the execution of a project.

Findings:

- **V2-F-5.3-1** The policy was not issued until March 2010, which was after the initiation of five of the six audit test projects. For that reason this policy was not examined during the examination of the six projects. However, during the interviews the Project Managers all confirmed that BGSF calculations had been done for each of those projects, though not necessarily using the system identified or at the precise points in time established in the program policy issued by Program Management in 2010.

Recommendation:

- **V2-R-5.3-1** Pegasus-Global has no recommendations beyond those contained in **Section 5.3.2.1**.

6.5.4 PROJECT DELIVERY METHODOLOGIES AND CONTRACTING POLICIES AND PROCEDURES

This policy was first addressed in **Section 5.2.9**. This policy noted that:²⁸³

“Selecting a project delivery method is a strategic decision made by OCCM management. Once decided, a project manager determines the selection criteria and proceeds with the solicitation and selection process.”

As the choice of delivery methodology was reserved for OCCM Program management for “strategic” reasons, Pegasus-Global did not examine the selection of the delivery method during its examination of the six audit test projects. In addition, this policy was adopted on July 28, 2009, at which point the B.F. Sisk CM@Risk and construction contracts had already been awarded; as a result Pegasus-Global did not compare the decision to utilize a CM@Risk delivery methodology nor the contractor selection criteria developed for the B.F. Sisk project.

For each delivery method (D/B/B, Design-Build (“D/B”), CM@Risk and ID/IQ) the procedure identified the process by which the Project Manager would bid and award project contracts. During its review of the project files Pegasus-Global identified two projects which appeared to have complete sets of bid and award document (San Bernardino and Susanville); two projects which had a limited number of bid and award documents (Mammoth Lakes and B.F. Sisk) and two projects which had no bid or award documents (Portola/Loyalton and Madera).

During the interviews all of the Project Managers indicated that they followed the formal procedure for the bid and award of the projects. Given that those bid and award documents are required to be submitted to AOC prior to the negotiation and execution of a contract, Pegasus-Global is confident that the documents exist (or at one time existed), which suggests that the lack of documentation is due to the incomplete

²⁸³ OCCM Memo S. Ernest Swickard, Delivery Method and Contractor Selection, Background, July 28, 2009

document control system and not the Project Manager's failure to bid and award contracts as required.

Findings:

- **V2-F-5.4-1** Pegasus-Global found that the Delivery Method and Contractor Selection procedures had been followed by the Project Managers for each of their respective projects.
- **V2-F-5.4-2** The bid and contract award project files for some of the projects were limited or non-existent.

Recommendation:

- **V2-R-5.4-1** Along with the formal contract (and amendment) documents the bid and award documents are some of the more important documents generated by the project. Occasionally, in disputes those documents must be reviewed to demonstrate what the contractor actually bid rather than simply assuming that a particular scope of work was included in the bid submitted. Pegasus-Global recommends that as part of a formal document control system copies of those bid and award documents be maintained on the project, in the regional office files, and the originals maintained in the D&C Management files.

6.5.5 STATE ADMINISTRATIVE MANUAL

This policy was first addressed in **Section 5.2.17**. As noted in **Part I**, SAM Chapter 6800 addresses the management and fiscal control processes of state capital construction projects. The vast majority of the processes contained in the SAM are specifically directed to the program level responsibilities owed by the Court Capital Construction Program, by the AOC and OCCM Program Management. Project Management supplies the required project information and data to OCCM Program Management for submittal to DOF.

SAM procedures and requirements which appear to require input from each individual project include the following:

- 6845 Standard Information Required When Requesting PWB or DOF Action
- 6849 Site Selection and Acquisition
- 6850 Environmental Impact Review Process
- 6851 Preliminary Plans Review
- 6852 Approve Working Drawings and Proceed to Bid
- 6853 Award Construction Contract
- 6854 Construction
- 6855 Equipment
- 6856 Project Completion
- 6863 Scope Changes

Program Management staff and Projects Managers for the six audit test projects informed Pegasus-Global that no project was approved or funded until the DOF had received the information required under all of those SAM Chapters.

Findings:

- **V2-F-5.5-1** Because of the submittal and approval process through OCCM Program Management and DOF, Pegasus-Global is confident that the necessary project data and information was provided as required.
- **V2-F-5.5-2** A test review of the OCCM Program files indicated that all of the data and information required by DOF for each project had been captured and stored; however it appeared that some of the documents developed and submitted were maintained in the files of the program functional staff responsible to gather and submit that information. Without a formal document control system in place, the retention of the project provided data and information, and the subsequent reports filed with the DOF depends on the files maintained by the OCCM program functional staff.

- **V2-F-5.5-3** Pegasus-Global found through its review of the project document files that although some of the information had been archived, Pegasus-Global was unable to create a direct link between the project documented data and information and that transmitted to OCCM functional staff for inclusion in the DOF submittals. This, however, is a minor issue given the extensive document trail that exists between OCCM functional management and the DOF.

Recommendation:

- **V2-R-5.5-1** Pegasus-Global recommends that all submittals to the DOF, including the original Program Management supplied data and information, be added to, and retained within, a formal document control system.

6.5.6 MANAGEMENT PLAN AND PROJECT DEFINITION REPORT

This policy was first addressed in **Section 5.2.12**. As noted within the Management Plan and Definition Report:²⁸⁴

“This document is intended to serve as a guide for the administration of the project. The Management Plan includes a definition of the main components of the proposed project.”

As noted in **Section 5.2.12**, the document is essentially a template for the planning, organization and execution of a project under the Court Capital Construction Program. The document specifically identifies the Project Team, as the party responsible to assemble the information and data necessary to complete the Project Definition Report.²⁸⁵

²⁸⁴ OCCM, Superior Court of California County of [XXX] Management Plan and Project Definition Report, Cover Memorandum, Acceptance (signature) Page, undated

²⁸⁵ OCCM, Superior Court of California County of [XXX] Management Plan and Project Definition Report, Cover Memorandum, Section 1, page 1, undated

Findings:

- **V2-F-5.6-1** Pegasus-Global’s review of the project files found that every project had at least one and sometimes multiple versions/revisions of the Project Definition Report:
 - B.F. Sisk had a total of 8 versions, 5 “drafts” and 3 “revisions”
 - Mammoth Lakes had a total of 4 versions
 - Susanville had a total of 3 versions
 - San Bernardino had total of 5 versions
 - Portola/Loyalton had a total of 2 versions
 - Madera had 1 version
- **V2-F-5.6-2** Of all the versions reviewed, Pegasus-Global found only one of the Management Plan and Project Definition Reports had the acceptance signatures identified in the cover memo to the report.
- **V2-F-5.6-3** In some instances Pegasus-Global found it difficult to distinguish which of the versions had actually been accepted and was currently in force.
- **V2-F-5.6-4** All of the Project Definition Reports contained the information to be supplied by the Project Team.

Recommendation:

- **V2-R-5.6-1** Although a minor finding, having a signed copy of the Project Definition Report in the project files would provide an indication that the report had been reviewed and accepted by the primary stakeholders in the project.
- **V2-R-5.6-2** OCCM should consider a formal numbering system for each draft and revision to the report in order to make it easier to determine which of the versions

is most current and to enable a reviewer to track the evolution of the Project Definition Reports over time.

6.5.7 SELECTION, PROCUREMENT AND INSTALLATION OF FURNITURE

This policy was first addressed in **Section 5.3.3.1**. Issued January 19, 2012, via memorandum, it is marked as draft, but also notes that immediate implementation is required. Due to the timing of the sample projects, B.F. Sisk, Mammoth Lakes, and Portola/Loyalton all were completed prior the issuance of this policy; Madera and San Bernardino are not yet far enough to have reached the procurement of furniture; this left Susanville as the only project examined that could appropriately be evaluated for use of this policy. Susanville is the only project examined to have substantial documentation related to the selection and procurement of furniture; this again is supported by the timing of the projects.

Findings:

- **V2-F-5.7-1** The two primary aspects of this policy are selection and procurement. Selection requires the identification of a minimum of three competitive lines of furniture to be evaluated for selection. A sample criteria matrix is said to be attached to the memorandum, but was not part of the document received by Pegasus-Global. Susanville used a furniture evaluation matrix that, while it may or may not be based on the sample criteria matrix, provides an appropriate evaluation of three furniture vendors with scores and comments provided on the following six categories:
 1. Aesthetics, Materials & Overall Quality
 2. Ergonomics and Functionality
 3. Project Approach
 4. Private Office Furniture

5. Flexibility to Reconfigure
6. Warranty Period and Serviceability
7. Available Special Features

The result of this evaluation led to the highest rated vendor being selected for Susanville. Pegasus-Global found the selection aspect of this policy to be properly utilized by this project.

- **V2-F-5.7-2** The second part of this policy, “procurement” is said to be executed by the AOC Business Services team for major capital-outlay projects with furniture budgets under \$4,000,000 on a case-by-case basis as established by OCCM and Business Services. As Susanville fits this description the procurement of furniture is the responsibility of the AOC Business Services team.
- **V2-F-5.7-3** Based on the timing of the policy and the progress of the projects examined, Susanville was the only project of the sample projects to be at a point to implement this policy. The documentation indicates that the “selection” aspect of this policy has been properly utilized on this project. With the “procurement” aspect being the responsibility of the AOC Business Services team, there was no project-level documentation to examine.

Recommendation:

- **V2-R-5.7-1** Based on the activity recorded by Susanville, this policy appears to be working effectively and should continue to be utilized as current and future projects reach the point of needing to procure furniture.

6.5.8 D&C QUALITY ASSURANCE CONSULTANT MANAGEMENT

This policy was first addressed in **Section 5.3.4.3**. The policy and procedure was issued in draft form in October 2011; as a result four of the audit test projects were not subject to this policy and procedure at the time the document was issued.

Pegasus-Global noted that both San Bernardino and Madera construction phases may be subject to the policy and procedure; however, the policy and procedure was issued as an “Initial Draft” with no indication that the policy and procedure had to date been formally adopted subsequently implemented at the project level.

Findings:

- **V2-F-5.8-1** The D&C Quality Assurance Consultant Management policy and procedure did not apply to the six audit test projects at the time of this audit.

Recommendation:

- **V2-R-5.8-1** Pegasus-Global recommends that OCCM finalize, adopt and apply the policy and procedure.

6.5.9 FACILITY PERFORMANCE EVALUATION

This policy was first addressed in **Section 5.3.4.4**. The policy and procedure was issued in draft form on February 19, 2010; as a result the policy and procedure did not apply to three of the six audit test projects.

Pegasus-Global noted that the Susanville, San Bernardino and Madera projects may be subject to the policy and process. However, the Facility Performance Evaluation document was identified as an “Initial Draft” with no indication that the policy and procedure had to date been formally adopted and subsequently implemented at the project level.

In addition, the Facility Performance Evaluation policy and procedure was described as:²⁸⁶

“...informational in explaining the OCCM FPE Program to any entity that utilizes a court facility. This is a guidance document for any persons involved in a large facility modification or capital construction project that can benefit from a Post Facility Occupancy Evaluation. This is a directional document for all OCCM staff and construction partners embarking on a new project. This process impacts anyone who uses the court facility.”

The policy and procedure also identified a number of the provisions as being for “Future Implementation”. Given all the qualifiers and limitations of the “Initial Draft” of this policy and procedure Pegasus-Global was not able to ascertain Project Managements role in this Facility Performance Evaluation.

Findings:

- **V2-F-5.9-1** The Facility Performance Evaluation policy and procedure did not apply to the six audit test projects at the time of this audit.

Recommendation:

- **V2-R-5.9-1** Pegasus-Global recommends that OCCM finalize, adopt and apply the policy and procedure.

6.5.10 POST OCCUPANCY EVALUATION

This policy was first addressed in **Section 5.3.4.5**. The policy and procedure was issued in draft form on February 19, 2010; as a result the policy and procedure did not apply to three of the six audit test projects (B.F. Sisk, Portola/Loyalton and Mammoth Lakes).

Pegasus-Global noted that the Susanville, San Bernardino and Madera projects may be subject to the policy and process. However, the Facility Performance Evaluation

²⁸⁶ 1106.00, Facilities Performance Evaluation, Scope, page 4, February 19, 2010

document was identified as an “Initial Draft” with no indication that the policy and procedure had to date been formally adopted and subsequently implemented at the project level.

In addition, the Post Occupancy Evaluation policy and procedure was described as:²⁸⁷

“...informational in explaining the Post Occupancy Evaluation (POE) process to any entity that utilizes a court facility. This is a guidance document for any persons involved in a large facility modification or capital construction project that can benefit from the lessons learned and best practices identified in the POE. This is a directional document for the FMU Quality Staff (QS).”

The policy and procedure identified 22 steps in the POE survey. However Pegasus-Global found that the 22 steps consisted primarily as titles for the steps, without actually defining the purpose of the step, how the information is to be collected (other than by conducting a survey) or formally reported, other than noting that the survey results will be “analyzed and summarized” by FMG Quality Staff.

According to a flow chart attached to the policy and procedure, the Project Managers’ involvement in the survey is to “discuss the POE survey” with the FMG staff and then attend a “presentation of the results” by the FMU staff at the end of the process.

Findings:

- **V2-F-5.10-1** The Facility Performance Evaluation policy and procedure did not apply to the six audit test projects at the time of this management audit.
- **V2-F-5.10-2** Project Management’s role in the policy and procedure was limited to discussing the survey template and attending the results presentation, neither of which involves formal (documented) proactive or reactive action by the Project Manager.

²⁸⁷ 1106.10, Post Occupancy Evaluation, Scope, page 4, February 19, 2010

Recommendation:

- **V2-R-5.10-1** Pegasus-Global recommends that OCCM finalize, adopt and apply the policy and procedure.

6.5.11 INFORMAL INSPECTION PROGRAM

This policy was first addressed in **Section 5.3.4.6**. The Informal Inspection Program policy and procedure was dated September 2010 and was identified as an “Initial Draft”. There was no indication that the policy and procedure was formally adopted or implemented by OCCM Program Management.

Findings:

- **V2-F-5.11-1** Pegasus-Global found that none of the six audit test projects were subject to the policy and procedure as a result of the September 2010 release date of the initial draft.
- **V2-F-5.11-2** Pegasus-Global found no indication that the initial draft of the policy and procedure had been completed, formally adopted and subsequently issued for implementation.

Recommendation:

- **V2-R-5.11-1** Pegasus-Global recommends that OCCM finalize, adopt and apply the policy and procedure.

6.5.12 INSPECTION REQUEST PROCESS

This process was first addressed in **Section 5.3.4.7**. The Informal Request Process is procedure which was dated May 27, 2010 and was identified as an “Initial Draft”. The

process consisted of instructions for completing a template form for requesting an inspection of a project which the procedure was described in which:²⁸⁸

“[The] *Ideal scenario is for the FMU PM, will be the one point of contact for the inspector*” (sic).

The procedure also notes that the FMU is responsible for completing the request form and is the recipient of the results of the inspection. The Process Flowchart attached to the Inspection Request Process identified no point at which Project Management was involved in the process.

There was no indication that the policy and procedure was formally adopted or implemented by OCCM Program Management.

Findings:

- **V2-F-5.12-1** Per the process description and the process flow chart, Pegasus-Global found that none of the six audit test projects were subject to the policy and procedure.
- **V2-F-5.12-2** Pegasus-Global found no indication that the initial draft of the policy and procedure had been completed, formally adopted and subsequently issued for implementation.

Recommendation:

- **V2-R-5.12-1** Pegasus-Global recommends that OCCM finalize, adopt and apply the policy and procedure.

6.5.13 FINAL VERIFICATION REPORT PROCESS

This policy was first addressed in **Section 5.3.4.8**. The procedure was issued as “Final” on November 11, 2010, with an Initial Draft issued on October 20, 2010. Three of the

²⁸⁸ 1302.20, Inspection Request Process, Section 2.20.2, page 4, May 27, 2010

audit test projects had been completed prior to the adoption and execution of this procedure (B.F. Sisk, Portola/Loyalton and Mammoth Lakes). The remaining three projects (Madera, Susanville and San Bernardino) are subject to the process.

According to the procedure:²⁸⁹

“The Final Verified Report of Process documents the Inspector of Records (IOR) service on a project. This final documentation means that the IOR has completed their inspection assignment, though open punch list items and other tasks remain and are the responsibility of others.”

The process steps described and the process flow diagram attached show no involvement by the Project Management Team in the preparation of the final report process. However, the process does end with the “Formal Project Closeout Process”, which would imply that the Project Management Team at a minimum received the final inspection report to include in the project closeout process.

Findings:

- **V2-F-5.13-1** Per the process description and the process flow chart, Pegasus-Global found that none of the six audit test projects were subject to the policy and procedure.

Recommendation:

- **V2-R-5.13-1** OCCM may want to clarify what, if any, role the Project Management Team fill in regard to the report when it is finalized and becomes part of the Project Closeout Process.

²⁸⁹ 13.20.30 Final Verified Report Process, Section 2.30, page 4, November 1, 2010

6.5.14 CHANGE ORDER PROCESS

The change order processes are found in Procedure 4.20 Change Order Process, examined in **Section 6.5.14.1** below, and in the AOC Change Order Process revised to include iProcurement in **Section 6.5.14.2** below.

6.5.14.1 PROCEDURE 4.20 CHANGE ORDER PROCESS

As discussed in **Section 5.3.4.9**, the Change Order Process policy is essentially an administrative response to a change order. As such, the documentation provided for the sample projects reflects that the change orders are being well documented, with the exception of Madera which was absent any change order documentation. It is unclear if this documentation for Madera is missing or does not actually exist.

Findings:

- **V2-F-5.14.1-1** Portions of the policy, such as the initial meeting, lack supporting documentation, but the presence of the potential change orders, change orders, and change order log indicate the process is working as intended. San Bernardino included a potential change order review process flow chart that appears to be created by the General Contractor. While this flow chart goes beyond the scope of this policy, it remains a useful tool that could be developed and implemented into the formal policy for use across all projects.

Recommendation:

- **V2-R-5.14.1-1** Similar to the recommendations from the **Part I** review of this policy, Pegasus-Global finds that the process defined by this policy is acceptable for the administration of change orders; however, both the Program and the projects would benefit from a formal policy that addresses change control and management. Additionally, the incorporation of the flow chart as described in the findings above would be a beneficial tool for the policy.

6.5.14.2 AOC CHANGE ORDER PROCESS REVISED TO INCLUDE IPROCUREMENT

This policy, first reviewed in **Section 5.2.14**, is a March 4, 2011 document that takes many of the steps utilized in Procedure 4.20 Change Order Process with the update that the contracts specialist will receive and fulfill the change order using “iProcurement”. Aside from this addition, this document (which as discussed in **Section 5.2.14** is not clearly a formal policy as it is simply a stand-alone single-page document) is an outline of the change order process.

Findings:

- **V2-F-5.14.2-1** Because it is unclear how this document is intended to be used, it is difficult to definitively judge the projects against it. However, as discussed in **Section 6.5.14.1**, Procedure 4.20 Change Order Process, the administration of the change order process appears relatively complete, except as otherwise noted earlier.

Recommendation:

- **V2-R-5.14.2-1** If this policy is intended to be implemented by the projects, it should first be formalized and incorporated into Procedure 4.20 Change Order Process. At that point the recommendations provided for Procedure 4.20 Change Order Process would still apply, but it would provide a formal structure for this policy to be utilized.

6.5.15 INVOICE PAYMENT PROCEDURE

This policy was first addressed in **Section 5.3.5.1**. The Invoice Payment Procedures began as an initial draft on August 6, 2010; the procedure reviewed by Pegasus-Global is dated October 26, 2010 and represents the fifth draft. It is unclear what the implementation level of this policy is in its current draft form. In addition, this policy is written as a program-level policy and does not provide the project-level process for

invoices, thus the review of the sample projects meeting this policy is limited by the scope of the policy itself.

As discussed in **Section 5.3.5.1**, the Invoice Payment Procedures policy needs to be completed with the various gaps properly covered prior meeting the industry SOC for cost management. However, there are aspects of this policy that would be beneficial at the project-level, such as Section 2.1.1.3 of the policy which dictates three separate invoice logs be maintained, the logs are listed as follows:

1. Facility Operations Invoices
 - a. County Invoices
 - b. Service Provider Invoices
 - c. Miscellaneous Facility Operations
2. Project Related Invoices
 - a. Capital Outlay Invoices
 - b. New Judgeship Invoices
 - c. Facility Modification Invoices
3. AOC Miscellaneous Invoices
 - a. Phone Invoices
 - b. FedEx Invoices
 - c. Other Misc.

Findings:

- **V2-F-5.15-1** Of the projects evaluated, only San Bernardino had documentation for invoice logs. The invoice logs provided for San Bernardino include logs for:

CM@Risk; CM; Commissioning; A/E; and DGS. Although there are miscellaneous invoices also present in the project folder, there is no invoice log that documents them. For the invoice logs on this project, the majority of the invoices listed are dated prior to the date of the policy, as it is they contain appropriate amounts of information for documenting the invoices, but are not named in the manner provided by this policy.

- **V2-F-5.15.2** Section 2.1.2.3 of this policy covers the scanning of invoices, in its current draft the scanning of invoices is “[d]ependent on what is scanned into CAFM and what is retained as a hard copy.” With that description providing no direction for when hard copies should be retained, thereby not requiring a scanned copy per this procedure, there is no clear way to determine what, if any, invoices are missing from the scanned files on the examined projects. Susanville, for instance, is lacking an “Agreements-Invoices” folder that is found on each of the other sample projects. The inconsistencies with invoice documentation continues for Susanville in the “Construction Administration” folder which inexplicably contains three random invoices: one for the purchase of two metal detectors; the other two are both the same invoice from the State Water Resources Control Board, however, one is one page, while the other is two pages, despite them having the same invoice number and date. Section 2.1.2.3 includes the preferred naming convention as “Invoice Number - Date of Invoice (MMDDYY)” however these three are named as “metal detector invoice”, “S”, and “SWPPP annual fee”. The naming of the one file as “S” is particularly confusing as it provides no indication whatsoever as to what the file is, in addition to it being found in a general “Construction Administration” folder. The format of using some variation of invoice number and invoice date to document the file is found for invoices on B.F. Sisk, Madera, Mammoth Lakes, Portola/Loyalton and San Bernardino, although not entirely consistently.
- **V2-F-5.15-3** The lack of a clear and complete project-level policy for the handling of invoices is made apparent by examining the various degrees to which invoices are documented in the projects. Aspects such as the Invoice Tracking

Worksheets used on San Bernardino are examples of good practices for the handling of invoices. However, with the lack of a policy in place, the use of such worksheets appears to be the decision of the project manager; note for instance that Susanville does not even utilize an invoices folder.

Recommendation:

- **V2-R-5.15-1** Project-level controls would benefit from the formalization of invoice documentation procedures. Standardizing how each invoice is to be filed as well as recorded in an inventory log is critical for the control and tracking of invoices to be successful.

6.5.16 OCCM APPROVAL PROCESS FOR AUGMENTATION AND 20-DAY LETTER REQUESTS

This policy was first addressed in **Section 5.3.5.3**. The OCCM Approval Process for Augmentations and 20-Day Letter Requests is a memorandum dated September 20, 2010, containing a process directive to OCCM Assistant Division Directors to “ensure that any changes to project scopes or budgets be thoroughly examined by the project teams and then reviewed and approved by the Director of the [OCCM].” In summary, this process requires:

- Weekly Director and Assistant Division Director meetings include the review of all proposed augmentations and 20-day letter requests.
- Project Managers will brief one or more Assistant Division Directors on the specifics of any augmentation or 20-day letter request in advance of the weekly meeting.
- One Assistant Division Director presents the proposed augmentation or 20-day letter request to the Director and other Assistant Division Directors.

In addition to those steps, this memorandum references SAM Chapters 6861 and 6863 to provide a definition of augmentations, 20-day letters and scope changes.

Findings:

- **V2-F-5.16.1** Evaluating how the sample projects perform this process involved identifying the 20-day letters and augmentations for the projects, as well as any meeting minutes or related documentation. 20-day letter and augmentation requests were identified in the projects, the majority of these requests are dated before this memorandum was written. Furthermore, no corresponding meeting minutes or related documentation was identified that verified the process in this memorandum being used.
- **V2-F-5.16-2** As there is little supporting documentation for these 20-day letter and augmentation requests, Pegasus-Global was unable to conclusively determine if this memorandum has been implemented in the sample projects.

Recommendation:

- **V2-R-5.16-1** As was suggested in **Section 5.3.5.3**, a formal adoption of this process into those policies, procedures and processes which address 20-day letter and augmentation requests would aid in ensuring this process is utilized uniformly across all projects.

6.5.17 PROGRESS REPORT TEMPLATE

This policy was first addressed in **Section 5.3.5.4**. The Progress Report Template is a draft version of a template used to the Monthly Progress Reports. The date of the template is not clear as depending on where one is looking, dates in 2008, 2010, and 2012 all appear. The redline present in this template suggests that it is still in draft form, the presence of different redlines along with the different dates indicate that this is at least beyond the initial draft. As the document itself does not provide the process for completing the progress reports, but merely what is to be included (by heading, with only minimal additional detail), Pegasus-Global is unable to determine what process

was used in the creation of the progress reports from the selected projects. As a result, this analysis is limited to comparing the actual project progress reports to the template.

The Progress Report Template is outlined as follows:

1. Project Description
2. Current Phase Summary
3. Program
 - a. Includes tables summarizing the total area of the building as designed compared to the building gross area as authorized.
4. Cost
 - a. Includes a table comparing the original to current authorized amounts, with current estimate by phase.
5. Schedule
 - a. Includes a table comparing the original to current authorized schedule, with current schedule and percent complete by phase.
6. Key Issues
7. Activities Completed this Period
8. Activities Scheduled for Next Period
9. Project Milestones
10. Progress Photographs and Drawings
11. Additional Information
12. Distribution of this Report

Findings:

- **V2-F-5.17-1** The progress reports examined for the projects of B.F. Sisk, Portola/Loyalton, Madera, Mammoth Lakes, San Bernardino, and Susanville follow the format provided in the Progress Report Template with one exception; the addition of the program information, including the related tables, appears to be an addition to the 2010 revision of the Progress Report Template, as such, progress reports from before this time do not include the program section.

Recommendation:

- **V2-R-5.17-1** The Progress Report Template, as its name suggests, is a template and not an actual policy. Therefore, there is little policy to gauge the projects on in this area; however, Pegasus-Global was able to ascertain that the template is being used uniformly across the projects and if the template were to be integrated into a formal policy it would assist in maintaining the uniformity of the progress reports.

6.5.18 PROJECT DESCRIPTION

As discussed in **Section 5.3.5.5**, it is unclear the purpose of this template relative to its use on either the program or project-level. The template notes on the cover page that it is derived from the newest copy of the Project Managers' Monthly Progress Reports, but no direction, such as the frequency of producing the Project Description, is provided.

As shown in **Table 6.5.18**, and as suggested from the Project Description Template, much of the information in the Project Description is found in the Progress Report, meaning that much of the information needed to create a Project Description document is readily available for a project. In review of the project documents, no such Project Description document was located. As the Project Description Template was provided to Pegasus-Global as a stand-alone, undated template with no accompanying policy, it is unclear if the Project Description document is being created at all.

Table 6.5.18
Project Description – Progress Report Comparison

Project Description Template		Progress Report Template
1. Project Description	↔	1. Project Description
2. Project Location Address	✗	2. Current Phase Summary
3. Project Design and Construction Contractors	✗	3. Program
4. Current Phase Summary	↔	4. Cost
5. Program	↔	5. Schedule
6. Costs	↔	6. Key Issues
7. Schedule	↔	7. Activities Completed this Period
8. Project Milestones	↔	8. Activities Scheduled for Next Period
9. Construction Related Agreements	✗	9. Project Milestones
10. Environmental Information	✗	10. Progress Photographs and Drawings
11. Site/Layout	✗	11. Additional Information
12. Project Needs Assessment Questionnaire	✗	12. Distribution of this Report
13. Progress Photographs and Drawings	↔	

Note: a blue arrows demonstrates the presence of identical sections between the two templates; a red "x" shows that section does not have a match between the two templates and is found only in within the template marked with a red "x".

Findings:

- **V2-F-5.18-1** No project-level documents were found that have used the template. It is unclear if the Project Description is expected to be created at this time.

Recommendation:

- **V2-R-5.18-1** As much of the information is found in the Progress Report, and the remainder of the information (e.g., Construction Related Agreements, Project Location Address) should be easily obtainable, the utilization of this Project Description template can be straight-forward with the completion and introduction of a formal supporting policy. Such a policy should identify the need for this

document, as opposed to reformatting the Progress Reports to contain all the information required by a Project Description.

6.0 PART II SUMMARY

Pegasus-Global found that a number of the project level practices were neither uniform nor transparent, which is in large part due to lack of complete, comprehensive and formally adopted policies, procedures and practices adopted at the program level. Although the Project Managers are to be commended for the fact that they took full responsibility for every decision made or action taken on their respective projects, the lack of uniformity and transparency across the test projects does not meet the established industry standard of care for a megaproject consisting of multiple independent projects. The lack of uniformity and transparency at the project level ultimately is an impediment to Program Management's ability in determining whether or not the project met both the project goals and objectives, but if the execution of the project were consistent with the program-wide goals and objectives.

As noted previously, the Court Capital Construction Program faces a significant change in the execution environment as a result of the economic conditions being experienced in the State of California. Some of those environmental impacts can be mitigated at the project level if the effectiveness and efficiency of management and control of each individual project can be maximized. Increasing effectiveness and efficiency at the project level will in great part depend upon establishing consistent management and control practices, which ultimately will require Program Management to implement a comprehensive and complete set of policies, procedures and processes to govern the management and control of both the program and its projects and their respective functions, all of which should be based on the goals and objectives established for the Program and its constituent projects.

7.0 PART III – ASSESSMENT OF THE STRUCTURE AND COMPOSITION OF THE OCCM ORGANIZATION

7.1 INTRODUCTION

Under **Deliverable 1, Subpart b** Pegasus-Global was asked by AOC to perform a review of the following:

- The structure and composition of the Program Management and individual project delivery teams;
- The OCCM organization structure;
- Overall staff qualifications;
- The quality of project consultants, architects, engineers and general contractors.

This **Part III** of this Report summarizes the findings of the review conducted by Pegasus-Global on those four program and project execution elements. In order to present a logical progression through the reviews conducted, Pegasus-Global has slightly reorganized the presentation of the review of results as follows:

- Overall staff levels and qualifications, and the quality of project consultants, architects, engineers, and general contractors;
- The current OCCM organization structure and the composition of program and project delivery teams;

- Process for selection of an organization structure and Pegasus-Global's recommendation relative to an organization structure for the Court Capital Construction Program.

Deliverable 1.b was not intended to be, and is not part of the Program Management Audit which was conducted under **Deliverables 1.a.1** and **1.a.2** and should not be considered as representing formal management auditing findings and recommendations by any individual or body reviewing this Report. This deliverable was requested as a consulting service intended to provide AOC and the CFWG with Pegasus-Global's recommendations regarding how the Program and Project Management structures may be altered to maximize the effectiveness and efficiency of the organization and its staff in light of the breadth and complexity of the Program, the limited staffing allocated for Program and Project Management, and the current fiscal environment within the State of California.

Ultimately, Pegasus-Global found that without the benefit of a ramp-up period during which the Judicial Council, AOC and OCCM could have evaluated their total scope of responsibilities and authorities, examined all of the possible organizational and staffing options and selected a structure and a staffing profile, the Program naturally gravitated to the vertical structure which is most common in public agencies. The lack of a sufficient ramp-up period also prevented Program Management from developing, completing, formalizing and adopting a true horizontal structure supported by the policies, procedures and processes.

7.2 PEGASUS-GLOBAL REVIEW PROCESS

Organizational structure and staffing have previously been addressed within **Part I** and **II** insofar as those two topical areas may have had a bearing on the audit findings and recommendations. In this **Part III** Pegasus-Global has focused attention at a more detailed level on the current management structure and staffing and, as requested, provided recommendations for organizing the current program and project cadre based

on Pegasus-Global's experience with megaprogram management and control. In examining these topical areas Pegasus-Global has assumed the following factors:

1. It is unlikely that AOC/OCCM will receive authorization (or funding) to staff any of the currently vacant positions and may, in fact, be required to downsize its staffing to reflect the current slowdown in capital project funding and project execution;
2. The Program's primary scope of work will not change (although the individual projects may be extended beyond their current execution schedules); and,
3. The current and near-term forecast fiscal environment will continue to pose the most significant challenge to the attainment of the entire Program and the individual projects.

In conducting the review Pegasus-Global relied primarily on the OCCM structure as depicted in the organizational chart dated February 8, 2012, the interviews with Program staff, Judicial Council, AOC, OCCM Project Management and staff, and those policies provided by OCCM which are specifically relevant to organizational structures and operations.²⁹⁰ As the Judicial Council, AOC and OCCM consider the various options insofar as the organization structure and staffing of the Court Capital Construction Program, the findings and recommendations contained in **Parts I** and **II** of this Report relative to OCCM's current goals, objectives, policies, procedures and processes which have a direct bearing on the organizational structure choices examined by the Program should be included during those deliberations.

Section 7.3 below provides some of the general background information considered by Pegasus-Global in executing this review and formulating the recommendations. **Section 7.4** addresses the qualifications of the current Program staff and the quality of project consultants, architects, engineers, and general contractors. **Section 7.5** addresses the current OCCM program and project structures, and the composition of program and project management teams. **Section 7.6** provides the process for selection of an

²⁹⁰ Note: all policies, procedures and processes were addressed in detail in **Parts I** and **II** and are thus not reexamined in this **Part III**.

appropriate organization structure. **Section 7.7** contains Pegasus-Global's recommendation relative to the structure for the Program which, based on Pegasus-Global's management audit of OCCM and Pegasus-Global's megaprogram experience, appears to provide the Program the best alternative for maximizing limited staff resources while enabling the Program to successfully achieve Program and project goals and objectives as the Program moves forward.

Another important factor in Pegasus-Global's review and recommendation relative to the management structure is that Pegasus-Global did not base any recommendation on the individuals currently filling program roles, or the functions or the titles by which staff is currently categorized by the Program. Pegasus-Global's recommendation is based on starting with a "blank slate" insofar as management structure; that is, Pegasus-Global examined the possible delivery structures and staffing as if Pegasus-Global were developing that structure for the first time during the ramp-up process usually seen in megaprograms of the size and complexity of the Court Capital Construction Program and based on the constraints the Program faces. That does not mean that Pegasus-Global is suggesting in any way that the current core staff positions currently within OCCM should be "replaced"; the current staff is generally qualified to execute the scope of work required of the Program and projects under a revised organization structure. That said, adopting of Pegasus-Global's recommendation (or even parts of that recommendation) may require that current core staff positions be re-tasked or re-focused to the various roles recommended at the Program and/or project management levels.

Pegasus-Global does not address specific positions or staffing levels at any level of the recommended structure. This is a result of the uncertain environment within which the Program is currently operating and which Pegasus-Global expects it to operate for the foreseeable future. The structure recommended should be able to execute the Program effectively and efficiently even if staffing is cut at the program or project execution levels.

Finally, in examining the program and project organization and developing its recommendation, Pegasus-Global also considered the Judicial Council, AOC and the

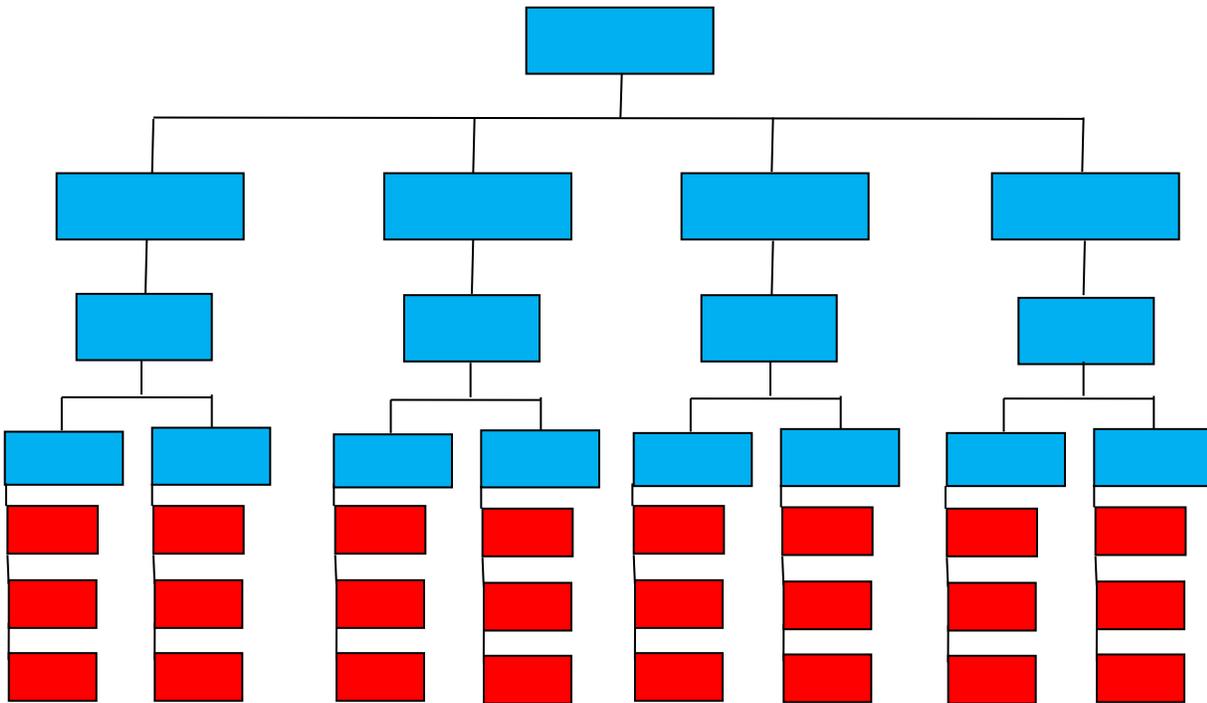
organizations outside of AOC's control to be a part of the total program execution structure. While Pegasus-Global did not presume to suggest any reorganization of those bodies or any restructuring or realignment of the duties, authorities and responsibilities of those organizations relative to the planning and execution of the Program, Pegasus-Global did attempt to portray the interface points among those stakeholders as appropriate.

7.3 GENERAL BACKGROUND INFORMATION

Pegasus-Global's primary focus during this review was on the organizational structure of the Program as a whole. This is because the authority, duties and responsibilities of each position within the structure establish the functional relationship of a position to every other position within that organization. In addition, each position as defined by those authorities, duties, responsibilities and functional relationships, in turn, defines the attributes of the personnel which will be required to successfully fill those positions. Likewise, the structure will define the type and attributes of those architects, consultants and contractors which will be engaged to actually execute the projects or even functional elements of the Program during the life cycle of the megaprogram.

7.3.1 COMPARISON OF VERTICAL AND HORIZONTAL ORGANIZATION STRUCTURES

There are two primary organizational structures which currently dominate theories of functional management of megaprograms; a **vertical structure** and a **horizontal structure**. There is a vast body of literature which addresses those two management structures and compares vertical versus horizontal management organizational structures. A vertical structure is generically represented by the organization chart immediately below:



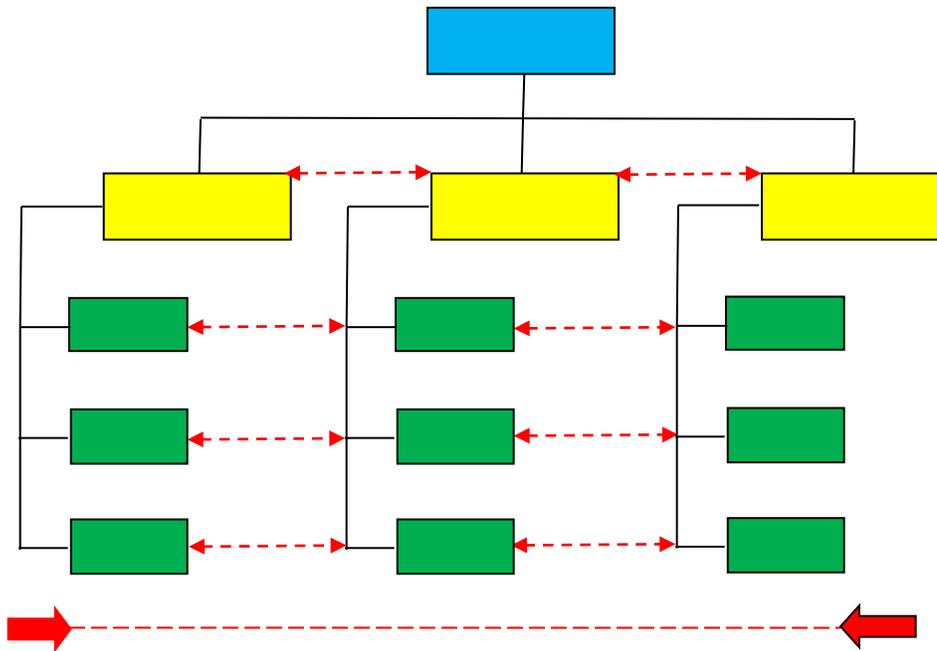
In the traditional vertical structure such as displayed above, each of the first three rows of boxes (blue) is a management level, with the relative level of authority and responsibility demonstrated by the position of the boxes and the relative size of the boxes. The last three rows of boxes (red) represent functional staff positions, each of which is responsible to and reports to a blue management position immediately above it on the organization chart. To summarize a sample of management literature insofar as the characteristics of *vertical structures*:

- A vertical structure is built upon the concept of diminishing authority, with graduated levels of responsibility from a single point of total authority to positions of very limited (or no) authority.
- In a vertical structure, development and enforcement of a “chain of command” are considered very important and are often a driving element of management, sometimes superseding even the goals and objectives of the organization.
- Communications through the organization tend to be restricted to the chain of command, both down and up through the chain of command.

- Execution of work is *policy* based, with policies intended to rigidly restrict the execution of work within a precise set of rules, with defined limitations on the actions of each management and functional level.
- Vertical structures tend to create specific boundaries between functional branches, with each branch limited to its individual scope of work or area of control (the silo effect).
- The goals and objectives of the vertical organization tend to be of a repetitive nature (e.g., manufacturing of specific products, such as vehicles or pharmaceuticals).

Perhaps one of the most critical requirements of any megaproject, but in particular one made up of a number of discrete projects, operating in a public environment and dependent on publically allocated funds is the need to be able to adapt quickly to rapid changes in the execution environment (“the environment”). Vertical structures can inhibit the ability to adapt the goals and objectives of a megaprogram in response to changes in the program or project environment. For example, the loss of \$300 million in expected appropriation in a fiscal year requires that the Judicial Council, AOC and OCCM react as quickly as possible to identify the ramifications of that shortfall in expected funding in order to minimize the impact across the Program as a whole and each individual project which comprised the entire megaprogram.

A horizontal structure is generically represented by the organization chart immediately below:



The first box (blue) represents Program Management. The next row of three boxes (yellow) represent the intersection of (in this case) Program Management and Project Management. The lower three rows of nine boxes (green) represent three functional execution teams all at the same level of autonomy, authority and responsibility. The dashed-arrowed lines (red) between the boxes and at the bottom of the chart represent integrated working and communication relationships across and between the Program and project functional positions. Relative to a *horizontal organization*, the sampled literature can be summarized as follows:

- Cross functional teams are formed and focused on achievement of a specific project or scope of work that is required to be completed within definitive budget and time constraints.
- Execution of work is *process* based, with emphases on defining the general procedure and process framework under which each project team is empowered to act autonomously within the authority and responsibility delegated, with the primary limitations set on a specific scope of work, within a specific budget, over a specific time and to meet specific quality goals and objectives.

- A critical element of horizontal organizations is the quick, continuous flow of information among team members and the across the organization as a whole.
- Horizontal organizations tend to be dependent on the development or adoption of uniform systems and processes in order to create transparency across the organization and each of the teams established.
- Management levels are limited to the greatest extent possible, primarily to improve the flow and clarity of information within the organization and between the individual execution teams and stakeholders.

Every horizontal management structure has some vertical elements, as can be seen in the graphic directly above; however, those vertical elements are considered a part of the functional team structure, with a specific set of goals and objectives which are an amalgamation of the goals and objectives of the individual teams within the organization. Finding the right balance of vertical and horizontal structural elements is one of the primary difficulties in forming a horizontal based execution organization.

Strengths of a horizontal structure are that it enables the organization to respond more quickly and cohesively to volatile environments wherein risk factors may quickly impact the attainment of goals and objectives. In part, that ability to react quickly is due to the horizontal structure itself; however, the ability to react quickly and cohesively is also dependent on the personnel filling the program and project positions, the autonomy delegated to the execution teams, and the processes and procedures by which those teams execute their scopes of work.

One of the potential weaknesses of a horizontal structure is that it is dependent on the cohesiveness between and co-operation among the individual team members and across functional program management positions, which is as much a cultural attribute of the organization as a whole as it is an attribute of each of the individual team members.

One common consideration of horizontal management structures is the need to adopt technological systems to ease the administrative work load of the reduced staffing

expected within a horizontal management structure. Electronic systems including computer networks, productivity software and communications software enable flatter organizations to overcome the complexities of megaprograms consisting of individual projects while working with less staff than is typical of a vertical structure.

To be successful megaprograms must be agile, adjusting to the risks and realities of the program and project environment. During every megaprogram management must expect changes in the environment, and those environmental changes are one of the most significant risks which management will have to address. The most effective way to deal with those changes include: a comprehensive program and project risk management system which profiles the execution risk environment within which the program and projects will be executed; forewarning of a risk element arising during execution which threatens any of the primary goals and objectives of the project or program; remaining vigilant to the potential impacts forecasted as a result of a risk element arising, with plans already in place which can be activated to mitigate those changes and impact conditions; and, finally the agility to act quickly to implement mitigation actions before the impact grows beyond the organization's capacity to absorb those impacts without significant impact to the attainment of program and project goals and objectives.

7.3.2 THE MANAGEMENT INTERFACE BETWEEN PROGRAM AND PROJECTS

There are two elements in megaprograms such as the Court Capital Construction Program: the program and the individual projects. Those two elements share (or should share) a common set of goals and objectives:

- Execute a defined **scope of work**;
- to a budgeted **cost**;
- over a definitive **schedule**;
- to a specific definition of **quality**.

However, those goals and objectives have different scales for measuring the successful achievement of those goals and objectives. At the project level the focus is limited to that specific project; at the program level the focus expands to the entire inventory of projects to be executed. Even in a horizontal structure those two management components are distinct, with the Program Management having the ultimate authority over the entire Program, and responsibility for every constituent project simply because it is ultimately held accountable for the success or failure of the entire Program. This includes allocating a portion of those total goals and objectives to each of the constituent projects; then amalgamating the results achieved in each project into the total evaluation of success or failure in achieving goals and objectives for the Program as a whole. To Program Management each individual project is simply one of the points of input into the success or failure of the Program.

On the other hand, each project has a finite set of goals and objectives, the success of which is not dependent on the outcome of any other project in the Program. A project either succeeds or fails to attain its objectives solely on the metrics established for that individual project.

Assume a program portfolio of 50 constituent projects within a megaprogram. If 30 of the constituent projects exactly achieve their independent goals and objectives, they are deemed to be successful as individual projects. However, if the remaining 20 projects fail to meet their goals and objectives the program will not be deemed to have been a complete success. A program is successful when **all** of its goals and objectives are met; and as noted above, a program's goals and objectives are an amalgamation of every individual project's goals and objectives. In a strict vertical structure the success or failure of those two entities are separate and apart because the goals and objectives for each of those entities tend to be distinct. For this reason early megaprojects had a difficult time setting, and measuring the successful achievement of goals and objectives under a vertical structure.

The response to the problem was threefold:

1. A strict alignment of goals and objectives between the Program and the projects levels.
2. Standardized processes and procedures governing the management and control of the individual projects.
3. Measuring success of a project not just on achievement of its distinct goals and objectives, but on the project's total contribution to the achievement of the Program's goals and objectives.

How those goals and objectives are set and measured is up to each megaprogram; however, success or failure to meet those goals and objectives is measured against the goals and objectives set by Program Management. As a result, every project has to set its goals and objectives as an element of the total program goals and objectives.

Finally, ensuring successful attainment of program goals and objectives in a megaprogram of multiple discrete projects often requires that a significant portion of those projects are executed at a level which exceeds the goals and objectives set for the individual project. Following the example given earlier above, assuming that 30 of the projects **exactly** achieve their primary goals and objectives and 20 do not achieve their goals and objectives, the program is not classified as a success because the project level scope, cost, schedule and/or quality goals and objectives as amalgamated at the program level will not be met. However, assume that 25 of those 30 successful projects exceed their goals and objectives, while five exactly achieve their goals and objectives. If the betterment levels achieved on the 25 projects equal or exceed the levels at which the 20 projects failed to achieve their goals and objectives, the program as a whole is deemed to be successful as the program goals and objectives as a whole will have been met or exceeded.

It is almost a given that in any megaprogram there will be risks and events which will prevent some projects from achieving the goals and objectives set for that project. Because of that fact, Project Management should plan and execute projects so as to

maximize the opportunity to **exceed** every goal and objective set, not just meet every goal and objective set.

7.4 QUALIFICATIONS OF STAFF, ARCHITECTS, CONTRACTORS AND CONSULTANTS

This **Section 7.4** of **Deliverable 1.b** examines the qualifications of the Court Capital Construction Program and project staff, based upon the audit conducted under **Deliverables 1.a.1** and **1.a.2**. No additional examination or review of staff, architects, contractors or consultants beyond that which was done under the audit reported in **Parts I** and **II**; as a result the findings summarized below are limited to what Pegasus-Global observed during that audit, with some extension of those findings based on inferences drawn from specific documents reviewed during the audit which were not specifically addressed during that audit.

7.4.1 CAPITAL COURT CONSTRUCTION STAFF QUALIFICATIONS

Pegasus-Global received an organizational chart during its interviews of the Senior Management of OCCM which identified every position within the organization, even those that had not been filled as of February 8, 2012. That organization chart reflected a total AOC/OCCM planned staffing of 212 positions, of which:

- 141 had been filled (66%)
- 62 were vacant (29%)
- 9 were filled by ID/IQ consultants (4%)

Based on its experience with a variety of megaprograms Pegasus-Global believes that a vacancy rate of 33% (counting consultants filling full time internal staff positions) would make it extremely difficult for any executing organization to discharge the responsibilities incumbent on Program and Project Management on any megaprogram. However, Pegasus-Global during its management audit did not identify a consolidated

staffing plan based on the actual duties, responsibilities, goals and objectives established for the Program or its constituent projects.

One observation is that, in total, less staff is allocated to direct project execution positions than there were allocated to any other Division of OCCM. As the primary objective of the Court Capital Construction Program is to build court facilities, this imbalance is questionable. That imbalance is even more troubling given that during the interviews of the project personnel the lack of staff actually involved in the execution of the court construction projects was identified as a significant issue. This issue is further demonstrated by the fact the Division responsible to actually execute the projects had 9 positions which had been filled by ID/IQ contractor employees, all 9 of which were identified as Project Managers. Of all the positions necessary to successfully execute construction projects, none is more important than the Project Manager that ultimately manages and controls the execution of the project from initial planning to final commissioning.

Simply put, the management and control of a megaprogram the size and complexity of the Court Capital Construction Program requires a staffing level that can successfully plan and execute the entire scope of work required at both the program and project levels within the regulatory demands imposed, the budgets established, the within the schedules required, and to the quality demanded. However, the number of staff needed must be directly linked to the consolidated goals and objectives of the Program and the individual projects, and reflect the realities of the environment within which the Program and projects are executed. In Pegasus-Global's experience, no megaproject has all of the staff management believes necessary to execute the megaproject, as result of which is the industry wide drive to maximize the effectiveness and efficiency of the staff it is allocated for the job.

As noted above, the highest relative number of vacancies and contract staff are found in the Design & Construction Division; out of a total of 48 positions identified in the organization chart there were 18 vacant positions (41%) and 9 contracted positions (19%) reported. In effect, the Design & Construction Division has been allotted a total of 21 (44%) of its 48 identified positions (not counting contract employees). The fact that

program goals are an amalgamation of the project level goals and objectives set, the current level of staffing within the Design & Construction Division (the primary point of project execution) is a major risk to the successful attainment of project and program goals and objectives.

From Pegasus-Global's examination of the full responsibilities required under the enabling legislation, the industry best practices, and interviews conducted at all levels of the AOC and OCCM staff there is simply too much work for the current staff (and in particular the project management staff) working under the current organization structure to successfully manage or control the projects and the Program. This is borne out in part by the findings of Pegasus-Global's management audit presented in **Parts I and II**, wherein Pegasus-Global identified several instances in which OCCM had not initiated, completed, adopted or installed the policies, procedures and processes which would be expected in a megaprogram of this size and complexity and where the practices at the project level were neither uniform or transparent. There are only two possible responses to that situation: 1) increase the staff, particularly the project execution focused staff; or, 2) reorganize and realign staff to more effectively and efficiently execute the scope of work required.

As reported in **Parts I and II**, Pegasus-Global found that the staff of OCCM is generally suited to the scopes of work for which they are responsible, demonstrating a strong work ethic, a determination to successfully complete their discrete functions, an entrepreneurial perspective and a dedication to the success of the Program as a whole. Given those attributes Pegasus-Global believes that the current core staff positions could make a transition to a more horizontal structure with little trouble; the talent to operate under a horizontal structure generally exists within OCCM.

Pegasus-Global's general finding relative to the OCCM staff qualifications, summarized directly above, must be tempered because Pegasus-Global's audit was based on a set of test program functions and projects, and may not necessarily apply across the entire OCCM staff. Had formal personnel evaluations been produced and examined, Pegasus-Global may have been able to determine with greater certainty whether or not the qualities found in the staff included in the test audit permeated the entire organization.

7.4.2 QUALIFICATIONS OF ARCHITECTS, CONSULTANTS AND CONTRACTORS

Although Pegasus-Global had limited opportunities to directly interact with the architects, consultants and contractors engaged to execute program or project functions, the interviews with Program and Project Management indicated the performance of those firms as generally satisfactory. During Pegasus-Global's review of the bid documents, which in general address the qualifications of architects, consultants and contractors, Pegasus-Global found no reason to doubt that each of the architects, consultants and contractors were qualified to execute their respective scopes of work.

However, as noted in **Parts I and II**, because of the lack of a formal evaluation process by which architect, consultant and contractor performance is judged and documented by Project Management, Pegasus-Global was unable to test or confirm the qualifications or performance of those organizations against their bid representations and conditions of their individual contract agreements. A review of the Facility Performance Evaluations, which are conducted after the occupation of the structure by the tenants, reflected that the tenants rate the structure by various categories such as facility accessibility, personal work space, air quality, thermal comfort, acoustic quality, and lighting quality, etc. From a summary review of some of the comments contained in those evaluations it is possible to identify some issues which could be interpreted as criticisms of the quality of work by architects, consultants and/or contractors. For example:²⁹¹

- Accessibility – *“Entry and access to the parking lot, which is shared with the public, is very poorly designed and actually dangerous. Traffic flow is generally disrupted because of the confusing design and pedestrians add to the problem.”*
- Workspace – *“It was a mistake to reduce the amount of shelving...”. “From my office I can hear everyone talking ... the noise carries down the ramp from that area right into my office.”*

²⁹¹ Santa Ana 4th District Appellate Courthouse, Facility Performance Evaluation, Post Occupancy Evaluation, December 2010

- Air Quality - *“Bathrooms need more ventilation and are freezing cold in the winter months.” “We have no access to fresh air on the second floor where I work.”*
- Thermal Comfort – *“During the winter season is extremely cold in here, but if you go into the lobby which is only a few feet away from the clerk’s office it is extremely warm.” “The staff in my chambers is always complaining [about temperature control and balance]”*
- Acoustic Quality – *“The noise level seems to echo in the office area and even more so in the clerks public window area.” “Hard to hear customers at the window and they can’t hear you.”*
- Lighting – *“Men’s room is dark.” “The lighting in the ladies’ room is dreadful. You can barely see a thing ... it’s like trying to dress and do your makeup in a cave.”*

While there were also positive comments by tenants in the evaluation, the negative comments appeared to suggest flaws in design or construction; yet Pegasus-Global found no evaluation of the architect or contractor in the project files which rated the work of either of those parties, which might put those comments into perspective or which might establish a more accurate measure of quality of the architect or contractor. In addition, while there were such post occupancy evaluations for individual projects there is no indication that those evaluations of the design and/or construction had been compared across projects which might identify trends relative to project design or construction.

Relative to the quality of consultants, in **Parts I** and **II** Pegasus-Global already addressed the lack of uniformity and transparency relative to the primary consultants (construction managers), which makes any evaluation of their qualifications difficult as there is no uniform basis of responsibility or accountability from which to judge the qualifications of the consultants. One consultant responsibility which seemed uniform across all projects was document control. Using only the results of the document management control at the project level, as reported in **Section 6.4.2**, all that Pegasus-Global found was that the consultants had not met the requirements expected for a project based on industry standards. Whether this is a function of the lack of a more

formal and comprehensive document control system at the program and project levels, or the failure of the consultant to fulfill the responsibility is not known to Pegasus-Global at this time; however Pegasus-Global suspects that the lack of project documentation involves both situations.

7.4.3 SUMMARY

Without a formal evaluation process it is impossible to determine the performance of an architect, consultant or contractor unless one is present during the execution of the project. Pegasus-Global attempted to establish the level of performance, however no such evaluations were evident in the project files or produced by OCCM. Using the interviews, project management was satisfied with the performance; however secondary documentation in the form of the tenant evaluations identified issues and problems which one could imply were critical of the architect, consultant or contractor responsible. Given the limited documented information, Pegasus-Global is unable to provide any conclusive opinion as to the qualifications or performance of the architects or contractors.

7.5 REVIEW OF THE COURT CAPITAL CONSTRUCTION ORGANIZATIONAL STRUCTURES

As noted earlier in **Section 7.2**, Pegasus-Global had to primarily rely on the OCCM organization chart dated February 8, 2012 and the interviews of Judicial Council, AOC and OCCM management and staff conducted as part of the management audit to piece together the current organizational structure of the Program and projects.

Immediately apparent to Pegasus-Global was that the interrelationship between OCCM, AOC and the Judicial Council was not formally detailed or documented through either an organizational chart or formal policies and procedures (although some documents

and interview responses did generally describe those relationships). This is exemplified by the different answers given to Pegasus-Global as to the identification of the Program or project “Owner”. As will be seen later in **Section 7.6** below, from a Program Management perspective the interrelationship between and among those three Program Management elements is important to the ultimate success of the Capital Court Construction Program.

Likewise, although Pegasus-Global identified certain documents which described the relationship between OCCM and the associate State agencies through which it was required to work had not been formally or fully defined within the organization chart or the current policies, procedures and processes in place or in the process of completion by OCCM. The interrelationship between OCCM and the associate agencies (e.g., DOF, PWB) is also critical to the ultimate success of the Court Capital Construction Program.

Because the various interrelationships were not fully defined through the documentation examined for this review, or which had been previously provided during the management audit, those aspects of the program and project structure have not been addressed by Pegasus-Global in **Section 7.5**, other than to note that the interrelationship among those stakeholders is not sufficiently defined.

In addition, and as reported in **Parts I** and **II**, there is a lack of uniformity and transparency as to the role played by each of the various stakeholders actively involved in the planning and execution of each project. Based on descriptive information provided during interviews, Pegasus-Global learned that even though those stakeholders are generally defined as “advisory” in nature, there was a lack of uniformity within the Program and among the project teams as to the actual involvement in, or power over the projects exercised by those stakeholders. While this aspect of the current program structure has not been formally addressed in this **Section 7.5**, Pegasus-Global has also addressed that interrelationship in **Section 7.6** below.

In general, the absence of those entities (the Judicial Council, AOC, associated agencies and project advisory stakeholders) in the organization chart or the detailed

policies, procedures and processes represents an issue that should be addressed during any modifying the current program organizational structure.

7.5.1 THE CURRENT OCCM ORGANIZATION STRUCTURE

As noted in **Part II**, OCCM has essentially been forced in part to function as horizontal organization structure by the inability to have a ramp-up period normally expected in a megaprogram, staffing limitations and the constraints placed on the Program. However, OCCM's current organization chart does not reflect that reality as shown in **Exhibit I**.

An examination of the chart reveals the following attributes:

- The chart reflects a vertical management structure of four divisions²⁹² in a silo diagram:
 - Business Planning Services
 - Risk Management
 - Design & Construction
 - Real Estate & Asset Management
- There is one position identified specifically with a Program Management function: “*Lead Management & Program Analyst*”; however, the position is shown as “*Vacant*”.
- Each of the four divisions is managed by a single Division Manager reporting directly to the OCCM Director. The four divisions reflect the following subordinate managers (second level management) reporting directly to those four Division Managers:
 - Business and Planning Services – 2
 - Risk Management – 0
 - Design & Construction – 6

²⁹² Note: that for ease of this presentation the four primary units are identified as “Divisions” even though only three identify the manager as a Division Director.

- Real Estate & Asset Management – 11
- The following positions reflect the third layer of management, reporting directly to the second level managers (consisting of unit managers/supervisors):
 - Business and Planning Services - 2
 - Risk Management – 0
 - Design & Construction – 29²⁹³
 - Real Estate & Asset Management – 12
- The remaining positions are not specifically identified as management or supervisory:
 - Business and Planning Services – 17
 - Risk Management – 6
 - Design & Construction – 10
 - Real Estate & Asset Management – 98
- There are 9 ID/IQ consultants shown filling some level of project management within the Design & Construction Division.
- The formal lines of authority and communications are all represented as “chain of command” up and down through the identified management and supervisory position silos.

Although Pegasus-Global was told during various interviews that OCCM managed its scope of work more like a horizontal organization than a vertical organization, the organization chart does not reflect a horizontal structure. In addition, OCCM has not yet fully adopted, adapted or formalized the processes and procedures which are

²⁹³ Primarily Project Manager positions, a number of which have not been filled as of the date of this review.

necessary to support a horizontal organizational structure as reflected in **Parts I and II** of this Report.

Given the current and forecast fiscal environment within which the Court Capital Construction Program will be executed, the Judicial Council, AOC and OCCM should examine and implement every reasonable opportunity to maximize the effectiveness and efficiency of every staff position while at the same time limiting the impact of that fiscal environment on the individual projects to be executed under the Program. This entails a coordinated process of review and action from both a programmatic perspective and the individual project execution perspective. Program goals and objectives must be developed in recognition of the current and forecast fiscal environmental conditions within which the Program will operate (*i.e.*, significantly lower total funding than originally anticipated appropriated over a longer than originally anticipated).

Likewise project development, planning and execution must be managed in complete alignment with those revised program goals, all while maximizing the span of control over which the current staff levels can reasonably perform on the revised matrix of projects appropriated.

In a megaprogram, execution of the program and projects must be coordinated with and follow the procedures established by an associated state agency over which the program has no authority or control and must formally recognize the specific authority and control of that associated state agency within the policies, procedures and processes established for the megaproject. That interagency relationship should be identified in the graphical representation of the program and/or project structures (the organization chart). The Court Capital Construction Program policies, procedures and processes affected by associated state agency requirements must clearly delineate the authority and responsibilities of those associated state agencies, and their relationship to the positions established at the program or project levels of the Court Capital Construction Program.

These relationships should be formalized, reviewed and evaluated by a joint management team consisting of the associated state agencies and the Court Capital Construction Program. That joint management team should establish goals and objectives relative to the effectiveness and efficiency of the interactions, and, on a regular basis formally evaluate the effectiveness and efficiency of the relationship, including the impact of the relationship on the respective goals and objectives of each organization. If it is determined during the evaluation that the relationship as established is not enabling the respective organizations to achieve their respective goals or objectives, the joint management team should make adjustments to the formal relationship. The goal of the evaluations and adjustments is to improve the effectiveness of the relationship in order to improve the opportunity for each organization to achieve their respective goals and objectives.

In summary, the documents reviewed and the interviews conducted by Pegasus-Global suggest that the structure is presented and formally organized as a vertical structure, and in some respects continues to operate as a vertical organization. The current policies, procedures and processes in place or under development further reflect a vertical organization structure and a horizontal organizational structure. Neither the current organization chart nor the current policies, procedures or process formally address the relationships between the Court Capital Construction Program and associated state agencies (or stakeholders) which exercise some authority and control over the operations of the Court Capital Construction Program.

However, because of the current staff in place Pegasus-Global believes that more horizontal interaction takes place within the Court Capital Construction Program than is readily apparent through the documentation available or which exists within the current body of policies, procedures and processes. But what horizontal practice may exist within the current structure is not formalized and is neither uniform nor transparent.

Pegasus-Global also believes that a more complete, uniform and transparent horizontal structure, founded in formal policies, procedures and processes, can be readily developed and adopted by the Court Capital Construction Program if given the proper

attention and time to develop, complete or amend those policies, procedures and processes.

7.6 PROCESS FOR SELECTION AND COMPOSITION OF A MEGAPROGRAM DELIVERY STRUCTURES

Selection and implementation of an appropriate organization structure is critical to the success of every megaprogram; however there are no comprehensive or complete industry standards which provide guidance or specify in detail a standard management organization selection process for a capital construction megaproject. The selection process tends to be rather unique to every megaproject as there are different baseline considerations which are in themselves unique. As a result, Pegasus-Global's suggestions relative to the process of selecting an organizational structure and installing that structure are based on experience with other megaprograms facing the same situation relative to organization and staffing as the Court Capital Construction Program.

Another complicating factor in selecting and adopting an organization structure for OCCM is that OCCM already has a structure in place and that structure is already populated with staff. After some consideration, Pegasus-Global determined that the best way in which to approach the selection process and the basis for Pegasus-Global's ultimate recommendation was to work from a "blank slate" perspective. Pegasus-Global recognizes that there is a structure in place and that structure is populated; however, Pegasus-Global observes that it would be better for the Judicial Council, AOC and OCCM to adjust a recommended structure in recognition of some of the limitations relative to structure and staff currently in place than it would for Pegasus-Global to assume the responsibility to adjust the recommended model or reassign staff the current staff to fit the positions identified within that model.

Therefore, the process followed by Pegasus-Global's process is explained from a generic position, with very little recognition of certain "realities" which would impact that selection process or adoption. For example, Pegasus-Global is aware of the need to

work with, and rely on, state agencies outside of the control of the Judicial Council, AOC or OCCM and further assumes that such relationships may have a bearing on portions of the organizational structures.

Likewise, while Pegasus-Global believes that the current staff may have to be reorganized and adapt to different roles (authority, autonomy, and responsibility) that staff is qualified and capable to operate effectively and efficiently in a re-structured organization. The actual personnel decisions are naturally left to AOC and OCCM; therefore, Pegasus-Global did not identify specific personnel within each of position. Nor did Pegasus-Global limit, restrict or base its recommendation on the functional positions currently identified or the staff currently populating those positions. What Pegasus-Global did is to undertake a selection process and develop a structure as if it was being done during a typical ramp-up period for a megaproject.

7.6.1 ELEMENTS TAKEN INTO CONSIDERATION DURING EXAMINATION OF POTENTIAL ORGANIZATIONAL STRUCTURES

Given the size, cost, complexity and extended duration of capital construction megaprograms one can easily get bogged down in a myriad of factors which might be included in any examination and selection of an organization structure for the megaproject. Much like the development of a risk management profile for a megaprogram, it is human nature for the individuals involved in the examination and selection process to stress those attributes of the megaprogram or the individual projects which, in their personal and professional opinion, are critical to the effective and efficient management and control of ***their particular function*** within a capital construction megaprogram.

For example, if the individual's perspective is anchored in a particular function, such as financial management and control, the individual is likely to examine the structures and substructures within the organization template under consideration which are, in their opinion, the most critical functions on a megaprogram or project (in this example cost

management and fiscal control over the program and its projects). That perspective will push the individual to a natural inclination to maximize the number of financial management and control points (management and intermediate management positions) with a concomitant increase in the number of functional staff positions. In such a scenario that financial manager will often resist any structure which does not restrict, limit and centralize decision making authority within a formal chain of command.

To minimize the possibility that the evaluation and selection process will get bogged down or even derailed entirely in the weeds of detail, the natural inclination to “protect and maximize” the rigidity and detail within one’s own particular management function should be tightly controlled. While an “open forum” policy or “brainstorming” process is often touted as the best way to address such issues as selection of an organization structure, the problem becomes one of creating opposing perspectives and values which if not controlled may paralyze the evaluation and selection process by overwhelming the process with disparate positions, opinions, judgments, jealousies, distrust, and protectionism. This is a common problem that has to be overcome and controlled in the establishment of a risk profile for every megaprogram.

One of the most effective methods to reduce the situation described above is to focus the process on a limited number of higher level, more all-encompassing program and project functions, issues and risk elements. The “moderator” of the process must continually force the evaluating group from the natural inclination to dive into detail when their particular focus is raised (or if that particular focus is not raised) during the evaluation process.

Another effective method is to severely limit the participation in the examination and selection to the highest levels of the Program Management and control structure. While the input of lower level management or functional positions may have a vested interest in the ultimate decision and may even have some reasonable points to be considered, there is no faster way to find oneself mired in a level of detail that paralyzes the process than to expand the participation to individuals whose primary focus is founded on the fact that all of their work is executed at the detail level of a particular functional group or division.

Finally, as noted below the evaluation process should start with a well-defined goals based on a limited number of well defined, and limited number of topical program and specific project assumptions and conditions to be used during the process. A summary of the four most common elements considered during the evaluation and selection of a megaprogram organizational structure is presented below in the subsections of this **Section 7.6.1**.

7.6.1.1 GOALS AND OBJECTIVES

First and foremost the examination and choice of organizational structure should be the goals and objectives set at the legislative and program levels of the megaprogram, and from which the individual project goals and objectives should be established. As noted earlier in this **Part III**, it is extremely difficult to successfully achieve the goals and objectives set at the legislative and program level if the individual projects fail to achieve the goals and objectives set for the projects.

As a result, the first consideration during the organization structure selection process is to develop clear, measurable goals and objectives at the program level. The foundation of all primary goals and objectives set for the Court Capital Construction Program were established in SB 1732 and SB 1407, wherein each bill established the purpose of the two pieces of legislation and the legislative appropriations in support of those purposes. This would include the actions to be taken (*e.g.*, transfer of all county trial courts to the Judicial Council, the construction of new courthouses); the regulatory controls under which the Program was to be executed; and, to some extent, the processes under which the projects would be managed and controlled (*e.g.*, delegation of fiscal controls to DOF).

All legislative goals and objectives need to be recognized and included in the goals and objectives established by Program Management. The successful attainment of those legislative goals and objectives must be based on some ***measurable element***. For example: the legislation requires that the distribution of the funds appropriated rests with DOF. A typical program level objective may include: turnaround times (in days) to 1)

submit the increase request to Program Management from the point in time when the cost increase is recognized at the project level; 2) the turnaround time from receipt by Program Management to submittal to AOC/OCCM fiscal control: to 3) the turnaround time from AOC/OCCM fiscal control to the DOF for action.

Many of the program and project goals and objectives will be founded at least in part on the goals and objectives established in response to those goals, objectives and requirements established in the enabling legislation. However, the program and project goals and objectives will be at a much more detailed level and focused on the actual execution, management and control of the Program and projects.

Beyond those program goals and objectives set in response to the legislative goals, objectives and regulatory controls, Program Management must formulate specific goals and objectives intended to establish the foundation for the development and adoption of policies, procedures and processes which are necessary to achieve the legislative, program and project goals and objectives. During this process representatives from the Judicial Council and AOC should be involved in the development, review and adoption of those program goals and objectives.

In order to ensure that policies, procedures and processes are directly linked to the management, control and execution of the program goals and objectives within an appropriate organizational structure, the measurement of successful achievement of program and project goals and objectives should *not* be set based simply on meeting the exact scope of work, at the exact estimated or appropriated total cost of the Program, at the exact time established for completion, and to the exact level of quality specified.

Megaprograms are planned and executed in a complex and ever evolving environment simply due to the amount of time required to fully execute a megaprogram; it is inevitable that there will be impacts to scope, cost, schedule and quality over that extended period of time. This is especially true of megaprograms which are made up of multiple individual capital construction projects. Although those projects at the head of queue have the best chance of meeting “exact” scope, cost, schedule and quality

targets, the deeper one moves into the later projects in the queue the more likely that scope, cost, schedule and quality targets originally set for the project will not be successfully met. This is because the environment which existed when the original goals and objectives were established within the enabling legislation will change the further one moves away from the point at which those original goals and objectives were set.

Program Management must think and plan beyond the projects currently in the queue to every project in the program and over the entire time frame within which **all** the projects will be executed and completed. To ensure program success, Program Management must develop its goals, objectives and plans based on the successful execution of every project in the inventory, from first to last and from smallest to largest. Megaprogram goals and objectives should be set at the *lowest reasonable scope, lowest possible total cost, shortest possible reasonable time and the highest reasonable quality*. The goals and objectives should be as close to the edge of reasonableness as possible, with some level of challenge established to better those goals and objectives at the project level. The less challenging and measurable the goals and objectives set at the program level, the less project management will feel challenged to better the scope, cost, schedule and quality initially set for the individual projects. Ultimately, goals and objectives should set reasonable metrics for the program and the individual projects, but those metrics should also challenge the program and project teams to better those goals and objectives.

Program Management goals and objectives set the precedent and tone for the individual project goals and objectives; if the program sets its success targets to simply meet the full scope, at the total cost estimated and appropriated, at the full schedule established and to the exact quality established then the projects, in lock step with the program precedent tone set, will follow that exact formula in setting and working towards completion of an individual project. In short, the project will maximize project scope, spend every penny estimated, use all the time set and to the exact quality established. Thus, in order to maximize public funds to be expended over several years, it is important to educate stakeholders, Program Management and Project Management

as to the goals and objectives and to the fact that over the course of the entire program, some projects will do better and some will not; but overall the projects will “balance” to allow all valuable program goals and objectives be met.

The examination of the organizational structure at the Program Management level should begin by understanding that any structure, or any element of any structure, under consideration must contribute to the successful attainment of the program goals and objectives (which if successfully achieved should result in the successful achievement of the legislative goals and objectives). If the structure or an element of that structure poses a possible impediment to the achievement of the goals and objectives set for the program either the structure should be abandoned from consideration or the structure must be adjusted to overcome that impediment. A few good rules of thumb to remember during the examination process:

- The more complex the structure the more likely the structure will prove to be an impediment to the successful achievement of goals and objectives.
- The more the structure rigidly controls and channels communications through a formal chain of command the less likely the structure will aid in the successful achievement of goals and objectives in a volatile environment.
- The alignment of the structural elements should support the achievement of all legislative, program and project goals and objectives, not the achievement of any single specific goal or objective.
- The structure should reflect formal delegations of authority and autonomy as distributed throughout and within the structure.
- The structures under consideration should be evaluated in part based on the risk profile of the program and the projects in order to ensure that the identification, monitoring, recognition, avoidance and mitigation of risk element impacts are distributed appropriately throughout the organization.
- Functional silos should be avoided to the maximum possible extent as silos reduce the agility needed by Program and Project Management to avoid or

mitigate the impact of risk elements which arise during the execution of the megaprogram and constituent projects.

The critical importance of well defined, measurable goals and objectives cannot be overstressed. If an organizational structure does not maximize the opportunity to exceed its goals and objectives then the structure should not be chosen or in place. The reason that the primary program goals must be set at the Program Management level and must permeate the entire structure is that those goals set what the program, as a whole intends to accomplish, establishes the tone and focus of the organization as a whole, and sets the foundation for the individual projects within the program.

There are distinct differences between goals and objectives. In a megaprogram a goal may be thought of as a series of statements which define the *ultimate total result* established for the megaprogram as a whole. For example; *The Program will be completed below the total cost budget of \$5,000,000,000, enabling funds to be applied against projects not originally identified in the immediate and priority list.* A goal is still a measurable statement of a required end result, but it also has an element of challenge within the statement (*below the total cost budget*). A goal statement establishes **the minimums demanded** from the program as a whole and the challenges which are the **true targets** of the program (*below the total cost budget*). While there can be a number of such goal statements, for a construction megaprogram there must be, at a minimum, goals addressing the four primary goals of every construction program: scope, cost, schedule, and quality.

Objectives set at the project level are not merely restatements of the program goal statements. The objectives must establish specific measurable targets and provide a general description of how the project intends to meet the objectives and thereby contribute to the successful achievement of the program goal. Project objectives flow directly from the goals set for the program; for every goal statement set at the program level there is at least one objective statement which reflects exactly how the project will *contribute* to the successful achievement of the goals established at the program level. As a result it is entirely possible for a single program goal to generate multiple objectives at the project level, for example:

Program Total Cost Goal: *The Program will be completed below the total cost budget of \$5,000,000,000, enabling funds to be applied against projects not originally identified in the immediate and priority list.*

Project Objectives: To meet the Program Total Cost Target Objective by reducing the total project expended cost by 6%. This objective will be accomplished through the achievement of the following cost savings targets:

1. Maximize the use of template designs from previous projects: objective is to reduce total design costs by 3% under the initial estimate.
2. Conduct three value engineering sessions involving the architect, constructor, OCCM project team and Facilities Management representation: the objective is to reduce the total construction cost by 2% prior to the initiation of construction. The three session will be held as follows:
 - a. In the final stage of the preliminary drawing phase;
 - b. At the mid-point of the working drawing phase;
 - c. During the development of the construction execution phase.
3. Set contingency reserve (hold back) at 1% of total contingency available to project.

Setting such goals and objectives actually results in two definitions of success:

- Meeting the cost budget set for the program; and
- Reducing the cost budget for each project, thereby enabling the program to overcome possible cost impacts to later projects or even fund and execute other projects not contained within the original program plan.

It is human nature for people to avoid setting or committing to specific performance measures for objectives, usually by setting objectives within a “range of outcomes” or by setting objectives which exactly parrot the goals and tones set at the program level. Setting challenging goals and objectives does not “hurt” a program or project simply

because in the final evaluation meeting the lower goals is still considered by those outside the program as a success; may actually enable the program as a whole to meet the baseline goal set by creating an emergency reserve which can be used to offset impacts suffered on subsequent projects; and, as an ultimate measure of success may provide the funds necessary to execute projects which did not meet the initial cut of projects to be funded and executed.

If the goals and objectives are set as challenges, with meaningful and measurable targets, then management must concentrate on establishing a structure which as a whole is invested in the achievement of every goal or objective. By segregating functional and project positions (within and across the organization) there is no incentive for those not personally invested in a particular project to focus their efforts on meeting the challenges; it is enough that they “do their jobs”. Investment means finding ways to work collaboratively across an organization from function position to project position and back to achieve those goals and objectives.

Ultimately, the success of a program or a project is judged by the individual conducting the evaluation. For some individuals success equals exactly meeting the parameters established for the program, regardless of what happens at the individual project level. For those executing projects under that program goal and that measurement of success, success is also measured against exactly meeting the parameters established for the project, regardless of what may happen to any to any other project.

At the other end of the spectrum are those who measure the success of a program by exceeding expectations or maximizing the impact of the entire program. For such individuals, maximizing the results achieved on every project is critical and the focus in part is shifted to the impact that current projects may have on future projects. For those executing projects under that goal, objectives are set and success is measured by establishing and meeting challenges established against every objective, with the full understanding that meeting the challenges will ultimately contribute to the success of subsequent projects and the program as a whole.

Organizational structures evaluated and selected need to enable program and project staff to maximize the opportunity to achieve the goals and objectives set for the program and the individual projects. To set and achieve challenging goals and objectives requires that the organization take advantage of every staff resource to the maximum extent possible, which, in turn, means that the organizational structure needs to ensure that the talents and abilities of staff not be confined to a single function or operation but can be brought to bear on every element of the program or project which is critical to the achievement of the challenges set.

7.6.1.2 WORK BREAKDOWN STRUCTURES

Once the goals and objectives have been established by Program Management, the work required to successfully attain those goals and objectives must be identified at a broad level. According to PMI:²⁹⁴

“... a program work breakdown structure (PWBS) ... communicates from the program-level perspective a clear understanding and statement of the technical objectives and the end item(s) or end product(s), service(s), or result(s) of the work to be performed.

A PWBS is a deliverable-oriented hierarchical decomposition encompassing the total scope of the program, and includes deliverables to be produced by the constituent components. Elements not in the PWSB are outside of the scope of the program. The PWSB includes, but is not limited to, program management artifacts such as plans, procedures, standards and processes, the major milestones for the program, program management deliverables, and program office support deliverables.

The PWBS is a key to effective control and communication between the program manager and the managers of component projects; the PWBS provides an overview of the program and shows how each project fits in. The decomposition should stop at the level of control required by the program manager.”

²⁹⁴ PMI, The Global Standard for Program Management, Chapter 3, Section 3.5.6, page 44, 2006

Prior to developing policies, procedures and processes Program Management must understand exactly what it is the Program Management expects out of Project Management, how what is expected is to be provided, and when what is expected is required. The expectations are, naturally, a direct outgrowth of the goals and objectives set by legislation and Program Management. The policies, procedures and process should be sufficient to support Program Management expectations, but to the extent possible stopping short of being so prescriptive as to stifle any autonomy necessary to enable Project Management to make decisions and take actions which are immediate and critical to the successful execution of the project under their control.

The project level also prepares a WBS:²⁹⁵

“The WBS is a deliverable-oriented hierarchical decomposition of the work to be executed by the project team, to accomplish the project objectives and create the required deliverables. The WBS organizes and defines the total scope of the project. The WBS subdivides the project work into smaller, more manageable pieces of work, with each descending level of the WBS representing an increasingly detailed definition of the project work. ...

The WBS represents the work specified in the current approved project scope statement. Components comprising the WBS assist the stakeholders in viewing the deliverables of the project.”

As with goals and objectives, the WBS at the project level is an outgrowth and detailed expansion of the PWBS. The PWBS and the WBS are two of the more important program and project monitoring, evaluation, management and control tools at the program and project levels.

7.6.1.3 REQUIREMENTS, POLICES, PROCEDURES AND PROCESSES

Any megaprogram must recognize the existence of any requirement which may be or is actually imposed on that program. Simply, a requirement must be included within the

²⁹⁵ PMI, PMBOK®, Chapter 5, Section 5.3, page 112, Fourth Edition, 2004

statement of goals and objectives; must be considered when formulating the PWBS; and, must be an element of the policies, procedures and processes set for the program and the projects. The requirements (in this case legislative and regulatory) are the baseline (minimum) deliverables expected by the enabling legislation and the regulatory bodies with oversight control of the program. All subsequent actions, decisions and deliverables at the program and project levels must be taken or prepared in such a manner that they feed into, or directly respond to meeting those overarching deliverable requirements.

Policies, procedures and processes also represent “requirements” which are imposed on program and project functional positions at the program or project levels. Every program policy, procedure or process exists to guide Project Management in making a project decision, taking a project action or responding to a project environmental change. The organization structure adopted by the Program Management must enable the most effective and efficient vehicle for the execution of the program and its constituent projects to achieve all of the deliverables required, from attainment of goals and objectives to required administrative functions.

In effect, goals and objectives; the PWBS; and, the program requirements, policies, procedures and processes are the foundation for the detailed program and project execution plans.

7.6.1.4 PLANNING AND EXECUTION ENVIRONMENT

The fourth major element in the process of examining and selecting an appropriate program organizational structure is the establishment of the environment within which the Program and projects will be planned and executed. The execution environment is unique to every megaprogram and, as a result there is no universal method or template which guides the assembly of those elements which may negatively or positively impact the execution of a megaprogram or its constituent projects. The execution environment factors include the following:

- The *political conditions* (federal, state, local) which may impact the execution of the program or projects
- The *macro-economic conditions* (national, international and industrial) which may impact the execution of the program or projects.
- The *local economic conditions* (state, county, municipal) which may impact the execution of the program or projects.
- The *program risk profile*.
- The generic *project risk profile*.
- The involvement of *participatory stakeholders*.
- The involvement of *non-participatory stakeholders*.
- *Regulator* (associate departments, code, safety) involvement.
- Program and Project *Staff* availability and quality.
- *Consultant and contractor* availability and quality.
- *Labor* conditions (availability, quality cost).
- *Vendor and supplier* accessibility and quality.
- *Etc.*

Every megaprogram has its unique environment; as a result prior to the examination and selection of an organization structure Program Management must define that execution environment to assure that the structure is aligned with the realities of the conditions under which the program and projects will be executed.

For example, if the agencies setting and enforcing codes to be applied at the project level have the power to halt the execution of a project for a violation, or even a suspected violation of a particular code, some element of the organizational structure must exist which is focused on monitoring and inspecting the projects to ensure

compliance and coordinating with the code enforcement agency *and* the agent assigned to the project. Such attention cannot interfere with or stop a code enforcement agent from taking action in the face of a violation (or suspected violation), however a sound relationship between the responsible program position and the enforcement agency and agent, wherein the program has demonstrated its commitment to meeting the applicable codes may be the difference between suspension of the project and a grace period under which the execution of the project can continue while the project works to achieve the required level of compliance.

Changes in execution environment must also be forecast into the future, to the extent possible, in order to assure that the organizational structure can accommodate or be adapted to accommodate those changes in the execution environment which are considered highly probable (*e.g.*, changes in legislation, funding restrictions, industry economic conditions, etc.).

While not an easy element to develop for use during the evaluation and selection of an organizational structure, knowledge of the existing and forecast execution environment will not only assist in the selection of an appropriate structure, during the examination process it will assist Program Management in paying attention to the need for the entire megaprogram structure to have a built-in ability to maintain the agility of the program over the entire life cycle of the program.

7.6.1.5 SUMMARY

Failing to logically and systematically evaluate and select an appropriate organizational structure for a megaprogram may jeopardize the successful execution of a megaprogram. On a large, complex megaprogram there are no unimportant positions; there can be no misdirected or wasted effort; and there can be no built in stress or conflicts within the program or the project positions and functions, or between Program and Project Management. If the structure does not align with and support Program and Project Management efforts to achieve the ultimate purpose of the megaprogram as effectively and efficiently as possible, then the chances that the program or a project will

successfully achieve the purpose for which the megaprogram was established may be greatly reduced.

7.7 PEGASUS-GLOBAL'S RECOMMENDATION

Based upon the program environment, Pegasus-Global recommends that the Program organize itself under the flattest structure it can achieve. Those environmental constraints readily apparent, forecasted and assumed by Pegasus-Global include the following (in rough order of importance):

1. The state fiscal conditions. It is commonly known that the State of California is now experiencing, and is expected to continue to experience very difficult economic conditions for some time. State legislative and executive bodies have already demonstrated that funds originally appropriated or earmarked for the Court Capital Construction Program are not immune to re-allocation to address other public programs and needs. The forecast economic conditions will likely result in a continuing pattern of reduced funding, which will, in turn, almost certainly result in changes to the Program throughout a significant portion of its life cycle. The Program must in the future anticipate having to do more, with less; less funding and less staff. A more horizontal structure will enable the Program to maintain or even improve the effectiveness and efficiency of the Program and its project management and control.
2. The second element considered by Pegasus-Global was the goals and objectives of the Program as they will have to be adjusted to the realities of the execution environment. Less funding will result in less activity; which, in turn, will require that the structure be adjusted to meet the realities of the revised goals and objectives. In order to maximize the resources flowing to the projects any reduction which can be made in the cost of managing and controlling the Program and projects should be considered. As experienced by Pegasus-Global, the most effective and efficient megaprogram structures are those which are as

flat as possible, reducing management levels while pushing authority, autonomy and responsibility to those staff positions best able to discharge those functions.

3. The third element considered by Pegasus-Global involved the opportunity for Program Management to revise and complete policies, procedures and processes to support a horizontal structure in the immediate and long term future of the program. As discussed in **Parts I and II** of the Report, the lack of uniformity and transparency encountered at the project level is in large part due to the fact that the Program did not have the benefit of a ramp-up period typical of a megaprogram. As a result, policies, procedures and processes are still under development. Even if those policies, procedures and processes were to be completed now, the changes in execution environment which results in changes in the Program goals and objectives will necessitate not just completion of the current policies, procedures and processes, but may also require some level of change in those policies, procedures and process.
4. Finally, based on the constraints and limitations imposed on the Program, changes will be required to the PWBS and WBS of the Program and projects. The deconstruction of work required is dependent upon the goals and objectives of the Program and projects, the policies, procedures and processes in place, and as a result of the execution environment both of those elements will change. Once those elements have been adjusted to meet the challenges of the new Program environment, the PWBS and WBS should be modified to meet those changes.

Given that all four of the primary elements crucial to the examination and selection of an organizational structure have changed, and which will likely change over the life cycle of the program, the Judicial Council, AOC and OCCM should reexamine the choice of organizational structure to ensure that it will align with the changes which will ripple down through all of the examination and selection elements from the changes in the current and forecast execution environment. Based on its experience, Pegasus-Global projected possible changes to the selection elements impacted by the known and projected execution environment, and concluded that a flatter organizational structure

will better accommodate those changes than a more traditional vertical structure. The key attributes that Pegasus-Global believes should be considered relative to the structure installed within the current and forecast environment are:

- The ability to be agile, effective, and efficient;
- the ability to identify and accept changes in the environmental conditions;
- the ability to forecast and trend future environmental conditions; and,
- the ability to identify, avoid or mitigate risks which may impact the successful completion of a project as quickly as possible.

Those key attributes are better achieved in a horizontal structure than a silo vertical structure.

Pegasus-Global identified the attributes of a horizontal organizational structure, and developed a generic organizational chart to demonstrate what a horizontal structure might look like given the Court Capital Construction Program's scope of work. In the description and organizational chart Pegasus-Global used generic titles for the positions which might exist within that horizontal structure and limited the structure detail to the primary positions, although in any reorganization there will be additional program functional and project support positions which will have to be added to any detailed organizational structure adopted. Likewise, Pegasus-Global did not go to the level of detail which would provide definitive, detailed descriptions of the scope of work for each of the positions as that is dependent on the finalization, review and application of the four elements described in **Section 7.6** above. Due to its size, the organizational chart is presented graphically in **Exhibit J** attached. The structural elements contained within that organizational chart are defined directly below.

7.7.1 PROGRAM AND PROJECT MANAGEMENT

There are two primary management elements to a megaprogram like the Court Capital Construction Program:

- Program Management and Control
- Project Management and Control

Those two management elements are depicted in **Exhibit J** by color, with Program Management shown in blue and Project Management shown in Red and Green (Project Support Management). Each of those management elements are summarized as they apply to the Court Capital Construction Program below.

7.7.1.1 PROGRAM MANAGEMENT

A program is defined as:²⁹⁶

“...a group of related projects managed in a coordinated way to obtain benefits and control not available for managing them individually.

...

Programs, like projects, are a means of achieving organizational goals and objectives, often in the context of a strategic plan. Although a group of projects within a program can have discrete benefits, they often also contribute to the consolidated benefits as defined by the program ...”

The three important elements of the definition given above are: 1) *coordinated*; 2) *controlled*; and, 3) *consolidated benefits of the program*. Coordination and control are critical to uniformity and transparency of the program. They provide the program and every individual project with a consistent direction and framework within which every individual project is to be executed. Coordination and control are established within the policies, procedures and processes developed and issued by Program Management.

Program Management:²⁹⁷

“...is the centralized coordinated management of a program to achieve the program’s strategic benefits and objectives.

²⁹⁶ PMI, Global Standard for Program Management, Chapter 1, Section 1.2, page 4, 2006

²⁹⁷ PMI, Global Standard for Program Management, Chapter 1, Section 1.3, pages 4 and 5, 2006

...

Managing multiple projects by means of a program allows for optimization or integrated cost, schedules, or effort; integrated or dependent deliverables across the program, delivery of incremental benefits, and optimization of staffing in the context of the overall program's needs. ... A program may link projects in various other ways, including the following:

- *Interdependencies of tasks among the projects, such as meeting a new regulatory requirement for optimization or delivery of an enabling service*
- *Resource constraints that may affect projects within the program*
- *Risk mitigation activities that impact the direction or delivery of multiple projects*
- *Change in organizational direction that affects the work of projects and their relationships to other projects and work*
- *Escalation point for issues, scope changes, quality, communications management, risks, or program interfaces/dependencies.”*

Ultimately, Program Management is given a mission (e.g., construction of multiple, diverse courthouse facilities), given the parameters within which the mission is to be achieved (e.g., budget and schedule) and provided with a set of tools to execute the mission (e.g., regulatory support and direct staff). Once provided with those three elements, it becomes Program Management's responsibility to coordinate and control the individual elements of the mission in order to achieve the goals and objectives of the mission. The relationship between Program Management and Project Management involves:²⁹⁸

“...over[seeing] and provid[ing] direction and guidance to the project managers ... coordinat[ing] efforts between projects but do not manage them. An essential program management responsibility is the identification, rationalization, monitoring, and control of the interdependencies between projects; dealing with the escalated

²⁹⁸ PMI, Global Standard for Program Management, Chapter 1, Section 1.5, page 7 2006

issues among projects that comprise the program; and tracking the contributions of each project and the non-project work to the consolidated program benefit.

The integrative nature of program management involves coordinating the processes for each of the projects...”

Program Management’s primary focus is always on the achievement of program goals and objectives. Program Management’s secondary focus is the projects which comprise the program, and even then that project focus is on whether or not the projects (individual and as a whole) are being executed in a manner which will enable the program goals and objectives to be successfully achieved.

7.7.1.2 PROJECT MANAGEMENT

A project is defined as:²⁹⁹

“...a temporary endeavor undertaken to create a unique product, services or result. The temporary nature of projects indicates definite beginning and end. The end is reached when the project’s objectives have been achieved or when the project is terminated because its objectives will not or cannot be met, or when the need for the project no longer exists.”

PMI acknowledges that individual projects within a program can include repetitive elements:³⁰⁰

“Although repetitive elements may be present in some project deliverables, this repetition does not change the fundamental uniqueness of the project work. For example, office buildings are constructed with the same or similar materials or by the same team, but each location is unique – with different design, different circumstances, different contractors, and so on.”

In summary, in a capital construction setting, a project is a separate and unique facility which is executed to the conditions within which the facility will function. Even under a

²⁹⁹ PMI, PMBOK®, Fourth Edition, Chapter 1, Section 1.2, page 5, 2008

³⁰⁰ PMI, PMBOK®, Fourth Edition, Chapter 1, Section 1.2, page 5, 2008

program environment no two projects are exactly the same as no two projects will be executed within the exact same set of circumstances.

Project Management is defined as:³⁰¹

The application of knowledge, skills, tools and techniques to project activities to meet the project requirements.

...

Managing a project typically includes

- *Identifying requirements,*
- *Addressing the various needs, concerns, and expectations of the stakeholders as the project is planned and carried out,*
- *Balancing the competing project constraints including, but not limited to:*
 - *Scope,*
 - *Quality,*
 - *Schedule,*
 - *Budget,*
 - *Resources, and*
 - *Risk.*

The specific project will influence the constraints to which the project manager needs to focus.”

Project Management's total focus is always on the achievement of the individual project goals and objectives. It is the Project Manager's responsibility to execute the project in a manner which will enable the project goals and objectives to be achieved.

³⁰¹ PMI, PMBOK®, Fourth Edition, Chapter 1, Section 1.3, page 6, 2008

7.7.1.3 THE PROGRAM AND PROJECT MANAGEMENT RELATIONSHIP

A Program Manager is similar to a naval task force commander responsible to monitor, coordinate and control the actions of a fleet of unique and independent ships. Each of those ships has a captain empowered to act independently to fulfill that ship's particular mission within the taskforce; however, the task force commander must ensure that each ship in the taskforce acts in a controlled and coordinated environment which has as its primary mission to achieve the goal set for the taskforce as a whole.

A Project Manager is similar to the Captain of an individual ship operating within a naval taskforce. The ship will have a specific role within the task forces' mission and is expected to independently control the execution of that specific mission within the parameters established by the task force commander.

The interaction and interdependence of Program and Project Management is founded on a separate, but mutually supportive set of goals and objectives, the successful achievement of which is dependent upon each of those two management level working under a framework which enables each to successfully execute their respective mission. Program Management, in response to the parameters established for the program as a whole, sets the policies, procedures and processes to guide the planning and execution of the individual projects, then monitors and evaluates the results to ensure that the projects will achieve their individual goals and objectives. The successful achievement of project goals and objectives is the only way by which the program as a whole can meet the goals and objectives set for the program.

Project Management plans and executes the projects within the framework established through the policies, procedures and processes established and implemented by Program Management. Goals and objectives set for the individual project are typically identical (scope, cost, schedule and quality), but quantitatively unique (e.g., meeting a specific allocated budget). Program Management plans and executes the program

under the same topical goals and objectives; however those goals and objectives are quantitatively the sum of each project's goals and objectives.

Ultimately neither the program nor its projects can successfully attain their respective goals and objectives if the other fails to execute their respective scopes of work. However, while at times their actions may overlap (or must overlap) each has a role to fulfill and each must focus on that role.

7.7.2 RECOMMENDED PROGRAM MANAGEMENT STRUCTURE

There are two *Program Management* elements, as depicted in **Exhibit J** and summarized immediately below; the OCCM Managing Director and the Program Division. Those program functions maintain their primary focus on the Program level scope of work required to execute the Program, including working with the project level functional positions as necessary to fulfill their roles and responsibilities (as summarized in this **Part III** above). On **Exhibit J**, the formal reporting and control is denoted by the solid black lines; functional assignments are shown in black dashed lines with arrows denoting the assignment path; the liaison lines are denoted in a dashed blue lines; and the communications/coordination lines are denoted in dotted pink lines. Note that support staff is not shown on **Exhibit J**, but Pegasus-Global is cognizant of the fact that certain support positions will be required within the Divisions.

7.7.2.1 OCCM MANAGING DIRECTOR

Turning to **Exhibit J**, the position of **OCCM Managing Director** is the ultimate Program Management position within the horizontal structure. That role includes but is not limited to the following tasks:

- Direct reporting to AOC, as required, on all aspects of the Program
- Oversight of the Program as established within the legislation and as directed by the Judicial Council and AOC

- Direction of the Program, Project Execution, and Project Support Managers
- Formal adoption of Program Goals and Objectives
- Formal adoption the policies, procedures and processes
- Gathering, assessing and reporting on the status of the Program and Projects as directed by AOC and/or the Judicial Council.

The OCCM Managing Director uses the input from all three divisions as the ultimate management and control point for the entire program, and is responsible to AOC Management for the execution of the Program under the enabling legislation, including the regulatory requirements, and the decisions and direction of the Judicial Council.

7.7.2.2 PROGRAM DIVISION DIRECTOR

As depicted on **Exhibit J**, there is one ***Program Division Manager*** which is responsible to manage and control the execution of the program responsibilities, including:

- Direct reporting to the OCCM Managing Director
- Direction of the Program specific scope of work
- Liaison with counterpart management positions at other state regulatory agencies (DOA, PWB, etc.)
- Management, direction and supervision of Program Division positions
- Development of Program goals and objectives
- Development of program policies, procedures and process for submittal and adoption by the OCCM Managing Director and implementation by the Project Divisions

- Gathering, assessing and reporting on the status of the Program scopes of work as directed by the OCCM Managing Director
- Member of the Division Director Management Team, coordination with the other Division Directors

In addition, the Program Division collects, coalesces, analyzes, and reports project status and information to both the OCCM Managing Director and to the other AOC and associated state agencies as requested/required. The Program Management Division receives and distributes responses and/or directives (where appropriate) from the AOC and other associated state agencies as received to the appropriate OCCM Division (or the OCCM Managing Director).

The Program Division Director manages and controls the following Program functional positions:

- Program Business and Financing
- Program Planning and Policy
- Program Status Analysis and Reporting (based on the individual project reports)

Each of those positions would serve as the intersection between the individual projects and the program entities. The program functional positions would be responsible for ensuring that all legal, regulatory, policies, procedures and processes which are critical to those program functions are implemented and followed during the execution of the individual projects. The program functional positions would communicate directly with the Project Execution Management positions as necessary to fulfill their individual roles and responsibilities as needed.

7.7.3 PROJECT MANAGEMENT STRUCTURE

There are two Project Management elements, as depicted on **Exhibit J** and summarized immediately below. Those Project functions maintain their primary focus on

the individual project level scope of work required to execute the Project functions as necessary to fulfill their roles and responsibilities (as summarized in the Sections of this **Part III** above).

7.7.3.1 PROJECT SUPPORT DIVISION DIRECTOR

As depicted on **Exhibit J**, there is one ***Project Support Division Director*** who is directly responsible for those support functions which are *common* to individual capital construction projects. The Project Support Division Director's responsibilities include:

- Direct reporting to the OCCM Managing Director on all project support related topics
- Direction of the Project Support scope of work
- Management, direction and supervision of Project Support Division positions
- Development of Project Support policies, procedures and process for submittal and adoption by the OCCM Managing Director
- Gathering, assessing and reporting on the status of the Project Support scopes of work as directed by the OCCM Managing Director
- Assignment of staff resources in support of the Project Management team leading the individual projects
- Member of the Division Director Management Team, coordination with the other Division Directors

The Project Support Division Director manages and controls the following Project Support functional positions:

- Project Risk Management
- Project Scheduling

- Project Budget and Cost
- Project Site Selection and Acquisition
- Project Environmental Compliance
- Project Code/Regulatory Compliance
- Project Inspections
- Project Commissioning and Turn Over

Each of those positions would provide a specific specialized, but common, service to the Project Execution Team for each of the capital construction projects. The Project Support Division positions would be responsible for ensuring that all legal, regulatory, policies, procedures and processes which are critical of the functions are followed. As a support service, each would work directly with the assigned Project Manager to supply the service identified, and coordinate and consult with the assigned Project Manager as needed.

The assumption upon which the Project Support Division was structured is that the architects and contractors will be required to produce the core management documents (cost reports and forecasts, schedules, monthly status reports, etc.). The Project Support Division personnel would review and verify those reports, complete the summary monthly reports for submittal to the Project Manager based on the internal Project Execution Division's procedures and processes. Under this assumption, a single Project Support staff position could be assigned multiple projects.

7.7.3.2 PROJECT EXECUTION DIVISION DIRECTOR

As depicted on **Exhibit J**, there is one ***Project Execution Division Director*** who is directly responsible for the successful execution of the capital construction projects, including:

- Direct reporting to the OCCM Managing Director concerning all project functions
- Direction of the Project Manager scope of work
- Development of Project Execution policies, procedures and process for submittal and adoption by the OCCM Managing Director
- Oversight of the Project Manager assignments as determined by the Senior Project Managers
- Directing the development of individual project goals and objectives
- Gathering, assessing and reporting on the status of the Project Execution scopes of work as directed by the OCCM Managing Director
- Member of the Division Director Management Team, coordination with the other Division Directors

The Project Execution Division Director directly manages and controls the following Project Management functional positions:

- Senior Project Manager – Large Projects
- Senior Project Manager – Medium Projects
- Senior Project Manager – Small Projects

7.7.3.2.1 PROJECT MANAGEMENT

Currently Project Management is loosely grouped by region, then by projects within each region. However, there are benefits to changing that primary grouping from a regionally based structure to a project size and complexity based structure:

- Project Managers do not have the same levels of experience or expertise relative to managing projects. The larger (budget and size) and more complex the project

and the project environment the more experience and expertise required of the Project Manager.

- Small projects provide a good training ground for the less experienced of the Project Managers, with those showing the most promise and growth moving up through the stages from small projects to medium projects to large projects. At each stage in the project assignment less direct involvement is required by the Senior Project Manager, with a corresponding increase in authority and autonomy
- The three Senior Project Managers (identified earlier above as large, medium and small) can devote some time to mentoring and training the less experienced project managers on the fundamentals of project management on projects which provide less stressful environments for that mentoring and learning
- The three tiered structure provides two career advantages:
 - For Project Managers who do not wish to take on the stress and challenges of larger projects, but want to specialize on small projects have a definitive niche to fill which is a benefit to OCCM; and
 - A tiered system provides those who wish to take on the challenges of larger capital construction projects with a definitive path specifically designed to train and mentor the individual.
- Given the fact that almost every Project Manager currently with OCCM is executing multiple projects of a variety of sizes and levels of complexity, the Project Manager is often faced with the decision of where to focus the bulk of their attention. The result is that currently some of what should be managed by the OCCM Project Manager on the smaller projects may be delegated to contracted construction managers while the OCCM Project Manager focuses on the larger, more complex Project. Focused on a specific category would enable OCCM to more definitely focus its project execution managers on a single category almost in the shape of a pyramid:

- There are relatively fewer large, complex projects, meaning that fewer Project Managers are required to manage and control those projects (e.g., if there are only three such projects underway at any given time, all at different stages it may be possible for only one or two Project Managers to manage and control all of those projects).
- There are many smaller projects, with less size and complexity which would enable OCCM to assign a less experienced Project Manager to a single project at a time, where those more experienced (and less interested in moving through the categories) are assigned multiple projects.
- Focusing the three categories of Project Senior Managers to a specific size and complexity of project will enable each Project Senior Manager to establish reasonable expectations, processes, procedures, etc., which are more appropriate for their project category (e.g., a large project and a small project do not require the same level of scheduling, inspections, etc.). This would have the advantage of having different staffing and execution templates which are specifically intended to address specific project sizes and types (from the relatively simple to the very complex).
- The direct liaison between the Project Manager assigned to a specific project and Project Support Division functional positions would streamline the process, improving the effectiveness and efficiency of project management and control.
- The Senior Project Managers would be training their own replacement in the event that they decided to leave their positions or were moved to another function within the Court Capital Construction Program.
- Depending on the project execution load at any given time, each of the Senior Project Managers could be assigned to an individual project (or a phase of an individual project) within their respective classification (or could provide additional

direct support to Project Managers charged with execution of a specific capital construction project).

Every Project Manager would report to one of the three Senior Project Managers, with those three Senior Project Managers reporting directly to the Project Execution Division Manager and directly interacting with the Program Division functional managers. Ultimately the Senior Project Managers would be responsible for the following, (among other things):

- Attainment of Project Scope goals and objectives
- Attainment of Project Cost goals and objectives
- Attainment of Project Schedule goals and objectives
- Attainment of Project Quality goals and objectives
- Direct liaison with Program functional managers

The individual Project Managers would be responsible for the planning and execution of their individually assigned projects, following the policies, procedures, and processes adopted, under the direction of their respective Senior Project Managers. Those Project Managers would also interact directly with the project related activities those Project Support Division staff assigned to their respective projects over the duration of those assignments.

The primary disadvantage may be the amount of travel required by the Project Managers; however, from what Pegasus-Global experienced during the management audit, there is already a significant amount of travel required of most currently serving Project Managers.

7.7.3.2.2 PROJECT EXECUTION TEAM

The organizational structure diagramed in **Exhibit J** in part reflects the manner in which OCCM to some extent already informally functions at the project level. However, Pegasus-Global found during the audit that the composition of the project execution teams was not uniform nor were the interactions between what Pegasus-Global defined as the “Program Management Division”, the “Project Support Division” and the “Project Execution Division” transparent or formalized within any policy, procedure or process generated by the senior management of the OCCM. What Pegasus-Global has attempted to do is to outline a more formal, uniform and transparent relationship between and among those Divisions, with the primary project execution team consisting of staff the Project Execution Division and from the Project Support Division.

Under the Pegasus-Global recommendation the Project Execution Team would be formed to be aligned with the change to the three tiered project classification (large, medium and small), with the team members and their commitments to the various projects reflecting the classification of the project being executed. As with the Project Managers, the experience of the Project Support Division staff would have a bearing on the project category to which they would be assigned, again with those having less experience working on smaller, simpler projects while those with more experience assigned to the medium or large projects. Such a basis of assignment by the Project Support Division would have the same advantages as those identified for the Project Execution Division.

A prototypical project execution team would have the following members:

- Project Support Division:
 - Project Risk Management Specialist (insurance and project risk)
 - Project Planning Specialist
 - Project Budget and Cost Specialist

- Project Site Selection Specialist
- Project Environmental Compliance Specialist
- Project Scheduling Specialist
- Project Code Compliance Specialist
- Project Inspector
- Project Commissioning Specialist
- Project Execution Division:³⁰²
 - Project Manager
 - Project Clerk of the Works

None of the Project Support Division team members would be full time on a small or medium size project; however, on some of the larger, more complex projects it may be advisable to have at least some of the Project Support Division staff fully allocated to the project. Those that would be part time on given project teams could handle multiple projects, with the actual number of projects to which they are assigned being a joint decision between the Project Execution Division Director and the Project Support Division Director, with input from the Senior Project Managers and the Project Support Specialists. The Support Division staff that would be part time on every project includes:

- Project Site Selection Specialist
- Project Inspector
- Project Commissioning Specialist

³⁰² Note: under this structure the duties, responsibilities and deliverables of the architect, consultant and contractor should be clearly and completely defined within the contract documents and rigidly enforced by Project Management.

The Support Division staff that would be part time on all but the largest, most complex projects would include:

- Project Risk Management Specialist
- Project Budget and Cost Specialist
- Project Schedule Specialist
- Environmental Specialist
- Code Compliance Specialist

Insofar as the Project Execution Division staff with the exception of large, complex projects the Project Manager and the Project Clerk of the Works would be part time, expected to oversee two or more projects simultaneously. For large, complex projects Pegasus-Global recommends that the Project Execution Division staff assigned be full time on those projects.

The link between the projects and the Program Division staff would be centralized at the Senior Project Manager positions (with some support staff) wherein the project specific information would be prepared for submittal to the Program Division staff as required. Once all project data is received, the Program Management Division staff would prepare that information in the required form for submittal to those State regulatory agencies identified as the recipient for that information.

7.7.4 FACILITIES MANAGEMENT

In Pegasus-Global's organizational structure it removed the Facilities Management function from the Capital Construction Program structure. This was primarily done for the following reasons:

1. The primary missions of the two functions (Capital Construction and Facilities Management) are different. One is to execute a specified, definitive set of capital

construction of facilities, the other is to operate and maintain those facilities, and any other facilities which now fall under the Judiciary for the lifetime of the facility;

2. As defined a project is: *a temporary endeavor undertaken to create a unique product, services or result. The temporary nature of projects indicates definite beginning and end. The end is reached when the project's objectives have been achieved or when the project is terminated because its objectives will not or cannot be met, or when the need for the project no longer exists.*³⁰³ Technically Facility Management's objective (to manage and maintain facilities) has no definitive end and is continuous throughout the life of a facility.
3. The Court Capital Construction Program is currently responsible for approximately 50 discrete projects while Facilities Management has responsibility for every Judicial Council facility;
4. A program is defined as "... a group of related projects managed in a coordinated way to obtain benefits and control not available for managing them individually."³⁰⁴ Facility Management's functions are internally related, but only peripherally related to capital construction (primarily by providing input relative to system and life cycle costs).
5. Span of control. The current OCCM organizational chart identifies over 100 positions involved in facility administration, management, maintenance, customer support, etc., all under the management and control of a Division Manager that also is responsible for site acquisition, environmental analysis and compliance, and "portfolio management", in addition to Facilities Management. Even given the high number of subordinate management positions, it would be very difficult to exercise control over that number of functions and staffing.

Pegasus-Global observes that Facilities Management has a role in working with the Project Support Division to advise project's on certain design, function and life cycle

³⁰³ PMI, PMBOK®, Fourth Edition, Chapter 1, Section 1.2, page 5, 2008

³⁰⁴ PMI, Global Standard for Program Management, Chapter 1, Section 1.2, page 4, 2006

costs which will impact the ability of Facilities Management to achieve its goals and objectives once a project has been turned over for operations. That role can be executed by one of two methods:

- Assignment of a permanent Facility Management Planning Specialist to the Project Support Division to consult on all projects from the facility functional and management perspective; or,
- Maintain Facilities Management Planning Specialist role within the Facilities Management, were the same role would be fulfilled, but under the direction of the Facilities Manager.

Under either method that role would be consultative, not project execution in nature. Although Pegasus-Global does not have a specific recommendation as to where within AOC Facilities Management should be located, Pegasus-Global does believe that keeping the Court Capital Construction Program focused on its primary mission, which is to execute construction individual projects, and Facilities Management focused on its own primary mission, which is to manage and maintain all court facilities over the entire lifetime of the facilities would improve the effectiveness and efficiency of the interaction at a minimal staff investment.

From its interviews Pegasus-Global was made aware that input from Facilities Management was inconsistent during those phases of project execution which would benefit a project the most (design reviews, constructability review). By formalizing a position dedicated to providing input from a long term facility management perspective would standardize the input process and enable Facilities Management to have a meaningful impact on the design of the facility, thereby making the accomplishment of its long term primary mission more effective and efficient.

Separation of those missions will further enable the Program and its projects to improve effectiveness and efficiency of the Court Capital Construction Program, while giving Facilities Management the recognition which its mission requires in terms of setting its

own priorities, goals and objectives under the most effective and efficient structure possible.³⁰⁵

7.8 PART III - SUMMARY

Pegasus-Global is aware that OCCM is in some respects may already operating more horizontally than is depicted in its February 2012 organizational chart, and does not mean to suggest that some of the relationships discussed in this **Part III** are not already in place. However, those relationships are not formalized nor allocated along a structure which aligns functions starting with Program Management, which has a primary function to monitor, manage and control the entire Program; the support functions which are necessary on every project, but which can be tailored to a specific category of project(s) in order to maximize effectiveness and efficiency; and the project management functions, which in the CM@Risk and D/B/B contracts which predominate the Court Capital Construction Program can be tightly focused to monitoring and controlling the execution of those architects, consultants and contractors, with the assistance of the necessary support services.

As stated several times earlier in this **Part III**, the recommendations cited above represent a single possible structural outline based solely on Pegasus-Global's experience in megaproject management and control, and the knowledge gained during the management audit performed and reported in **Parts I** and **II**. This does not mean that Pegasus-Global expects all of the recommendations in this **Part III** to be accepted or acted upon by the Judicial Council, AOC or OCCM Program Management. Based on the requirement for this recommendation within the Request for Proposal, Pegasus-Global's only expectation is that the Court Capital Construction Program Management entities intend to consider the recommendations in this **Part III**, and will act on any of

³⁰⁵ If Facilities Management is retained within the OCCM structure, Pegasus-Global recommends that it be a separate, independent unit directly and only responsible to the OCCM Managing Director rather than attempting to discharge its responsibilities among other functional units all focused on capital project execution and operating under a single Division Director.

those recommendations which they believe may improve the execution of the Program and the individual projects.

As Pegasus-Global understands the current situation relative to the Program this appears to be a propitious time for Program Management to address such structural issues and, if in its opinion structural adjustments are warranted, make changes to the current organizational structure. Pegasus-Global's recommendation does not require nor seek any formal response to this recommendation, nor would any such response be considered a part of the audit contained in **Parts I** and **II**, and thus be attached to this Report.

8.0 PART IV – PRIORITIZATION OF MANAGEMENT AUDIT RECOMMENDATIONS

8.1 INTRODUCTION

Under **Deliverable 1, Subpart c** Pegasus-Global[®] is to provide a summary of the recommendations set forth in **Deliverables 1.a.1, 1.a.2** and **1.b** to the AOC which:³⁰⁶

“...identifies those corrective actions, improvement processes and recommendations that will provide the greatest value to the Program and are necessary to deliver the Program at industry standards (or industry best practices).”

In this **Part IV**, Pegasus-Global has identified and prioritized those recommendations made under **Deliverables 1.a.1, 1.a.2** and **1.b** which in Pegasus-Global’s opinion would improve the management and control of the Program at a cost which gives the Program the greatest value. **Deliverables 1.a.1** and **1.a.2** constituted the results of Pegasus-Global’s formal audit of the Court Capital Construction Program. That audit was conducted as a comparative analysis within which the bases of comparison were current industry standard practices utilized for megaprojects, with the recommendations made focused on those actions which would address any situations in which the current Program did not meet those industry standards.

Under **Deliverable 1.a.1** Pegasus-Global examined OCCM’s formal policies, procedures and processes under which the Court Capital Construction Program was to

³⁰⁶ Judicial Counsel of California, Administrative Office of the Courts, Work Order No. 1024456, Amendment No. 1, Deliverable 1, Subpart C, page 4, March 15, 2012

be planned and executed.³⁰⁷ As a result of that examination Pegasus-Global provided AOC with a total of 79 recommendations intended to strengthen those policies, procedures and processes currently in place within the OCCM.

Under **Deliverable 1.a.2** Pegasus-Global examined how the individual projects comprising the Court Capital Construction Program are planned, managed and controlled during the execution of those projects.³⁰⁸ Pegasus-Global also examined the relationship between the formal policies, procedures and processes examined in **Deliverable 1.a.1** and the actual practices by which the individual projects were executed and controlled. As a result of that examination Pegasus-Global provided AOC with a total of 60 recommendations intended to improve the planning, management and control of individual projects under the Program.

Deliverable 1.b was not part of the formal audit; rather **Deliverable 1.b** provided a consultative service under which Pegasus-Global provided recommendations concerning the organizational structure of the OCCM. Pegasus-Global has included those recommendations as part of this **Deliverable 1.c**; however, as those recommendations were made as part of a consultative service, their inclusion in this **Deliverable 1.c** should be considered as a continuation of that consultative service, and not as part of the formal audit.

In **Section 8.2** below Pegasus-Global has identified those recommendations which would have the greatest overall impact on strengthening the management and control of the Program for the cost (effort) of implementation.

As previously reported in **Parts I** and **II** of this Report, AOC responded to Pegasus-Global's draft findings and recommendations, indicating which of those recommendations have, or will be addressed and which of those recommendations are, or will be examined in greater detail prior to any decision relative to whether or not those recommendations will be addressed further by OCCM. For the purposes of this **Part IV**,

³⁰⁷ Pegasus-Global Holdings, Inc.[®], California Judicial Council Management Audit, Report Part I, Deliverable 1.a.1, April 2, 2012

³⁰⁸ Pegasus-Global Holdings, Inc.[®], California Judicial Council Management Audit, Report Part II, Deliverable 1.a.2, May 4, 2012

Pegasus-Global did not base its prioritization of the recommendations made within the management audit in those two **Parts** on any of the comments received from OCCM.

Ultimately Pegasus-Global selected eleven priority recommendations that had been discussed in detail within **Deliverables 1.a.1, 1.a.2 and 1.b** as those that would have the greatest impact on the execution of the Program while providing the Program with the best return for the investment of time and money expended in developing and installing those recommendations. Those eleven priority recommendations are summarized in order of importance directly below:

Priority 1 – Adopt a more horizontal organizational structure of OCCM;

Priority 2 – Finalize policies, procedures and processes;

Priority 3 – Issue delegations of authority;

Priority 4 – Install a comprehensive document control system;

Priority 5 – Implement a cohesive and comprehensive construction management and control system;

Priority 6 – Adopt uniform design review and approval policies, procedures, processes, practices and contracts;

Priority 7 – Finalize, adopt and distribute a Program Management Manual;

Priority 8 – Finalize, adopt and distribute a Project Execution Manual;

Priority 9 – Implement a formal lessons learned program;

Priority 10 – Develop evaluations of the execution of project functional scopes of work undertaken by architects, consultants and contractors; and

Priority 11 – Develop evaluations of management, control and working relationships among all project stakeholders.

The scope of the effort which will be required by AOC and OCCM to complete the eleven priority recommendations prioritized above is significant; however those eleven

priority recommendations can be combined into sets of related recommendations as follows:

- Priorities 1, 2 and 3 – which together represent the basic foundations for any construction megaprogram made up of constituent independent projects.
- Priority 4 – establishes the primary and most effective and efficient communications platform and document repository at both the program and project levels.
- Priorities 5, 6, 7 and 8 – which are in essence the detailed operational core of the Program and its constituent projects and together provide the execution management and control processes and practices necessary to successfully achieve the program and project goals and objectives.
- Priorities 9, 10 and 11 – which address the need for a megaprogram that will be executed over a long time span, at a high cost, and involving multiple independent projects to engage in a repetitive cycle of evaluation and improvement in order to assure that the Program and projects are executed as efficiently and effectively as possible and are successfully achieving program and project goals and objectives.

While those combined recommendation issues are presented as discrete elements, in fact they would overlap sequentially as each of the priority recommendations is to varying extents, dependent upon those priority recommendations which follow in the sequential order (*e.g.*, certain policies, procedures or processes cannot be fully completed until the evaluation and improvement actions have been finalized, adopted and distributed).

8.2 PRIORITIZATION OF RECOMMENDATIONS PROVIDED UNDER THE PROGRAM MANAGEMENT AUDIT

Each of the 11 priority recommendations selected is presented in order of importance in **Part IV – Sections 8.2.1** through **Part IV – 8.2.11** below. For those priority recommendations with findings and recommendations identified in **Part I** and/or **Part II**, Pegasus-Global has prepared Summary Tables which identifies those specific findings and recommendations and the location in **Part I** and/or **Part II** that they were discussed in greater detail. Because of their length, those tables have been presented as appendices to this **Part IV**. Because the contents of **Part III** were not part of the formal audit, there are no formal findings or recommendations which are addressed in an Appendix Table.

8.2.1 PRIORITY 1 – ADOPT A MORE HORIZONTAL ORGANIZATIONAL STRUCTURE

Part III, Deliverable 1.b contained Pegasus-Global's consultative response to AOC's inquiry into recommendations involving the re-organization of the OCCM to improve the management and control of the Program and projects in light of the environmental conditions (*i.e.*, political and economic) within which the Program will function over the next several years. Of the recommendations contained in **Part III** Pegasus-Global believes that the adoption of a more horizontal organizational structure will provide the AOC and OCCM with the most effect structure to overcome the expected economic and political environment expected to persist over the next several years within the State of California.

Although there is no detailed discussion within any of the first two Parts of this Report, in **Section 7.7** Pegasus-Global does summarize the benefits of adopting a more horizontal organizational structure going forward with the Program.

8.2.2 PRIORITY 2 – FINALIZE POLICIES, PROCEDURES AND PROCESSES

In **Parts I** and **II**, Pegasus-Global recommended that OCCM develop, update and finalize its formal management and control policies, procedures and processes, which are the foundation on which every successful megaprogram is built. As Pegasus-Global noted in a number of places throughout the Report, the lack of final formal policies, procedures and processes directly impacts the uniformity, transparency and accountability of both the Program and its constituent projects. Without complete and formal policies, procedures and processes providing the structure within which the individual projects are to be executed, the management and control practices at the project level are predestined to be inconsistent. This again affects the uniformity, transparency and accountability of the Program and its projects.

It is Pegasus-Global's opinion that the findings and recommendations discussed in detail in **Part I** addressing the policies, procedures and processes are one of the most critical elements to be addressed in order for the Program to meet current industry standards for megaprograms of the size and complexity of the Court Capital Construction Program. "**Appendix A, Policy, Procedure and Process Findings and Recommendations**" lists the specific findings and recommendations identified in **Part I** of the audit which address various elements of policies, procedures and/or processes.

8.2.3 PRIORITY 3 – ISSUE DELEGATIONS OF AUTHORITY

Pegasus-Global found that the formal delegations of specific authority throughout the OCCM organization are incomplete, essentially leading staff to assume authority to make decisions and take actions which they are not formally empowered to manage or control. Industry standards require that all delegated powers and authorities be formally assigned and include statements which specifically define the limitations of that delegated authority, and limits of the delegate's autonomy to act within those limitations. Formal delegations of authority and autonomy are critical to ensure that decisions made, and actions taken are done so only by those empowered to make those

decisions and take such actions; without such formal delegations the uniformity, transparency and more particularly the accountability for those decisions and actions is in question.

Delegations of authority and autonomy are to a significant degree founded within the policies, procedures and processes established by Program Management and by the organizational structure established at the program and project levels. Because of that, delegations of authority and autonomy are typically made as an adjunct to the establishment of formal policies, procedures and processes and should, therefore have a minimal cost impact on the Program. “**Appendix B, Delegations of Authority Findings and Recommendations**” lists the specific findings and recommendations identified in **Parts I** and **II** of the audit which address some element of the delegation of authority in the policies, procedures and/or processes.

8.2.4 PRIORITY 4 – INSTALL A COMPREHENSIVE DOCUMENT CONTROL SYSTEM

As discussed in **Parts I** and **II**, without a formal, uniform document control system, Pegasus-Global found that the Program lacked an effective and efficient means of communication at either the program or project levels, or between the program and project levels of the Court Capital Construction Program. The lack of a formal, uniform document control system is also contributing to the overall finding that the management, control and execution of the Program is not uniform, transparent or with single points of accountability. Simply, the inconsistency of the data and documents produced and/or maintained at both the program and project levels makes it difficult to establish if program policies, procedures and processes are enforced or practiced at the program and project levels. Likewise the lack of comprehensive and complete documentation leaves the question as to whether or not the Program or its projects are, in fact, meeting the goals and objectives established for the Program or the individual projects.

As with the recommendation concerning the finalization of policies, procedures and processes summarized in **Section 8.2.2** above, Pegasus-Global finds this

recommendation issue is a critical element to be addressed in order for the Program to meet current industry standards for megaprograms of the size and complexity of the Court Capital Construction Program. “**Appendix C, Document Control System Findings and Recommendations**” lists the specific findings and recommendations identified in **Parts I** and **II** of the audit which address some element of document control.

8.2.5 PRIORITY 5 – IMPLEMENT A COHESIVE AND COMPREHENSIVE CONSTRUCTION MANAGEMENT AND CONTROL SYSTEM

As noted in **Parts I** and **II**, Pegasus-Global found that there is currently no comprehensive, complete or final policy, procedure or process in place which fully defines construction management under the Program, or which provides a uniform structure under which construction management and control will be exercised at the project level. Within the Program, the cost of construction represents the single biggest cost to the individual project and, thus represents the single largest cost of the Program as a whole. However, Pegasus-Global found that the current program construction management policies, procedures and processes are incomplete, and in some instances in conflict with one another, which results in inconsistencies in construction management practices at the project level. The alignment of all elements of construction management and control, from definitions to contract documents, is vital in order to maintain total control over the construction scope of work, cost, schedule, and quality. Project management and control practices at the project level should conform to all program level standards, policies, procedures and processes in order to ensure that program and project construction goals and objectives are achieved.

Construction management industry standards are consistent, well established and easily obtainable, thereby enabling OCCM to minimize the direct cost by adopting and adapting those industry standards. “**Appendix D, Construction Management Findings and Recommendations**” lists the specific findings and recommendations

identified in **Parts I** and **II** of the audit which address some element of construction management.

8.2.6 PRIORITY 6 – ADOPT UNIFORM DESIGN REVIEW AND APPROVAL POLICIES, PROCEDURES, PROCESSES, PRACTICES AND CONTRACTS

Pegasus-Global found in **Part II** that the lack of a formal policy, procedure or process addressing the review and approval of project designs resulted in the Project Manager making such determinations and taking those actions based on their individual judgment; which as indicated several times throughout the audit, is impacting the uniformity, transparency and points of accountability required of projects being executed under a megaproject of the size and complexity of the Court Capital Construction Program. In addition, the lack of architectural contract provisions to establish the process required of the architect for design review and approval means that the architect is not bound to a particular process or procedure for submittal of designs, review processes for designs or actions to be taken in order to gain approval of designs if rejected during the design reviews.

A standard process for the submittal, review and approval/rejection of design should be developed and implemented both in formally issued policies, procedures and processes and within the architectural contract document set. “**Appendix E, Project Design Review and Approval Findings and Recommendations**” lists the specific findings and recommendations identified in management **Part II** of the audit which address some element of design review and approval in policies, procedures and/or processes.

8.2.7 PRIORITY 7 – FINALIZE, ADOPT AND DISTRIBUTE A PROGRAM MANAGEMENT MANUAL³⁰⁹

The Program Management Manual (“PgMP”) was identified by OCCM as the primary source of policies, procedures and processes established for the Program and its projects. However, as found by Pegasus-Global in **Part I**:

“...the PgMP did not meet the SOC established for a Program Management Manual within the industry. Although the current version of the PgMP contains the primary organizational structure and functional description of the various positions and is a starting point for a full Program Management Manual, it does not contain the information necessary to manage or control the program or the independent projects being executed under the Program...”³¹⁰

Ultimately Pegasus-Global found that the PgMP developed and issued by OCCM is missing several crucial elements which should be addressed within a Program Management Manual intended to be a primary source of direction for all management and control policies, procedures and processes to be employed during the planning and execution of the Program and projects. It is within this document that a clear, comprehensive, and complete listing of all relevant policies, procedures and processes should be identified and specific delegations of authority and autonomy should be stated.

Pegasus-Global finds this recommendation issue is an important element to be addressed in order for the Program to meet current industry standards for megaprograms of the size and complexity of the Court Capital Construction Program. **“Appendix F, Program Management Manual Findings and Recommendations”** lists the specific findings and recommendations identified in **Part I** of the audit which address some element of policies, procedures and/or processes relating to the PgMP.

³⁰⁹ Pegasus-Global Holdings, Inc.[®], California Judicial Council Management Audit, Report Part I, Deliverable 1.a.1, Sections 5.2.8, July 2012

³¹⁰ Pegasus-Global Holdings, Inc.[®], California Judicial Council Management Audit, Report Part I, Deliverable 1.a.1, Sections 5.2.8, July 2012

8.2.8 PRIORITY 8 – FINALIZE, ADOPT AND DISTRIBUTE A PROJECT EXECUTION MANUAL

According to OCCM, the Project Definition Report was to serve as “...a guide for the administration of [a] project”.³¹¹ Under the industry standards of care the Project Definition Report most closely resembles a Project Execution Plan (“PEP”), which typically addresses the management and control processes and practices to be implemented during the actual planning and execution of construction projects. The PEP amalgamates all of the program level policies, procedures and processes to be followed in managing and controlling the individual projects, adding more detail relative to those how those policies, procedures and processes will be practiced at the project level. Megaprojects consisting of multiple constituent projects rely on the PEP to translate program policies, procedures, processes, goals and objectives into project level management and execution practices focused on meeting the program policies, procedures, processes, goals and objectives. The development, implementation and enforcement of the PEP insure that the practices at the project level are uniform, transparent and reflect a single point of accountability.

Pegasus-Global found that the current Project Definition Report is not sufficient to represent a formal PEP, and thus recommends that the document be expanded and modified to fill that important purpose within the Court Capital Construction Program. “**Appendix G, Project Execution Manual Findings and Recommendations**” lists the specific findings and recommendations identified in **Part I** of the audit which address some element of policies, procedures and/or processes in relation to the Project Definition Report.

³¹¹ Pegasus-Global Holdings, Inc.[®], California Judicial Council Management Audit, Report Part I, Deliverable 1.a.1, Sections 5.2.12, July 2012

8.2.9 PRIORITY 9 – IMPLEMENT A FORMAL LESSONS LEARNED PROGRAM

In **Part III, Deliverable 1.b** Pegasus-Global recommended that the Program formalize the lessons learned program to better capture, consolidate and communicate those lessons among all program and project staff both to identify barriers to execution of the full Program and/or project scope of work and to identify changes needed in the organization structure, and policies, procedures and process which may improve the effectiveness and efficiency of OCCM. All of the previous recommendations summarized above would benefit from having direct, coordinated access to the full range of lessons which OCCM, AOC and the Judicial Council have learned during the initial planning of the Program and the execution of the initial construction projects.

While the Program has in place a lessons learned data base, from interviews it is apparent that the program is not as formal as necessary to capture, consolidate and communicate those hard learned lessons at every phase of the Program. Although there is no detailed discussion within any of the first three Parts of this Report, in **Section 7.1** Pegasus-Global does summarize the benefits of expanding and formalizing a lessons learned program going forward with the Program.

8.2.10 PRIORITY 10 – DEVELOP EVALUATIONS OF THE EXECUTION OF PROJECT FUNCTIONAL SCOPES OF WORK UNDERTAKEN BY ARCHITECTS, CONSULTANTS AND CONTRACTORS

In **Part III, Deliverable 1.b** Pegasus-Global recommended that the Program establish a formal process by which each project architect, contractor and consultant is evaluated at the completion of their scopes of work. Without a formal evaluation process by which architect, consultant and contractor performance is judged and documented by Project Management, the Program has no documented basis to test or confirm the qualifications or performance of those organizations against their bid representations

and conditions of their individual contract agreements. Those evaluations should be templated to the conditions of the contract in general, while still enabling OCCM staff to provide additional perspectives and observations relative to the effectiveness and efficiency with which the respective scopes of work were completed.

Although there is no detailed discussion within any of the first three Parts of this Report, in **Section 7.1** Pegasus-Global does summarize the benefits of expanding and formalizing an evaluation of architects, contractors and consultants going forward with the Program.

8.2.11 PRIORITY 11 – DEVELOP EVALUATIONS OF MANAGEMENT, CONTROL AND WORKING RELATIONSHIPS OF ALL PROJECT STAKEHOLDERS

In **Part III, Deliverable 1.b** Pegasus-Global recommended that a formal evaluation of the management, control and working relationships among all project stakeholders be conducted at the end of each project. This evaluation is intended to establish those elements of the actual execution of a project which did not work well in forwarding or attaining project goals and objectives as efficiently or effectively as possible. These evaluations should be captured, consolidated and communicated within the lessons learned program and the document control system for use by subsequent program and project staff during the selection and engagement processes, and by Program and Project Management to adjust procedures and processes to improve the effectiveness and efficiency of stakeholder interaction.

Although there is no detailed discussion within any of the first three Parts of this Report, in **Section 7.1** Pegasus-Global does summarize the benefits of expanding and formalizing an evaluation of management, control and working relationships among all project stakeholders going forward with the Program.

8.3 PART IV SUMMARY

In developing **Part IV, Deliverable 1.c** Pegasus-Global had to take itself out of the role of the management auditor into the role of consultant to the Judicial Council, CFWG, AOC and OCCM. Although the prioritization of recommendations made during the audit were at the heart of this consultation, as an auditor there were two elements which are not considered or offered:

1. Findings are given equal weight by an auditor, with the organization having been audited left to determine which findings will be addressed and how those findings will be addressed; and,
2. Recommendations are also given equal weight by an auditor, with the organization having been audited left to determine which, if any, of those recommendations will be adopted or acted upon; and which of those recommendations will be adapted as necessary to meet the organizations particular needs.

Finally, the prioritization of audit recommendations from the first three volumes of this Report are not part of the audit carried out by Pegasus-Global and therefore should not be used to compare or judge the actual actions subsequently taken by OCCM, AOC, CFWG or the Judicial Council flowing directly from the audit.

APPENDIX A - POLICY, PROCEDURE AND PROCESS FINDINGS AND RECOMMENDATIONS

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-	V1-R-4.3-1	81
-	V1-R-4.3-2	81
-	V1-R-4.3-3	81
-	V1-R-4.3-4	82
-	V1-R-4.3-5	82
-	V1-R-4.3-6	82
-	V1-R-4.3-7	83
V1-F-4.8-4	-	97
-	V1-R-4.8-6	98
-	V1-R-5.3.1-4	167
Part II		
V2-F-4.2-1	-	282
V2-F-4.2-2	-	282
V2-F-4.2-3	-	282
-	V2-R-4.2-1	282
-	V2-R-4.2-2	282
-	V2-R-4.2-3	283
V2-F-4.4.1-2	-	290
V2-F-4.4.1-4	-	291
-	V2-R-4.6.3-1	309
-	V2-R-4.7-1	323
-	V1-R-4.7-2	323
-	V1-R-4.7-3	323
-	V2-R-5.4-1	342

Appendix C Document Control System Findings and Recommendations		
Finding Number	Recommendation Number	Page Number
Part II (continued)		
V2-F-5.5-2	-	343
-	V2-F-5.5-1	344
-	V2-R-5.6-1	345
-	V2-R-5.6-2	345
V2-F-5.7-3	-	347
V2-F-5.10-2	-	350
V2-F-5.14.1-1	-	354
V2-F-5.15-3	-	357
-	V2-R-5.15-1	358
V2-F-5.16-1	-	359
V2-F-5.16-2	-	359

APPENDIX D - CONSTRUCTION MANAGEMENT FINDINGS AND RECOMMENDATIONS

Appendix D Construction Management Findings and Recommendations		
Finding Number	Recommendation Number	Page Number
Part I		
V1-F-4.8-9	-	100
V1-F-4.10.1-2	-	111
V1-F-4.10.1-3	-	111
V1-F-4.10.1-4	-	111
V1-F-4.10.2-1	-	113
V1-F-4.12-9	-	125
V1-F-4.12-10	-	125
V1-F-4.12-11	-	125
V1-F-4.12-15	-	126
-	V1-R-4.12-1	128
V1-F-5.4.1-1	-	169
V1-F-5.4.1-2	-	169
V1-F-5.4.1-3	-	169
V1-F-5.4.1-4	-	169
V1-F-5.4.1-5	-	170
V1-F-5.4.1-6	-	170
V1-F-5.4.1-7	-	170
-	V1-R-5.4.1-1	171
-	V1-R-5.4.1-2	171
-	V1-R-5.4.1-3	171
-	V1-R-5.4.1-4	171
V1-F-5.4.2-1	-	173
V1-F-5.4.2-2	-	173
V1-F-5.4.2-3	-	173
V1-F-5.4.2-4	-	173
V1-F-5.4.2-5	-	173
V1-F-5.4.2-6	-	174
-	V1-R-5.4.2-1	176
-	V1-R-5.4.2-2	176
Part II		
V2-F-4.6.1-2	-	305
V2-F-4.6.2-2	-	308
-	V2-R-4.6.2-1	309

Appendix D Construction Management Findings and Recommendations		
Finding Number	Recommendation Number	Page Number
Part II (continued)		
-	V2-R-4.6.2-2	309
V2-F-4.6.4-1	-	315
V2-F-4.6.4-2	-	316
V2-F-4.6.4-3	-	316
V2-F-4.6.4-4	-	316
V2-F-4.6.4-5	-	317
-	V2-R-4.6.4-1	318
-	V2-R-4.6.4-2	319
-	V2-R-4.6.4-3	319
-	V2-R-4.6.4-4	319
-	V2-R-4.6.4-5	320
-	V2-R-4.7-3	323
-	V2-R-4.7-4	323
V2-F-5.4-1	-	342

APPENDIX E - PROJECT DESIGN REVIEW AND APPROVAL FINDINGS AND RECOMMENDATIONS

Appendix E Project Design Review and Approval Findings and Recommendations (Part II Only)		
Finding Number	Recommendation Number	Page Number
Part II		
V2-F-4.4.1-2	-	290
V2-F-4.4.1-3	-	291
V2-F-4.4.1-4	-	291
V2-F-4.4.1-5	-	291
-	V2-R-4.4.1-1	292
-	V2-R-4.4.1-2	292
-	V2-R-4.4.1-3	292
-	V2-R-4.4.1-4	292
-	V2-R-4.4.1-6	293
-	V2-R-4.4.1-7	293
V2-F-4.4.3-3	-	295
-	V2-R-4.4.3-1	295
-	V2-R-4.5-1	301
V2-F-4.6.1-2	-	305
-	V2-R-4.7-6	324

APPENDIX F - PROGRAM MANAGEMENT MANUAL FINDINGS AND RECOMMENDATIONS

Appendix F Program Management Manual Findings and Recommendations (Part I Only)		
Finding Number	Recommendation Number	Volume I Page
Part I		
V1-F-4.1-4	-	69
V1-F-4.8-1	-	96
V1-F-4.8-2	-	97
V1-F-4.8-3	-	97
V1-F-4.8-4	-	97
V1-F-4.8-5	-	97
V1-F-4.8-6	-	98
V1-F-4.8-7	-	98
V1-F-4.8-8	-	99
V1-F-4.8-9	-	100
V1-F-4.8-10	-	101
V1-F-4.8-11	-	101
V1-F-4.8-12	-	102
V1-F-4.8-13	-	102
V1-F-4.8-14	-	103
V1-F-4.8-15	-	103
V1-F-4.8-16	-	103
-	V1-R-4.8-1	104
-	V1-R-4.8-2	104
-	V1-R-4.8-3	104
-	V1-R-4.8-4	104
-	V1-R-4.8-5	105
-	V1-R-4.8-6	105
-	V1-R-4.8-7	105
-	V1-R-5.4.1-2	171
-	V1-R-5.4.9-1	199

APPENDIX G - PROJECT EXECUTION MANUAL FINDINGS AND RECOMMENDATIONS

Appendix G Project Execution Manual Findings and Recommendations (Part I Only)		
Finding Number	Recommendation Number	Page Number
Part I		
V1-F-4.12-1	-	121
V1-F-4.12-2	-	122
V1-F-4.12-3	-	122
V1-F-4.12-4	-	123
V1-F-4.12-5	-	123
V1-F-4.12-6	-	123
V1-F-4.12-7	-	123
V1-F-4.12-8	-	124
V1-F-4.12-9	-	125
V1-F-4.12-10	-	125
V1-F-4.12-11	-	125
V1-F-4.12-12	-	125
V1-F-4.12-13	-	126
V1-F-4.12-14	-	126
V1-F-4.12-15	-	126
V1-F-4.12-16	-	127
V1-F-4.12-17	-	127
V1-F-4.12-18	-	127
V1-F-4.12-19	-	128
-	V1-R-4.12-1	128
-	V1-R-4.12-2	129
-	V1-R-4.12-3	129
-	V1-R-4.12-4	129
-	V1-R-4.12-5	129
V1-F-5.5.5-2	-	224
-	V1-R-5.5.5-1	224



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EXHIBIT A

PART I & II

SUMMARY TABLE OF FINDINGS AND RECOMMENDATIONS

Exhibit A

The numbering convention seen here in the Reference No. column, and also in Part I of the report, is as follows:
 - Findings = V1 (Part I) -F (Finding) -4.1 (Draft Report Section 4.1) -1 (Finding #1)
 - Recommendations = V1 (Part 1) -R (Recommendation) -4.1 (Draft Report Section 4.1) -1 (Recommendation #1)
 Note: for the Final Report the structure has changed from the earlier Draft, where now the Report Section for Part I is 2.0 and 3.0 (instead of 4.0 and 5.0 as it was in the draft)

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
STRATEGIC PLAN		5.2.1		
		V1-F-4.1-1	69	Steps outlined under Goal 4 are consistent with the industry expectations
		V1-F-4.1-2	69	Policy and procedure development program has not been consistent across the Program and has not been finalized for many policies
		V1-F-4.1-3	69	FM policies make reference to goal/objectives of the Strategic Plan, most construction policies do not
		V1-F-4.1-4	69	Expectation is the PgMP would tie each policy back to a Strategic Plan goal
		Summary Conclusion	69	Strategic Plan is a sound foundation to build the other program policies and link the entire body of policies to a single comment set of goals and objectives
OCCM STAFF		5.2.2		
		V1-F-4.2-1	71	Program staff dedicated to the execution of the program and its individual projects
		V1-F-4.2-2	71	Program staff generally well-qualified to execute scope of their assignments
		V1-F-4.2-3	71	Program staff generally takes entrepreneurial perspective for their scopes of work
		V1-F-4.2-4	72	Potential problems of lack of uniformity and transparency will grow over time as the staff changes
		V1-F-4.2-5	72	Organizational charts lack a HR management plan that supports the organization
		V1-F-4.2-6	72	Given the budget constraints, a formal HR plan compared to the current staffing available will identify staffing priorities and positions that can remain unstaffed presently
		V1-R-4.2-1	73	Prepare a formal HR plan
		V1-R-4.2-2	73	Following HR plan, realign staff to ensure effective and efficient use of resources
		V1-R-4.2-3	73	Using HR plan, identify vacant positions and the degree they are impacting the Program's goals and responsibilities
DOCUMENT CONTROL SYSTEM		5.2.3		
		V1-F-4.3-1	77	No formal document control procedure, policy or process in place
		V1-F-4.3-2	77	Lack of personnel time to file project documents cited as concern
		V1-F-4.3-3	77	OCCM identified a standard file folder system for project document retention, but not formal policy in place for managing/controlling the files
		V1-F-4.3-4	77	Responses to interviews indicated consultants hired to fulfill management roles were responsible for certain routine program/project documents
		V1-F-4.3-5	78	Significant differences among and between the same category of documents
		V1-F-4.3-6	79	No specific individual compiles the storage or retrieval of documents across the entire program or individual projects
		V1-F-4.3-7	80	Documentation prepared during the planning and execution provide the only formal evidence that funds appropriated have been reasonably and prudently spent
		V1-F-4.3-8	80	Documents produced by interviews or later than the initial document request indicate many documents are not clearly identified or readily accessible
		V1-F-4.3-9	81	Standard of care within the industry for document control not met
		V1-R-4.3-1	81	Adopt formal electronic document control system
		V1-R-4.3-2	81	Establish standard format for cross-referencing policies
		V1-R-4.3-3	81	Use common format on similar documents
		V1-R-4.3-4	82	Filed policies (electronically or hard copy) should be filed in an order of precedence
		V1-R-4.3-5	82	Identify, gather and organize documents critical to the Process Access Library
		V1-R-4.3-6	82	Establish procedure to ensure timely and comprehensive preparation, distribution and capture of critical documents

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
		V1-R-4.3-7	83	Policies addressing similar topics should be linked within the electronic and/or hard copy files; if possible should have a numbering format to quickly and easily identify policies by topic
IDENTIFICATION OF PROGRAM OWNER 5.2.4				
		V1-F-4.4-1	85	No universally acknowledged agreement or understanding as to who the ultimate Owner of the Program
		V1-R-4.4-1	85	Judicial Council, with AOC and in recognition of the legislative actions, must establish the ultimate Owner of the program
DELEGATION OF AUTHORITY 2.5				
		V1-F-4.5-1	86	No formal delegation of authority and responsibility at program/project levels
		V1-R-4.5-1	86	After identifying the Program Owner, establish a formal delegation of authority
COMPREHENSIVE AND COMPLETE SET OF PROGRAM POLICIES, PROCEDURES AND PROCESSES 5.2.6				
		V1-F-4.6-1	87	Numerous policies marked as "draft"; gaps in policies exist
		V1-F-4.6-2	88	Not clear which policies (notably the SAM) are voluntary instead of mandatory
		V1-R-4.6-1	89	Complete a comprehensive set of relevant program and project policies
PROGRAM AND PROJECT RISK MANAGEMENT 5.2.7				
		V1-F-4.7-1	90	No formal risk management program in place
		V1-R-4.7-1	90	Establish a risk management program that extends from program to project-level
PROGRAM MANAGEMENT MANUAL 5.2.8				
		V1-F-4.8-1	96	PgMP does not provide list or discussion as to the policies and procedure drafted or in use
		V1-F-4.8-2	97	PgMP has not been updated to reflect actual program and project conditions as required by the PgMP itself
		V1-F-4.8-3	97	Inconsistent and does not link directly link to any policies or procedures
		V1-F-4.8-4	97	No guidance provided as to how program policies are developed and/or updated; no reference to where policies can be found
		V1-F-4.8-5	97	Has not been updated since its original release; many positions are listed as "TBD"; lessons learned have not been adopted
		V1-F-4.8-6	98	Lack of comprehensive definitions of key positions and divisions
		V1-F-4.8-7	98	No discussion of the gathering or reporting of key data
		V1-F-4.8-8	99	Incomplete and non-supported statements
		V1-F-4.8-9	100	Design and Construction Manager identified as responsible for ensuring design and construction are executed efficiently, cost-effectively and safely; no guidance or explanations provided
		V1-F-4.8-10	101	No information for rolling up project data; no mechanism to assure information is accurately captured and reported
		V1-F-4.8-11	101	"Commonly understood program management techniques", "sound management practices" are not defined or referenced
		V1-F-4.8-12	102	Goals such as efficiency, budget, and schedule are identified but not explained in a quantifiable manner
		V1-F-4.8-13	102	Program goals are said to be consistent with program design standards and "should reference a methodology..." with no guidance as to the methodology to be used
		V1-F-4.8-14	103	No indication that the "prototypical designs" mentioned have been developed or used
		V1-F-4.8-15	103	Placement of certain positions (Communications Specialist, Facilities Manager, etc.) relative to program and project management within the organizational structure appears to be incomplete in regards to authority and spans of control
		V1-F-4.8-16	103	Technical Resources (Section 4) generally meet the industry SOC, however unclear how these support services are achieved
		V1-R-4.8-1	104	Update PgMP for consistent definitions; omit the use of specific names of individuals, use organizational chart as Appendix instead; list dates of original approval and any revisions
		V1-R-4.8-2	104	Specific and measurable goals for the program should be included
		V1-R-4.8-3	104	Specific and measurable goals for the positions identified should be included

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
		V1-R-4.8-4	104	Define, formalize, and specify in greater detail the roles and responsibilities of each program sub-unit, including relationship between sub-units
		V1-R-4.8-5	105	Provide each position with direction to the policies applicable and necessary
		V1-R-4.8-6	105	Identify each of the functional systems in place and use to manage the program and projects
		V1-R-4.8-7	105	Once PgMP is updated, review to determine any remaining gaps or inconsistencies among the issued draft policies
COURT FACILITIES DELIVERY METHODOLOGIES AND CONTRACTING POLICIES AND PROCEDURES	5.2.9			
		-	-	Covered in Section 2.10
PROJECT DELIVERY METHODOLOGY AND CONTRACT FORMATION	5.2.10			
		-	-	Findings are covered in Sections 2.10.1 and 2.10.2
		V1-R-4.10-1	113	Policy 3.40 should be formally retired, replaced by Policy 333.00
		V1-R-4.10-2	113	Policy 333.00 should expand to provide factors to be considered and process for delivery method selection.
- MEMORANDUM POLICY 3.40	5.2.10.1			
		V1-F-4.10.1-1	111	Policy is marked as a draft and was originally distributed as a memorandum
		V1-F-4.10.1-2	111	Intent is for "best value" from the project delivery method; no actual process is addressed
		V1-F-4.10.1-3	111	OCCM staff and management "determine the appropriate delivery method for each project", this lacks uniformity, transparency and accountability
		V1-F-4.10.1-4	111	Selection is to be based on "the overall complexity and cost of the project", no uniform decision making process is established
		V1-F-4.10.1-5	111	Project delivery method definitions generally match what is common industry-wide
		V1-F-4.10.1-6	112	No indication of how the procedures for bidding, reviewing and awarding align with other AOC policies or the SAM, both of which are cited
- POLICY 333.00 CONSTRUCTION DELIVERY METHODS	5.2.10.2			
		V1-F-4.10.2-1	113	Contains definitions of the five acceptable delivery methods; does not provide a true policy or procedure
CONTRACTING POLICIES AND PROCEDURES	5.2.11			
		-	-	Findings are covered in Sections 2.11.1 and 2.11.2
		V1-R-4.11-1	119	Judicial Council Contracting Manual is far more comprehensive and complete; AOC Court Facilities Contracting Policies and Procedures should be updated, aligned and coordinated with the Judicial Branch Contracting Manual
- COURT FACILITIES CONTRACTING POLICIES AND PROCEDURES	5.2.11.1			
		V1-F-4.11.1-1	115	Able to track all of the processes through the procurement and contracting process which would be expected per the general industry SOC
		V1-F-4.11.1-2	115	Process shows uniformity and transparency, but lacks point of accountability
- JUDICIAL BRANCH CONTRACTING MANUAL	5.2.11.2			
		V1-F-4.11.2-1	117	Unsure of relationship between the Judicial Council Contracting Manual and the AOC Court Facilities Contracting Policies and Procedures
		V1-F-4.11.2-2	119	Assumed Judicial Council Contracting Manual is intended to replace the AOC Contracting Policies and Procedures; however if that is not the case, need to align the policies
		V1-F-4.11.2-3	119	Not specific to whom is responsible for the various actions and decisions
		V1-F-4.11.2-4	119	Exceptions to the policy is different from other contracting procedures
MANAGEMENT PLAN AND PROJECT DEFINITION REPORT	5.2.12			
		V1-F-4.12-1	121	Project Definition Report is undated and provides no context as to distribution or intended use
		V1-F-4.12-2	122	Project Definition Report intends to be a "single source manual"; it is a good summary of a individual project's definition, but is not actually a manual
		V1-F-4.12-3	122	Content is narrow and lacks reference to the body of the policies, procedures and processes currently in place within the OCCM

Part I Summary Table of Findings and Recommendations

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
		V1-F-4.12-4	123	Contains no descriptions addressing how individual elements of the Project Definition Report were established
		V1-F-4.12-5	123	Currently the PJ, Executive Office of the Court, principle architect, principle CM@R, Assistant Division Director of the OCCM for D&C and the Project Manager all sign off on the management plan
		V1-F-4.12-6	123	Project Definition Report addresses contracting plan and agreements, but does not refer to the related policies
		V1-F-4.12-7	123	Project Definition Report identifies six Project Management Teams, although no consolidated program level policy establishing the team structure or roles was identified
		V1-F-4.12-8	124	Organizational chart included; no clear chain of command however
		V1-F-4.12-9	125	No clear indication of which Management Team is responsible for preparing or reviewing the schedules
		V1-F-4.12-10	125	No clear indication of which Management Team is responsible for preparing or reviewing the project budgets
		V1-F-4.12-11	125	Vaguely covers change management, lacks necessary specifics
		V1-F-4.12-12	125	Project phases are defined, could benefit by referencing related policies
		V1-F-4.12-13	126	FMG not cited as member of the Design Team, unclear how this aligns with Judicial Council policies that FMG provide input during design
		V1-F-4.12-14	126	Each project phase description should have a named position within the Project Team identified as accountable for that phase of work
		V1-F-4.12-15	126	Lessons learned are mentioned, but with out support for how they are captured or maintained
		V1-F-4.12-16	127	Quality Control is only mentioned in a single paragraph without reference to other related policies
		V1-F-4.12-17	127	Environmental Compliance is limited to a single paragraph that lacks the emphasis seen within program-level policies
		V1-F-4.12-18	127	Facility performance evaluation includes a mention of a survey but lacks detailed supporting information to identify origination and use of the survey
		V1-F-4.12-19	128	Project Definition Report ends with notation that OCCM is responsible for preparing and updating the Project Definition Report, this process is left undefined
		V1-R-4.12-1	128	Project Definition Report should have section devoted to establishment, management and control of project scope
		V1-R-4.12-2	129	References to program-level policies that govern the tasks encompassed by the Project Definition Report would provide a foundation for a control source of the defined activities
		V1-R-4.12-3	129	Ensure contents of the Project Definition Report are consistent with the program-level policies
		V1-R-4.12-4	129	Identify the party (or parties) with authority to make decisions and be accountable for those decisions, including any limitations on that authority
		V1-R-4.12-5	129	Addition of a table that includes a summary of the responsibility and authority of each Project Management Team, composition of Project Management Teams, and actions of the Project Teams with citations to program-level policies will guide the execution of each team's scope of work and authority
POLICY 7.00 PROJECT FEASIBILITY REPORT	5.2.13			
		V1-F-4.13-1	130	Appears as a "Template Draft" and is in fact only an outline
		V1-F-4.13-2	130	Policy is too incomplete to truly evaluate; interviews indicate feasibility reviews are conducted however
		V1-R-4.13-1	131	Policy should be completed and implemented as soon as possible
AOC CHANGE ORDER PROCESS (REVISED TO INCLUDE IPROUREMENT)	5.2.14			
		V1-F-4.14-1	132	Relationship to Policy 4.20 is unknown
		V1-F-4.14-2	132	This policy appears as a one-page document with little identification, does not any typical format
		F1-R-4.14-1	132	No recommendations without a frame of reference for this document
ADOPTION OF A MITIGATED NEGATIVE DECLARATION OF THE NEW SANTA ROSA CRIMINAL COURTHOUSE	5.2.15			
		-	-	Unclear if this memorandum represents an actual policy, as such no findings or recommendations at this time

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
JUDICIAL BRANCH AB 1473 FIVE-YEAR INFRASTRUCTURE PLAN FISCAL YEAR 2011-2012	5.2.16	-	-	No findings or recommendations as this is not an actual policy
STATE ADMINISTRATIVE MANUAL	5.2.17			
		V1-F-4.17-1	138	Unclear if the SAM is followed as a procedure or as guidelines that fill in gaps in existing OCCM procedures
		V1-F-4.17-2	138	Some SAM sections directly overlap with existing OCCM procedures (for example, COBCP)
		V1-F-4.17-3	138	Interviews with personnel indicated there is no formal method for implementation or integration of SAM
		V1-R-4.17-1	139	The role of the SAM within the program should be clearly defined by the OCCM
COURTHOUSE NAMING POLICY	5.2.18			
		V1-F-4.18-1	139	This policy appears without a procedure number
		V1-F-4.18-2	139	Makes no reference to other policies or procedures; no indication as to the timing for using this document
		V1-F-4.18-3	140	Outline of process for naming a courthouse, begins with recommendation to the Judicial Council; lacks what initiates this activity
		V1-F-4.18-4	140	All relevant terms and involved groups are defined
		V1-F-4.18-5	140	Sets forth clear outline of the naming standards to be followed
		V1-R-4.18-1	140	Policy should be either incorporated into an existing policy, or given a number to identify its relation to other policies
		V1-R-4.18-2	140	Expand to explain when the policy is initiated and when it would be used on an existing courthouse facility
PRIORITIZATION METHODOLOGY FOR TRIAL COURT CAPITAL-OUTLAY PROJECTS	5.2.19			
		V1-F-4.19-1	141	Submitted for adoption by the Judicial Council in late 2008, no indication it was officially adopted
		V1-F-4.19-2	142	Provides relevant definitions and explanation of the scoring process, including examples
		V1-F-4.19-3	142	Not clear who is responsible for the scoring and evaluation, other than indication of AOC staff
		V1-F-4.19-4	142	Utilizes Review of Capital Project (RCP) ratings, tabulated in 2004, there is no indication when these are updated
		V1-R-4.19-1	142	Expand to more clearly identify individuals or teams responsible for scoring and evaluations
		V1-R-4.19-2	142	Explanation of RCP rating tabulation and frequency should be provided
COURT FACILITIES PLANNING: UPDATE TO TRIAL COURT CAPITAL-OUTLAY PLAN AND PRIORITIZATION METHODOLOGY AND PROJECT FUNDED BY SENATE BILL 1407 (ACTION REQUIRED)	5.2.20			
		V1-F-4.20-1	144	Not updated to reflect changes that may have occurred since 2008
		V1-F-4.20-2	145	Generally uniform and transparent
		V1-R-4.20-1	145	Update to reflect that SB 1407 indicates funds are applied to both Immediate Need and Critical Need Priority Group projects
		V1-R-4.20-2	145	Emphasize economic opportunity of projects
		V1-R-4.20-3	145	Judicial Council may wish to delegate authority to the Administrative Director on when to submit projects from the list to the executive branch for funding
		V1-R-4.20-4	145	Administrative Director should report to the Judicial Council annually (at a minimum) to evaluate if current program objectives and goals are accurately reflected
SITE ACQUISITION POLICY FOR JUDICIAL BRANCH FACILITIES	5.3.1.1			
		V1-F-5.1.1-1	149	Originally issued in June 2007, updated in August 2009
		V1-F-5.1.1-2	150	2009 policy is generally very good
		V1-F-5.1.1-3	150	Discusses controversial sites with unresolved issues, but does not delegate responsibility or authority for resolution
		V1-F-5.1.1-4	151	Neither the 2007 or 2009 policy provide insight to budget or schedule impacts related to site acquisition
		V1-R-5.1.1-1	151	Define who has ultimate authority to resolve and act on controversial site issues

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
		V1-R-5.1.1-1	151	Provide process for managing impact on budget and schedule
COURT FACILITIES: RULES AND REGULATIONS FOR RELOCATION PAYMENTS AND ASSISTANCE REGARDING REAL PROPERTY ACQUISITION	5.3.1.2			
		V1-F-5.1.2-1	153	Unknown if these rules have been adopted
		V1-F-5.1.2-2	153	Provides description of eligibility requirements and relocation benefits available to individual persons or businesses
		V1-F-5.1.2-3	153	Provides processes taken by the AOC, through a relocation consultant, for advisory relocation assistance
		V1-F-5.1.2-4	153	AOC issues financial relocation benefits, unclear what team/individual specifically has this task
		V1-F-5.1.2-5	153	Establishes receipts of payments are to be maintained, not clear what documentation is required or who is required to maintain such documentation
		V1-R-5.1.2-1	154	Define who is responsible and accountable for the processes in this policy
THE GROSS AREAS OF A BUILDING: METHODS OF MEASUREMENTS	5.3.2.1			
		V1-F-5.2.1-1	156	Adoption of BOMA methodology is sound industry standard practice
		V1-F-5.2.1-2	156	Specifying the points at which BGSF calculations would be executed is good quality control tool
		V1-F-5.2.1-3	156	Provides no point of accountability beyond "Project Team"
		V1-R-5.2.1-1	156	Identify positions responsible for calculations and at what occurrence they are performed
CALIFORNIA TRIAL COURT FACILITIES STANDARDS	5.3.2.2			
		V1-F-5.2.2-1	158	Appears to not officially have been adopted; updates the 2006 edition
		V1-F-5.2.2-2	158	AOC and individual court establish advisory group that assists the AOC with implementing these standards
		V1-F-5.2.2-3	158	Unclear what determination is for projects being built LEED Certified vs. LEED Silver
		V1-F-5.2.2-4	158	Two primary sections: Design Criteria and Technical Criteria; document is well structured
		V1-F-5.2.2-5	158	Takes into account numerous codes, standards and guidelines
		V1-R-5.2.2-1	161	Officially adopt 2011 version to replace 2006 edition
		V1-R-5.2.2-2	161	Include other codes, standards and guidelines that were authored by/for the AOC as attachments
		V1-R-5.2.2-3	161	Integrate with other policies to ensure no conflicts or unnecessary work exist
POLICY 1301.30 DESIGN PLAN CHECK PROCESS	5.3.2.3			
		V1-F-5.2.3-1	163	Lacks definitions for terms used in the policy
		V1-F-5.2.3-2	163	Not clear who oversees management and control for completing the design plan check
		V1-F-5.2.3-3	163	Policy is shown as an "initial draft" and presented in an outline form
		V1-R-5.2.3-1	164	Expand, enhance and complete the policy; include specific directions as to how the plan check is executed, by whom, and at what time
POLICY 4.15 SELECTION, PROCUREMENT AND INSTALLATION OF FURNITURE	5.3.3.1			
		V1-F-5.3.1-1	165	Issued in memorandum format
		V1-F-5.3.1-2	165	Marked as "draft" and dated June 19, 2011; no indication it was completed or formally adopted
		V1-F-5.3.1-3	165	Does not have definitions of the terms used within the policy
		V1-F-5.3.1-4	165	Refers to the Judicial Council's Contracting Policies and Procedures (December 7, 2007); Pegasus notes that the "Judicial Council Contracting Manual" (October 2011) is not referenced
		V1-F-5.3.1-5	166	Some aspects well defined, some unclear, such as the AOC Business Services executing the procurement on a "case-by-case basis"
		V1-F-5.3.1-6	166	"Project Cost Responsibility Matrix" and "Furniture Evaluation Criteria Matrix" are said to be included as memo, not produced in materials received by Pegasus
		V1-R-5.3.1-1	166	Finalize and issue as formal policy
		V1-R-5.3.1-2	166	Provide definition of terms used within the policy

Part I Summary Table of Findings and Recommendations

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
		V1-R-5.3.1-3	166	Determine if it is more appropriate for this policy to reference the "Judicial Council Contracting Manual" (October 2011)
		V1-R-5.3.1-4	167	Ensure the referenced matrices are included in the policy, or easily accessible electronically
POLICY 4.10 CONSTRUCTION MANAGEMENT	5.3.4.1			
		V1-F-5.4.1-1	169	Issued as memorandum to Design and Construction staff
		V1-F-5.4.1-2	169	Marked as "draft" and dated June 23, 2009; no indication it was completed or formally adopted
		V1-F-5.4.1-3	169	No parameters or guidance for scaling down this project as is mentioned in the "Background" section
		V1-F-5.4.1-4	169	Lists typical CM responsibilities, but doesn't detail much of the process surrounding the responsibilities
		V1-F-5.4.1-5	170	No clear distinction between CM@R and CM in some areas, leading to possible gaps in responsibility or duplication of work
		V1-F-5.4.1-6	170	Terms used in the policy are undefined
		V1-F-5.4.1-7	171	CM is required to attempt to resolve claims, no process outlined for this task
		V1-R-5.4.1-1	171	Update, expand, and issue as formal policy
		V1-R-5.4.1-2	171	Set definitive process for the CM relative to their role in claims resolution, aligning with the chain of command in the Program Management Manual and tied to the Change Order policy
		V1-R-5.4.1-3	171	Updated policy should be based on lessons learned in execution of initial projects
		V1-R-5.4.1-4	171	Clearly define authorities and responsibilities of the CM, not duplicating with the Project or Program Manager
POLICY 333.20 CONSTRUCTION MANAGER AT RISK (CM@R) PROCESS	5.3.4.2			
		V1-F-5.4.2-1	173	The numbering of this policy draws the connection with Policy 333.00, excellent example of a good numbering system
		V1-F-5.4.2-2	173	Some confusion identified as to the role and responsibilities for CM versus CM@R
		V1-F-5.4.2-3	173	No definition of term used in this policy
		V1-F-5.4.2-4	173	Policy includes a goal, scope and purpose - similar policies omitted the purpose section, need to have consistency
		V1-F-5.4.2-5	173	Provides a good starting point but lacks information for when/why a CM@R process is used, how the Project Manager manages the CM@R, and the roles, responsibilities and authorities of the CM@R through the project execution
		V1-F-5.4.2-6	174	Once the design phase ends, the CM@R ceases to be a CM and is relegated to the role of General Contractor; this complicates
		V1-F-5.4.2-7	175	Policy 4.10 has depth and detail of the duties, responsibilities and authorities that could be referenced and benefit the simple statements in this policy
		V1-R-5.4.2-1	176	Need to examine policies as they apply to the CM versus the CM@R
		V1-R-5.4.2-2	176	Need complete procedures for each phase the CM@R is on the project
D&C QUALITY ASSURANCE CONSULTANT MANAGEMENT	5.3.4.3			
		V1-F-5.4.3-1	178	Presented in a draft form with some requirements still unknown
		V1-F-5.4.3-2	179	Appears there is not a complete quality management program across the entire program
		V1-R-5.4.3-1	179	Develop a formal quality management program, linking mutually supportive policies
POLICY 1106.00 FACILITY PERFORMANCE EVALUATION ("FPE") PROGRAM	5.3.4.4			
		V1-F-5.4.4-1	180	Identified as operational draft that, while incomplete, is in use
		V1-F-5.4.4-2	181	Terms used in the policy are undefined
		V1-F-5.4.4-3	181	Noted as a "guidance document" for any person involved in a large facility modification or construction project and as a "directional document" for all OCCM staff and construction partners; unclear what this distinction means
		V1-F-5.4.4-4	181	Elements of an effective lessons learned program identified in this policy
		V1-R-5.4.4-1	181	Complete policy as currently outlined, finalize and formalize
POLICY 1106.10 POST OCCUPANCY EVALUATION (POE)	5.3.4.5			

Part I Summary Table of Findings and Recommendations

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
		V1-F-5.4.5-1	183	"Initial Draft" with 22 steps that make up the POE survey process, most steps are very simply listed
		V1-F-5.4.5-2	183	Lacks a sequential set of steps, no reference to timing, links between steps, etc.
		V1-F-5.4.5-3	183	No link between Policy 1106.00 and 1106.10
		V1-F-5.4.5-4	183	Lacks point of accountability for ensuring POE is completed and input maintained
		V1-R-5.4.5-1	184	Finish completing this policy and establish a reference to other policies, specifically Policy 1106.00
POLICY 1302.10 INFORMAL INSPECTION PROCESS	5.3.4.6			
		V1-F-5.4.6-1	185	Presented as "initial draft" containing high-level steps and reactions to conducting an informal inspection
		V1-F-5.4.6-2	185	Definitions of terms used not included
		V1-F-5.4.6-3	185	No identification of who within the OCCM is responsible and accountable for the management and control of this process
		V1-R-5.4.6-1	185	Expand the current outline to include specific direction on the how and when of the policy as well as who performs this process
POLICY 1302.20 INSPECTION REQUEST PROCESS	5.3.4.7			
		V1-F-5.4.7-1	186	Definitions of terms used not included
		V1-F-5.4.7-2	187	Presented as "initial draft" containing high-level steps and reactions to conducting an inspection request
		V1-F-5.4.7-3	187	Policy include references to cryptic to be effective, i.e. "Larry completes inspection."
		V1-R-5.4.7-1	187	Enhance and complete the policy as currently outlined, include specific direction on the how and when of the policy as well as who performs this process
POLICY 1302.30 FINAL VERIFIED REPORT PROCESS	5.3.4.8			
		V1-F-5.4.8-1	188	Definitions of terms used not included
		V1-F-5.4.8-2	188	Unclear how the "Inspector of Record" is utilized
		V1-F-5.4.8-3	188	Policies 341.00, 1106.00, 1106.10, 1302.10, 1302.20, 1302.30 represent an overall quality control/quality assurance process
		V1-R-5.4.8-1	189	Merge Policies 341.00, 1106.00, 1106.10, 1302.10, 1302.20, and 1302.30 into more complete, comprehensive policy
PROCEDURE 4.20 CHANGE ORDER PROCESS (MAY 26, 2009)	5.3.4.9			
		V1-F-5.4.9-1	195	Issued as a memorandum from the Assistant Division Director of Design and Construction to the Design and Construction Staff
		V1-F-5.4.9-2	195	Includes general description of what a change order does, but distribution of this procedure was restricted from the parties involved in change orders
		V1-F-5.4.9-3	195	Distribution limited to Design and Construction Staff
		V1-F-5.4.9-4	196	Policy is reactive in that it is limited to how a change will be managed once identified
		V1-F-5.4.9-5	197	No formal authority thresholds for approval or rejection of a proposed change
		V1-F-5.4.9-6	199	Implies the contractor is the source of changes to a project, no mention of owner or designer directed changes
		V1-F-5.4.9-7	199	Does not address or cite to a process which will be followed if a change request is rejected
		V1-R-5.4.9-1	199	Expand policy to fully incorporate the primary stakeholders
RISK ASSESSMENT FOR [NAME] COURTHOUSE, [NAME] COUNTY (2011)	5.3.4.10			
		V1-F-5.4.10-1	201	Provides comprehensive and detailed perspective to security risks anticipated for a courthouse
		V1-F-5.4.10-2	201	Contains all of the standard elements of a risk management plan
		V1-F-5.4.10-3	201	Meets the SOC for a risk management program and plan
		V1-R-5.4.10-1	202	No specific recommendations for this template
PROJECT SAFETY PROGRAM MANUAL (FEBRUARY 2011)	5.3.4.11			
		V1-F-5.4.11-1	204	Does not follow the formats of any other policies developed by OCCM
		V1-F-5.4.11-2	204	Sets link to the Program Owner Controlled Insurance Program (OCIP)
		V1-F-5.4.11-3	205	Contains clearly delineated statements of responsibility

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
		V1-F-5.4.11-4	205	Cites to industry generated safety standards to be applied during the project execution
		V1-F-5.4.11-5	205	Provides a complete list of reporting and recordkeeping requirements
		V1-R-5.4.11-1	205	Only recommendation is to use a format consistent with other policies, procedures and processes
OWNER CONTROLLED INSURANCE PROGRAM	5.3.4.12			
		V1-F-5.4.12-1	208	Consistent with OCIP policies Pegasus-Global has reviewed during other program management audits
		V1-F-5.4.12-2	209	The policies, procedures and processes presented appear uniform, transparent, and accountable
		V1-F-5.4.12-3	209	Flow of responsibility is from the OCCM Senior Facilities Risk Manager to Willis, exact relationship between the OCIP principles not fully described
		V1-F-5.4.12-4	209	No indication of the date at which the program went into effect
		V1-R-5.4.12-1	209	Recommendation to prepare a short introductory document providing relevant background information
INVOICE PAYMENT PROCEDURE (POLICY NUMBER 2.1, OCTOBER 26, 2010)	5.3.5.1			
		V1-F-5.5.1-1	211	No statement identifying whom this procedure is applicable to
		V1-F-5.5.1-2	211	Presented as a stand-alone procedure, typically would be a subset of the program cost control policy
		V1-F-5.5.1-3	212	No delegations of authority or responsibility presented
		V1-F-5.5.1-4	212	No clear presentation of the sequence of actions or decisions which the user of this procedure should follow
		V1-F-5.5.1-5	212	No definition of acronyms used within the procedure
		V1-F-5.5.1-6	213	Some information within the procedure is incomplete
		Summary Conclusion	214	A workable start to the development of a comprehensive policy and procedure, however significant gaps remain to meet the industry SOC
POLICY 7.00 CAPITAL OUTLAY BUDGET CHANGE PROPOSAL (COBCP) (APRIL 27, 2011 DRAFT)	5.3.5.2			
		V1-F-5.5.2-1	215	Policy identified as a "Template Draft" appears as an early outline format
		V1-F-5.5.2-2	215	Interviews indicate OCCM does use the COBCP process to request funding for the Program by individual project
		V1-R-5.5.2-1	215	Procedure is understood as important, but needs to be formalized to be effective
OCCM APPROVAL PROCESS FOR AUGMENTATION AND 20-DAY LETTER REQUESTS (SEPTEMBER 20, 2010 MEMO)	5.3.5.3			
		V1-F-5.5.3-1	217	Pegasus-Global assumed this to be a process directive to staff and not a formal statement of program policy or procedure
		V1-R-5.5.3-1	217	Should be included in the formal policies, procedures and processes which address augmentation and scope change decisions
PROGRESS REPORT TEMPLATE (UNDATED)	5.3.5.4			
		V1-F-5.5.4-1	219	No indication of when the template was adopted and first put into use
		V1-F-5.5.4-2	219	No definition of terms used with the MPR
		V1-F-5.5.4-3	220	Appears that not all data presented is being compared against the original planned data
		V1-F-5.5.4-4	220	Acronyms are used without being defined or explained
		V1-F-5.5.4-5	220	No policy statement establishing how the information is identified or gathered, when or whom it is gathered by, how the information is verified or analyzed, and when the MPR is to be submitted
		V1-F-5.5.4-6	220	No reference to how the data from individual projects would be rolled up into a Program-wide Progress Report
		V1-F-5.5.4-7	220	Includes a section for reporting progress, but no section for reporting concerns, issues or problems
		V1-F-5.5.4-8	221	Contains no forecast sections (or information)
		V1-F-5.5.4-9	221	As currently formulated, is a high level summary of "to date project conditions" with little analysis provided
		V1-R-5.5.4-1	221	Pegasus-Global recommends OCCM identify a suitable set of MPR standards and templates and customize to meet both Project Management and Program Management needs

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
		V1-R-5.5.4-2	221	Templates should be presented as part of a full, detailed statement of policies, procedures and processes so that there is full understanding and awareness
		V1-R-5.5.4-3	221	Should be used to report data from the past and present future projections Monthly Project Report and Monthly Program Report should be aligned to ease the process of rolling up program level data to the project level
		V1-R-5.5.4-4	222	
PROJECT DESCRIPTION (UNDATED)		5.3.5.5		
		V1-F-5.5.5-1	224	The purpose of this document or intended audience is not included
		V1-F-5.5.5-2	224	The Project MPR and the Project Plan and Definition Report appear to duplicate aspects of the information contained in the Project Description Template
		V1-F-5.5.5-3	224	Some information to be contained within the Project Description Template suggest the existing of other project documents (e.g. known project risk features) of which, to the knowledge of Pegasus-Global, are not covered by a policy, procedure or process
		V1-R-5.5.5-1	224	Review in conjunction with other policies to avoid unnecessary duplication that burdens the OCCM staff
		V1-R-5.5.5-2	225	Revise and expand to include information which will improve the uniformity and transparency of the procedure
PREPARING ORACLE REPORTS - EXPENDITURES (UNDATED)		5.3.5.6		
		V1-F-5.5.6-1	226	Lacks context as to why this procedure exists and who it is intended to be used by
		Summary Conclusion	226	Appears to be directions or instruction for completing a specific report and not a general program or project policy, procedure or process
FACILITY MODIFICATION POLICIES		5.3.6		
		V1-F-5.6-1	226	Provides a logical progression of policies relating to Facility Modifications
		V1-F-5.6-2	233	Consistent template used across all FM policies
		V1-F-5.6-3	234	Each policy references the applicable goals of the California Judicial Branch and the applicable goals of the OCCM Strategic Goals
		V1-F-5.6-4	235	With minor exception, none of the policies appear as "final"
		V1-F-5.6-5	236	Author not clearly identified, lacking accountability
		V1-F-5.6-6	237	Nearly every FM policy contains useful questions, but lacks direction on who and how this information is to be obtained
		V1-R-5.6-1	238	FM policies would benefit from a Definitional Section defining the various terms used
		V1-R-5.6-2	239	Identify the specific positions within the various steps that are accountable Finalize and issue as formal policy
		V1-R-5.6-3	239	

The numbering convention seen here in the Reference No. column, and also in the Volume II report, is as follows: - Findings = V2 (Part II) -F (Finding) -4.1 (Draft Report Section 4.1) -1 (Finding #1) - Recommendations = D2 (Part II) -R (Recommendation) -4.1 (Draft Report section 4.1) -1 (Recommendation #1)				
Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
FORMAL DELEGATION OF AUTHORITIES	6.4.1			
		V2-F-4.1-1	275	No formal delegation of authorities
		V2-F-4.1-2	276	No formalized definitions of each stakeholder's roles, authorities, and responsibilities as to the planning and execution of a project
		V2-R-4.1-1	276	Utilize core Project Management group as source for formalizing delegations of authority and establishing boundaries on autonomy for project management
		V2-R-4.1-2	276	Use knowledge gained on projects to date to develop formalized delegations of authority for project management
		V2-R-4.1-3	276	Starting with the Owner, formally define each stakeholder's role, authority and responsibility with respect to project execution
DOCUMENT CONTROL SYSTEM	6.4.2			
		V2-F-4.2-1	282	No central document management system in place
		V2-F-4.2-2	282	Little direction as to what documents are to be maintained and how they are to be controlled
		V2-F-4.2-3	282	Lack of resources to standardize document control is hampering the review and control of each project
		V2-R-4.2-1	282	Develop uniform document control system
		V2-R-4.2-2	282	Define responsibility and frequency of documents produced project-side versus document control-side
		V2-R-4.2-3	283	Standardize common project documents (e.g., meeting minutes, inspection reports)
SITE SELECTION AND ACQUISITION STANDARDS AND PRACTICES	6.4.3			
		V2-F-4.3-1	285	Selection and acquisition procedures utilized in sample projects
		V2-F-4.3-2	286	The policy, procedure and process is partially driven by state regulations or agencies outside the OCCM
		V2-F-4.3-3	286	Portion of site selection and acquisition delay attributable to project stakeholders and OCCM in disagreement
		V2-R-4.3-1	286	Judicial Council and CFWG consider development of formal methodology to address disputes
TRIAL COURT FACILITIES STANDARDS AND PRACTICES	6.4.4			
- DESIGN STANDARDS REVIEW AND APPROVAL PROCESS	6.4.4.1			
		V2-F-4.4.1-1	290	Trial Court Facilities Standards (2006 or 2011) used by project management
		V2-F-4.4.1-2	290	Deviations in standards or designs are not adequately documented and can have an adverse effect on overall project cost
		V2-F-4.4.1-3	291	Role of project stakeholders regarding design review and approval has not been formalized
		V2-F-4.4.1-4	291	Tracking of design costs and schedules is inconsistent and depends primarily on the CM and/or CM@R to monitor and document
		V2-F-4.4.1-5	291	Lack of standardized checklist for design submissions and deliverables
		V2-F-4.4.1-6	291	Little formal guidance exists in the QA/QC process
		V2-R-4.4.1-1	292	Develop formal design review policy and procedure based on lessons learned
		V2-R-4.4.1-2	292	Formal design review procedure should establish when design reviews are to be conducted and include a process for formally documenting the results
		V2-R-4.4.1-3	292	Design review procedure should include design cost and schedule review
		V2-R-4.4.1-4	292	Establish more formal and inclusive process for QA/QC design review, including identification and communication of design deviations to the project manager
		V2-R-4.4.1-5	292	QA/QC reports should be formalized and properly maintained
		V2-R-4.4.1-6	293	Formally establish each stakeholder's role and responsibility in project planning and design; Recommend project managers not be placed in position responsible to impose design standards in cases where the PJs or individual judges resist imposition of a design standard

Part II Summary Table of Findings and Recommendations

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
		V2-R-4.4.1-7	293	Requests for deviation from design standards should be written with expected cost and schedule impacts; deviations should be approved or rejected by Program Management, the CFWG, or the Judicial Council
		V2-R-4.4.1-8	293	Adopt policy that all project contingency belongs to the program and not the individual projects
- USE OF PROTOTYPE DESIGN	6.4.4.2			
		V2-F-4.4.2-1	294	No specific findings
		V2-R-4.4.2-1	294	No specific recommendation
- CONTRACTS WITH ARCHITECTS	6.4.4.3			
		V2-F-4.4.3-1	295	Architectural contracts found in project files, exception being Susanville which had empty file folder
		V2-F-4.4.3-2	295	Near identical format used in architectural contracts; some contracts contained amendments with additional provisions for basic design reviews
		V2-F-4.4.3-3	295	Architectural contracts did not include standard provisions to establish exact deliverables to be produced, the required design review meetings, or establishment of a checklist of deliverables due at each design review
		V2-R-4.4.3-1	295	Architectural contracts contain standardized provisions setting scheduled design review meetings, each with specific deliverables, and attachment to the contract with checklists of required deliverables
RELATIONSHIP WITH FACILITIES MAINTENANCE GROUP	6.4.5			
		V2-F-4.5-1	299	FMG understaffed and under budgeted to address all the needs of the program; FMG has attempted, where possible, to outsource certain elements
		V2-F-4.5-2	299	No standard infrastructure designs or equipment choices
		V2-F-4.5-3	299	Lack of standard infrastructure equipment may lead to: additional work for FMG staff to be trained and knowledgeable on numerous systems; disallows potential purchase of bulk routine maintenance materials; missing potential benefit of better contract/warranty terms and standard data for architects
		V2-F-4.5-4	300	FMG's staff and budget shortages will impact the ability to address any recommendations, which may prevent cost reductions and controls from being properly addressed
		V2-R-4.5-1	301	Lessons learned should be organized into infrastructure design standards and design review checklists
		V2-R-4.5-2	301	To the possible extent, limit choice of primary equipment and systems
		V2-R-4.5-3	301	After identifying vendors, enter specific contracts with those suppliers to set terms of initial purchase with savings and extended warranty opportunities identified
		V2-R-4.5-4	302	Consider inclusion of training into equipment supply contract (at no additional cost)
CONSTRUCTION CONTRACTS	6.4.6			
- CM@R DESIGN RELATED CONTRACTS	6.4.6.1			
		V2-F-4.6.1-1	305	Changes among the CM@R contracts appear to be result of change in regulations, state requirements or lessons learned
		V2-F-4.6.1-2	305	CM@R contracts meet current industry practices insofar as project design is concerned
		V2-R-4.6.1-1	305	Limit scope of work provisions to scope
- CM@R RELATED CONSTRUCTION CONTRACTS	6.4.6.2			
		V2-F-4.6.2-1	308	Construction contracts, with the exception of the B.F. Sisk amendment, are uniform
		V2-F-4.6.2-2	308	Scope of services (Section 3) not transparent, appear to allocate program management and control functions to the construction contractor; Section 4 contains work scope that should be completed prior to date of construction contract
		V2-R-4.6.2-1	309	Examine statements of work in original CM@R contracts to determine if necessary; if necessary, confirm statements of work between contracts are consistent
		V2-R-4.6.2-2	309	Revise Section 4 of Exhibit D to reflect and conform to actual progression of a project through the four phases established
- DESIGN/BID/BUILD CONTRACTS	6.4.6.3			
		V2-F-4.6.3-1	309	Contract files for Susanville and Portola/Loyalton were not discovered
		V2-R-4.6.3-1	309	Project manager and regional manager should maintain copies of the contracts; Program D&C Director's Office maintain original
- CONSTRUCTION MANGER'S FUNCTIONS	6.4.6.4			

Part II Summary Table of Findings and Recommendations

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
		V2-F-4.6.4-1	315	Inconsistency as to the roles, responsibilities, authorities, and rights of the CM@R when compared to the CMAA standards
		V2-F-4.6.4-2	316	Policy 4.10 authorizes the contract CM to act on behalf of the Owner, this limits the ability of the OCCM to impose penalties on a CM@R claiming a contract CM interfered
		V2-F-4.6.4-3	316	Engagement of a CM@R and a contract CM on the same project created confusion as to their respective roles
		V2-F-4.6.4-4	316	CM@R at the end of design becomes somewhat of a general contractor, this creates conflict as to the CM@R being considered the Owner's principal agent
		V2-F-4.6.4-5	317	Contract CM's described as "eyes and ears" of the project managers; industry standards generally give this function to a Clerk of the Works
		V2-R-4.6.4-1	318	Eliminate role of contract CM; possibly rename role as "Clerk of the Works" to better fit what is required
		V2-R-4.6.4-2	319	Develop specific standard contract for CM@R that conforms to industry expectations of CM@R
		V2-R-4.6.4-3	319	Consider giving CM@R responsibility for producing formal project control documents and reports for submittal to the Clerk of the Works
		V2-R-4.6.4-4	319	Make CM@R responsible party for the execution of construction to the standards established and the designs provided
		V2-R-4.6.4-5	320	Establish "standard oversight routine" matching the size and complexity of a project to focus on specific milestones and specific topical issues raised at each milestone
PROJECT SEQUENCING		6.4.7		
		V2-F-4.7-1	322	Consistent concerns about understaffing and increased impact of the growing stresses
		V2-R-4.7-1	323	Complete and implement as many formal, comprehensive and efficient policies, procedures and processes as possible, in as short a time as practical; engage contractors to their full potential in individual project execution
		V2-R-4.7-2	323	Complete and adopt strong policies, procedures and processes designed to provide maximum support to program
		V2-R-4.7-3	323	Develop inventory of tasks and responsibilities of project managers so completion of policies, procedures and processes can be aligned with those responsibilities
		V2-R-4.7-4	323	Responsibilities (as identified by V2-R-4.7-3 above) which can be shifted under contract to the architects and CM@R contractors should be added to their scopes of work
		V2-R-4.7-5	324	Relieve program/project staff of administrative functions by using contract employees
		V2-R-4.7-6	324	Contracted administrative functions should not be awarded to firms that inflate the cost by using position descriptions in excess of what is required or firms that are seeking or have accepted contracts for design, management or construction of a OCCM project
FORMALIZATION OF INTERAGENCY RELATIONSHIPS		6.4.8		
		V2-F-4.8-1	325	Understanding and acknowledgment of differences in responsibilities and procedures between agencies is important
		V2-F-4.8-2	325	Generally interagency relationships are good; to some extent the formalizing of relationships could prevent misunderstandings or frustrations
		V2-R-4.8-1	326	Work with other state agencies to establish basic understanding of each parties' duties, responsibilities, functional parameters and processes; this information can be formalized as necessary
PROJECT SCHEDULING		6.4.9		
		V2-F-4.9-1	331	No formal policy or procedure found that addresses scheduling and schedule systems
		V2-F-4.9-2	331	System used to monitor the architect's schedule is adequate; MPRs are adequate high-level summaries of project progress, but lack detail needed to understand impact and causes of delays
		V2-F-4.9-3	331	The utilization of schedules to monitor and track time is limited by a lack of formal policy dictating frequency of producing or updating schedules and lack of documentation
		V2-F-4.9-4	332	Little indication that project schedules were monitored against the baseline schedule; little indication of any corrective actions taken in response to negative schedule impacts

Part II Summary Table of Findings and Recommendations

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
		V2-R-4.9-1	332	Establish processes and systems for the architect and contractor to report project progress at detailed levels
		V2-R-4.9-2	332	Consider development of standardized monitoring and control of schedule process for higher degree of uniformity across projects
ESTIMATING AND COST CONTROL	6.4.10			
		V2-F-4.10-1	335	Complete and comprehensive cost documentation found in the project folders
		V2-F-4.10-2	336	All necessary information and data to support a comparative analysis of original estimate to cost variations during execution appears to be captured, except for the Basis of Estimate documentation
		V2-F-4.10-3	336	No apparent comparative analysis of the original assumptions to cost adjustments made to the project budgets during execution
		V2-F-4.10-4	336	No apparent lessons learned addressing cost variations from the original cost estimate
		V2-F-4.10-5	336	No program-level consolidation/analysis of variations between original project cost estimates and final actual project costs were identified
		V2-R-4.10-1	336	Project and program management should use data already collected during the development of the original estimates and budgets, and final actual costs to analyze accuracy of the original estimates and capture lessons learned
STRATEGIC PLAN	6.5.1			
		V2-F-5.1-1	338	Contains no provisions directly applicable to management and control of a project
		V2-F-5.1-2	338	Awareness of strategic plans varies among project managers
		V2-R-5.1-1	338	Consider development of a book of Program Foundation Documents (such as the Strategic Plan) for distribution to every OCCM employee and manager
PROJECT FEASIBILITY REPORT	6.5.2			
		V2-F-5.2-1	339	Process not well defined, but noted sections are present in the feasibility reports examined
		V2-F-5.2-2	339	Date of policy, which is still in early draft form, is well beyond date of the selected projects' feasibility reports limiting ability to analyze the policy
		V2-R-5.2-1	340	Policy does not appear to have a urgent need to formally implement, but ultimately should be finalized
GROSS AREA OF A BUILDING: METHODS OF MEASUREMENTS	6.5.3			
		V2-F-5.3-1	340	Policy is dated after the initiation of 5 of the 6 test projects; interviews with project managers confirmed that BGSF calculations had been done, although not necessarily using this system
		V2-R-5.3-1	340	No recommendations beyond those in Part I - Section 3.2.1
PROJECT DELIVERY METHODOLOGIES AND CONTRACTING POLICIES AND PROCEDURES	6.5.4			
		V2-F-5.4-1	342	Delivery Method and Contractor Selection procedures have been followed in the test projects
		V2-F-5.4-2	342	Bid and contract award project files were limited or non-existent on some test projects
		V2-R-5.4-1	342	As part of the document control system, copies of bid and award documents should be maintained in the regional office files with the originals in the D&C management files
STATE ADMINISTRATIVE MANUAL	6.5.5			
		V2-F-5.5-1	343	The submittal and approval process through OCCM Program Management and DOC suggests project data and information was provided as required
		V2-F-5.5-2	343	Data and information required by DOF for each project has been captured and stored, the retention of project data would be improved with a strong document control system
		V2-F-5.5-3	344	Unable to link project documentation to what was transmitted to OCCM functional staff for inclusion in the DOF submittals
		V2-R-5.5-1	344	Submittals to the DOF, including original program management supplied data be added and retained by a formal document control system
MANAGEMENT PLAN AND DEFINITION REPORT	6.5.6			
		V2-F-5.6-1	345	Each test project has one or more versions/revisions of the Management Plan and Project Definition Report
		V2-F-5.6-2	345	Only one Report was found to have been signed

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
		V2-F-5.6-3	345	In some cases, difficult to determine which version has been accepted and currently in use
		V2-F-5.6-4	345	All reports contained information to be supplied by the project team
		V2-R-5.6-1	345	Maintaining a signed copy of the Report in the project files would provide indication that the report has been reviewed and accepted
		V2-R-5.6-2	345	Consider use of a standardized numbering system for each draft/revision to facilitate easy tracking of the Reports
SELECTION PROCUREMENT AND INSTALLATION OF FURNITURE	6.5.7			
		V2-F-5.7-1	346	Only one project has reached this step after this policy was written; this project utilized a furniture evaluation matrix to evaluate selection criteria
		V2-F-5.7-2	347	AOC Business Services team responsible for procurement on major capital-outlay projects with furniture budgets under \$4,000,000 (as was the case on the test project)
		V2-F-5.7-3	347	Selection documentation following the policy exists; procurement documentation not found in project files (responsibility of AOC Business Services team)
		V2-R-5.7-1	347	Continue utilizing this policy as current and future projects reach the furniture acquisition point
D&C QUALITY ASSURANCE CONSULTANT MANAGEMENT	6.5.8			
		V2-F-5.8-1	348	This policy did not apply to the test projects at the time of the audit
		V2-R-5.8-1	348	Finalize, adopt and apply the policy
FACILITY PERFORMANCE EVALUATION	6.5.9			
		V2-F-5.9-1	349	This policy did not apply to the test projects at the time of the audit
		V2-R-5.9-1	349	Finalize, adopt and apply the policy
POST OCCUPANCY EVALUATION	6.5.10			
		V2-F-5.10-1	350	This policy did not apply to the test projects at the time of the audit
		V2-F-5.10-2	350	Project management's role in this policy is limited to discussing the survey template and attending the results presentation, neither involves formal documentation
		V2-R-5.10-1	351	Finalize, adopt and apply the policy
INFORMAL INSPECTION PROGRAM	6.5.11			
		V2-F-5.11-1	351	This policy did not apply to the test projects at the time of the audit
		V2-F-5.11-2	351	No indication that the initial draft of this policy has been completed or formally adopted
		V2-R-5.11-1	351	Finalize, adopt and apply the policy
INSPECTION REQUEST PROCESS	6.5.12			
		V2-F-5.12-1	352	This policy did not apply to the test projects at the time of the audit
		V2-F-5.12-2	352	No indication that the initial draft of this policy has been completed or formally adopted
		V2-R-5.12-1	352	Finalize, adopt and apply the policy
FINAL VERIFICATION REPORT PROCESS	6.5.13			
		V2-F-5.13-1	353	Per the process description and process flow chart, the test projects were found to not be subject to the policy
		V2-R-5.13-1	353	Consider clarification of what, if any, role the project management team has in regards to the report
CHANGE ORDER PROCESS	6.5.14			
- PROCEDURE 4.20 CHANGE ORDER PROCESS	6.5.14.1			
		V2-F-5.14.1-1	354	Portions of this policy (initial meeting) lack supporting documentation; presence of PCOs, change orders, and change order log indicate process is functioning
		V2-R-5.14.1-1	354	Policy is acceptable for change order administration, could benefit by including change order control and management procedures; addition of change order flow chart could be beneficial
- AOC CHANGE ORDER PROCESS REVISED TO INCLUDE IPROUREMENT	6.5.14.2			
		V2-F-5.14.2-1	355	Difficult to determine intended use of this document as it appears in a very non-standardized format (single sheet, stand-alone document)
		V2-R-5.14.2-1	355	Incorporate into Procedure 4.20 (with recommendations provided in Section 5.14.1)
INVOICE PAYMENT PROCEDURES	6.5.15			
		V2-F-5.15-1	356	Only one project (San Bernardino) contained invoice logs, although no invoice log for miscellaneous invoices that were present in the project's files

Part II Summary Table of Findings and Recommendations

Policy, Procedure, or Process	Report Section	Reference No.	Page No.	Finding/Recommendation
		V2-F-5.15-2	357	Policy does not clearly define invoice capturing procedures, this is also shown by the project files inclusion of seemingly random invoices
		V2-F-5.15-3	357	Invoice Tracking Worksheets, such as those on San Bernardino, are good practices but not part of the formal policy; degree of documentation varies substantially, with Susanville not utilizing an invoice folder
		V2-R-5.15-1	358	Formalize invoice documentation procedures and use of inventory logs
OCCM APPROVAL PROCESS FOR AUGMENTATION AND 20-DAY LETTER REQUEST		6.5.16		
		V2-F-5.16-1	359	20-day letter and augmentation requests were identified in the test projects, but majority of these requests pre-dated the policy and no related documentation was identified
		V2-F-5.16-2	359	Lack of supporting documentation limited evaluation of this policy
		V2-R-5.16-1	359	Formalize and adopt this policy
PROGRESS REPORT TEMPLATE		6.5.17		
		V2-F-5.17-1	361	Test projects' progress reports follow the template, with program information appearing after the 2010 revision
		V2-R-5.17-1	361	Integrate template into formal policy to maintain uniformity across projects
PROJECT DESCRIPTION		6.5.18		
		V2-F-5.18-1	362	No project-level documents found that utilize this template
		V2-R-5.18-1	362	Determine need for this policy as opposed to including this information the MPRs (which already contain the bulk of this template); if there is such a need, a formalized process should be introduced



PEGASUS-GLOBAL HOLDINGS, INC.

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EXHIBIT B

AOC/OCCM FULL TEXT RESPONSE



Judicial Council of California

ADMINISTRATIVE OFFICE OF THE COURTS

455 Golden Gate Avenue • San Francisco, California 94102-3688
Telephone 415-865-4200 • Fax 415-865-4205 • TDD 415-865-4272

MEMORANDUM

Date

August 8, 2012

Action Requested

Review

To

Patricia D. Galloway, CEO
Pegasus Global Holdings, Inc.

Contact

(916) 263-5512 phone
curt.soderlund@jud.ca.gov

From


Curt Soderlund, Interim Chief Deputy
Director

Subject

Response to Pegasus Draft Final Report

The Administrative Office of the Courts (AOC), through its Office of Court Construction and Management (OCCM), has reviewed the Pegasus Global Holdings, Inc. draft final report prepared in response to Deliverable 1, Subpart c, of its contract with the AOC. The AOC response is provided in the attached **Response To: California Courthouse Capital Program Management Audit Report**, dated August 8, 2012.

When you have had the opportunity to review the **Response To: California Courthouse Capital Program Management Audit Report**, the AOC management and staff is available to discuss the AOC project implementation plan for the recommendations included in the Pegasus draft final report.

August 8, 2012
Page 2

CS/JM/mt
Attachments

cc: Justice Brad R. Hill, Chair, Court Facilities Working Group
Judge Patricia M. Lucas, Chair, Independent Outside Oversight Consultant (IOOC)
Subcommittee
Jody Patel, Interim Administrative Director of the Courts
Lee Willoughby, Director, AOC Office of Court Construction and Management
Mary Roberts, Director, Office of the General Counsel
Zlatko Theodorovic, Director, AOC Finance Division
Ernie Swickard, Assistant Director, AOC Office of Court Construction and Management
John Judnick, Senior Manager, AOC Finance Division
James Mullen, Senior Risk Manager, AOC Office of Court Construction and Management

**Judicial Council of California
Administrative Office of the Courts
Office of Court Construction and Management**



Response To:

***CALIFORNIA COURTHOUSE CAPITAL PROGRAM
MANAGEMENT AUDIT REPORT***

Final Draft – For Comment

Pegasus Global Holdings, Inc.®

August 8, 2012

**ADMINISTRATIVE OFFICE OF THE COURTS
OFFICE OF COURT CONSTRUCTION AND MANAGEMENT**

**RESPONSE TO:
PEGASUS DRAFT FINAL REPORT
AUGUST 8, 2012**

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 - 4.1 Organizational Structure
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- 5.0 PRIORITIZATION OF AOC RESPONSE ACTIONS
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8.0 APPENDICES

- A. Table of Recommendations and Summary Report
- B. Summary of Accomplishments
- C. AOC/OCCM Capital Program Organization Chart by Function
- D. Project Implementation Plan and PIP Org Chart
- E. PIP Process Document

1.0 EXECUTIVE SUMMARY

Management audits are intended to identify ways for organizations to improve their effectiveness and efficiency. By design, they focus on what can be improved and not on accomplishments or what is working well. All organizations can improve, and the Administrative Office of the Courts (AOC) and its Office of Court Construction and Management (OCCM) are no exception. OCCM is dedicated to continuous improvement in its role of being responsible for the planning, construction, renovation, operation, and maintenance of court facilities statewide. In carrying out this responsibility, OCCM strives to make incremental improvement every day. In the areas of customer service, operational performance, financial planning, legal requirements, architectural and engineering design, construction management, human resource development, and politics, OCCM's program requires daily and long-term balancing of these competing demands. In short it's everything required in developing a comprehensive business model for a program with facility management responsibility for 20 million square feet of existing court occupied space and a multi-billion dollar court construction program.

The Court Facilities Working Group (CFWG) selected and then directed the AOC to engage Pegasus Global Holdings, Inc. (Pegasus) to conduct a management audit of the courthouse construction program (Program), with a minimal review of the existing court facilities operations and maintenance management, and only where the existing facility management practices interfaced with the construction operations. The audit commenced on February 7, 2012. On July 26, 2012 Pegasus issued its draft final report of its findings and recommendations to which the AOC is responding with this document.

The AOC has reviewed the draft final report prepared by Pegasus and agrees with the overall findings and recommendations enumerated in the report. See Appendix A – Table of Recommendations.

Executive Summary Findings:

1. Qualified staff – the AOC agrees that its OCCM staff is well qualified and dedicated to the execution of the Program, and that many of the staff are working beyond the limits of a reasonable span of control.
2. Entrepreneurial perspective – the AOC agrees with Pegasus' assessment of the entrepreneurial spirit and use of initiative, ownership, and responsibility displayed by OCCM staff. It also agrees that this spirit should not be diminished by requirements that staff follow strict and unyielding policies and procedures.
3. The AOC agrees that the Program requires a staffing level that can successfully plan and execute the entire scope of work required at both the

- Program and project levels within the regulatory demands imposed, the budgets established, the schedules required, and the quality demanded.
4. The AOC agrees that had all SB 1732 and SB 1407 funded projects proceeded to construction, OCCM would not have had sufficient project management staff to successfully manage and control the Program and the individual projects.
 5. The AOC acknowledges that 31 SB 1407 projects have either been cancelled (Alpine and Sierra counties) or placed on hold until a reassessment is complete. Even with the reduced number of projects the project management staff may still be insufficient to manage the projects in construction or working drawings phase. As decisions are made on what projects move forward staffing will have to be continually evaluated and every effort be made to align staffing levels to the program and project demands.
 6. The AOC agrees that it will develop and present to the CFWG and at the CFWG's direction to the Judicial Council, policy documents that describe the participation by various stakeholders in completing tasks and deliverables necessary to successfully deliver both the Program and each project, and clarification of the authority of each party to the process. The policies will clearly delineate the Judicial Council as the owner of the Program, as prescribed by statute.
 7. The AOC agrees that by formalizing its existing practice of using project management directed project teams supported by a more horizontal organizational structure it can better allocate resources and deliver the Program.
 8. The AOC understands and agrees with the recommendations and findings concerning document control procedures.
 9. The AOC will refine and implement policies, procedures and processes in order to maximize the efficiency and effectiveness of staff and to achieve maximum uniformity in project delivery.
 10. The AOC will develop a Program Management Manual establishing critical responsibilities, authorities and guidelines required to successfully deliver the Program and individual projects.
 11. The AOC will develop a Project Execution Manual that will serve as a guide for the administration of each project.
 12. The current economic realities of the judicial branch may make it difficult to increase staff. Therefore, the AOC will continue to review staff resources to make sure they are being utilized in the most efficient and effective manner possible.

2.0 BACKGROUND

OCCM was formed in 2003 to assume responsibility for the operation and maintenance of all trial court facilities, and the planning and construction of new trial court facilities. Its funding comes from fees, assessments, and penalties allocated to court facilities infrastructure. Since its inception the OCCM has accomplished a great deal, but it has also operated under year-by-year changes in its operational mandates as a result of statewide economic circumstances. This has made program planning and control difficult.

In July 2011, Chief Justice Cantil-Sakauye appointed the 25-member CFWG to provide policy level guidance to OCCM when more than \$950 million in facility funding was swept to the state's General Fund or redirected for court operations that year. As a result of this appointment the CFWG now oversees the judicial branch's facilities program and recommends cost-efficient ways to proceed with minimal delay on court construction projects. It also can recommend delays, reassessments and cancellations of projects when necessary.

Recognizing that the judicial branch's courthouse construction program was at a point where it needed an independent review the CFWG instructed the AOC to issue a Request for Proposal in November 2011 with the following stated purpose:

“OCCM will engage an independent outside oversight consultant reporting to and acting under the direction of the Court Facilities Working Group (CFWG) to perform the Scope of Services set forth in Section 3.0 and provide the Deliverables set forth in Section.5.0. The primary goal for engagement of the Consultant is to provide Program oversight and support in order to enhance the success of the Program through the monitoring and evaluation of Program budget, scope, schedule, risks, and quality outcomes.”

After considering written and oral presentations from four organizations, the CFWG Independent Outside Oversight Consultant (IOOC) Subcommittee directed that the AOC engage Pegasus for the task; the contract was effective February 6, 2012. The specific scope of work and deliverables expected of Pegasus were:

- a. **Deliverable 1, Subpart a.1:** Assess the overall management of the Program relative to budget, scope, schedule and quality outcomes utilizing a combination of AOC Program policy, procedure, process, and standards document reviews and interviews of designated representatives of the CFWG, the executive and senior management of OCCM, and other senior AOC management staff responsible for key elements of the Program, e.g. procurement.
- b. **Deliverable 1, Subpart a.2:** Assess individual project team performance relative to budget, scope, schedule and quality outcomes utilizing a combination of document reviews and interviews with project managers and supporting staff responsible for the delivery of the following six projects:
 - 1) B.F. Sisk Renovation
 - 2) New Mammoth Lakes Courthouse
 - 3) New Portola/Loyalton Courthouse
 - 4) New San Bernardino Courthouse

- 5) New Susanville Courthouse
- 6) New Madera Courthouse

- c. **Deliverable 1, Subpart b:** Perform an assessment of the structure and composition of the program management and individual project delivery teams, OCCM organization structure, overall staff qualifications, and the quality of project consultants, architects and engineers, and general contractors.
- d. **Deliverable 1, Subpart c:** Provide a formal written narrative report that summarizes the findings set forth in the reports issued in response to Deliverables 1.a.1, 1.a.2, and 1.b, and that identifies corrective actions, improved processes, and recommendations that will provide the greatest value to the Program and that are necessary to deliver the Program at industry standards (or industry best practices).

3.0 PROGRAM MANAGEMENT

3.1 Authority

The OCCM was formed in response to the Legislature enacting SB 1732 the Trial Court Facilities Act of 2002, SB 1732 (Stats. 2002, ch 1082) effective January 1, 2003. The legislation assigned to the Judicial Council the following responsibilities, pursuant to Government Code section 70391:¹

- a) Exercise full responsibility, jurisdiction, control, and authority as an owner would have over trial court facilities the title of which is held by the state, including, but not limited to, the acquisition and development of facilities
- b) Exercise the full range of policymaking authority over trial court facilities, including but not limited to, planning, construction, acquisition, and operation, to the extent not expressly otherwise limited by law
- c) Dispose of surplus court facilities following transfer of responsibility under Article 3 (commencing with section 70321)
- d) Conduct audits of fees collected by local courts, local courthouse construction funds, and the collection of moneys to be deposited into the Immediate and Critical Needs Account of the State Court Facilities Construction Fund
- e) Establish policies, procedures and guidelines for ensuring that the courts have adequate and sufficient facilities, including but not limited to facilities planning, acquisition, construction, design, operation, and maintenance

¹ All future references to "section" refer to the Government Code unless otherwise noted.

- f) Establish and consult with local project advisory groups on the construction of new trial court facilities, including the trial court, the county, the local sheriff, state agencies, bar groups, and members of the community
- g) Manage court facilities in consultation with the trial courts
- h) Allocate appropriated funds for court facilities, maintenance and construction
- i) Manage shared use facilities to the extent required by joint occupancy agreements under section 70343
- j) Prepare funding requests for court facility construction, repair and maintenance
- k) Implement the design, bid, award, and construction of all court construction projects, except as delegated to others
- l) Provide for capital outlay projects that may be built with funds appropriated or otherwise available for this purpose, by approving five-year plans, establishing priorities for construction, and recommending to the Governor and the Legislature the projects to be funded from the State Court Facilities Construction Fund
- m) Consult with the local courts in the planning, design, construction, and maintenance of court facilities.

In carrying out these responsibilities the Judicial Council, by Rule of Court 10.184(b), delegated to the AOC the responsibility for the acquisition, space programming, construction, and design of court facilities under policies and procedures adopted by the Judicial Council. The AOC is also assigned responsibilities for planning, construction, management, operation, and maintenance of court facilities, pursuant to section 70392.

3.2 Evolving Priorities

Since its formation in 2003, OCCM has had an evolving set of priorities as evidenced by the Summary of Accomplishments attached as Appendix B. Some of the most significant events are summarized below:

2001	<ul style="list-style-type: none"> • The Task Force on Court Facilities (Task Force) identified critical physical deficiencies in court buildings throughout the state. In its final report the Task Force recommended the implementation of a program to improve or replace court facilities to make them safe, secure, and accessible. • The most far-reaching Task Force recommendation was that responsibility for courthouse stewardship should be shifted from the counties to the state. The Task Force recommended that the judicial branch, which is responsible for all court functions, should also be responsible for the buildings in which the courts operate.
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2002	<ul style="list-style-type: none"> • The Trial Court Facilities Act (SB 1732) was enacted. The act provided for the shift of responsibility for trial court facilities from county to state governance, under the direction of the Judicial Council. • Developed by the Task Force on Court Facilities, the Appellate Court Facilities Guidelines were adopted by the Judicial Council effective July 1, 2002.
2003	<ul style="list-style-type: none"> • The Office of Court Construction and Management was formed as a division within the Administrative Office of the Courts • OCCM completed, after close collaboration with superior courts and county justice partners in California's 58 counties, facilities master plans for each court. (The master planning effort was begun in 2001 by the AOC Finance Division's Facilities Unit, the predecessor to the OCCM) • OCCM developed and implemented procedures for the transfer of court facilities from the 58 counties to the state. • The Judicial Council approved and OCCM implemented the initial Prioritization Methodology on which basis projects identified in the master plans were prioritized and capital outlay funding requests were prepared and submitted to Department of Finance and the Legislature for consideration in the FY2004-2005 Budget Act. • New court filing fees, fines, and penalties established pursuant to SB 1732.
2004	<ul style="list-style-type: none"> • The first transfer of a courthouse from a county to the state was completed.
2005	<ul style="list-style-type: none"> • The Judicial Council adopted the first five-year plan documenting the urgent need for improvement of the state's court facilities. OCCM updates this five-year plan annually for the Judicial Council and submits it to the California Department of Finance to provide a context for funding requests on specific projects. • The first three SB 1732 trial court construction projects in Merced, Contra Costa, and Fresno counties were funded. • The Prioritization Methodology for Modifications to Court Facilities was adopted by the Judicial Council.
2006	<ul style="list-style-type: none"> • Three more SB 1732 court construction projects, for courthouse construction projects in Fresno, Mono, and Plumas counties, were funded by the Legislature.

	<ul style="list-style-type: none"> • To facilitate transfer of court facilities to judicial branch oversight, the Legislature revised the Trial Court Facilities Act by enacting Senate Bill 10, which resolved liability issues for the state in taking responsibility buildings that do not meet seismic safety standards. Under SB 10, buildings with a seismic level V rating could be transferred to the state so long as liability for all earthquake-related damage remained with the counties. • The Judicial Council adopted the Prioritization Methodology for Trial Court Capital-Outlay Projects, which resulted in a Trial Court Capital-Outlay Plan with projects assigned to one of five project priority groups. • The Judicial Council adopted revisions to the California Trial Court Facilities Standards. The Facilities Standards promote buildings that provide long-term value to the judiciary, to the courthouse occupants, to the community in which they reside, and the taxpayers of California. • The AOC contracted with three regional service providers for facility management services.
2007	<ul style="list-style-type: none"> • Funding for nine additional SB 1732 trial court construction projects was approved by the Legislature, including a performance based infrastructure project.
2008	<ul style="list-style-type: none"> • Legislation enacted through Senate Bill 1407 (Stats. 2008, ch. 311) launched an unprecedented courthouse rebuilding program in California by authorizing up to \$5 billion in lease-revenue bonds to finance new construction and renovation projects by establishing revenue sources to fund repayment of lease-revenue bond obligations. • The Judicial Council adopted a list of 41 courthouse construction and renovation projects in 34 counties to be funded by SB 1407. • By the end of 2008 responsibility and/or title to more than 400 court facilities was transferred from the counties to the state.
2009	<ul style="list-style-type: none"> • By the end of 2009, all 532 court facility transfers had been completed. • The AOC completed construction of a new courthouse for the Fourth District Court of Appeal, in Santa Ana, and a new courthouse in Portola, which was the first multijurisdictional courthouse, which serves the Superior Courts of Plumas and Sierra Counties. • The OCCM developed and the Judicial Council approved a Site Selection and Acquisition Policy for trial court facilities, to be implemented concurrently with the completion of the facilities transfers

	<p>and funding and planning for the capital outlay projects to be funded under SB 1407.</p> <ul style="list-style-type: none"> • The Fresno Juvenile Courthouse project was completed. • Due to the state’s budget crisis, the Legislature redirected \$65 million of court construction funds to court operations.
2010	<ul style="list-style-type: none"> • 40 of the 41 SB 1407 projects received funding authorization to proceed. The capital program totaled 59 projects - completed, current, or pending - valued at \$6.5 billion. • OCCM handled its 100,000th service work order for court facilities maintenance. • The AOC completed court construction projects in Fresno and Contra Costa counties and broke ground on court construction projects in Mammoth Lakes (Mono County) and Susanville (Lassen County). • Due to the state’s continued budget crisis, the Legislature redirected \$98.4 million of court construction funds to court operations.
2011	<ul style="list-style-type: none"> • The CFWG was established by the Chief Justice to provide oversight of the facilities program. • Due to the state’s continued budget crisis, the Legislature swept \$310 million from court construction funds for other state needs. Another \$440 million was borrowed, and \$213 million of facilities funds were redirected to court operations. As a consequence, in December 2011, the Judicial Council cancelled two SB 1407 projects and directed cost reductions on all others. • The AOC completed construction of the new Mammoth Lakes courthouse construction project, and the AOC started construction of the new San Bernardino courthouse. • The Facility Modifications budget was reduced by the Legislature from \$50 million down to \$30 million as a result of the budget redirections to court operations.
2012	<ul style="list-style-type: none"> • The CFWG determined that significant budget reductions will require that upwards of \$500 million in court construction projects be delayed indefinitely. • The CFWG announced an open, public process by which it will arrive at recommendations for the Judicial Council on which projects should proceed and which should be delayed. Pending final Judicial Council

	<p>decisions, the CFWG has ordered that all but 15 projects that are either in the course of construction or are in working drawings be stopped and re-evaluated.</p> <ul style="list-style-type: none"> • The AOC completed construction of the new Susanville Courthouse, and started construction of courthouses in Calaveras, San Benito, Tulare, Riverside and Madera counties. • The Facility Modifications budget was restored to \$50 million.
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The continual evolution of the scope, schedule and funding of the Program has resulted in a difficult environment in which necessary program-level and project-level policies, procedures and guidelines have not been fully developed and implemented. However, the slowdown of project design provides the opportunity to develop the necessary program and project-level policies, procedures and guidelines that align with accepted practices and standards in general use throughout the entire construction industry.

3.3 Results to Date

In its draft final report Pegasus indicated that OCCM has not yet been able to fully complete and implement its formal management and control policies, procedures and guidelines, which are the foundation on which the Program will move forward. However, the AOC and OCCM have essentially fulfilled all primary mandates under a set of policies, procedures, guidelines and processes that have been developed over time and will now be refined and formalized. These results have been accomplished through the effort of staff within OCCM.

As Pegasus observed and commented on throughout its draft final report, the individuals assigned to manage current and completed projects are willing and capable of devising and implementing practices, which have enabled them to overcome any gaps in the existing policies, procedures and guidelines to successfully achieve their project objectives. This willingness to be accountable and professional has served the judicial branch well, as evidenced by an analysis of budget, scope and schedule of 13 projects, valued at over \$1.3 billion that are either complete (Table 3.3.1) or under construction (Table 3.3.2).

Table 3.3.1

County	Project Name/Location	Original Completion Date	Actual Completion Date	Original Budget	Appropriated Budget	Actual Expenditure
Orange	Court of Appeal, 4th District, Division 3, Santa Ana	7/5/2008	9/15/2009	\$ 17,565,000	\$ 27,719,000	\$26,899,000
Plumas	Plumas/Sierra Regional Courthouse, Portola	11/1/2009	11/24/2009	\$ 6,496,000	\$ 6,534,200	\$ 6,060,531

Contra Costa	Richard E. Arnason Justice Center, Pittsburg	10/1/2009	11/15/2010	\$ 62,497,000	\$ 64,729,000	\$48,589,648
Fresno	B.F. Sisk Courthouse, Fresno/Renovation of Federal Courthouse	2/1/2009	10/18/2010	\$ 61,327,000	\$ 70,898,000	\$65,907,854
Mono	Mammoth Lakes Courthouse, Mammoth Lakes	9/23/2010	8/25/2011	\$ 21,303,000	\$ 21,522,000	\$20,321,181
Lassen	Lassen Superior Court Hall of Justice, Susanville	9/29/2011	3/31/2012	\$ 38,937,000	\$ 38,937,000	\$34,503,219

Of the seven projects under construction, six are being constructed under contracts between the AOC and construction contractors, and one, the Governor George Deukmejian Courthouse, is being constructed by the Long Beach Partners L.L.C (LBJP) through a Performance Based Infrastructure (PBI) approach and is on schedule to open in the fall of 2013. The schedule of projects currently under construction is provided in Table 3.3.2 below.

Table 3.3.2

County	Project Name/Location	Estimated Completion Date	Expected Completion Date	Original Budget	Appropriated Budget
San Bernardino	New San Bernardino Courthouse	12/11/2012	5/25/2014	\$ 303,437,000	\$ 339,822,000
Tulare	New Porterville Courthouse	6/13/2012	10/4/2013	\$ 73,841,000	\$ 93,364,000
San Benito	New Hollister Courthouse	6/25/2011	9/19/2013	\$ 32,462,000	\$ 37,378,000
Riverside	New Riverside Mid-County Courthouse	7/19/2010	11/21/2013	\$ 56,154,000	\$ 63,261,000
Calaveras	New San Andreas Courthouse	9/28/2011	9/24/2013	\$ 39,626,000	\$ 45,364,000
Madera	New Madera Courthouse	9/26/2012	4/18/2014	\$ 94,714,000	\$ 101,508,000
Los Angeles	Governor George Deukmejian Courthouse, Long Beach	10/20/2013	10/20/2013	\$ 405,300,000	\$ 395,710,000

In addition to the 13 projects either complete or in construction, an additional 10 projects are currently in workings drawings and are expected, subject to additional detailed review by the CFWG and funding, to move into construction. The construction of these projects, with project budgets in excess of \$1.7 billion, will start in 2013 and will span the next four years with the final project being completed in late 2016. The schedule of projects currently in working drawing phase is provided in Table 3.3.3 below.

Table 3.3.3

County	Project Name/Location	Estimated Completion Date	Expected Completion Date	Original Budget	Appropriated Budget
Alameda	East County Hall of Justice	4/3/2011	6/30/2015	\$ 130,010,000	\$ 137,412,000
Butte	New North Butte County	1/2/2015	11/16/2014	\$ 83,367,000	\$ 65,064,000

	Courthouse				
Kings	New Hanford Courthouse	9/11/2015	5/16/2016	\$ 142,449,000	\$ 124,329,000
San Diego	New San Diego Central Courthouse	2/14/2016	11/12/2016	\$ 633,934,000	\$ 620,117,000
San Joaquin	Renovation and Addition to Juvenile Justice Center	8/26/2013	6/16/2014	\$ 3,137,000	\$ 3,904,000
San Joaquin	New Stockton Courthouse	8/16/2012	5/26/2016	\$ 231,717,000	\$ 272,939,000
Santa Clara	New Santa Clara Family Justice Center	8/2/2013	9/15/2015	\$ 184,080,000	\$ 233,267,000
Solano	Fairfield Old Solano Courthouse Renovation	8/22/2012	11/18/2014	\$ 26,893,000	\$ 26,177,000
Sutter	New Yuba City Courthouse	12/12/2014	1/31/2015	\$ 100,626,000	\$ 71,679,000
Yolo	New Woodland Courthouse	5/7/2015	9/15/2015	\$ 172,940,000	\$ 161,452,000

3.4 Land Acquisition

Prior to moving into the design phases of each project, the OCCM must first acquire the new courthouse site by obtaining approvals for site selection and site acquisition from the State Public Works Board (SPWB). Each submittal to the SPWB requires a minimum two month advance submission period. For example, if OCCM were to submit a request for site selection approval to SPWB in January, the earliest meeting at which the SPWB would consider the item for approval would be at its March meeting.

To date 12 sites for the SB 1732 projects, and 17 of the sites for the SB 1407 projects have been acquired by the state.² The acquisition of the 29 sites is a result of OCCM obtaining 71 site selection approvals from the SPWB; followed by the negotiation and SPWB approval of 47 acquisition agreements, which are listed in Table 3.4.1.

At the outset of the site selection and acquisition phase for the SB 1407 projects, OCCM sent out 174 letters to local governmental entities notifying them of the new courthouse project and inviting them to provide the judicial branch with an economic opportunity (such as site donation, discounted sales price, etc.). The OCCM received 61 positive responses, which ultimately resulted in the acquisition of three donated parcels and three discounted parcels.

² The SPWB has approved acquisition of the site for the new Red Bluff courthouse in Tehama County, but the state has not yet closed escrow on the property.

Table 3.4.1

County	Project	Fund	# of Acquisition Agreements
Tulare	New Porterville Courthouse	SB 1732	2
San Joaquin	New Stockton Courthouse	SB 1732	3
San Bernardino	New San Bernardino Courthouse	SB 1732	1
San Benito	New Hollister Courthouse	SB 1732	1
Riverside	New Riverside Mid-County Courthouse	SB 1732	1
Plumas/Sierra	Plumas/Sierra Regional Courthouse, Portola	SB 1732	1
Mono	Mammoth Lakes Courthouse, Mammoth Lakes	SB 1732	2
Madera	New Madera Courthouse	SB 1732	2
Lassen	Lassen Superior Court Hall of Justice, Susanville	SB 1732	2
Contra Costa	Richard E. Arnason Justice Center, Pittsburg	SB 1732	1
Calaveras	New San Andreas Courthouse	SB 1732	1
Los Angeles	Governor George Deukmejian Courthouse, Long Beach	PBI	1
Santa Clara	New Santa Clara Family Justice Center	SB 1407	2
Santa Barbara	New Santa Barbara Criminal Courthouse	SB 1407	2
Glenn	Renovation and Addition to Willows Historic Courthouse	SB 1407	1
Siskiyou	New Yreka Courthouse	SB 1407	2
Kings	New Hanford Courthouse	SB 1407	1
Tuolumne	New Sonora Courthouse	SB 1407	1
Merced	New Los Banos Courthouse	SB 1407	1
Yolo	New Woodland Courthouse	SB 1407	2
Tehama	New Red Bluff Courthouse	SB 1407	1
Sutter	New Yuba City Courthouse	SB 1407	1
Sonoma	New Santa Rosa Courthouse	SB 1407	2
Solano	Fairfield Old Solano Courthouse Renovation	SB 1407	1
Shasta	New Redding Courthouse	SB 1407	6
Riverside	New Indio Juvenile and Family Courthouse	SB 1407	1
Monterey	New South Monterey Courthouse	SB 1407	1
Lake	New Lakeport Courthouse	SB 1407	1
Imperial	New El Centro Courthouse	SB 1407	2
Butte	New North Butte County Courthouse	SB 1407	1

3.5 Projects in Reassessment

In addition to the 17 projects that are in construction or have been approved to complete working drawings, there are 29 projects that have been designated for re-evaluation by the CFWG. Due to the redirection of funds from courthouse construction to court operations there is a need to carefully match the availability of funds to the need for new court facilities. To this end the CFWG has invited the trial courts and the public to provide written comments on the decision making process and draft criteria to be used for re-evaluating 29 projects to move forward with limited funds. The CFWG has asked the courts to provide information on the 16 criteria as they relate to each court's project or projects.

For the projects currently being re-evaluated, the OCCM has moved into a planning role until a decision is made as to which projects move forward to complete land acquisition and preliminary plans, and ultimately into working drawings and construction. However, before the projects were stopped to allow for re-evaluation, OCCM had completed a significant amount of work on many of the projects as indicated in Table 3.5.1. OCCM will have to continue to manage these projects until a decision is made concerning their future.

Table 3.5.1

Project Phase	# of Projects	Legislative Authorization to Proceed	Land Acquired	Architect Selected	Preliminary Plans Complete
Site Selection	4	4	0	4	0
Site Acquisition	13	13	1	13	0
Site Acquired	4	4	4	4	0
Preliminary Plans	8	8	7	8	2

4.0 KEY FINDINGS AND RECOMMENDATIONS

In the Executive Summary of its draft final report Pegasus listed three categories with 22 overall recommendations. Pegasus then provided 137 specific recommendations throughout the body of its draft final report. The AOC is responding to the three areas of overall recommendations below and has provided its response to the specific recommendations in the Table of Recommendations found at Appendix A.

4.1 Organizational Structure

Under the broad category of Organizational Structure, Pegasus makes five overall recommendations dealing with two primary issues: 1) need to clearly establish who the “owner” of the Program is and 2) reorganize the OCCM organization chart into a more horizontal structure.

4.1.1 The first two overall recommendations deal with the complex process involving local communities, state and local government agencies, and trial courts associated with each project. Pegasus recommends that the Judicial Council establish who is the “owner” of the Program, and, by inference, each project. Pegasus further recommends that formal detailed policies and procedures be established that clearly delineate the party with the authority, and the limits of that authority, to take actions on behalf of the “owner”.

4.1.2 **RESPONSE:** Section 70391 delegates to the Judicial Council the full responsibility, jurisdiction, control, and authority as an owner would have over

trial court facilities the title of which is held by the state, including, but not limited to, the acquisition and development of facilities, as well as policy-making authority over trial court facilities, including planning, construction, acquisition, and operation of those facilities. The Judicial Council has then delegated the day-to-day responsibility authorized under section 70391 to the AOC by Rule of Court 10.184(b). The Legislature further assigned the Administrative Office of the Courts, under section 70392, the responsibility for the construction of court buildings. Within the authority to act as an owner the Judicial Council and by delegation, the AOC, is charged with working directly with the local trial courts in the planning, design, construction, and maintenance of court facilities [section 70391(m)] and with project advisory groups when new court facilities are being constructed [section 70391(f)].

The multiple parties involved in a court construction project make the relationships complex. Therefore the AOC agrees that there is a need to clearly establish in policies, procedures and guidelines the specific authority and responsibility of each party, and that the Judicial Council be clearly identified as the project “owner” as prescribed by statute.

- 4.1.3 The next three overall recommendations deal with a Pegasus’ recommendation that the OCCM reorganize into a more horizontal structure; complete policies, procedures, and guidelines that align with the new structure; and utilize existing core staff to stretch OCCM’s capabilities to provide more complete and coordinated actions at both the program and project level.
- 4.1.4 **RESPONSE:** The organizational structure of the OCCM was originally developed in 2003 and has remained basically unchanged except to expand, and now contract, with the requirements of the Program. The OCCM organization was created under a different set of circumstances than currently exist. All staffing decisions have been hampered by the state’s economic conditions. Since July 1, 2009, the human resource restrictions affecting hiring, promotion, and wages have severely hampered the OCCM in developing a human resource plan that aligns staffing needs with work requirements.

However, as pointed out by Pegasus, the OCCM staff is well qualified and is dedicated to the execution of the Program and individual projects, often bearing a program and project load which is at, or in certain cases, beyond the limits of the person’s reasonable span of control. In considering the Pegasus’ recommendation the OCCM management team took a systematic, methodical approach, with three tests being applied to evaluate the existing structure and consider the Pegasus’ suggestions concerning a more horizontal structure.

- The first test was whether a proposed change would bring value to the organization. If the answer was yes, then it was considered further.
- The second test was whether a proposed change would improve the management attention to the task. If the answer was yes, then it was considered further.
- The third test was whether a proposed change would reflect the strengths, weaknesses and motivations of the OCCM management team and staff. If the answer was yes to all three tests, the change was added to the organization chart.

The revised functional OCCM organization chart is attached as Appendix C. If ultimately approved and adopted, the structure reflected in that chart will allow better utilization of existing resources, will place increased emphasis on project risk assessment and allocation, and will facilitate the development of policies and procedures more closely aligned with program and project knowledge areas set forth in the **PMBOK Guide**, 4th Edition and its **Construction Extension**.

4.2 Polices, Procedures, and Processes

- 4.2.1 Under the broad category of Policies, Procedures, and Processes, Pegasus makes seven overall recommendations that address the need for the OCCM to develop a formal process to develop, manage, update, improve, and control program and project policies, procedures, and guidelines. Some of the key aspects of these overall recommendations are that the OCCM should:
- a. Develop a formal electronic document control system
 - b. Take advantage of lessons learned from its work in progress in developing its policies, procedures, and guidelines
 - c. Adopt those portions of the State Administrative Manual that apply to its program and individual projects, e.g., SAM Chapter 6800
 - d. Adopt a uniform template for its policies, procedures, and guidelines
 - e. Establish a numbering and naming system to establish a logical relationship between the policies, procedures, and guidelines
 - f. Align all elements of construction management and control in its policies, procedures, and guidelines, in order to ensure that program and project goals and objectives are adhered to and met
 - g. Consolidate its policies, procedures, and guidelines into a centralized document control system to allow for effective and efficient archiving and accessibility.

4.2.2 RESPONSE: The AOC and OCCM have carefully considered both the overall and specific Pegasus' recommendations having to do with the need for formal written program and project policies, procedures, and guidelines. In its analysis, OCCM has reviewed all of the documents already developed and provided to Pegasus as part of its document request and is working to arrange these documents in a logical relationship, utilizing a formal naming and numbering protocol, and have them readily available to all OCCM staff in an electronic format. OCCM has also taken the following steps to develop and implement each of the Pegasus' recommendations:

- a. Develop a written Project Implementation Plan (PIP) and PIP Process Management Document to guide the development of the policies, procedures, and guidelines. Both documents are attached, as Appendices D and E.
- b. Establish 17 teams, led by 10 OCCM managers or senior staff, to initially develop the necessary policies, procedures, and guidelines, and then to be continuously responsible for their maintenance.
- c. Assign each specific Pegasus' recommendation to a team and Team Lead. See Table of Recommendations at Appendix A and Project Implementation Plan and PIP Org Chart at Appendix D.
- d. Establish an urgency assessment and due date for each Pegasus' recommendation assigned to a team and Team Lead. See Table of Recommendations at Appendix A.
- e. Obtain assistance from the AOC Office of General Counsel to establish existing levels of responsibility and authority and to conduct a "gap analysis" to determine areas where further Judicial Council or AOC Executive Office action may be necessary.
- f. Establish a team to develop, within the exiting electronic database, a specific site to allow for effective and efficient archiving and accessibility of program and project documents, which can be transferred to a more robust site as funds are allocated for this purpose.

4.3 Program/Project Execution

4.3.1 Under the broad category of Program/Project Execution, Pegasus makes ten overall recommendations concerning the OCCM methods for delivering the Program and projects. The key aspects of these overall recommendations are as follows:

- a. The Judicial Council should adopt a Project Execution Manual that addresses the elements necessary to manage a project in compliance with the developed policies, procedures, and guidelines

- b. OCCM should review its design and procurement policies to take advantage of economies of scale and generic design criteria to reduce the cost of a project and its total life cycle cost
- c. The AOC should examine its contracting policies specific to those projects employing a CM@Risk delivery method to ensure that multiple layers of consultative contracts do not create a conflict of interest and dilute the assignment of risk to the architect and CM@Risk contractor
- d. OCCM should develop a formal policy and procedure, and, if necessary, modify the architectural contract, to establish a standard process for the submittal, review, and approval or rejection of project design
- e. OCCM should develop an improved system of management, control and reporting of project cost and schedules
- f. OCCM should establish a formal quality management program
- g. OCCM should formalize the lessons learned process
- h. OCCM should conduct a process review of the relationships between project stakeholders to identify areas of improvement that would allow for more efficient and effective attainment of project goals.

4.3.2 RESPONSE: The OCCM management team has carefully considered the overall recommendations made by Pegasus and the more specific recommendations made in the body of its draft final report. AOC and OCCM management agree with each recommendation and has assigned each of the ten overall recommendations to a team and Team Lead to ensure that as the requisite policies, procedures, and guidelines are developed, and these overall recommendations will be incorporated into those documents.

More specifically OCCM has already taken steps to incorporate some of these overall recommendations into its operations, as follows:

- a. With the assistance of the Office of General Counsel, OCCM will develop a Program Management Manual that will establish the critical responsibilities, authorities, and guidelines that are required to deliver the program and individual projects. This manual will become the foundation for the Program, will be submitted for approval to the Judicial Council, and will be amended from time to time as necessary. This manual will be the lynchpin from which more subject matter specific policy, procedures and guidelines are developed.
- b. The CFWG has appointed a Courthouse Cost Reduction Subcommittee that has been assigned the responsibility to establish cost-reduction strategies for all phases of project design and construction.
- c. OCCM has engaged the AOC Business Services Unit to discuss current ID/IQ and work order based contracts to determine if more cost effective

methods can be employed to provide necessary services. Decisions resulting from these discussions will then be captured in a Local Contracting Manual specific to contracting for construction, acquisition, and operation of superior court facilities.

- d. As part of the effort described in RESPONSE item “c” above, the specific contracts forms will be developed for an AOC/OCCM on-site representative, the role of which will differ from a construction manager. As part of establishing the project delivery policy and procedure for each project, the project manager will establish his or her resource plan for the project that will specially differentiate between construction management services and on-site representative services. Different and specific contracts will be used for each type of service that will coordinate with, rather than conflict with, the project design and construction services contracts.
- e. As part of OCCM’s reorganization, the risk management, quality management, procurement management and safety management knowledge areas will be developed concurrently utilizing the PMBok Guide and its Construction Extension as the appropriate guidance document.
- f. Lessons learned and stakeholder satisfaction will be included in the risk/quality management program.

5.0 PRIORITIZATION OF AOC RESPONSE ACTIONS

5.1 Pegasus’ Prioritization

Pegasus provided the AOC with a prioritization of its recommendations as part of its draft final report. Pegasus segregated its recommendation into seven groups that correspond to eleven priority recommendations. The difference between the number of priority recommendations and the corresponding Appendices is that not every priority recommendation has a corresponding appendix. Therefore in order for the AOC to rank the Pegasus’ recommendations in the Table of Recommendations the AOC has made a conversion of the eleven priority recommendations to the seven appendices included in the Pegasus’ draft final report. The AOC - developed conversion table is provided below:

- Priority 1 (No corresponding Appendix) - Adopt a more horizontal organizational structure for OCCM
- Priority 2 (Appendix A) – Finalize policies, procedures and guidelines
- Priority 3 (Appendix B) – Issue delegations of authority
- Priority 4 (Appendix C) – Install a comprehensive document control system
- Priority 5 (Appendix D) – Implement a cohesive and comprehensive construction management and control system

- Priority 6 (Appendix E) – Adopt uniform design review and approval policies, procedures, guidelines, practices and contracts
- Priority 7 (Appendix F) – Finalize, adopt and distribute a Program Management Manual
- Priority 8 (Appendix G) – Finalize, adopt and distribute a Project Execution Manual
- Priority 9 (No corresponding Appendix) – Implement a formal lessons learned program
- Priority 10 (No corresponding Appendix) – Develop evaluations of the execution of scopes of work undertaken by architects, consultants and contractors
- Priority 11 (No corresponding Appendix) – Develop evaluations of management, control and working relationships among all project stakeholders.

5.2 AOC Prioritization

When Pegasus began its program review, the AOC was responsible for the site acquisition, design and construction of 50 court facilities. On July 25, 2012 the CFWG instructed the AOC to pause on 29 court facilities until there is a re-evaluation of the need, design, and funding for those facilities. As a result, the AOC is now directly responsible to complete construction for 6 court facilities, the oversight of the PBI contract with LBJP to ensure adherence to the functional and quality standards for the Governor George Deukmejian Courthouse in Long Beach, and completion of working drawings for 10 additional court facilities with the expectation that all will proceed to construction. This schedule of projects is provided in table 5.2.1 below.

Table 5.2.1

As of August 1, 2012	Process Phase	Total Construction	Actual/Expected Start Date	Fund
Tulare/Porterville	Construction	\$ 93,364,000	2/1/2012	1732
San Bernardino/New San Bernardino	Construction	\$ 339,822,000	11/28/2011	1732
San Benito/Hollister	Construction	\$ 37,378,000	2/15/2012	1732
Riverside/Mid-County	Construction	\$ 63,261,000	3/20/2012	1732
Madera/New Madera Courthouse	Construction	\$ 101,508,000	8/1/2012	1732
Calaveras/San Andreas	Construction	\$ 45,364,000	2/27/2012	1732
San Joaquin / Stockton	Working Drawings	\$ 248,000,000	2/20/2014	1732
Los Angeles/Governor George Deukmejian Courthouse, Long Beach	Construction	\$ 395,710,000	7/8/2011	PBI
Alameda/ East County	Design/Buid	\$ 137,412,000	7/1/2013	1407
Yolo / New Woodland	Working Drawings	\$ 139,031,000	7/17/2013	1407
Sutter / New Yuba	Working Drawings	\$ 82,687,000	7/2/2013	1407
Solano / Renovation in Fairfield	Working Drawings	\$ 23,045,000	7/3/2013	1407

Santa Clara/ Family Law	Working Drawings	\$ 208,162,000	7/16/2013	1407
San Joaquin / French Camp	Working Drawings	\$ 3,904,000	4/24/2013	1407
San Diego/ New Downtown	Working Drawings	\$ 564,633,000	7/15/2014	1407
Butte / New North County	Working Drawings	\$ 54,016,000	3/1/2013	1407
Kings / New Hanford	Working Drawings	\$ 109,055,000	7/25/2013	1407

As a result of the CFWG action to re-evaluate 29 projects, the AOC determined that it should concentrate its efforts to develop those policies, procedures and guidelines that would have the most immediate impact on the working drawings, construction, and handoff & warranty phases of the projects listed in Table 5.2.1. The AOC assigned to each Pegasus' recommendation the project phase it would most affect, using the following project phase descriptions:

1. Prioritization
2. Acquisition
3. Preliminary Plans
4. Working Drawings
5. Construction
6. Handoff & Warranty
7. Program wide

Team Leads have been instructed to develop policies, procedures, and guidelines using the following combination of priority designations:

- | | |
|---|--------------------------|
| 1. Working Drawings/Pegasus Priority 2 | Completion: Oct 31, 2012 |
| 2. Construction/Pegasus Priority 2 | Completion: Oct 31, 2012 |
| 3. Handoff & Warranty/ Pegasus Priority 2 | Completion: Oct 31, 2012 |
| 4. Construction/ Pegasus Priority 4 | Completion: Oct 31, 2012 |
| 5. Working Drawings/Pegasus Priority 4 | Completion: Oct 31, 2012 |
| 6. Working Drawings/Pegasus Priority 6 | Completion: Oct 31, 2012 |
| 7. Construction/Pegasus Priority 5 | Completion: Oct 31, 2012 |
| 8. Preliminary Plans/Pegasus Priority 2 | Completion: Dec 3, 2012 |
| 9. Acquisition/ Pegasus Priority 2 | Completion: Dec 3, 2012 |
| 10. Prioritization Pegasus Priority 2 | Completion: Dec 3, 2012 |
| 11. Preliminary Plans/Pegasus Priority 4 | Completion: Dec 3, 2012 |
| 12. Acquisition/ Pegasus Priority 4 | Completion: Dec 3, 2012 |
| 13. Prioritization/Pegasus Priority 4 | Completion: Dec 3, 2012 |
| 14. Handoff & Warranty/Pegasus Priority 9 | Completion: Dec 3, 2012 |
| 15. Handoff & Warranty/Construction/Pegasus Priority 10 | Completion: Dec 3, 2012 |

Concurrent with the work by the Team Leads, the OCCM Executive staff is working to complete specific Pegasus recommendations under the following prioritization:

1. Pegasus Priority 1 - Adopt a more horizontal organization chart
Completion: September 1, 2012
2. Pegasus Priority 3 – Issue delegations of authority
Completion: October 3, 2012
3. Pegasus Priority 7 – Develop a Program Management Manual that includes clear delegations of authority for approval by the AOC Executive Team and Judicial Council
Completion: Review document by October 1, 2012
4. Pegasus Priority 8 – Finalize, adopt, and distribute a Project Execution Manual
Completion: January 16, 2013
5. Pegasus Priority 11 – Develop evaluations of management, control and working relationships among all project stakeholders
Completion: February 13, 2013

6.0 TABLE OF RECOMMENDATIONS (Appendix A)

6.1 Evaluation Process

The Pegasus' draft final report includes 137 recommendations. Each Pegasus' recommendation and the OCCM evaluation of each are presented in the attached Appendix A, **Table of Recommendations**.

In its evaluation, OCCM utilized a formal process by a team of assistant directors and senior managers knowledgeable in the key aspects of the Program to review and rank the findings of the draft final report. The process included six components:

- Capture the Pegasus' assigned priority - what priority was assigned by Pegasus to the recommendation?
- Establish the Project Phase – what project phase is most affected by the recommendation?
- Complete an urgency assessment – what will be the impact on the Program of the finding or recommendation?
- Provide an Action Status – what is the current status of each finding or recommendation?
- Assign a Team Lead – this is the person responsible to complete the policy, procedure, process, or manual consistent with the Pegasus' findings and recommendations
- Assign a Deliverable Due Date – this is the last date by which the required policy, procedure or guideline has been, or will be reviewed and accepted by the peer review team.

6.2 Pegasus' Priorities

Pegasus provided the AOC with a prioritization of its recommendations as part of its draft final report. The recommendations were segregated into seven groups that correspond to the eleven priority recommendations detailed in Section 5.1 above.

Pegasus did not provide a priority ranking for every recommendation included in the Table of Recommendations. In many instances, due to the scope of its recommendation, Pegasus applied multiple priority rankings to the same recommendation. For any recommendation where Pegasus did not establish a priority ranking the AOC assigned a priority. Whenever Pegasus assigned more than one priority ranking to a recommendation, AOC assigned the highest rank.

The Pegasus evaluation process developed the number of recommendations, by priority, as indicated in Table 6.2.1 below.

Table 6.2.1

Pegasus Priority	Count of Ordinal Ranking	Percentage of Total
1	4	3%
2	51	37%
3	20	15%
4	12	9%
5	6	4%
6	9	7%
7	25	18%
8	7	5%
9	1	1%
10	0	0%
11	2	1%
	137	100%

6.3 Project Phase

As explained under Section 5.0 above, due to the re-evaluation of 29 projects, it is most productive to the AOC to complete those policies, procedures, and guidelines that affect the working drawings phase, the construction phase and the handoff & warranty phase of each of the 17 projects that are in one of those three phases. Once the policies, procedures, and guidelines affecting these three phases are complete, the documents affecting all other phases will be completed before any projects are released to resume site acquisition or preliminary plans. The number of policies, procedures, and guidelines assigned to each project phase is represented in Table 6.3.1 below.

Table 6.3.1

Construction Phases	Count of Construction Phases	Percentage of Total
Prioritization	20	15%
Acquisition	4	3%
Preliminary Plans	4	3%
Working Drawings	31	23%
Construction	24	18%
Handoff & Warranty	8	6%
Program Wide	46	34%
	137	100%

6.4 Urgency Assessment

The urgency assessment is intended to highlight those findings and recommendations that will have the greatest immediate impact on the Program. The definition for each urgency assessment assignment follows:

1. **Immediate Positive Impact on Program** – any recommendation given this designation was assigned to a Team Lead with the understanding the task would be developed and implemented on a priority basis.
2. **Promotes Key Element of the Program** – any recommendation given this designation was assigned to a Team Lead with the understanding that work would commence immediately and, in some cases, can be completed in a short time frame. However, other tasks may have significant obstacles to final completion, such as completion of another policy, procedure, or guideline that is precedent, or staff and budget realities.
3. **Promotes Compliance with a Comparative Industry Standard** – any recommendation given this designation was assigned to a Team Lead with the understanding the task was a lower-priority basis than 1 or 2 above. While OCCM strives to be compliant with appropriate industry standards and benchmarks it will, by necessity, be most concerned with ensuring that the items ranked with a higher priority are completed.
4. **Adequate Existing Procedure and Process** – any recommendation given this designation is, in the opinion of OCCM, already incorporated into an existing policy, procedure, or process, and requires no further work at this time.
5. **No recommendation** – any finding given this designation did not have an associated Pegasus' recommendation.

The evaluation process has produced results indicated in table 6.4.1 below.

Table 6.4.1

Urgency Assessment Rank	Count of Urgency Assessment Rank	Percentage of Total
Immediate positive impact on program	38	28%
Promotes key element of the program	84	61%
Promotes compliance to comparative industry standard	13	9%
Adequate existing procedure/process	0	0%
No Recommendation	2	1%
	137	100%

6.5 Action Status

OCCM includes in its Table of Recommendations a data element that establishes the current status of the action necessary to address each recommendation.

Work on a recommendation is characterized as:

- In-Process
- New Activity
- Under Evaluation
- No Action Required, or
- Completed

As of August 1, 2012, the action status of the 137 recommendations is indicated in Table 6.5.1 below:

Table 6.5.1

Status	Count of Status	Percentage of Total
In-Process	135	99%
Complete	2	1%
	137	100%

6.6 Team Leads

Team Leads were assigned by their subject matter knowledge and to spread the work evenly over a number of managers and senior staff. The delegation of work is indicated in Table 6.6.1 below:

Table 6.6.1

PIP Team and Team Lead Name	Count of PIP Team Assignments	Percentage of Total
PIP Support Team Jim Mullen	11	8%

Document Control Team Jim Stephenson	12	9%
D&C Delivery Method Selection Team Rob Uvalle	4	3%
Procurement Policy Team Jim Mullen	13	9%
Planning and Finance Team Kelly Quinn	16	12%
D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	29	21%
Real Estate Team Eunice Calvert-Banks	4	3%
D&C Standards Team Clifford Ham	6	4%
QA/QC Team Jim Stephenson	13	9%
Start Up and Warranty Team Nick Turner	6	4%
Risk Management Team Jim Mullen	4	3%
Project Management Team Ernie Swickard	18	13%
D&C Project Progress Documentation Team Rona Rothenberg	1	1%
	137	100%

6.7 Deliverable Due Date

The Deliverable Due Date is the last date by which the policies, procedures, and guidelines are to have been approved by the peer review team. These dates are established to align with assigned staff availability and to coincide with possible CFWG or Judicial Council actions concerning the Program. As explained in section 5.0 above, all policies, procedures, and guidelines that directly affect projects will be complete by December 3, 2012. Other documents, such as the Project Execution Manual that by necessity must follow the completion of the policies and procedures, will be completed in January or February of 2013.

Table 6.7.1

Deliverable Date	Aggregate Number of Deliverables by Date	Percentage of Total
August 31, 2012	32	23%
October 1, 2012	8	6%
October 31, 2012	45	33%

December 3, 2012	40	29%
January 16, 2013	8	6%
10/3/12 - 12/3/12	2	1%
Complete	2	1%
	137	100%

7.0 CONCLUSION

Since its inception, the Office of Court Construction and Management has made tremendous progress in developing a comprehensive program for maintaining and improving over 500 court facilities statewide. The Program has been acknowledged by industry service provider associations, such as the American Association of Architects, Construction Management Association of America, Associated General Contractors, and the American Council of Engineering Companies, as one of the best-managed capital programs in California. OCCM acknowledges that there is work that remains to be completed, and welcomes the beneficial recommendations of Pegasus.

As stated throughout its response, the AOC is supportive of Pegasus' recommendation to develop program and project policies, procedures, and guidelines as a compliance measure, and more importantly as a productivity measure. The uncertainty associated with the court facility construction program over the past three years has dictated that the Program delivery must be flexible, and must rely on dedicated and experienced professional staff that is able to work cooperatively with one another to deliver their project assignments.

Like many other organizations that are looking to restructure in order to reduce operating costs, the AOC is in a continuing process to decrease management costs, increase productivity from staff, and reduce general and administrative costs. Ultimately this will lead to more work being done through the successful and effective use of self-directed teams led by a project manager.

The OCCM is already using project manager directed project teams to deliver court facility construction projects. However, the Pegasus' draft final report indicates that there has not been a uniform understanding and application of policies, procedures, and guidelines by each project manager and project team. As indicated in the Table of Recommendations, OCCM is committed to complete implementation of all of Pegasus' recommendations as soon as practical in order to enhance the ability of its project teams to deliver projects on time, within budget, and at the highest quality,

Of the 137 recommendations, all are “In Process” and most will be completed by December 3, 2012, with a few tasks remaining to be completed in January and February of 2013. Some require decisions on staffing and budget, and all require an analysis of interaction with the many AOC and Executive Branch operating units that are involved in the delivery of a successful program and project.

The AOC welcomes Pegasus’ continued comment on this response and looks forward to working with Pegasus to continually improve the AOC courthouse construction program.

APPENDIX A

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As Of: 08/08/2012

Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
1	1	V1-R-4.2-1 OCCM should prepare and adopt a formal Human Resource Plan which follows the industry Standard Of Care.	Program Wide	Promotes key element of the program	In-Process	Project Management Team Ernie Swickard	December 3, 2012
2	1	V1-R-4.2-2 OCCM should, where indicated by the Human Resource Plan, realign staff to ensure it is making the most effective and efficient use of the current staff either under the current organizational structure, or an alternative organizational structure that better aligns with current resources.	Program Wide	Promotes key element of the program	In-Process	Project Management Team Ernie Swickard	December 3, 2012
3	1	V1-R-4.2-3 Using the Human Resource Plan OCCM should identify those vacant functional positions which are impacting OCCM's ability to achieve its functional responsibilities and showing how the decisions were made to staff some positions over other critical positions.	Program Wide	Promotes key element of the program	In-Process	Project Management Team Ernie Swickard	December 3, 2012
4	4	V1-R-4.3-1 OCCM should adopt a formal, electronic document control system, preferably one of the commercially available systems which can be quickly installed. While various industry entities and agencies have developed and installed custom programmed electronic document control systems, it is expensive and time consuming to undertake such an effort. Given the urgent need to install and populate such a matrixed electronic system and the need to quickly train the users of the system, the commercially available systems represent a much more reasonable approach for the Court Capital Construction Program.	Program Wide	Promotes key element of the program	In-Process	Document Control Team Jim Stephenson	August 31, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
5	4	V1-R-4.3-2 There should be a standard format for cross referencing the policies which site any function or create any link between the policy under review and all other intersecting policies.	Program Wide	Promotes key element of the program	In-Process	PIP Support Team Jim Mullen	October 31, 2012
6	4	V1-R-4.3-3 Similar documents should have a common format, for example: Each policy should have on its front cover the policy name and, if the policies are to be numbered, a logically flowing numbering scheme, as the current numbering scheme for those with numbers does not provide a logical flow among policies or procedures. Then the original approval date, followed with any revisions and the revision dates should be added to the cover sheet of the policy. A standard policy template for the Program should be developed and agreed by AOC and OCCM – in short, the content sections should be identical across every policy. Once the standard template has been developed, all policies should be revised to be consistent with this standard template. It is recommended that this effort be done upon completion of the Program Management Manual so that the uniformity between policies can be done at the same time as the gap review between the policies and the Program Management Manual for efficiencies and to avoid any duplication of effort.	Program Wide	Immediate positive impact on program	Complete	PIP Support Team Jim Mullen	-

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As Of: 08/08/2012

Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
7	2	V1-R-4.3-4 Pegasus-Global was given the policies and procedures in two formats: electronically by policy and in hard copy in two three ring binders. Neither the electronic or hard copy of policies and procedures were provided in a uniform organized structure. Polices should be filed (electronically and hard copy) in an order of precedence so that the reviewer is able to quickly and efficiently determine the order of precedence among multiple policies and procedures. The primary foundation document – the Program Management Manual – should include an Appendix which lists all subsequent policies and procedures in precedent number order, giving the policy or procedure title and showing the most current revision date.	Program Wide	Immediate positive impact on program	In-Process	PIP Support Team Jim Mullen	October 1, 2012
8	4	V1-R-4.3-5 OCCM should take action to identify, gather and organize those documents critical to the Process Access Library (“PAL”), the Program Level operational requirements (i.e., Site Acquisition, Appropriations and Planning, etc.) and project execution for installation into an electronic document control system. This will serve two functions: (1) creation of a full catalogue of the critical program and project documents, and (2) enable OCCM to establish the structure and organization of the electronic document control system. ⁸³	Program Wide	Promotes key element of the program	In-Process	PIP Support Team Jim Mullen	October 1, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
9	2	V1-R-4.3-6 OCCM Program Management should develop and issue a document preparation, management and control procedure which will ensure the timely and comprehensive preparation, distribution and capture (filing) of critical program and project document sets [there is no evidence that such a policy and procedure exists]. The document control requirements should include policy statements addressing the preparation and retention of program and project documents, the procedures by which program and project documents are prepared, distributed, captured and retrieved, and the processes for preparation, distribution, capture and retrieval of program and project documents. The document control guidelines should clearly identify the party accountable for preparation, distribution, capture and retrieval of program and project documents, and just as importantly, identify those individuals empowered to edit, revise or update critical program or project documents (i.e., the Five-Year Plan, the DOF required reports, the project execution budget, etc.).	Program Wide	Promotes key element of the program	In-Process	Document Control Team Jim Stephenson	August 31, 2012
10	2	V1-R-4.3-7 Policies and procedures which address similar topical areas (i.e. estimating, cost management and control, invoicing and project/program cost status) should be linked within the electronic and/or hard copy files and, if possible have a numbering order or format which enables the reviewer to efficiently pull all of those policies without having to review the titles or attempt to guess the relationship between the policies and procedures (i.e., the linked cost policies could have a predecessor number of "29", followed by a unique policy number – for example "estimating" could have a number of 29-001).	Program Wide	Immediate positive impact on program	In-Process	Document Control Team Jim Stephenson	August 31, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
11	3	V1-R-4.4-1 The Judicial Council in consultation with the AOC and in recognition of the legislative actions in effect, should clearly establish the ultimate Owner of the Program and all of the projects which comprise that megaprogram.	Program Wide	Promotes key element of the program	In-Process	Project Management Team Ernie Swickard	October 1, 2012
12	3	V1-R-4.5-1 Once the identification of the Owner has been resolved, the Owner, working with the AOC and OCCM should establish formal, detailed delegations of authority which clearly delineates the party within the Program and projects with the authority to make decisions and take actions on behalf of the Owner. Those delegations must also specifically identify the limits of each delegated authority.	Program Wide	Promotes key element of the program	In-Process	Project Management Team Ernie Swickard	October 1, 2012
13	2	V1-R-4.6-1 OCCM should finalize and in some cases develop or reissue its policies, procedures and processes in order to provide a complete set of relevant program and project policies, procedures and processes for the Court Capital Construction Program and its constituent projects. Such action will address a number of the issues raised by Pegasus-Global relative to the uniformity, transparency and accountability during this audit.	Program Wide	Promotes key element of the program	In-Process	PIP Support Team Jim Mullen	December 3, 2012
14	7	V1-R-4.7-1 Establish a formal, comprehensive risk management program for the Court Capital Construction Program that extends through the Program to the project level.	Program Wide	Promotes key element of the program	In-Process	Risk Management Team Jim Mullen	December 3, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
15	7	<p>V1-R-4.8-1</p> <p>The Project Management Plan (PgMP) should be finalized, expanded and updated to reflect the following:</p> <ul style="list-style-type: none"> o Expanded and consistent definitions across and throughout the Project Management Plan (PgMP) with regard to positions, functions, responsibilities, etc., based on the current operational parameters in effect (or to be developed) within the Program and projects. o Specific positions with roles and responsibilities should be defined along with a complete and comprehensive organizational chart that can be easily modified and be included as an Appendix to the Program Management Plan (PgMP) in replacement of an earlier organizational chart. o A specific listing with dates of original approval and any revisions should be included for all regulatory requirements, policies, procedures and processes currently in place and those regulatory requirements, policies, procedures and processes yet to be finalized, updated or developed in the future along with anticipated date of completion. 	Program Wide	Immediate positive impact on program	In-Process	Project Management Team Ernie Swickard	January 16, 2013
16	7	<p>V1-R-4.8-2</p> <p>Specific, measurable goals and objectives for the Program and the projects should be included in the PgMP.</p>	Program Wide	Promotes key element of the program	In-Process	Project Management Team Ernie Swickard	January 16, 2013
17	7	<p>V1-R-4.8-3</p> <p>Specific, measurable goals and objectives for each position identified within the PgMP should be included in the PgMP.</p>	Program Wide	Promotes key element of the program	In-Process	Project Management Team Ernie Swickard	January 16, 2013

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As Of: 08/08/2012

Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
18	3	V1-R-4.8-4 The PgMP should define, formalize, and specify in greater detail the roles and functions of each of the Program sub-units, noting specific requirements, standards, and expectations for each Program sub-unit. The PgMP should contain statements of the relationship to, and interaction among, the various Program sub-units, which clearly delineate those functions which intersect and the required coordination with among the various Program sub-units.	Program Wide	Promotes key element of the program	In-Process	Project Management Team Ernie Swickard	January 16, 2013
19	2	V1-R-4.8-5 The PgMP should provide each functional position with direction to those policies, procedures and processes applicable and necessary to the achievement of that position's functions and responsibilities.	Program Wide	Promotes key element of the program	In-Process	PIP Support Team Jim Mullen	January 16, 2013
20	2	V1-R-4.8-6 The PgMP should identify each of the functional systems in place and use to manage the Program and projects, in particular the following: o Document Control System; o General Program Procedures; o General Program Structure (i.e., relationship of OCCM to the Judicial Council and CFWG, AOC, regional offices, etc.); o Cost and Budget Control System; o Schedule Control System; o Design Phase Procedures; o Construction Phase Procedures; o Furnishings, Fixtures and Equipment ("FF&E") Procedures; o Scope Control System; o Quality Control System; o Claims and Dispute Procedures; o Procurement Control System; and o Contracting Control System.	Program Wide	Promotes key element of the program	In-Process	PIP Support Team Jim Mullen	January 16, 2013

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
21	2	V1-R-4.8-7 A review of the PgMP should be undertaken to determine what gaps and/or inconsistencies exist among the issued and draft policies and procedures against the final approved PgMP.	Program Wide	Promotes key element of the program	In-Process	PIP Support Team Jim Mullen	January 16, 2013
22	2	V1-R-4.10-1 Policy 3.40 Court Delivery Method and Contractor Selection should be formally retired as the acceptable delivery methods have been expanded by Policy 333.00.	Working Drawings	Immediate positive impact on program	In-Process	D&C Delivery Method Selection Team Rob Uvalle	October 31, 2012
23	2	V1-R-4.10-2 Policy 333.00, Construction Delivery Methods, should be expanded to provide the factors to be considered and the process by which the delivery method will be selected for each project. Policy 333.0 should include specific delegations of authority (by position) for each decision to be made and each action to be required in the process. Without that information Policy 333.00 serves no function other than to define the various delivery methodologies.	Working Drawings	Promotes key element of the program	In-Process	D&C Delivery Method Selection Team Rob Uvalle	October 31, 2012
24	2	V1-R-4.11-1 Of the two separate sources of contracting policies and procedures the Judicial Council Contracting Manual is by far the more comprehensive and complete, and generally meets the industry Standard of Care. However, given the wording of some of the provisions contained within the Judicial Branch Contracting Manual it may not be applicable to certain elements of the Court Capital Construction Program. If the Judicial Branch Contracting Manual is not applicable to the Court Capital Construction Program, at a minimum the AOC Court Facilities Contracting Policies and Procedures should be updated, aligned, and coordinated with the Judicial Council Contracting Manual.	Working Drawings	Promotes key element of the program	In-Process	Procurement Policy Team Jim Mullen	October 31, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
25	5	<p>V1-R-4.12-1</p> <p>The Project Definition Report should have a section devoted to the establishment, management, and control of project scope. This is a critical element of any project and as such should involve all of the stakeholders identified within the Project Definition Report. Specific attention should be paid to the following scope elements:</p> <ul style="list-style-type: none"> o Setting the scope of the project, including goals, objectives, size, budget, schedule, etc. o Communicating the project scope to Program Management and all stakeholders identified within the Project Definition Report. o Identifying the roles and responsibilities that each stakeholder identified within the Project Definition Report assume relative to managing and controlling project scope. o Defining "scope change" within the Project Definition Report and the role that each of the stakeholders assume relative to monitoring, reviewing and acting relative to proposed scope changes. o Identifying those processes by which the Program Manager and other stakeholders will manage and control scope. 	Working Drawings	Promotes key element of the program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012
26	2	<p>V1-R-4.12-2</p> <p>Reference those program level policies, procedures and processes which govern the tasks enumerated within various sections of the Project Definition Report. By citing the program level policies, procedures and processes the volume of the Project Definition Report would increase only slightly, but critical information would be included in the Project Definition Report which would lay the foundation and provide a control source for many of the activities identified in the Project Definition Report.</p>	Prioritization	Immediate positive impact on program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
27	2	V1-R-4.12-3 Ensure that the contents of the Project Definition Report are consistent with the policies, procedures and processes which exist at the program level. This includes consistency of content, terminology, direction and limitations.	Preliminary Plans	Immediate positive impact on program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	December 3, 2012
28	3	V1-R-4.12-4 Identify the party (or parties) with the delegated authority to make decisions and be accountable for those decisions. This would include identification of any limitations on that decision making authority.	Program Wide	Immediate positive impact on program	In-Process	Project Management Team Ernie Swickard	October 1, 2012
29	2	V1-R-4.12-5 Adding of a table that includes a summary of the responsibility and authority given to each Project Management Team, identification of the individuals within the Project Team(s) which are accountable for the decisions and actions of the Project Team(s) and citations to the program level policies, procedures and processes which guide the execution of each project team's scope of work and authority.	Program Wide	Immediate positive impact on program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 1, 2012
30	2	V1-R-4.13-1 This appears to be a situation that, while everyone understands the importance the Project Feasibility procedure and process, here-to-for has not developed, codified or distributed a formal policy, procedure or process covering that requirement. This policy, procedure and process should be completed by OCCM.	Prioritization	Immediate positive impact on program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012

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As Of: 08/08/2012

Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
31	7	V1-R-4.17-1 As the State Administrative Manual (SAM) is a document created by the DGS outside of the AOC, Pegasus-Global does not provide recommendations to the specific procedures within the SAM. Pegasus-Global does recommend the role of the SAM as it is used by the OCCM be clearly established either by an over-arching policy statement, if possible, or by use of specific reference within the individual procedures that correlate to SAM policies, such as the COBCP examined above.	Prioritization	Promotes key element of the program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012
32	2	V1-R-4.18-1 To make the courthouse naming policy uniform, it should be either incorporated to an existing procedure or provided a procedure number system that would establish where it fits in the overall Program.	Program Wide	Promotes key element of the program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012
33	2	V1-R-4.18-2 Expand the application of the courthouse naming policy to explain when it would be used on an existing courthouse and indicate the timing of using it on a new courthouse facility.	Program Wide	Promotes key element of the program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012
34	2	V1-R-4.19-1 The prioritization methodology should be expanded to more clearly identify who is accountable for and who is delegated the authority to perform the scoring and evaluate, and update the prioritization methodology.	Prioritization	Promotes key element of the program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012
35	6	V1-R-4.19-2 The Review of Capital Project (RCP) ratings, which are the foundation for the scoring and evaluation are explained fairly well, including examples of the RCP forms used, however it is unclear who has the delegated authority to perform the RCP ratings and when they are to be updated. It would be beneficial to establish a formal policy for assigning the RCP ratings to be performed at a set interval by a specific team.	Prioritization	Promotes key element of the program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012

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36	2	V1-R-4.20-1 The prioritization methodology should be updated to reflect that SB 1407 indicates funds are applied to both Immediate Need and Critical Need Priority Group projects (i.e., previously Immediate Need had priority over Critical Need).	Prioritization	Promotes key element of the program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012
37	7	V1-R-4.20-2 SB 1407 emphasized economic opportunity, as such Pegasus-Global recommends the prioritization methodology be updated to give preference to projects with one or more economic opportunities, and only if assured that the economic opportunity is viable and can be realized.	Prioritization	Promotes key element of the program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012
38	3	V1-R-4.20-3 The Judicial Council may wish to consider delegating authority to the Administrative Director on when to submit projects from the list of 41 to the executive branch for funding approval, based on the updated methodology and the availability of project funding.	Program Wide	Promotes key element of the program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012
39	2	V1-R-4.20-4 The Administrative Director should report to the Judicial Council annually at a minimum, and other times as deemed necessary as to whether or not the Prioritization Methodology reflects the current program objectives and goals as set by the Judicial Council.	Program Wide	Promotes key element of the program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012
40	2	V1-R-5.1.1-1 Controversial sites and the process by which the controversy can be remedied and who has the ultimate authority to resolve and act to select a site when such controversies arise.	Acquisition	Promotes key element of the program	In-Process	Real Estate Team Eunice Calvert-Banks	December 3, 2012

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41	2	V1-R-5.1.1-2 How impacts to budget and schedule which occur during the site selection and acquisition are managed, especially relative to the project budget and schedule. For example, Pegasus-Global was informed of one site selection and acquisition which took six years from start to final acquisition (which coincidentally involve a controversial site selection). Such a delay had to have an impact on the project budget and schedule, and, ultimately may have impacted the program budget and schedule, which in turn may have impacted the ability of the program to meet some of the goals and objectives set for the Program.	Acquisition	Promotes key element of the program	In-Process	Real Estate Team Eunice Calvert-Banks	December 3, 2012
42	2	V1-R-5.1.2-1 In order for the relocation policy to address delegated authority and accountability, the positions within the AOC that are responsible for its implementation, including who engages the relocation consultant, who reviews and approves claims for payment, and who manages and disburses any relocation payments need to be identified. Additionally, elaborating on the "relocation case file" will provide for stronger document control on this policy.	Acquisition	Promotes key element of the program	In-Process	Real Estate Team Eunice Calvert-Banks	December 3, 2012
43	3	V1-R-5.2.1-1 OCCM should identify by positions the party with the formally delegated authority to calculate the gross area of a building, to make decisions, and the responsibility to execute the calculations in alignment with the BOMA process and at the scheduled points in the project phases.	Prioritization	Promotes key element of the program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012
44	7	V1-R-5.2.2-1 Officially adopt the 2011 version of the California Trial Court Facilities Standard (Standards) to replace the prior 2006 version to eliminate any possible confusion in regards to which document is to be used.	Prioritization	Promotes key element of the program	In-Process	D&C Standards Team Clifford Ham	August 31, 2012

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45	7	V1-R-5.2.2-2 Include with the Standards other codes, standards, and guidelines as attachments, specifically those designed by or for the AOC, for example, the "Office of Court Construction and Management Facilities Design Guidelines – Instrumentation and Control for Heating, Ventilating Air Conditioning Systems – Building Automation Systems: Direct Digital Control, July 27, 2010 Program Requirements Overview" could easily be an attachment to this document.	Prioritization	Promotes key element of the program	In-Process	D&C Standards Team Clifford Ham	August 31, 2012
46	2	V1-R-5.2.2-3 Integrate the Standards with other project policies and procedures. For example: o The Judicial Council issued a report which included "Guidelines for Energy Conservation in California Court Facilities"148, which addresses energy usage and should be aligned with the requirements in the California Trial Court Facilities Standards to ensure the energy conservation goal from both documents does not result in a conflict or additional and unnecessary work. o The Capital Outlay Budget Change Proposal (April 27, 2011 – Initial Draft) is said to describe the project and the amount of the funding request.149 This could include designating whether the project is going to be LEED® Certified™ or LEED Silver®.	Prioritization	Promotes key element of the program	In-Process	D&C Standards Team Clifford Ham	August 31, 2012
47	2	V1-R-5.2.3-1 Expand, enhance and complete the Design Plan Check Process. Policy 1301.30 as currently outlined and drafted to finalize and formalize the procedures and processes, including specific delegation of authority to decide to outsource the plan check, choose the firm to whom the plan check will be outsourced, give direction to the outsource firm as to how the plan check is to be executed, and ultimately accept or reject the results of the plan check.	Working Drawings	Promotes key element of the program	In-Process	QA/QC Team Jim Stephenson	August 31, 2012

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48	2	V1-R-5.3.1-1 Policy 4.15, Selection, Procurement and Installation of Furniture (FFE) , should be finalized and issued as a formal policy.	Construction	Promotes key element of the program	In-Process	Procurement Policy Team Jim Mullen	October 31, 2012
49	2	V1-R-5.3.1-2 As with all policies reviewed by Pegasus-Global, there should be a definition of terms used within the FFE policy.	Program Wide	Promotes key element of the program	In-Process	Procurement Policy Team Jim Mullen	October 31, 2012
50	2	V1-R-5.3.1-3 OCCM may want to examine the 2007 Judicial Contracting Policy and the 2011 Judicial Council Contracting Manual to ascertain what, if any differences there are between those two documents, and if there are such differences, how best to address those differences.	Working Drawings	Promotes key element of the program	In-Process	Procurement Policy Team Jim Mullen	October 31, 2012
51	2	V1-R-5.3.1-4 While it is possible that the two matrices cited in the FFE findings exist, as cited components of the policy the document control system should maintain all of those documents in a common Policy 4.15 common electronic folder and/or physical location.	Construction	Promotes compliance to comparative industry standard	In-Process	Procurement Policy Team Jim Mullen	October 31, 2012
52	2	V1-R-5.4.1-1 Policy 4.10 Construction Management should be updated, expanded and issued as a formal statement of policy, with specific procedures and processes contained within the policy or cross referenced with to other relevant policies.	Working Drawings	Immediate positive impact on program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012

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53	2	V1-R-5.4.1-2 A definitive process should be set for the CM relative to their role in the resolution of claims to ensure uniformity in the process and then to provide a point of contact for resolution should the CM not be successful. It should align with the chain of command defined in the Program Management Manual which would typically follow a step process through a specific line of communication through the Project Manager, and then at a higher authority should the Project Manager not be able to resolve. In addition, there is typically a dollar level of authority for change order and resolution of claims with increased authority required for increased claim amounts. Further a dispute resolution process is typically tied to the Change Order policy.	Construction	Immediate positive impact on program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012
54	2	V1-R-5.4.1-3 The updated Construction Management (CM) policy should be based on lessons learned during the execution of the initial Court Capital Construction projects.	Construction	Immediate positive impact on program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012
55	2	V1-R-5.4.1-4 The updated CM policy should contain a clear delegation of authorities and responsibilities with specific limits set on the CM's approval and acceptance authorities. The authorities and responsibilities should not duplicate nor impinge on the authorities or responsibilities of the Project Manager or Program Management.	Construction	Immediate positive impact on program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012

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56	3	V1-R-5.4.2-1 As noted previously in this audit and immediately above, the policies and procedures for management of construction are confusing, and based on Pegasus-Global's experience do not conform within the industry standards from a number of perspectives, which have been discussed at length within the body of this Report. The OCCM needs to re-consider all of its current policies and procedures regarding the CM, the "CM@Risk" and the actual roles and responsibilities necessary to manage, control, and execute a project through design and construction to completion.	Working Drawings	Promotes key element of the program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012
57	2	V1-R-5.4.2-2 Once OCCM has determined the full role of a CM@Risk (or has decided to drop the CM@Risk delivery method), a set of consolidated, coordinated policies and procedures needs to be developed which when linked will lay out the entire construction management process, from determination of construction management methodology to be adopted, through engagement of the CM (or CM@Risk), to actual construction management, and ultimately, to project close out and acceptance.	Working Drawings	Promotes key element of the program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012
58	2	V1-R-5.4.3-1 OCCM should develop a comprehensive, formal quality management program consisting of linked and mutually supportive policies, procedures and processes for both the Program and project level which addresses both quality control and quality assurance as practiced within the industry at large. PMI, CMAA and AIA have all addressed quality management at some length and Pegasus-Global suggests that OCCM reference to those three standards as a guide while expanding and completing a quality management plan for the Program at- large and the individual projects.	Working Drawings	Promotes key element of the program	In-Process	QA/QC Team Jim Stephenson	October 31, 2012

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59	2	V1-R-5.4.4-1 Complete Policy 1106.00, Facility Performance Evaluation, as currently outlined and drafted to finalize and formalize the procedures and processes. Pegasus-Global also recommends that OCCM examine the lessons learned Standard of Cares promulgated by PMI and CMAA as a check guide of standard industry practices while completing Policy 1106.00.	Handoff & Warranty	Promotes key element of the program	In-Process	Start Up and Warranty Team Nick Turner	August 31, 2012
60	2	V1-R-5.4.5-1 Complete and expand Policy 1106.10, Post Occupancy Evaluation, as currently outlined and drafted to finalize and formally adopt the procedures and processes summarized in the policy. Pegasus-Global also recommends that OCCM examine the lessons learned Standard of Cares promulgated by PMI and CMAA as a check guide of standard industry practices while completing Policy 1106.10.	Handoff & Warranty	Promotes key element of the program	In-Process	Start Up and Warranty Team Nick Turner	October 31, 2012
61	2	V1-R-5.4.6-1 Expand, enhance and complete Policy 1302.10, Informal Inspection Process, as currently outlined and drafted to finalize and formalize the procedures and processes, including specific direction as to how the plan check is to be executed, when it is to be executed, by whom it will be executed, etc.	Construction	Promotes key element of the program	In-Process	QA/QC Team Jim Stephenson	October 31, 2012
62	2	V1-R-5.4.7-1 Expand, enhance and complete Policy 1301.20, Inspection Request Process, as currently outlined and drafted to finalize and formalize the procedures and processes, including specific direction as to how the inspections are to be executed, when they are to be executed, and by whom it will be executed.	Construction	Promotes key element of the program	In-Process	QA/QC Team Jim Stephenson	October 31, 2012

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63	2	V1-R-5.4.8-1 Rather than simply completing each of the policies which have been potentially identified by Pegasus-Global as elements of a broader quality management program as individual pieces, Pegasus-Global recommends that OCCM consider merging Policies 341.00, 1106.00, 1106.10, 1301.30, 1301.10, 1302.20 and 1302.30 into a more complete and comprehensive quality management program under which each of those discrete policies could be expanded and, to some extent, merged into a full quality control/quality assurance program.	Construction	Promotes key element of the program	In-Process	QA/QC Team Jim Stephenson	October 31, 2012
64	2	V1-R-5.4.9-1 Although Policy 4.20, Change Order Process, is in many respects an acceptable administrative process it does not meet the industry Standard of Care regarding management or control of change on a project. For that reason Pegasus-Global recommends that Policy 4.20 be expanded with the full input of the primary stakeholders (Judicial Council, AOC, and OCCM) during the development, formalization and adoption of a change control and a management program. As noted earlier, both PMI and CMAA have addressed change management and control at some length, setting forth the elements of what constitutes a change management and control system which meets the expected Standard of Care.	Construction	Immediate positive impact on program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012
65	7	V1-R-5.4.10-1 Pegasus-Global has no recommendations relative to this specific Risk Assessment Template.	Prioritization	Promotes key element of the program	In-Process	Risk Management Team Jim Mullen	December 3, 2012

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66	2	V1-R-5.4.11-1 The only recommendation is that the format used for all policies, procedures and processes across all topical or issues areas should be uniform across the entire Program. Although Pegasus-Global had no issues with the format used for the Project Safety Manual and found that the contents included what Pegasus-Global would expect in a program policy and procedure manual, and further found that the format used had a logical flow and was easy to navigate, it is up to the Judicial Council and AOC to determine the format and template to be applied to all policies, procedures and processes.	Construction	Promotes key element of the program	In-Process	Risk Management Team Jim Mullen	October 31, 2012
67	2	V1-R-5.4.12-1 Pegasus-Global recommends that OCCM prepare a short introductory document which describes the reason an OCIP was put into effect; the benefits expected from establishing an OCIP; the process by which OCCM (or AOC) solicited for and OCIP agent; in broad terms the responsibilities assigned to each of the OCIP parties (including the Judicial Council, AOC, OCCM, PM's, Willis, etc.); and, finally the date the OCIP was adopted. This recommendation is made as a way of expanding the transparency of the decision and the process followed in developing, adopting and installing the OCIP.	Construction	Promotes key element of the program	In-Process	Risk Management Team Jim Mullen	October 31, 2012
68	2	V1-R-5.5.2-1 This appears to be a situation where everyone understands the critical importance of the Capital Outlay Budget Change procedure and process, but here-to-for has not developed, codified or distributed a formal policy, procedure or process covering that requirement. Given the critical importance of requesting a change in budget it is imperative that this policy, procedure and process be completed as quickly as possible.	Construction	Promotes key element of the program	In-Process	Planning and Finance Team Kelly Quinn	October 31, 2012

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69	2	V1-R-5.5.3-1 As a process the Augmentation and 20 Day Letter Request directive should be included in the formal policies, procedures and processes which address augmentation and scope change decisions and actions taken by the OCCM under the SAM requirements.	Prioritization	Promotes key element of the program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012
70	8	V1-R-5.5.4-1 The Standard of Care (SOC) for reporting Program and project progress are easily available within various published industry sources and easily customized to the needs of a megaprogram like the Court Capital Construction Program. Pegasus-Global recommends that OCCM identify a suitable set of Monthly Progress Report (MPR) standards and templates, and then customize those templates so as to meet both the Project Management and Program Management needs.	Working Drawings	Promotes key element of the program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012
71	2	V1-R-5.5.4-2 The MPR templates for the projects and the Program should be presented as part of a full, detailed statement of policies, procedures and processes so that there is a full understanding of not only how to fill in the blanks in a specific project MPR, but also how to use that report to forecast conditions at completion, how to anticipate problems before they fully manifest and how to develop specific mitigation actions in response to those potential problems.	Working Drawings	Promotes key element of the program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012
72	8	V1-R-5.5.4-3 While the MPR is founded on reporting data from the past (the month just past) an MPR's greatest value is as a predictor of the future; simply reporting historical events has little real time anticipatory management or control value to project or Program Management.	Working Drawings	Promotes key element of the program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012

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73	2	V1-R-5.5.4-4 Because it is simply a template for reporting data from a specific project it has limited value to the Owner or Program Management as they attempt to make mid-Program decisions in an effort to preserve the goals and objectives of the entire Program. For that reason, the Monthly Project Report and the resulting Monthly Program Report should be aligned so that critical data can be efficiently and effectively “rolled up” to the program level from the project level. There must be a transparent link between the Monthly Project Reports and the Monthly Program Reports so that the Owner and management at all levels can clearly identify negative trends and events and react in time to mitigate those trends and events. To that end a consolidated Progress Reporting Policy, Procedure and Process Manual should be developed.	Program Wide	Promotes key element of the program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	December 3, 2012
74	2	V1-R-5.5.5-1 The Project Description Template should be reviewed in conjunction with other policies which at least in part seem to be duplicative of the procedure. If possible those duplications should be deleted in order to reduce such duplication of effort by OCCM staff.	Prioritization	Promotes key element of the program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	December 3, 2012
75	2	V1-R-5.5.5-2 The Project Description Template should be revised and expanded to include information which will improve the uniformity and transparency of the procedure.	Prioritization	Promotes key element of the program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	December 3, 2012

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76	2	V1-R-5.6-1 The Facilities Management (FM) policies would benefit from a Definitional Section following the Goal, Scope and Purpose Section which would define the various terms applicable and used within the specific policy. This would also include the various units that are discussed in the Scope Section that would be informed by the policy, would be guided by the policy or would be directed by the policy.	Program Wide	Promotes compliance to comparative industry standard	In-Process	PIP Support Team Jim Mullen	December 3, 2012
77	2	V1-R-5.6-2 An overall recommendation of the FM policies in development completion is the need for specific identification of positions within the various steps outlined in the policies that is accountable for assuring the overall policy and the various steps are actually undertaken and performed in accordance with the steps outlined in the policy.	Program Wide	Promotes compliance to comparative industry standard	In-Process	PIP Support Team Jim Mullen	December 3, 2012
78	2	V1-R-5.6-3 Pegasus-Global recommends that the FM policies be finalized and adopted for use on the Program which will provide a uniform and transparent set of policies that will provide the accountability of execution of each step within the FM process and within each policy of the FM process.	Program Wide	Promotes key element of the program	In-Process	PIP Support Team Jim Mullen	December 3, 2012
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79	3	V2-R-4.1-1 Pegasus-Global recommends that OCCM utilize the core Project Management cadre, which has gained considerable experience with the intricacies of the Court Capital Construction Program, including lessons learned, as a valuable source for formalizing delegations of authority and establishing boundaries on autonomy for the Project Management position.	Program Wide	Immediate positive impact on program	Complete	Project Management Team Ernie Swickard	-

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80	3	V2-R-4.1-2 Pegasus-Global recommends OCCM take advantage of that stable condition and the knowledge gained on projects to date to develop formalized delegations of authority for Project Management.	Program Wide	Immediate positive impact on program	In-Process	Project Management Team Ernie Swickard	October 1, 2012
81	3	V2-R-4.1-3 Starting with the Owner, Pegasus-Global recommends there be an unambiguous formalized definition of each stakeholder's role, authority and responsibility on every project with respect to project execution, from initial site selection through to project completion and commissioning and that this formalized definition be formally issued to both the stakeholders and Project Management.	Program Wide	Promotes key element of the program	In-Process	Project Management Team Ernie Swickard	October 1, 2012
82	4	V2-R-4.2-1 Develop and implement a standard document control system to be used for all projects. This document control system should be uniform in how individual project files are maintained. The uniformity will increase the efficiency and transparency for each individual who utilizes the project documents.	Program Wide	Promotes key element of the program	In-Process	Document Control Team Jim Stephenson	August 31, 2012
83	3	V2-R-4.2-2 Clearly define what documents are to be produced for the project-side and the document control system side and who will produce them (and at what frequency) to provide accountability relative to each parties responsibilities for document control.	Program Wide	Promotes key element of the program	In-Process	Document Control Team Jim Stephenson	August 31, 2012
84	4	V2-R-4.2-3 Some documents (e.g., meeting minutes, inspection reports) should be standardized (prepared in a required template) and filed in a standard, easily identified file within every project.	Program Wide	Promotes compliance to comparative industry standard	In-Process	Document Control Team Jim Stephenson	August 31, 2012

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85	7	V2-R-4.3-1 The Judicial Council and CFWG may wish to consider development and adoption of a formal methodology to more quickly resolve site selection disputes and thus limit the amount of potential delay and the increased costs which flow from such prolonged disputes.	Acquisition	Promotes key element of the program	In-Process	Real Estate Team Eunice Calvert-Banks	December 3, 2012
86	6	V2-R-4.4.1-1 While Pegasus-Global found that design reviews are being conducted by Project Managers, Pegasus-Global recommends that based on lessons learned during the design review processes used to date a formal design review policy and procedure should be developed to improve the uniformity and transparency of that process.	Working Drawings	Promotes key element of the program	In-Process	D&C Standards Team Clifford Ham	August 31, 2012
87	6	V2-R-4.4.1-2 A formal design review procedure should set guidelines establishing the points in the design process when the reviews should be conducted and include a process for formally documenting the results of each design review and action taken as a result of that review.	Working Drawings	Promotes key element of the program	In-Process	D&C Standards Team Clifford Ham	August 31, 2012

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88	6	V2-R-4.4.1-3 As part of the design review procedure the cost and schedule established for the execution of design should be routinely monitored to establish the exact status of each project during the design phases of a project. Pegasus-Global notes that the data relative to design cost and schedule could be used to establish normative design execution costs and schedule data from which abnormalities in those conditions on a given project can be immediately identified and addressed in order to mitigate cost or schedule impacts. The data should be used as part of an evaluation of the performance of an architect so that OCCM can identify those firms which consistently meet or exceed the expectations set for design and those firms who habitually fail to meet those expectations.	Working Drawings	Promotes compliance to comparative industry standard	In-Process	D&C Project Progress Documentation Team Rona Rothenberg	October 31, 2012
89	6	V2-R-4.4.1-4 A more formal and inclusive review process of the design QA/QC should be developed specifically intended to identify and communicate deviations from the facility design standards to the Project Manager for resolution.	Working Drawings	Promotes key element of the program	In-Process	QA/QC Team Jim Stephenson	August 31, 2012
90	6	V2-R-4.4.1-5 QA/QC reports should be formalized, in writing, and maintained in the project document files.	Working Drawings	Promotes compliance to comparative industry standard	In-Process	QA/QC Team Jim Stephenson	August 31, 2012

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91	3	V2-R-4.4.1-6 OCCM should formally establish each stakeholder's role and responsibility during the project planning, design review, comment and design approval elements of the facility design plans. Further, Pegasus-Global recommends that the Project Managers not be placed in a position in which they are responsible to impose design standards in a case where the PJs or individual judges resist the imposition of a design standard; that task should be left to Program Management, the CFWG or the Judicial Council.	Prioritization	Immediate positive impact on program	In-Process	Project Management Team Ernie Swickard	December 3, 2012
92	3	V2-R-4.4.1-7 All requests for deviation from the design standards should be accompanied by a written rationale for that deviation and an identification of the expected cost and schedule impacts resulting from that deviation. Deviations should be approved solely on the basis that project contingency is available to cover the cost of a deviation. Pegasus-Global recommends that all deviations requested should be rejected or approved by Program Management, the CFWG or the Judicial Council.	Working Drawings	Promotes key element of the program	In-Process	D&C Standards Team Clifford Ham	August 31, 2012
93	7	V2-R-4.4.1-8 OCCM should consider adopting a policy to the effect that all project contingency belongs to the program and not to the individual projects. This is necessary to ensure that contingency is used only as absolutely necessary to overcome unforeseen or unforeseeable conditions and not simply to accommodate desired, but non-essential changes to a project. Program Management should set an objective which returns the maximum contingency set for a project to the program budget in order to address other program needs.	Working Drawings	Immediate positive impact on program	In-Process	Project Management Team Ernie Swickard	December 3, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
94	7	V2-R-4.4.2-1 Pegasus-Global has no specific recommendation in support of the use of prototype as that is an Owner's decision. However, the concept should be considered in terms of weighing the relative impacts on the program and project goals and objectives.	Prioritization	No Recommendation	In-Process	D&C Delivery Method Selection Team Rob Uvalle	December 3, 2012
95	6	V2-R-4.4.3-1 To the extent possible Pegasus-Global recommends that the architectural contracts contain standardized provisions which set scheduled design review meetings, each with a list of specific deliverables to be reviewed during those design reviews. An attachment to the contract should be checklists of the required deliverables for each design review meeting.	Prioritization	Immediate positive impact on program	In-Process	Procurement Policy Team Jim Mullen	December 3, 2012
96	6	V2-R-4.5-1 Project Management should move to capture, consolidate and communicate those lessons learned relative to Facility Management during the design, construction, commissioning, and operation of new court facilities. The critical lessons learned should be further organized into infrastructure design standards and design review checklists, which can be used specifically to ensure that infrastructure designs meet the standards and that design mistakes are not repeated in subsequent projects. The setting of standards and the use of an FMG checklist during design would lessen the direct involvement of FMG personnel during schematic design; however, FMG should still conduct a review of the infrastructure design prior to the finalization and release of the working design.	Handoff & Warranty	Immediate positive impact on program	In-Process	Start Up and Warranty Team Nick Turner	August 31, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
97	7	V2-R-4.5-2 To the maximum extent possible, the Program should limit the equipment choice of primary infrastructure equipment and systems which can be used within a facility. This should have an immediate impact on the cost of design, the cost of the equipment and systems, construction and, long term facility management. Without limiting the equipment choices to the greatest extent possible the Judicial Council and Program may not meet their economies of scale objectives set for long term FMG.	Handoff & Warranty	Promotes key element of the program	In-Process	Start Up and Warranty Team Nick Turner	August 31, 2012
98	7	V2-R-4.5-3 Once the suppliers have been identified, Pegasus-Global recommends that OCCM consider entering into specific contracts (not purchase orders if possible) with those suppliers to set the terms of initial purchase, with specific savings identified based on a specific number of units purchased. Consideration should be given to having the contracts show extended warranty and repair provisions which may also be extended (or reflect a cost reduction) for a specific number of units purchased. It is also suggested that the contracts contain specific provisions for the cost of repair and routine replacement materials, again reflecting a reduction in unit cost based on each equipment unit purchased under the contract.	Prioritization	Promotes key element of the program	In-Process	Start Up and Warranty Team Nick Turner	August 31, 2012
99	7	V2-R-4.5-4 Consideration should be given for the equipment supply contract to include a number of training slots to be provided at no cost to the Program; if possible, those slots should not be time limited, but would be stated in a total number, which can be used by FMG at any time (in order to train staff hired after the initial procurements and commissioning activities).	Construction	Promotes key element of the program	In-Process	Start Up and Warranty Team Nick Turner	August 31, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
100	7	V2-R-4.6.1-1 Pegasus-Global recommends that OCCM consider limiting the scope of work provisions to the scope of work actually authorized under the CM at Risk contract.	Working Drawings	Promotes key element of the program	In-Process	Procurement Policy Team Jim Mullen	December 3, 2012
101	5	V2-R-4.6.2-1 OCCM should examine the statements of work which are not authorized in the original CM@Risk contracts to determine if those statements are necessary. If the determination is that those statements are necessary, then OCCM should confirm that the statements of work between the two contracts are consistent.	Working Drawings	Promotes key element of the program	In-Process	Procurement Policy Team Jim Mullen	October 31, 2012
102	5	V2-R-4.6.2-2 Pegasus-Global recommends that the OCCM consider revising Section 4 of Exhibit D to reflect and conform to the actual progression of a project though the four phases established.	Working Drawings	Promotes key element of the program	In-Process	Procurement Policy Team Jim Mullen	October 31, 2012
103	4	V2-R-4.6.3-1 As a contract is one of the most critical of the total project document management and control process, copies should be maintained by both the Project Manager and Regional Manager, with the original maintained by the Program D&C Director's Office.	Program Wide	Promotes compliance to comparative industry standard	In-Process	Document Control Team Jim Stephenson	August 31, 2012

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104	5	<p>V2-R-4.6.4-1</p> <p>Eliminate the role of contract CM within the project organization. If the position currently filled by the contract CM is limited to that normally identified as a "Clerk of the Works" then call the position by that title, which will to a great extent reduce the confusion created by having two CMs on a project. Pegasus-Global found no draft OCCM policy or procedure which fully described what would be considered a "Clerk of the Works," but can recommend sources from which such a policy and procedure could be developed. Potential benefits from renaming the position from CM to Clerk of the Works and hiring an individual to fill that job:</p> <ul style="list-style-type: none"> o Almost certainly firms contracting to provide a CM at their normal rate for a CM will be based on a CM's traditional scope of work. The hourly rate for a Clerk of the Works may be significantly less than what is normally charged by a firm for a CM. o A Clerk of the Works can be hired under a personal services contract rather than through a large architectural, construction, or CM firm. Those positions are usually filled with mid-level individuals with experience and understand construction at a detailed management and control level. o An independent Clerk of the Works, responsible directly and only to the Project Manager, would 	Construction	Promotes key element of the program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	December 3, 2012
105	5	<p>V2-R-4.6.4-2</p> <p>Develop a specific standard contract for a CM@Risk which conforms with the industry expectations of the CM@Risk, thereby making the CM@Risk completely responsible for the execution of the project using their own means and methods (and makes them responsible for those means and methods) and with the full authority to act without the Project Manager's prior approval or consent except in situations where those actions have the potential to increase cost or schedule.</p>	Preliminary Plans	Immediate positive impact on program	In-Process	Procurement Policy Team Jim Mullen	October 31, 2012

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106	3	V2-R-4.6.4-3 Consideration should be given by OCCM to making the CM@Risk responsible to produce all of the formal project control documents and reports for submittal to the Clerk of the Works. This again shifts the responsibility for accurate, complete and comprehensive project documentation to the CM@Risk. The recommended method would be to allow the CM@Risk to use its own standard report forms consistent with the California Court Construction program policies, procedures and processes, including templates (which are generally much more detailed than that currently required by OCCM), but insuring that the CM@Risk format includes a template which enables the Clerk of the Works to summarize into the currently established OCCM forms.	Construction	Immediate positive impact on program	In-Process	Document Control Team Jim Stephenson	August 31, 2012

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107	3	<p>V2-R-4.6.4-4</p> <p>Pegasus-Global suggests making the CM@Risk the responsible party for the execution of construction to the standards established and the designs provided; do not reduce that responsibility by converting the CM@Risk to a traditional general contractor function. While OCCM may have reasons for bifurcating the design portion of the CM@Risk scope of work and the construction portion of the CM@Risk scope of work into two separate contracts, consideration should be given to establishing a single, integrated contract in which the construction scope may not be fully authorized unless and until a full notice to proceed with construction has been issued by OCCM. The construction scope of work can be altered by agreement prior to the full notice to proceed if for some reason project conditions have changed (e.g., scheduled completion of the project); should the CM@Risk reject the modifications to that portion of the full scope the contract can be repackaged and awarded to another contractor as a CM or General Contractor. This will enable OCCM to rationalize and extend the CM@Risk's responsibility to achieve all project objectives identified throughout the entire project or face a penalty. It also reduces the possible</p>	Construction	Immediate positive impact on program	In-Process	Procurement Policy Team Jim Mullen	October 31, 2012
108	5	<p>V2-R-4.6.4-5</p> <p>Given the shortage of Project Managers, OCCM, with the Project Manager, should consider establishing a "standard oversight routine" which matches the size and complexity of the project assigned. Those routines should be established to focus on specific milestones and specific topical issues raised at each milestone. Certain elements of the routine should be identified that would benefit from the involvement of program level staff and functional program staff who share topical oversight responsibilities during certain phases of a project.</p>	Working Drawings	Immediate positive impact on program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
109	3	V2-R-4.7-1 Pegasus-Global recommends that Program Management complete and implement as many formal, comprehensive and efficient policies, procedures and processes as possible in as short a time practical. Formal repetitive systems and processes can relieve the routine burdens demanded of Project Management staff, freeing time to be expended on more critical Project Management concerns and demands. Also, to the extent possible contractors should be engaged to their full potential in the execution of the individual projects.	Program Wide	Immediate positive impact on program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	10/3/12 - 12/3/12
110	3	V2-R-4.7-2 Given that increasing staff and the re-sequencing and extending the project execution schedule are currently unlikely options, Pegasus-Global recommends the functional Program and Project Management staff are given the most complete tools possible through the completion and adoption of strong policies, procedures and processes designed to provide the maximum support during the execution of a project.	Program Wide	Immediate positive impact on program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	10/3/12 - 12/3/12
111	3	V2-R-4.7-3 OCCM should develop a complete inventory of the tasks and responsibilities of the Project Managers so that the completion of the policies, procedures and processes can be aligned with those responsibilities and reflect the valuable lessons learned through the execution of the projects completed and currently underway.	Working Drawings	Immediate positive impact on program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012

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112	3	V2-R-4.7-4 Once that inventory recommended above is completed, Pegasus-Global recommends that Program Management turn its attention to how it structures and formalizes the duties and responsibilities of the architects and CM@Risk contractors. Those responsibilities which can be shifted under contract to the architects and CM@Risk contractors should be added to their scopes of work. This shifts a portion of Project and Program Management roles from direct control by OCCM to more of an oversight and verification (auditing) and enforcement role.	Preliminary Plans	Immediate positive impact on program	In-Process	D&C Delivery Method Selection Team Rob Uvalle	December 3, 2012
113	1	V2-R-4.7-5 Functional Program and Project Management staff be relieved of as many administrative functions as possible by using contract employees. It is possible to contract for Clerk of the Works services; scheduling reviews; audit, alert and recommendation service; cost and budget control review; a number of other services which are typically thought of as project administration roles and not project management roles.	Construction	Promotes key element of the program	In-Process	Project Management Team Ernie Swickard	October 31, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
114	6	V2-R-4.7-6 Pegasus-Global recommends that OCCM not place the contracts for these services with a single firm, unless that firm can: 1) supply those services without inflating the cost by using position descriptions which exceed the actual need for, and requirements of the positions to be filled; and 2) the services firm agrees not to seek nor accept any contract to design, manage or construct a project under the Court Capital Construction Program. Pegasus-Global further recommends that firms must, to the extent possible, not be a major competitor of any of the architects or construction contractors (or CM specialty firms) involved in the execution of a project under the Program. Although this recommendation may prove difficult to meet, the appearance of any conflict of interest needs to be avoided if at all possible. It may be possible to identify a service firm outside of California which would be willing to employ (or otherwise engage) qualified service staff resources locally, but place those staff under its umbrella contract for services to the program. That is not a simple process but does enable the program to centralize the service contract and avoid any appearance of a conflict of interest.	Construction	Promotes key element of the program	In-Process	Procurement Policy Team Jim Mullen	October 31, 2012
115	3	V2-R-4.8-1 Program Management should work with their counterparts in the other California state agencies to establish a basic understanding of the parties' respective duties, responsibilities, functional parameters and processes. That information should then be used to formalize the points at which the program and project management interact with their counterparts in other California state agencies without destroying the personal relationships which currently exist but will, overall improve those relationships while enabling the respective agencies to improve the effectiveness and efficiency of those interactions.	Preliminary Plans	Promotes compliance to comparative industry standard	In-Process	Project Management Team Ernie Swickard	December 3, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
116	8	V2-R-4.9-1 As noted earlier above, architects and CMs or contractors generally have processes and systems for reporting project progress at a very detailed level. Those detailed schedules and progress reports should be a standard requirement for every architect and contractor and should be produced monthly during the execution of a project. Once received the Clerk of the Works can audit the progress claimed or the impacts asserted, then summarize that information in the current Monthly Progress Report, adding only such detail needed to identify delays and the root cause for the each delay.	Working Drawings	Immediate positive impact on program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012
117	7	V2-R-4.9-2 OCCM may wish to consider development of a standardized monitoring and control process which would create a higher degree of uniformity in the monitoring and control of the project and program schedules across all projects.	Working Drawings	Promotes compliance to comparative industry standard	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012
118	9	V2-R-4.10-1 Project and Program Management should use the data already collected by Project Manager's during the development of the original estimates and budgets, and the final actual costs to execute a project to analyze the accuracy of the original estimates; the root causes for any variations in line item costs over or under the original cost estimate; any common trends in cost estimating or management and control of project costs which should be addressed at a program level; and capture, consolidate and communicate the cost estimating, management and control lessons being learned as projects are executed.	Program Wide	Immediate positive impact on program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
119	7	V2-R-5.1-1 Pegasus-Global has no substantial recommendations beyond those provided in Section 5.2.1. However, OCCM may wish to consider developing a book of Program Foundation Documents similar to the Strategic Plan for distribution to every OCCM employee and manager in order to establish a shared sense of purpose under the Program.	Program Wide	Immediate positive impact on program	In-Process	Project Management Team Ernie Swickard	January 16, 2013
120	7	V2-R-5.2-1 With Project Feasibility Reports successfully being created years before the draft version of this policy there appears not be an immediate or critical need to formally implement this policy. However, the policy should ultimately be finalized and implemented in order to properly track each projects use and completion of the project feasibility report.	Prioritization	Promotes key element of the program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012
121	4	V2-R-5.4-1 Along with the formal contract (and amendment) documents the bid and award documents are some of the more important documents generated by the project. Occasionally, in disputes those documents must be reviewed to demonstrate what the contractor actually bid rather than simply assuming that a particular scope of work was included in the bid submitted. Pegasus-Global recommends that as part of a formal document control system copies of those bid and award documents be maintained on the project, in the regional office files, and the originals maintained in the D&C Management files.	Handoff & Warranty	Promotes compliance to comparative industry standard	In-Process	Document Control Team Jim Stephenson	August 31, 2012
122	4	V2-R-5.5-1 Pegasus-Global recommends that all submittals to the State Department Of Finance, including the original Program Management supplied data and information, be added to, and retained within, a formal document control system.	Working Drawings	Promotes key element of the program	In-Process	Document Control Team Jim Stephenson	August 31, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
123	4	V2-R-5.6-1 Although a minor finding, having a signed copy of the Project Definition Report in the project files would provide an indication that the report had been reviewed and accepted by the primary stakeholders in the project.	Working Drawings	Promotes compliance to comparative industry standard	In-Process	Document Control Team Jim Stephenson	August 31, 2012
124	4	V2-R-5.6-2 OCCM should consider a formal numbering system for each draft and revision to the report in order to make it easier to determine which of the versions is most current and to enable a reviewer to track the evolution of the Project Definition Reports over time.	Program Wide	Promotes key element of the program	In-Process	Document Control Team Jim Stephenson	August 31, 2012
125	7	V2-R-5.7-1 Based on the activity recorded by Susanville, the Selection, Procurement and Installation of Furniture policy appears to be working effectively and should continue to be utilized as current and future projects reach the point of needing to procure furniture.	Construction	No Recommendation	In-Process	Procurement Policy Team Jim Mullen	October 31, 2012
126	7	V2-R-5.8-1 Pegasus-Global recommends that OCCM finalize, adopt and apply the Quality Assurance Consultant Management policy and procedure.	Construction	Promotes key element of the program	In-Process	QA/QC Team Jim Stephenson	August 31, 2012
127	11	V2-R-5.9-1 Pegasus-Global recommends that OCCM finalize, adopt and apply the Facility Performance Evaluation policy and procedure.	Handoff & Warranty	Immediate positive impact on program	In-Process	QA/QC Team Jim Stephenson	August 31, 2012
128	11	V2-R-5.10-1 Pegasus-Global recommends that OCCM finalize, adopt and apply the Post Occupancy Evaluation policy and procedure.	Handoff & Warranty	Immediate positive impact on program	In-Process	QA/QC Team Jim Stephenson	August 31, 2012
129	8	V2-R-5.11-1 Pegasus-Global recommends that OCCM finalize, adopt and apply the Informal Inspection Program policy and procedure.	Construction	Immediate positive impact on program	In-Process	QA/QC Team Jim Stephenson	August 31, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
130	8	V2-R-5.12-1 Pegasus-Global recommends that OCCM finalize, adopt and apply the Inspection Request Process policy and procedure.	Construction	Immediate positive impact on program	In-Process	QA/QC Team Jim Stephenson	August 31, 2012
131	8	V2-R-5.13-1 OCCM may want to clarify what, if any, role the Project Management Team fill in regard to the report when it is finalized and becomes part of the Project Closeout Process.	Handoff & Warranty	Immediate positive impact on program	In-Process	QA/QC Team Jim Stephenson	August 31, 2012
132	7	V2-R-5.14.1-1 Similar to the recommendations from the Part I review of Change Order Process policy, Pegasus-Global finds that the process defined by this policy is acceptable for the administration of change orders; however, both the Program and the projects would benefit from a formal policy that addresses change control and management. Additionally, the incorporation of the flow chart as described in the findings above would be a beneficial tool for the policy.	Construction	Promotes key element of the program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012
133	8	V2-R-5.14.2-1 If the IProcurement Extension to the Change Order Process is intended to be implemented by the projects, it should first be formalized and incorporated into Procedure 4.20 Change Order Process. At that point the recommendations provided for Procedure 4.20 Change Order Process would still apply, but it would provide a formal structure for this policy to be utilized.	Construction	Promotes key element of the program	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012
134	4	V2-R-5.15-1 Project-level controls would benefit from the formalization of invoice documentation procedures. Standardizing how each invoice is to be filed as well as recorded in an inventory log is critical for the control and tracking of invoices to be successful.	Program Wide	Promotes key element of the program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012

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Line Number	Pegasus Priority	Original Recommendation Text	Project Phase	Urgency Assessment	Status	Team	Due Date
135	7	V2-R-5.16-1 As was suggested in Section 5.3.5.3, a formal adoption of the Augmentation and 20 Day Letter Requests process into those policies, procedures and processes which address 20-day letter and augmentation requests would aid in ensuring this process is utilized uniformly across all projects.	Program Wide	Immediate positive impact on program	In-Process	Planning and Finance Team Kelly Quinn	December 3, 2012
136	7	V2-R-5.17-1 The Progress Report Template, as its name suggests, is a template and not an actual policy. Therefore, there is little policy to gauge the projects on in this area; however, Pegasus-Global was able to ascertain that the template is being used uniformly across the projects and if the template were to be integrated into a formal policy it would assist in maintaining the uniformity of the progress reports.	Working Drawings	Promotes compliance to comparative industry standard	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012
137	7	V2-R-5.18-1 As much of the information is found in the Progress Report, and the remainder of the information (e.g. Construction Related Agreements, Project Location Address) should be easily obtainable, the utilization of this Project Description template can be straight-forward with the completion and introduction of a formal supporting policy. Such a policy should identify the need for this document, as opposed to reformatting the Progress Reports to contain all the information required by a Project Description.	Working Drawings	Promotes compliance to comparative industry standard	In-Process	D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	October 31, 2012

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Pegasus Priority	Count of Ordinal Ranking	Percentage of Total
1	4	3%
2	51	37%
3	20	15%
4	12	9%
5	6	4%
6	9	7%
7	25	18%
8	7	5%
9	1	1%
10	0	0%
11	2	1%
	137	100%

Urgency Assessment Rank	Count of Urgency Assessment Ranking	Percentage of Total
Immediate positive impact on program	38	28%
Promotes key element of the program	84	61%
Promotes compliance to comparative industry standard	13	9%
Adequate existing procedure/process	0	0%
No Recommendation	2	1%
	137	100%

Status	Count of Status	Percentage of Total
In-Process	135	99%
Complete	2	1%
	137	100%

PIP Team and Team Lead Name	Count of PIP Team Assignments	Percentage of Total
PIP Support Team Jim Mullen	11	8%
Document Control Team Jim Stephenson	12	9%
D&C Delivery Method Selection Team Rob Uvalle	4	3%
Procurement Policy Team Jim Mullen	13	9%
Planning and Finance Team Kelly Quinn	16	12%
D&C Complete/Integrate Policies and Procedures Team Rona Rothenberg	29	21%
Real Estate Team Eunice Calvert-Banks	4	3%
D&C Standards Team Clifford Ham	6	4%
QA/QC Team Jim Stephenson	13	9%
Start Up and Warranty Team Nick Turner	6	4%
Risk Management Team Jim Mullen	4	3%
Project Management Team Ernie Swickard	18	13%
D&C Project Progress Documentation Team Rona Rothenberg	1	1%
	137	100%

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Construction Phases	Count of Deliverables by Construction Phase	Percentage of Total
Prioritization	20	15%
Acquisition	4	3%
Preliminary Plans	4	3%
Working Drawings	31	23%
Construction	24	18%
Handoff & Warranty	8	6%
Program Wide	46	34%
	137	100%

Deliverable Date	Aggregate Number of Deliverables by Date	Percentage of Total
August 31, 2012	32	23%
October 1, 2012	8	6%
October 31, 2012	45	33%
December 3, 2012	40	29%
January 16, 2013	8	6%
10/3/12 - 12/3/12	2	1%
Complete	2	1%
	137	100%

APPENDIX B

APPENDIX B
ADMINISTRATIVE OFFICE OF THE COURTS
OFFICE OF COURT CONSTRUCTION AND MANAGEMENT

CALIFORNIA COURTHOUSE FACILITIES PROGRAM
SUMMARY OF ACCOMPLISHMENTS
AUGUST 8, 2012

The following is a brief summary of the accomplishments of the Courthouse Facilities Program.

1. **Enacted Legislation for the Responsibility of Courthouses** - The Trial Court Facilities Act, Senate Bill 1732, (SB 1732) was enacted in 2002. SB 1732 provided for the shift of responsibility for all state courthouse facilities from the 58 separate counties to consolidated state governance, under the direction of the Judicial Council. This allows for more efficient maintenance and centralized planning for future courthouse facilities, improving state-wide access to justice.
2. **Established the Office of Court Construction and Management (OCCM)** – In 2003, OCCM was established within the Administrative Office of the Courts for the purpose of implementing the legislative mandates of SB 1732.
3. **Prepared Master Plans for 58 Counties** - Master Plans were created for each of California's 58 superior courts. Following the development of the Master Plans, the Judicial Council prioritized the 340 projects identified in the Master Plans. This included moving forward on 201 projects which lead to the first Trial Court Capital-Outlay Plan, a prioritized list of projects with identified funding.
4. **Transferred Courthouse Facilities from County Control to Judicial Council Control** – Developed and implemented procedures for the transfer of all courthouse facilities from under the control of the 58 counties to the Judicial Council. This included organizing AOC and court teams to negotiate the transfer of responsibility with each of the separate counties. The transfer process commenced in 2003 and, meeting the goals of SB 1732, was completed by the end of 2009. Some 532 facilities totaling approximately \$20 million in assets were included in this massive transfer program. This six-year process was the largest conveyance of public facilities in the history of California.
5. **Prepared Policies and Procedures to Guide the Implementation of the Capital Program** –OCCM has developed many policies, procedures and guidelines for courthouse facility planning, acquisition, construction, design, operations and maintenance. These include the following Judicial Council adopted policies:
 - *Court Facilities Contracting Policies and Procedures*
 - *Site Selection and Acquisition Policy for Court Facilities*
 - *Site Selection and Acquisition Policy for Judicial Branch Facilities*
 - *Prioritization Methodology for Trial Court Capital-Outlay Projects*
 - *Prioritization Methodology for Modifications to Court Facilities*

- *Seismic Safety Policy for Leased Buildings, and*
- *Courthouse Naming Policy*

OCCM used procedures from the State Administrative Manual (SAM) as a guide for the development of financial submittal procedures, including the preparation of the Five Year Plan and the annual Capital Outlay Budget Change Proposals (COBCP). Existing policies and procedures will be refined and additional policies and procedures will be prepared to insure that the entire program has a uniform and consistent set of policies and procedures.

6. **Established Effective Working Relationship with the Courts – OCCM** approached each of the 58 superior courts in an effort to establish an effective working relationship. The idea behind the relationship was, and continues to be, that the courts are our customers and partners in all issues related to facilities. OCCM engaged in various outreach efforts, including numerous presentations at Regional Meetings, in-person meetings at the courts' locations, and establishing a team for each capital project that included judicial officers, court staff and AOC staff.
7. **Established Credibility and Effective Working Relationship with the Judicial Council – OCCM** provided updates and recommendations as necessary to the Judicial Council.
8. **Established Credibility and Effective Working Relationship with the AOC Executive Office – OCCM** management staff met regularly with AOC Executives to take direction, provide progress updates and recommendations, and obtain decisions on key issues.
9. **Established Credibility with Service Providers –** In 2004, when the first capital projects were authorized, the capital program was still young and unknown to the design and construction industry. OCCM management and staff had to introduce the program to numerous service providers, including architects, engineers, construction contractors, inspection and material testing firms, and real estate firms. During 2005 – 2006 there were numerous capital projects being built in California. That meant steep competition to attract the most qualified firms. At that time, design and construction firms did not know OCCM, and when they learned of the capital program, they wanted to know how the program was being managed in order to determine if they wanted to participate in courthouse construction. Management and staff of OCCM went to key industry associations, including the American Institute of Architects, the American Council of Engineering Companies, the Associated General Contractors, the Construction Management Association of America, the Western Council of Construction Consumers and others to introduce, explain and answer questions about the courthouse construction program. Through OCCM's efforts, the design and construction industry became well informed about the Judicial Council's capital program, and thus OCCM was able to attract the most qualified firms to submit proposals on Judicial Council projects.
10. **Established Credibility with Stakeholders and Oversight Agencies – OCCM** management and staff met with representatives of key stakeholders and oversight agencies, including the State Department of Finance, State Treasurer, State Architect, State Fire Marshal, local fire departments, the Building Standards

Authority, Department of General Services, Public Works Board, Legislative Analyst's Office, State Controller, the Governor's Office, and leadership and members of the Legislature. OCCM provided these stakeholders with accurate information covering the Judicial Council's development plans, cost status, schedule status, and key issues.

11. **Established Quarterly Meetings with the Department of Finance (DOF)** – OCCM established regular meetings with representatives of DOF. The purpose of these meetings is to review the progress of the projects, discuss key issues, obtain direction and ensure that decisions are made to make certain the program to proceed in a timely and cost effective manner.
12. **Developed Financial Model to Analyze Program Decisions**– OCCM developed a financial model that included key inputs, such as revenues, expenses, debt service payments and fund balances. As conditions changed with revenue fluctuations, legislative redirections and loans, cost of bond issuances, cost of projects, and number of projects, OCCM was able to efficiently analyze and report in a timely manner the impact of these decisions on the program and the overall fund balance throughout the estimated term of debt service.
13. **Prepared Five Year Infrastructure Plan** – As required by the Legislature and DOF, OCCM prepared a Five Year Infrastructure Plan on an annual basis. This provides information used by DOF to prepare the Governor's Budget and determine the state's capital outlay authorizations.
14. **Formed Project Advisory Groups (PAG)** – As required by statute OCCM formed a PAG for each capital project in an effort to ensure that all stakeholders were at the table for decisions related to capital projects. The PAG allows the court and local community the opportunity to stay informed about the project as well as participate in the decision making process at key points in the life of the project.
15. **Developed Project Teams to Manage Each Capital Project** – From the time a capital project was legislatively approved, project teams were established which included a project manager, real estate analyst, facilities planner, budget analyst, facility management representative, environmental analyst and attorney. A Management Plan was prepared for each project that included the authorized scope of work, the budget, schedule, roles and responsibilities. The management team and plan fosters communication among the OCCM divisions as well as with the courts and local community.
16. **Monthly Progress Reports** – Monthly progress reports for each capital project were prepared and distributed to representatives of the courts, project team members, managers and executives within the AOC. The reports provide a summary of the progress for the month, budget and cost status, schedule status, key issues and project milestones.
17. **Established Guidelines and Procedures for Site Selection** – Site selection remains one of the most challenging aspects of the capital program, as the preferred locations for new courthouse facilities are typically in the center of urban areas which lack available and vacant land. OCCM, working with the PAGs, developed site selection criteria, ensured the evaluation of several sites

per project, and facilitated the identification of a preferred site and an alternate site for each capital project. In total, over 100 sites have been analyzed for future courthouses. Of those selected, Te State Public Works Board has approved the acquisitions of 18, and the state has taken title to 17.

18. **Identified Economic Opportunities** – As encouraged by SB 1407, OCCM solicited economic opportunities from numerous cities and counties to make certain site selection included potential savings through contributions by the local communities. OCCM sent a total of 174 letters to cities and counties, and received 61 responses. Ultimately OCCM realized economic opportunities on 7 projects.
19. **Developed Project Feasibility Reports** – For each proposed project, OCCM developed a Project Feasibility Report that included a scope definition, cost estimate, schedule, definition of delivery method, and alternatives site/project considerations. The Feasibility Reports allow the public to review the analysis that went into each capital project, particularly the various options available to remedy the existing courthouse deficiencies. The reports are available to the public via the project websites, which are part of the AOC's website.
20. **Secured Legislative Approval of all SB 1407 Projects in Record Time** – Following the enactment of SB 1407, OCCM expedited the approval of all 41 projects. This included the development of comprehensive Project Feasibility Reports for each project. The approval process was completed in one year – a process that would typically require three years.
21. **Developed Design Standards for Appellate and Trial Courts** – OCCM developed design standards for both appellate and trial court facilities, which enabled the design teams to clearly understand and communicate to the architectural industry the requirements for size, quality, and performance of new courthouses.
22. **Completed the CEQA Process** - OCCM engaged in the CEQA review of 34 capital projects, which included 14 categorical exemptions, 13 negative declarations, and seven full Environmental Impact Reports. OCCM ensured a well managed process that was clearly understood by the PAG's and other affected parties, held numerous public meetings to ensure community buy-in, responded to community and press inquiries regarding the projects and process, and filed a notice of determination for all 34 projects. To date, no lawsuits have been filed challenging the adequacy of the CEQA review on any of OCCM's projects.
23. **Completed the Selection of Architectural and Engineering Teams** – The successful outreach efforts by OCCM staff garnered interest by top architectural and engineering firms working in California. In the selection of the design teams, OCCM worked closely with each court, receiving 1,191 proposals. OCCM held 310 interviews with interested firms and with court input, selected the design teams. To date, no formal protest has been received on any of the solicitations. Because the process was fully described and understood by all participants, the process was transparent and the decision-making policy fair.
24. **Design Quality Control** – This has been a well managed process, with careful development of the design in conjunction with the court users. In addition to

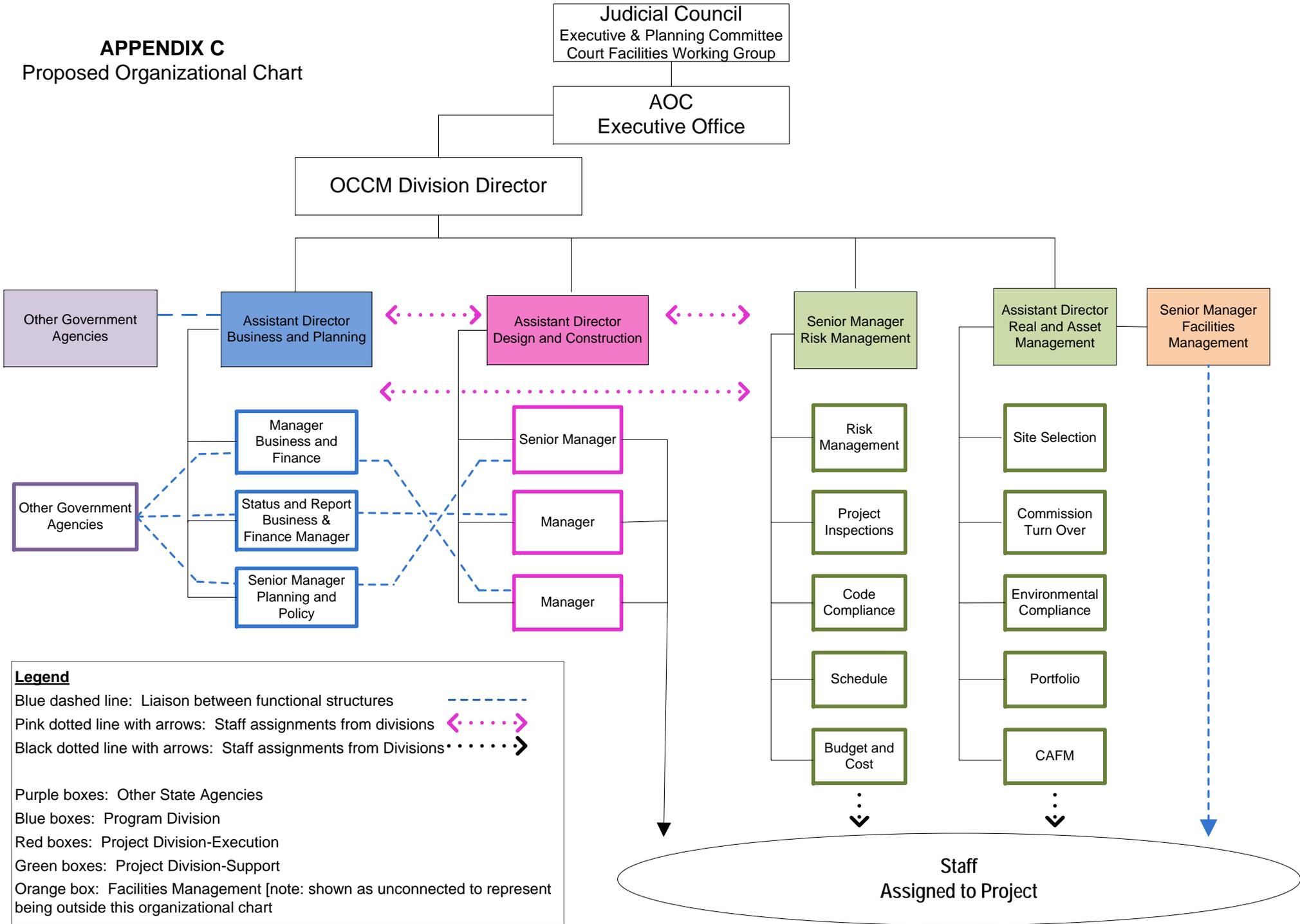
ongoing reviews by the OCCM project team members and the courts, the design undergoes code compliance review, structural peer review, commissioning review of mechanical and electrical systems, and constructability reviews. Formal approvals are received from the State Fire Marshal (fire and life safety items), the State Architect (access compliance), and the Corrections Standard Authority (holding cells).

25. **Construction Delivery Methods** – OCCM is utilizing a number of effective delivery methods for capital projects construction manager at risk (CM@Risk) on the majority of projects, prequalified general contractor for design-bid-build on smaller projects, and the first courthouse in the United States to use a Performance Based Infrastructure (PBI) approach for the Governor George Deukmejian Courthouse in Long Beach, California. All delivery methods have resulted in an effective process, good quality construction, relatively few change orders, and no construction litigation.
26. **Construction Results** – The AOC has completed 9 projects. All have been completed under the authorized budget. The quality of construction has been very good, there have been no construction lawsuits, and the judges, court executives and staff of the courthouse have been very satisfied with the new facilities.
27. **Construction Quality Control** – Compliance requirements are the responsibility of the contractor. The OCCM resident inspector inspects the work for compliance with the approved contract documents and applicable codes and regulations. Materials testing and special inspector firms perform material testing and special inspections in accordance with the contract documents and industry standards. The inspector issues a final verified report once all work is determined to be in compliance with the contract documents and applicable regulations. The State Fire Marshal also inspects the building for fire and life/safety compliance, and issues a Certificate of Occupancy that allows judicial officers and court staff to move into the courthouse once construction has been completed.
28. **Commissioning** – OCCM manages the commissioning agent who verifies the mechanical and electrical systems function as intended under the contract documents. Satisfying these requirements is a major step to allow the project to obtain LEED certification, and comply with Title 24, California Building Code.
29. **Facility Performance Evaluation and Lessons Learned Program** – OCCM developed a program to evaluate how the new courthouses met the needs of the court users. Capturing these lessons learned to share with other project teams ensured continuous improvement in newly constructed courthouse quality and functionality. OCCM employs an online survey, based on a model prepared by the Center for the Built Environment. The survey is sent to court representatives for their evaluations of the new facility and recommendations for future projects. To date OCCM has completed 5 Facility Performance Evaluations, which have generated more than 20 recommendations to date.
30. **Project Awards** – Several of Judicial Council projects have received awards from organizations including McGraw Hill, American Institute of Architects, and the Western Council of Construction Consumers.

31. **Industry Recognition of OCCM Members** – Several OCCM staff members have received industry recognition and have been asked to speak at conferences. Organizations making awards to OCCM staff members include the Construction Management Association of America, the American Institute of Architects, and the Western Council of Construction Consumers.
32. **Industry Recognition of the Capital Program** – The American Institute of Architects California Council, the Associated General Contractors, and the American Council of Engineering Companies have recognized the OCCM as one of the leading facilities programs in California.
33. **Organized for Effective Delivery and Flexibility** - The courthouse construction program really started with the passage of SB 1407 in 2008, at the time that hiring freezes went into effect. OCCM had to develop an organization to proceed rapidly and effectively on the SB 1407 projects. OCCM did so with an organization that combined its staff and consultants experienced in the construction industry. OCCM developed adequate procedures, controls and oversight to enable the project teams to deliver the projects as rapidly as possible. OCCM staff utilized an entrepreneurial spirit to deliver all aspects of the projects, and exhibited flexibility when adjustments to projects had to be made when program revenues were diverted to court operations or the California General Fund. OCCM worked effectively with the Court Facilities Working Group to develop factual information and possible procedures to be used by the CFWG to determine which projects would proceed and which projects would be paused. OCCM also worked effectively with the Cost Reduction Subcommittee to develop procedures to reduce costs on most of the SB 1407 projects.

APPENDIX C

APPENDIX C
Proposed Organizational Chart



Legend

- Blue dashed line: Liaison between functional structures
- Pink dotted line with arrows: Staff assignments from divisions
- Black dotted line with arrows: Staff assignments from Divisions
- Purple boxes: Other State Agencies
- Blue boxes: Program Division
- Red boxes: Project Division-Execution
- Green boxes: Project Division-Support
- Orange box: Facilities Management [note: shown as unconnected to represent being outside this organizational chart]

APPENDIX D

APPENDIX D

Project Implementation Plan

JUNE 7, 2012



ADMINISTRATIVE OFFICE
OF THE COURTS

OFFICE OF COURT CONSTRUCTION
AND MANAGEMENT

Project Implementation Plan

Revision Management

Responsible Office: OCCM/	File Location: G:\OCCM\Statewide Prog\Capital Program Audit\a-PIP Global
Author: James E. Mullen	Approved by: Ernie Swickard, Assistant Director
Process Owner: Senior Risk Manager	
Review Cycle: Monthly	

Revision	Description	Date	Revised by:
1.0	Initial Document	June 7, 2012	

PROJECT IMPLEMENTATION PLAN

1. Introduction:

This Project Implementation Plan (PIP) has been prepared to provide AOC staff working on a PIP team with a single source document that provides:

- Description of the background and purpose of the Project
- Project goals
- List of the assigned staff and their responsibilities
- PIP Objectives
- Lines of communication and process
- Project roles and responsibilities
- Schedule information

2. Background

Prior to the completion of working drawings on any of the projects authorized under SB 1407 the Judicial Council's Court Facilities Working Group (CFWG) engaged Pegasus Global Holdings, Inc. (Pegasus) who was charged with the assessment of the overall management of the courthouse construction program (Program) relative to budget, scope, schedule and quality outcomes utilizing a combination of AOC Program policy, procedure, process, standards, and document reviews, and staff interviews. Pegasus has completed its review and has issued two DRAFT reports detailing its findings and recommendations relative to its review of the Program, which are summarized in the **Capital Program Audit Table of Findings and Recommendations**. The Office of Court Construction and Management (OCCM) has been instructed to implement the Pegasus recommendations on the priority basis as established in the Exhibits, and referenced under "Urgency Assessment". The priority for implementation shall be:

- Priority A - Immediate positive impact on program
- Priority B - Promotes key element of the program
- Priority C - Promotes compliance to comparative industry standard

3. Project Goals

The goal of the PIP is to:

- 3.1 Develop, rework and complete a set of comprehensive and relevant Program and project policies, procedures and processes that follows generally accepted guidance from a selected body of knowledge, e.g. CMAA
- 3.2 Promote uniform management methods for all projects
- 3.3 Establish a formal, detailed delegation of authority that clearly delineates the party within the Program, and projects, with the authority to make decisions and take actions on behalf of the AOC, and
- 3.4 Develop a comprehensive records management program and process.

4. List of Assigned Staff and their Responsibilities

- 4.1 Program Manager: Ernie Swickard
- 4.2 PIP Manager: Jim Mullen
- 4.3 Support Staff:

- Process Advisor: Sharon Mackarness
 - Scheduling and Process Management Coordinator: Eddie Naff
 - Peer Review Coordinator: Ray Polidoro
 - Training and Compliance Coordinator: TBD
- 4.4 Objective and Assigned Teams and Team Leads
- 4.4.1 Develop a plan and process to complete the PIP
Team: PIP Support
Team Lead: Jim Mullen
- 4.4.2 Develop a plan to enhance and complete existing policies and procedures that directly affect the design and construction of each project, incorporating Pegasus recommendations.
Team: D&C – Complete/Integrate Policies and Procedures
Team Lead: Rona Rothenberg
- 4.4.3 Develop a plan, and requisite policy and procedures, to conduct a feasibility review of each proposed project.
Team: Planning and Finance
Team Lead: Kelly Quinn
- 4.4.4 Establish a plan, and requisite policy and procedures, to evaluate the factors to be considered and the process by which the delivery method will be selected for each project.
Team: D&C – Delivery Method Selection
Team Lead: Rob Uvalle
- 4.4.5 Establish plan, and requisite policy and procedures, to control project documents, to inclusive of templates, naming conventions, recovery and back-up, security, and destruction.
Team: Document Control
Team Lead: Jim Stephenson
- 4.4.6 Develop, in consultation with Pegasus, specific measurable goals and objectives for the Program and each project.
Team: Program Management
Team Lead: Ernie Swickard
- 4.4.7 Establish a plan, and requisite policy and procedures that by reference will adopt appropriate parts of the State Administrative Manual into the complete set of relevant Program and project policies, procedures and processes.
Team: Planning and Finance
Team Lead: Kelly Quinn
- 4.4.8 Establish a plan, and requisite policy and procedures, to adopt 2011 standards, to consider modifications of standards to prescribe primary infrastructure equipment and systems to be designed into projects, and to establish a process to allow for exceptions from the standards for all project under preliminary plan and working drawing phase of development.
Team: D&C - Standards
Team Lead: Clifford Ham

- 4.4.9 Develop plan, and requisite policy and procedures, to document progress of each project against baseline budget, scope, schedule and quality outcomes; outcomes shall be reported in monthly Program and project progress reports.
Team: D&C Project Progress Documentation
Team Lead: Rona Rothenberg
- 4.4.10 Establish a plan that will integrate project policies and procedures, with Facility Management policies, procedures, and processes.
Team: D&C – Complete/Integrate Policies and Procedures
Team Lead: Rona Rothenberg
- 4.4.11 Develop a plan, and requisite policy and procedures, establishing a formal quality management program for both the Program and project levels addressing both quality control and quality assurance as practiced within the industry at large.
Team: Quality Assurance/Quality Control
Team Lead: Jim Stephenson
- 4.4.12 Establish a plan, and requisite policy and procedures, to review all architects and engineering, construction contractor, and construction support contracts that will ensure scope of work, responsibility and risk are appropriately allocated.
Team: Procurement Policy
Team Lead: Jim Mullen
- 4.4.13 Establish a definitive process, and requisite policy and procedures, relative to contract compliance and resolution of project related contract disputes to ensure uniformity in the process and to provide a point of contact for resolution should the process not be successful.
Team: Contract Compliance
Team Lead: Kim Davis
- 4.4.14 Establish a definitive process, and requisite policy and procedures, ensuring uniformity in the checkout and commissioning, start-up planning and control, and the resolution of warranty claims and disputes.
Team: Start-up & Warranty
Team Lead: Nick Turner
- 4.4.15 Establish a plan, and requisite policy and procedures, to establish a formal risk management program that will provide a method of identifying and controlling events that have the potential of causing adverse outcomes.
Team: Risk Management
Team Lead: Jim Mullen
- 4.4.16 Review existing policy and procedures that establish the process to acquire real estate to make allowance for dispute resolution and the maintenance of land held in fee until such time as a new courthouse will be constructed or the land will be sold.
Team: Real Estate
Team Lead: Eunice Calvert-Banks
- 4.4.17 Establish a plan, and requisite policy and procedures, establishing a formal human resource program, which provides a method to establish both the current and future human resources needs for the Program.
Team: Program Management

Team Lead: Ernie Swickard

5. Lines of Communication and Process:

- 5.1 The **PIP Manager** will be responsible to maintain the schedule, respond to requests from each team, make final decisions concerning process, and develop a training and compliance program.
- 5.2 The **Process Advisor** will be responsible to establish the form to be used to develop and present each policy and/or procedure for review by the Peer review Coordinator.
- 5.3 Each **Team Lead** will be responsible to thoroughly review the applicable portions of each Pegasus DRAFT report and to work with their team to complete their assigned tasks within the agreed schedule, following the designated process.
- 5.4 Each team of individuals assigned to specific tasks will be responsible to have completed their work product in the prescribed format by the date set out on Exhibit 1, and Exhibit 2 (as amended), and to have submitted the work product to the **Scheduling and Process Management Coordinator** and the **Peer Review Coordinator**.
- 5.5 All peer review will be complete within 10 working days of each work task being submitted in its prescribed form, and peer review comments will be submitted to the **Team Lead** assigned to the specific task.
- 5.6 The **Team Lead** will respond to the peer review comments within 10 working days and must submit responses and modified work product back to the **Scheduling and Process Management Coordinator** and the **Peer Review Coordinator**
- 5.7 If approved the **Peer Review Coordinator** will either submit new comments to the **Team Lead** for additional comment, or will submit final documents to the **Scheduling and Process Management Coordinator** and **Process Advisor**, for review, numbering, and final processing.
- 5.8 Once a final document is accepted and included within the OCCM set of policies, procedures, and processes it shall be the on-going responsibility of the **Document Control Team** to regularly evaluate both policies and procedures and make modifications as required.

6. Contracting for Outside Consultants:

With the approval of the OCCM Division Director and validation of sufficient funds by the Manager of Business & Finance Unit, the Assistant Director for Design and Construction is authorized, as the **Program Manager**, to contract for professional and administrative services to write procedures, prepare studies, provide peer review, prepare draft and final documents, and, under the direction of the **Process Advisor**, to produce a final catalog of completed policies and procedures.

7. Roles and Responsibilities:

- 7.1 The **PIP Manager** will be responsible for the completion of the required action items summarized on Exhibit 1 by October 1, 2012. The **PIP Manager** will also be responsible to maintain the schedule, respond to requests from each team, and make final decisions concerning process.
- 7.2 Each team of AOC/OCCM staff assigned to specific tasks will report to one individual that is part of the assigned team and who is designated the **Team Lead**. The **Team Lead** will be responsible for the schedule and quality of the work product and will be the preferred source

of communication with the **Program Manager**, the **PIP Manager**, and the **Peer Review Coordinator**. In some cases the **Team Lead** may determine that sub-teams are necessary to complete the work. The **Team Lead** may appoint sub-Team Leads and sub-team members. These sub-teams should be reported to the **Scheduling and Process Management Coordinator**.

- 7.3 The **Process Advisor** will provide assistance to each team on the appropriate format and process necessary to complete a procedure in a manner that meets the standard of care referenced by Pegasus and maintained by OCCM in its Facility Management procedures. The **Process Advisor** will also assist the **PIP Manager** to produce a final a final catalog of completed policies and procedures.
- 7.4 The **Peer Review Coordinator** will provide technical review of each procedure submitted by a **Team Lead** to ensure its complies with the direction of the OCCM Executive Management and the standard of care referenced by Pegasus and maintained by OCCM in its Facility Management procedures.
- 7.5 The **Scheduling and Process Management Coordinator** will maintain the overall schedule for the PIP; and will develop monthly progress reports that include a summary from each **Team Lead**, and whatever additional information is required by **Program Manager** and the CFWG Audit Subcommittee, or the respective AOC and OCCM executive teams.
- 7.6 The **Training and Compliance Coordinator** will be responsible to coordinate with the AOC Education Division to establish a validated training process for designated OCCM personnel on the requirements of the all the Program and project policies, procedures and processes, including revisions as necessary. The **Training and Compliance Coordinator** will also be responsible to determine when individual procedures and processes require revision or retirement, and to work with the **PIP Manager** to appoint an appropriate team of AOC/OCCM staff assigned to make the necessary modifications.

8. Organizational Chart – See Attachment

9. Conformity/Authority

The assignment of the responsibility to develop, rework, and complete a set of comprehensive and relevant Program and project policies, procedures and processes to separate Team Leads will inevitably lead to instances where there will need to be a decision made by the Program Manager as to the ultimate direction that will be included in all procedures to allow for uniformity of process. In the event of such conflict the Peer Review coordinator will be responsible to work with each team Lead to indentify the potential conflict, to develop the possible alternatives, and to obtain specific direction from the Program Manager as to the process to be used in the conflicting documents.

10. Schedule:

	Start Date	Finish Date
10.1 Project Definition and Organization	Apr. 30, 2012	May 17, 2012
10.2 Assign Team Leads	May 23, 2012	May 31, 2012
10.3 Obtain agreement from AOC Executive Office	June 1, 2012	June 4, 2012
10.4 Hold initial orientation on process and expected outcome	June 12, 2012	June 12, 2012
10.5 Commence work	June 12, 2012	Dec 31, 2012

10.6 Evaluate those tasks requiring CFWG Action and Schedule for CFWG review and approval	July 2, 2012	Oct. 1, 2012
10.7 Complete training and compliance plan	June 29, 2012	Aug. 1, 2012
Initiate training and compliance plan	Aug. 20, 2012	Oct. 31, 2012

11. Cost:

OCCM staff is responsible for the successful completion of the PIP. The Assistant Director for Design and Construction is authorized, as the **Program Manager**, with the approval of the OCCM Division Director, and validation of sufficient funds by the Manager of Business & Finance Unit, to contract for certain services as stated in Section 6, above. The total expenditure for temporary staff and/or consultants shall not exceed \$150,000 exclusive of participation of existing IDIQ consultants or AppleOne temporary employees and costs for Pegasus related work, if any.

12. Funding Source:

Design and Construction—SCFCF support, code to PCC 13041314

13. Changes to Scope, Schedule and Budget

It is anticipated that Pegasus may make additional findings and recommendations concerning the Program and that the scope, schedule and budget necessary to complete the PIP will expand. In such an instance it will be the responsibility of the **PIP Manager** with the assistance of the **Scheduling and Process Management Coordinator**, and the approval of the **Program Manager**, to modify this plan to include necessary revisions.

14. Team Directory:

TBD

APPENDIX E

APPENDIX E

Project Implementation Plan

PROCESS REQUIREMENTS



ADMINISTRATIVE OFFICE
OF THE COURTS

OFFICE OF COURT CONSTRUCTION
AND MANAGEMENT

Project Implementation Plan Process Requirement

Revision Management

Responsible Office: OCCM/	File Location: G:\OCCM\
Author: James E. Mullen	Approved by: Ernie Swickard, Assistant Director
Process Owner: Senior Risk Manager	
Review Cycle: Monthly	

Revision	Description	Date	Revised by:
1.0	Initial Document	June 19, 2012	

PROJECT IMPLEMENTATION PLAN - PROCESS REQUIREMENTS

1.0 **Establish Program Objectives**

- 1.1 **Phase:**
Front-End Planning
- 1.2 **Key Concepts:**
Project success requires that Project objectives be thoroughly defined and communicated. Alignment of Project objectives between all OCCM business units and program management must be achieved and periodically monitored.
- 1.3 **Deliverables:**
Listing Project objectives
- 1.4 **Motive/Rationale:**
In order to achieve Project success, it must be defined specifically for each project.
- 1.5 **Responsibility:**
 - 1.5.1 Owner: Program Manager
 - 1.5.2 Accountability: OCCM Executive Team
 - 1.5.3 Consult: AOC Executive Team
 - 1.5.4 Inform: CFWG Audit Subcommittee
- 1.6 **Quality Gate/Sequencing Constraints:**
This activity is not a quality gate.
- 1.7 **Basic Steps:**
 - 1.7.1 Assign the role of Program Manager.
 - 1.7.2 Assemble key personnel responsible for formulating Project objectives.
 - 1.7.3 Propose, discuss, and evaluate Project objectives.
 - 1.7.4 Thoroughly define Project objectives and establish associated priorities.
 - 1.7.5 Document and communicate Project objectives throughout the project team
- 1.8 **Tools Needed/Provided:**
Listing of typical Project objectives.
- 1.9 **Challenges to Successful Implementation:**
 - 1.9.1 Appropriate selection of Team Leads
 - 1.9.2 Lack of understanding of Project objectives and their importance to each business unit
 - 1.9.3 Misalignment of Project objectives between program management and Team Leads
 - 1.9.4 Appropriate selection Team members
 - 1.9.5 Lack of OCCM Executive team commitment

2.0 **Develop the Project Implementation Plan**

- 2.1 **Phase:**
Front-End Planning
- 2.2 **Key Concepts:**
The Project Implementation Plan should be formally and thoroughly developed.
- 2.3 **Deliverables:**
A first issue of the Project Implementation Plan that addresses all important aspects of Project.
- 2.4 **Motive/Rationale:**
The Project Implementation Plan provides a framework for planning necessary to ensure successful Project delivery.
- 2.5 **Responsibility:**
 - 2.5.1 Owner: PIP Manager

- 2.5.2 Accountability: Program Manager
- 2.5.3 Consult: OCCM Executive Team
- 2.5.4 Inform:
 - a. AOC Executive Management
 - b. CFWG Audit Subcommittee
- 2.6 **Quality Gate/Sequencing Constraints:**
This activity is not a quality gate, but must occur early in Program planning.
- 2.7 **Basic Steps:**
 - 2.7.1 Gather key contributors to the Project Implementation Plan and agree on teams, assignments, plan contents, and drafting responsibilities.
 - a. The Project Implementation Plan should include a detailed listing of all Project objectives (*see activity 3-A*).
 - b. The Project Implementation Plan should establish the criteria for the following:
 - 1) Project Goals
 - 2) List of assigned staff and their responsibilities
 - 3) Lines of communication
 - 4) Authority to contract with outside resources
 - 5) Schedule
 - 6) Staff training needs;
 - 7) identification of Project risks
 - 2.7.2 Draft the Project Implementation Plan Process Requirements
 - 2.7.3 Gather as a team, review all component drafts and refine
 - 2.7.4 Assign team members
 - 2.7.5 Issue the Plan, and begin to identify needs for refinement.
- 2.8 **Tools Needed/Provided:**
Listing of assigned team members and their assignments
- 2.9 **Challenges**
 - 2.9.1 Lack of understanding of Project objectives and their importance to each business unit
 - 2.9.2 Misalignment of Project objectives between project management and business unit personnel
 - 2.9.3 Resource/expertise constraints at this point in the project life
 - 2.9.4 Lack of OCCM Executive team commitment

3.0 **Make Project Team Assignments**

- 3.1 **Phase:**
Front-End Planning
- 3.2 **Key Concepts:**
Identify all the key roles and responsibilities needed in executing a successful Project. Recognize the need for these critical resources.
- 3.3 **Deliverables:**
Organization chart and Responsibility Assignment Matrix (RAM) that assigns responsibility, accountability, for those who are primarily responsible and those who provide subject matter information on a response to each Pegasus recommendation.
- 3.4 **Motive/Rationale:**
To provide the needed resources to carry out Project activities; and to encourage early participation in Project planning by all OCCM Units, contractor, and consultant organizations.
- 3.5 **Responsibility:**
 - 3.5.1 Owner: PIP Manager
 - 3.5.2 Accountability:
 - a. Program Manager
 - b. OCCM business unit managers
 - c. Team Leads

- 3.5.3 Consult: OCCM Executive team
- 3.5.4 Inform:
 - a. AOC Executive Management
 - b. CFWG Audit Subcommittee
- 3.6 **Quality Gate/Sequencing Constraints:**
This is not a quality gate. However, the Project organization chart should be developed before the Front End Implementation effort.
- 3.7 **Basic Steps:**
 - 3.7.1 Refine the draft Organization .chart. The organization chart must be compatible with the RAM table
 - 3.7.2 Put names on the organization chart, considering areas requiring special expertise. Certain disciplines such as Risk Management and Quality Assurance will have to serve on more than one assignment
 - 3.7.3 Communicate the assignments to Tem members and their Unit Managers
 - 3.7.4 Review responsibilities with all assignees, and their supervising managers; get feedback; resolve responsibility questions
 - 3.7.5 Communicate
 - 3.7.6 Identify contractor and consultant responsibilities
- 3.8 **Tools Needed/Provided:**
1st draft organization chart, 1st draft sample RAM chart, definitions of tasks and responsibilities
- 3.9 **Challenges to Successful implementation**
 - 3.9.1 Availability of needed personnel to accomplish this task
 - 3.9.2 Lack of understanding of Project objectives and their importance to each business unit
 - 3.9.3 Misalignment of Project objectives between project management and Teams
 - 3.9.4 Lack of OCCM Executive team commitment
 - 3.9.5 Resource/expertise constraints at this point in the project life
- 4.0 **Identify Project Team Assignments**
 - 4.1 **Phase:**
Front-End Planning
 - 4.2 **Key Concepts:**
Breakdown the entire project into common subject matter areas in order to facilitate assignment of appropriate staff to develop necessary documents.
 - 4.3 **Deliverables:**
Listing of Project Team Leads and teams
 - 4.4 **Motive/Rationale:**
To identify teams to allow for scoping, planning, and sequencing
 - 4.5 **Responsibility:**
 - 4.5.1 Owner: PIP Manager
 - 4.5.2 Accountability:
 - a. Program Manager
 - b. Team Leads
 - c. OCCM business unit managers
 - 4.5.3 Consult: OCCM Executive Team and Unit Managers
 - 4.5.4 Inform:
 - a. AOC Executive Management
 - b. CFWG Audit Subcommittee
 - 4.6 **Quality Gate/Sequencing Constraints:**
This is not a quality gate. However, all Project assignments should be identified by the completion of Front-End Implementation effort.

- 4.7 **Basic Steps:**
 - 4.7.1 Meet with Team Leads to review responsibilities, get feedback; resolve appropriate questions
 - 4.7.2 Refine the task assignments, Organization chart, and RAM table
 - 4.7.3 Inform contractors and consultants of their Project responsibilities
- 4.8 **Tools Needed/Provided:**
Final organization chart, final assignment chart, final RAM chart, definitions of roles, in-force contracts with Project consultants.
- 4.9 **Challenges to Successful implementation**
 - 4.9.1 Assignment of correct staff to each Project team
 - 4.9.2 Availability of needed personnel to accomplish this task
 - 4.9.3 Lack of understanding of Project objectives and their importance to each business unit
 - 4.9.4 Misalignment of Project tasks between project management and Team Leads
 - 4.9.5 Resource/expertise constraints at this point in the project life
 - 4.9.6 Inability of Project consultants to achieve agreed deliverables
 - 4.9.7 Lack of OCCM Executive team commitment

5.0 **Requirements Development**

- 5.1 **Phase:**
Front-End Planning
- 5.2 **Key Concepts:**
Complete front end planning must include input from all affected operating units. Buy-in by operating units is critical to Project success.
- 5.3 **Deliverables:**
A Term Sheet for each Pegasus recommendation that includes all of the following:
 - 5.3.1 In bullet point format indicate that the Team Lead and the Team members have considered the following execution environment factors prior to beginning to develop specific procedures:
 - a. If applicable the specific California law, administrative rule, or Rule of Court that pertains to the assigned task
 - b. The specific body of knowledge that supports the assigned task, e.g. AIA, PMI, CMAA etc.
 - c. The political conditions that may impact the execution of the assigned task
 - d. The state and local economic conditions that may impact the execution of the assigned task
 - e. The overall and project budget conditions that may impact the execution of the assigned task
 - f. The involvement of participatory stakeholders, e.g. trial court, California Department of Finance, Court Facility Working Group
 - g. The involvement of non- participatory stakeholders, e.g. State Building and Trades Council of California
 - h. Regulator involvement
 - i. Program and project staff availability and quality
 - j. Contractor and consultant availability, quality and cost
 - 5.3.2 In bullet point format document indicate how the Team Lead and the Team members developed ways for the procedure to result in more efficient program or project delivery at reduced cost
 - 5.3.3 In bullet point format indicate that the Team Lead and the Team members considered how the procedure would facilitate the program or project meeting scope, budget, and schedule requirements
 - 5.3.4 In bullet point format document indicate that the Team Lead and the Team members considered and determined how many separate procedures were necessary to implement a specific Pegasus recommendation
 - 5.3.5 In bullet point format indicate the levels of authority the procedure grants to the each

layer of project and program management and the basis of the authority grant
5.3.6 Designate what OCCM business unit should be responsible for the administration of the policy or procedure once written.

5.4 **Motive/Rationale:**

Effective front-end planning is required for Project success

5.5 **Responsibility:**

5.5.1 Owner: Program Manager

5.5.2 Accountability: Team Leads

5.5.3 Consult: PIP Manager, OCCM and AOC business unit managers

5.5.4 Inform: AOC Executive Team

5.6 **Quality Gate/Sequencing Constraints:**

This activity is not a quality gate, but outcomes of discussions must be maintained in a bullet point document outlining the material terms and conditions of operating unit's needs in the form of a "Terms Sheet" to guide Project teams in the preparation of final documents.

5.7 **Basic Steps:**

5.7.1 Conduct team meeting to develop a process to collect sufficient information to address the issues in item 5.3.1 above

5.7.2 Conduct operating unit meetings, addressing the following issues

a. Specific requirements: staff, consulting support, support budget, notification, acceptance criteria, limitations

b. Specific maintenance requirements: preferred suppliers, spares, access needed, and supplier data requirements

c. Specific checkout requirements: safety, acceptance criteria, staffing, communication, and training

d. Specific Project requirements: system sequence, timing, utilities needed, safety procedures, and environmental requirements

5.7.3 Output from the meetings will be in the form of a list of critical issues that address item 5.3.1 thru 5.3.5 above will used to develop appropriate policies and procedures

5.7.4 Plan for continuing involvement of operating units in the Project

5.8 **Tools Needed/Provided:**

Interview assignments, interview template, Term Sheet template, location on G-drive for filing and sharing of Term Sheets.

5.9 **Challenges to Successful Implementation:**

5.9.1 Teams completing interviews with operating units

5.9.2 Ability of the teams to develop sufficient useful information to address items in 5.3.1 above

5.9.3 Little training and few tools to help in interviews

5.9.4 Operating units providing necessary information

5.9.5 Availability of needed personnel to accomplish this task

5.9.6 Lack of understanding of Project objectives and their importance to each business unit

5.9.7 Resource/expertise constraints at this point in the project life

5.9.8 Lack of OCCM Executive team commitment

6.0 **Establish Schedule and Budget**

6.1 **Phase:**

Front-End Planning

6.2 **Key Concepts:**

Utilizing the most recent information, Team Leads must update the Project schedule by submitting a schedule by Pegasus recommendation number to the PIP Schedule and Process Coordinator, and a request for consultant assistance to the Program Manager in an e-mail memo form with a specific request for consultant assistance. The request for consultant assistance should be copied to the Schedule and Process Coordinator.

- 6.3 **Deliverables:**
Updated Project schedule and consultant budget
- 6.4 **Motive/Rationale:**
Limited resources and uncertain project schedules requires the best possible forecasts for the schedule and budget.
- 6.5 **Responsibility:**
6.5.1 Owner: Program Manager
6.5.2 Accountability: Team Leads
6.5.3 Consult: PIP Manager
6.5.4 Inform: AOC Executive Team and CFWG Audit Subcommittee
- 6.6 **Quality Gate/Sequencing Constraints:**
This activity is not a quality gate, but must be given a high priority.
- 6.7 **Basic Steps:**
6.7.1 Use the Project Implementation Plan and previous Project planning steps in the Front-End Planning phase as the basis for review and refinements
6.7.2 Ensure that all major Project activities and cost factors are identified (such as work hours, consultants, software etc.), and consider associated costs such as travel and subsistence
6.7.3 Estimate the cost of training.
6.7.4 Conduct final budget and schedule reviews with appropriate personnel and issue revised documents.
- 6.8 **Tools Needed/Provided:**
Term Sheet template, location on G-drive for filing and sharing of Term Sheets.
- 6.9 **Challenges to Successful Implementation:**
6.9.1 Lack of sufficient information to develop credible policy and procedures
6.9.2 Unintended paradigms affecting reasonable time frames for completion of successful Project
6.9.3 Lack of Project control over fund allocation
6.9.4 Lack of OCCM Executive team commitment

7.0 **Develop Procedure and Process Documents**

- 7.1 **Phase:**
Procedure and Process Development
- 7.2 **Key Concepts:**
Utilizing the information in the Pegasus reports, the data gather in step 5.0, and information developed from documented bodies of knowledge, Team Leads must develop procedure and process documents that represent an implementation of a law, administrative rule, Rule of Court, or AOC policy. The procedure documents
- 7.3 **Deliverables:**
Draft procedure and process documents
- 7.4 **Motive/Rationale:**
Well developed procedure and process documents provide specific guidance necessary to perform a task necessary to implement a mandate. A procedure should detail who performs the work, what steps are performed, when the steps are performed, how the work is performed, and under what authority the work is performed.
- 7.5 **Responsibility:**
7.5.1 Owner: Team Lead
7.5.2 Accountability: Team members
7.5.3 Consult: Program Manager
7.5.4 Inform: AOC Executive Team and CFWG Audit Subcommittee

- 7.6 **Quality Gate/Sequencing Constraints:**
This activity cannot start until Step 5.0 is complete
- 7.7 **Basic Steps:**
- 7.7.1 Use the Project Implementation Plan and previous Project planning steps in the Front-End Planning phase as the basis for procedure and process development
 - 7.7.2 Use the procedure and process template that can be viewed and copied at G:\OCCM\Statewide Prog\Capital Program Audit\A-PIP Global
 - 7.7.3 Ensure that the procedure is developed with the end user in mind
 - 7.7.4 Ensure that the procedure is understandable, concise, factual, and not quickly outdated (e.g. do not use names)
 - 7.7.5 Strive to keep the document as simple as possible so that it is understood by a new employee or consultant
 - 7.7.6 Do not use abbreviations or acronyms, unless included in the “definitions”
 - 7.7.7 Include step-by-step instructions for completing referenced work, including instruction to complete referenced forms
 - 7.7.8 Include all referenced forms
 - 7.7.9 Include all referenced documents, or when available a link to the document in electronic form
 - 7.7.10 Provide specific reference to other procedures that affect the performance of the tasks outlined in the instant procedure
 - 7.7.11 Establish the AOC units and job classifications held accountable for adherence to the procedure
 - 7.7.12 Establish the AOC units and job classification held accountable for providing assistance and direction to the parties that must adhere to the procedure
- 7.8 **Tools Needed/Provided:**
Pegasus reports, term sheets, legal reference documents, OCCM Process Manual (G:\OCCM\OCCM Process Manual)
- 7.9 **Challenges to Successful Implementation:**
- 7.9.1 Lack of sufficient information to develop credible procedures and processes
 - 7.9.2 Lack of team Lead and team member commitment
 - 7.9.3 Unintended paradigms affecting reasonable time frames for completion of successful tasks
 - 7.9.4 Lack of knowledge necessary to successfully develop procedure
 - 7.9.5 Lack of expert assistance to successfully develop procedure
 - 7.9.6 Lack of OCCM Executive team commitment



PEGASUS-GLOBAL HOLDINGS, INC.

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EXHIBIT C

**PEGASUS-GLOBAL HOLDINGS,
INC.**

TEAM RESUMES



DR. PATRICIA D. GALLOWAY P.E, CPENG, PMP, MRICS, CFCC

Chief Executive Officer

Areas of Expertise

- Arbitrator
- Corporate Governance
- Risk Management
- Risk Assessment
- Prudence/Performance Audits
- International Contracting
- Industry Best Practices
- Project / Program Management
- Contract Administration
- Claims Prevention
- Claim Analysis/Negotiation
- Change Management
- Standard of Care
- Project Controls
- Scheduling and Delay
- Disruption / Productivity
- Cumulative Impact
- Damage Calculations

Professional Experience

As Chief Executive Officer of Pegasus Global Holdings, Inc.[®] (Pegasus-Global), Dr. Galloway oversees all aspects of the firm's management consulting services. She has consulted on matters covering the entire project delivery process in the energy and infrastructure industries and has worked on behalf of private and public sector clients globally. She is an international arbitrator and is a member of the Board of Directors of the American Arbitration Association. Dr. Galloway serves as a consultant member of the U.S. National Science Board, appointed by President Bush with Senate confirmation in 2006 for a six-year term, and served as its Vice Chair from 2008 to 2010. She received an honorary Doctor of Science from the South Dakota school of Mines in 2011.

With over 30 years of experience, Dr. Galloway's experience includes: strategic advice to boards and senior management concerning governance, management structures and performance; risk management including developing and evaluating corporate-wide enterprise risk management programs, project risk identification, assessment and analysis, trend evaluations and risk reduction plans; performance, prudence, and management audits; and project/program management services including contract development, project controls, contract administration and claims avoidance. She serves as an arbitrator in both domestic and international arbitrations and has testified as an expert witness in numerous proceedings including public utility rate hearings, federal and state courts, and domestic and international arbitrations (see arbitration experience below). She holds a certificate of Director Education by the National Association of Corporate Directors and has served on a number of private and non-profit boards.

Dr. Galloway has extensive international experience having worked on some of the world's largest projects including: Vogtle Nuclear Units 1,2,3,4; Iatan Units 1 and 2 super-critical pulverized coal-fired plants; Edwardsport IGCC coal plant; City of Winnipeg, Canada, Capital Improvement Program; Panama Canal; Seattle Sound Transit Light Rail Program; DeKalb County GA School District School Program; London's Crossrail Project; Sakhalin Island, Russia, Oil and Natural Gas Pipeline Project; Venice Lagoon Floodgate Project, Italy; Xiaolangdi Dam, China; Melbourne, Australia, Citylink Project; Princeton University Capital Building Program; Cadereyta Refinery Project, Mexico; HBJ Pipeline Project, India; Murrin Murrin nickel-cobalt mine, Western Australia; Hong Kong, Tsing Ma Bridge; and over 30 nuclear power plant projects.

She has served as an advisor to multiple owner and contractor clients including board audit and compliance committees and has served as a member of various risk management assessment and independent review panels

(IRP), including her appointment by both the Governors of Washington and Oregon to the IRP for the Columbia River Crossing Project, and by the Washington Legislature to the Expert Review Panel (ERP) for the \$3.1 billion Alaskan Way Viaduct Replacement Project. She serves on the Eastern Washington Governor's Business Advisory Council and the Discovery Science Channel's Board of Advisors. She is a member of New York Institute of Technology Engineering Dean's Advisory Council and has also served on the Purdue University Engineering Dean's Advisory Council. Dr. Galloway has been recognized by her peers and is an elected member to the National Academy of Construction, the Pan American Academy of Engineering, and the position of Fellow in several professional organizations.

Dr. Galloway is an internationally recognized leader in the engineering and construction arena. In 2004, she served as the first woman President of the American Society of Civil Engineers (ASCE). Dr. Galloway is regularly consulted by private and public organizations and government entities on trends in the industry, the media regarding current topics and events, universities seeking input on university curricula, mentor programs, engineering education, research and diversity issues, and professional societies relative to topics of interest to its membership. Her achievements have been highlighted in ADR Perspectives, PM Network, Time magazine, CNN Lou Dobbs, Discovery Channel, Engineering News Record, and Federal Technology Watch.

Dr. Galloway has been retained as a keynote speaker and lectures and presents seminars on leadership, standard of care, engineering education, women in engineering, risk management, contract administration and project controls. Dr. Galloway was also a blog writer for Engineering News Record discussing current trends, challenges and hot topics in the construction industry. She has also served as a facilitator for workshops and as an instructor in several forums such as seminars and courses for private and public entities. Dr. Galloway is currently a visiting professor at the Kochi University of Technology (KUT) in Kochi, Japan and has served as a guest professor lecturer at multiple universities including: the University of Wisconsin; Harbin University of Technology in Harbin, China; the University of Bologna, Italy; the Old Masters Program at Purdue University; University of British Columbia and the West Virginia's University Center for Women's Studies Programs.

Prior to joining Pegasus-Global, Dr. Galloway was the Chief Executive Officer and principle of The Nielsen-Wurster Group Inc. (Nielsen-Wurster), an international management consulting firm specializing in management consulting, risk management and dispute resolution. Her dispute resolution engagement experience includes projects throughout the world: refineries, offshore platforms, oil depots, LNG facilities, petrochemical plants, gas pipelines and compression modules, power plants (wind, nuclear, fossil fuel, gas-fired, combined-cycle, hydroelectric, waste-to-energy), hotels, casinos, stadiums, commercial offices, hospitals, universities, civic and convention centers, parking garages, process plants, wastewater treatment plants, landfills, airports, highways, bridges, tunnels, mass transit, railroads, port facilities, dams, bulk pharmaceutical plants, manufacturing and other projects.

She was also the Chief Executive of Nielsen-Wurster Asia-Pacific, a Nielsen-Wurster subsidiary corporation, which was located in Melbourne, Australia. In addition Dr. Galloway served as President of another Nielsen-Wurster subsidiary Nielsen-Wurster ESB, a joint venture with the Electricity Supply Board of Ireland that specialized in power plant maintenance software.

Before joining Nielsen-Wurster, Dr. Galloway was employed by CH2M Hill assigned to the \$1.6B Milwaukee Water Pollution Abatement Program (MWPAP). Her responsibilities at CH2M Hill on the MWPAP included preparation of project management training courses, project controls including estimating and critical path scheduling and tunnel inspection, being the first woman tunnel inspector in Wisconsin. In her last role at the MWPAP as the Master Program Scheduler her responsibilities included the preparation and updating of the Program Master Schedule, coordination of all project schedules, involvement with cost engineering functions, preparation of all program / project schedule progress reports for public and client presentations and monitoring compliance with court orders imposed on the Program. Other activities at the MWPAP included authoring a scheduling manual; preparation of bid documents, on-site tunnel inspection and coordination of a project manager's training series.

Registrations / Certifications

- Professional Engineer in the following US locations:
 - Arizona #16978
 - Colorado #28566
 - Florida #44498
 - Georgia #031939
 - Kansas #19495
 - Kentucky #17690
 - New Hampshire #12184
 - New Jersey #GE-29321
 - New York #060684-1
 - Ohio #72520
 - Pennsylvania #PE-046146-R
 - Washington #28262
 - Wisconsin #21786-006
 - Wyoming #PE-4974
- Professional Engineer in the following global locations:
 - Australia, Institute of Engineers, CPEng #1194740
 - Canada, Province of Manitoba #15061
- International Registry of Professional Engineers in the discipline of Civil Engineering, Construction Management by the United States Council for International Engineering Practice (USCIEP) #131
- Certified Examiner, National Council of Examiners for Engineering and Surveying (NCEES) #12046
- Certificate of Director Education, NACD
- Certified Project Management Professional (PMP) #0012-84
- Certified Forensic Claims Consultant (CFCC)
- Professional Member of the Royal Institution of Chartered Surveyors, Faculties of Project Management and Risk Management (MRICS)

Arbitration Experience/ DRB Panel Memberships

Dr. Galloway serves as an arbitrator with the American Arbitration Association (AAA) and serves on the following AAA panels: Commercial; Construction; Large Complex Case; and the International Center for Dispute Resolution (ICDR) Panel. She is Chair of the AAA National Construction Dispute Resolution Committee (NCDRC) and serves as a member of the AAA Board of Directors. She is also a member of the Association for International Arbitration (AIA) and Arbitral Women (UK). She serves on the Caltrans DRB Panel, the Idaho DOT DRB Panel, and is a member of the Dispute Resolution Board Foundation (DRBF). She has served as a sole arbitrator, Chair and member of three-member panels arbitrating a large number of disputes involving commercial and construction issues of private and governmental facilities in the energy, process, and building industries with claims ranging from US \$100,000 to US\$100 million. Dr. Galloway has also served as both a consulting and testifying expert in numerous domestic (AAA) and international arbitration forums: International Chamber of Commerce (ICC), UNCITRAL, Singapore International Arbitration Center (SIAC), and the London Court of International Arbitration (LCIA), with disputes ranging from US\$1 million to US\$6 billion.

Directorships

For-Profit Boards

- Pegasus Global Holdings, Inc., 2000-Present
- Unionville Vineyards (Partner), 1986-2008
- The Nielsen-Wurster Group, Inc., 1984-2008
- Nielsen-Wurster Asia-Pacific Pty. Ltd., 2001-2008
- Unionville Aviation, 1987-2005
- Nielsen-Wurster ESB 1986-1989

Non-Profit Boards

- Life Support, 2010-Present
- American Arbitration Association, 2009-Present

DR. PATRICIA D. GALLOWAY

- National Science Board, 2006-Present
 - Vice Chair, 2008-2010
 - Executive Committee, 2010-2011
 - Chair, 60th Anniversary Committee, 2008-2010
 - Sustainable Energy Task Force Committee, 2007-2009
 - Audit & Oversight Committee, 2006-Present
 - Polar Research Committee, 2006-Present
 - Committee on Strategy & Budget, 2006-Present
 - International Task Force Committee, 2006-2008
- Pacific Science Center, 2012-Present
- Pan American Academy of Engineering, 2006-Present
- Order of the Engineer, National Board of Governors, 2004-2008
- Project Management Institute, College of Scheduling, 2003-2006
- American Society of Civil Engineers, 1992-1995, 2002-2005
- American Society of Civil Engineers Foundation, 2002-2005
- Construction Institute, 2004-2005
- Civil Engineering Research Foundation (CERF), 2002-2004
- Purdue University Engineering Alumni Board, 1991-2001
- Hoover Medal Award Board, 1996-1999

Advisory Boards / Committees

- Roebing Global Technical School, 2012-Present
- Expert Review Panel for Alaskan Way Viaduct Replacement Project, 2011-Present
- Independent Review Panel for Columbia River Crossing Bridge Project, 2010-Present
- Discovery Channel, Science Channel Board of Advisors, 2009-2012
- Eastern Washington Governor's Business Advisory Council, 2007-Present
- New York Institute of Technology (NYIT) Engineering Dean's Advisory Council, 2011-Present
- Major Science Initiatives International Advisory Committee, Canadian Foundation for Innovation, 2011-Present
- Construction Industry Institute Advisory Board, 2006-2010
- Initiative for Sustainable Infrastructure, 2007-Present
- Construction Superconference Advisory Board, 2007-2010
- American Society of Civil Engineers Industry Leadership Council, 2008-2010
- University of Nebraska Charles W. Durham School of Architectural Engineering and Construction Academic Review Team, 2009
- Purdue University Engineering Dean's Advisory Council, 2004-2007
- Engineers for a Sustainable World, Member of Advisory Board, 2003-2007
- National Science Foundation Engineering Directorate Advisory Committee, 2004-2006
- National Science Foundation International Directorate Advisory Committee, 2006
- Civil Engineering Research Foundation (CERF), Member of Corporate Advisory Board, 2001-2005
- Project Management Institute, Publications Advisory Board, 1991-1993
- Extraordinary Women in Engineering Project, 2004-2009

Editorial Boards

- ASCE Journal of Legal Affairs and Dispute Resolution in Engineering and Practice Board, 2009-Present

DR. PATRICIA D. GALLOWAY

Awards and Honors

- Honorary Doctor of Science, South Dakota School of Mines, December 2011
- Women's Enews.org, 21 Leaders for 21st Century Honoree for, "Architect of Spaces for Women in Engineering and Science," May, 2011
- ASCE 2010 *Journal of Legal Affairs and Dispute Resolution in Engineering and Practice* Best Scholarly, Feature, Case Study Paper Award for "Design Build/EPC Contractor's Heightened Risk – Changes in a Changing World," July, 2010
- *National Society of Professional Engineers*, Member Spotlight, Fall, 2010
- *New York Institute of Technology Magazine*, Summer 2010, Volume 8, Number 3, Cover and Feature Article, "Top of Their Game"
- *Flynn's Harp*, July 21, 2010, Feature Article, "Is Gulf Spill Oil Industry's Three Mile Island?"
- National Association of Professional Executive Women (NAPEW) "Woman of the Year" in Prudence Audit Consultation, 2008
- G. Brooks Ernest Award, Cleveland (Ohio) Chapter of ASCE, 2007
- Engineering Excellence and Leadership Award, George Mason University, 2007
- CSI Michelangelo Award Panel of Judges, 2006 - 2007
- Pan American Academy of Engineering, 2006
- Sigma Kappa Colby Award, 2006
- "Who's Who in America," Edition 59, 2005-Present
- Key Women in Energy-Global Awards, Energy Leaders Council, 2005
- National Academy of Construction, 2005
- "Who's Who of American Women," 2004 – Present (listed since 1983)
- "Who's Who in the World," 2004- Present
- "Who's Who in Science and Engineering," 2002-Present (listed since 2002)
- YWCA Tribute to Women Honoree, 2004
- Society of Women Engineers' Upward Mobility Award, 2003
- Kentucky Governor's Award-Kentucky Colonel, 2004
- Lafayette High School Hall of Fame, Inducted 2001
- National Academy of Engineering: Celebration of Women, 2000
- White House Commission: 2000 Design Award, 1999
- Professional Leadership Award, National Professional Women in Construction, 1995
- Purdue University Distinguished Engineering Alumni Award, 1991
- Mercer County Engineer of the Year Award, 1990
- White House Fellowship Regional Finalist, 1990
- Glamour Magazine's Ten Outstanding Young Working Women for 1988
- Somerset County's Outstanding Women in Business and Industry, October 1987
- "Who's Who in America's Emerging Leaders," 1987 - Present
- Engineering News Record, "Top Women in Construction," October 1986
- "Distinguished New Engineer," Society of Women Engineers, 1980

Education and Courses

Education

- Certificate in Dispute Resolution, Straus Institute, Pepperdine University School of Law, Malibu, California (in progress)
- Ph.D., Infrastructure Systems (Civil) Engineering, Kochi University of Technology, Kochi, Japan, 2005
- M.B.A., New York Institute of Technology, New York, Magna cum Laude, 1984

DR. PATRICIA D. GALLOWAY

- B.S., Civil Engineering (double major in Structures and Construction Management), Purdue University, West Lafayette, Indiana, 1978

Arbitration Training

- 42 hours training in Mediating the Litigated Case, Straus Institute of Dispute Resolution, Pepperdine University School of Law, Malibu, California,
- ADR & Tribal Contract Disputes Symposium, Seattle University School of Law
- Construction Dispute Resolution in the US: International Techniques That Can be used Domestically, (AAA)
- Expectations in International Arbitration Part I and II, (ICDR)
- How to Properly Manage a Construction Case, (AAA)
- Making Disclosure and Preventing Disclosure Problems, (AAA)
- Managing the ICDR Guidelines on Information Exchange, (ICDR)
- Chairing the ICDR International Arbitration Tribunal, (ICDR)
- Pro Se: Managing Cases Involving Self-Represented Parties, (AAA)
- Arbitrator Ethics and Disclosure, (AAA)
- Chairing an Arbitration Panel: Managing Procedures, Process & Dynamics, (AAA)
- Arbitration Awards: Safeguarding, Deciding & Writing Awards, (AAA)
- International Training for Dispute Resolution, International Symposium in Advanced Case Management Issues, (AAA)
- Arbitrator II Training: Advanced Case Management Techniques, (AAA)
- Construction Industry Arbitrator Workshop, (AAA)
- The Dispute Review Board Administration and Practice Workshop, The Dispute Review Board Foundation
- Caltrans, CA Dispute Review Board Administration and Practice Workshop

Languages

Spanish - conversational / good understanding of written word

Industry/Academic Research

- National Research Council (NRC) Committee for Advancing the Productivity and Competitiveness of the U.S. Construction Industry Workshop, 2008 – 2009
- Construction Industry Institute Research Team RT 260-Reimbursable Contract –Co-Chair, 2008 – 2010
- Kochi University of Technology, Doctorial Dissertation, Engineering Education Reform, 2005

Webinar Instructor

- American Arbitration Association
- Project Management Institute College of Scheduling
- Engineer Your Life

Authored Books/Forwards/Chapters

- Galloway, Patricia D., Nielsen, Kris R., Dignum, Jack L., *Managing Gigaprojects-From Those Who Have Been There, Done That*, ASCE Press, Reston, VA American Society of Civil Engineers, scheduled for publication release September, 2012

DR. PATRICIA D. GALLOWAY

- Galloway, Patricia D., *The 21st Century Engineer: A Proposal for Engineering Education Reform*, ASCE Press, Reston, VA American Society of Civil Engineers, 2007
- “Interview: Patricia Galloway,” *Connecting Students to STEM Careers, Social Networking Strategies*, Camille Cole, International Society for Technology in Education, ISBN 978-1-56484-291-6, published 2011
- Member of Research Team, *CII Guide to Reimbursable Contracting, Implementation Resource 260-2*, Construction Industry Institute, The University of Texas at Austin, 2011
- Member of Research Team, *CII Construction Industry Institute Reimbursable Contracts, Research Summary 260-1*, Construction Industry Institute, The University of Texas at Austin, 2011
- Foreward to Lunsden, Reese, *The View From Here, Optimize Your Engineering Career From the Start*, Illumina Publishing, 2011
- “Engineering in Government and Public Policy,” Section 4.5.3, UNESCO Report, Engineering: Issues, Challenges and Opportunities for Development, United Nations, UNESCO Publishing, 2010 Paris, France
- Galloway’s 21st Century Engineer: An Essay Review, , Volume 12 Number 14, October 8, 2009, Robert Calfee, University of California, Riverside, Stanford University, Thomas Stahovich, University of California, Riverside, <http://www.edrevv.info/essays/v12n14index.html>
- Foreward to Kusayanagi, S.; Niraula, R.; and Hirota, Y., *Principles and Practice of International Construction Project Management*, EIKO-SHA, Tokyo, Japan, 2009
- Foreward to Williams, F. Mary and Emerson Carolyn J. , *Becoming Leaders*, ASCE Press, Reston, VA, American Society of Civil Engineers, 2008
- Foreward to Hatch, Sybil E., *Changing our World: True Stories of Women Engineers*, ASCE Press, Reston, VA, American Society of Civil Engineers, 2006
- “Anticipating Problems: Project Risk Assessment and Project Risk Management,” co-authored with K. Nielsen, Chapter 6, *Collaboration Management, New Project and Partnering Techniques*, edited by H. Schaugnessy, John Wiley & Sons 1994

Memberships

- American Society of Engineering Education (ASEE)
- American Nuclear Society (ANS)
- American Society of Civil Engineers (Fellow) (ASCE)
 - Past President, 2004 - 2005
 - National President, 2003 - 2004
 - National President-Elect, 2002 - 2003
 - International Director of the Board, August 1992 - 1995
- Association for the Advancement of Cost Engineering International (Fellow) (AACCI)
 - Chair, National Committee-Women in Project Controls, 2004 - 2005
 - Member, National Planning and Scheduling Committee, 2003-Present
 - Member, Executive Director Search Committee, 2009-2010
- Association for International Arbitration (AIA)
- Chi Epsilon (National Civil Engineering Honor Society)
- Construction Institute
- Construction Management Association of America (CMAA)
- Dispute Review Board Foundation
- Institution of Civil Engineers, United Kingdom (Fellow) (ICE)
- Institution of Engineers - Australia (Fellow)
- Inter-Pacific Bar Association (IPBA)
 - Member of Committee “T”, Construction, 1999 - Present
- Extraordinary Women Engineers Project (Engineer Your Life)

DR. PATRICIA D. GALLOWAY

- Chair, National Steering Committee, 2003 - 2006
- Member of Advisory Board, 2007 - Present
- Japan Society of Civil Engineers (JSCE)
- National Academy of Construction (NAC)
- National Association of Corporate Directors (NACD)
- National Council of Examiners for Engineering and Surveying (NCEES)
- National Society of Professional Engineers (NSPE)
- Order of the Engineer
- Pan American Academy of Engineers
- Project Management Institute (PMI)
 - Speaker and Instructor Bureau, 1990 - Present
 - Chair, 3rd International College of Scheduling Conference, Orlando, Florida, April 2006
 - Chair, Board of Directors, College of Scheduling, 2003 - 2006
 - Chair, 2nd International College of Scheduling Conference, Scottsdale, Arizona, May 2005
 - Chair, International College of Scheduling Conference, Montreal, Canada, April 2004
 - Member, Publications Advisory Board, 1991 - 1993
- Society for Social Management Systems
 - Honorary Chair, 2011-present
 - Chair, 2006 - 2010
- Society of Petroleum Engineers
- Society of Women Engineers
 - New York Section President, 1982 - 1983
 - National Committee Chair for Headquarters Site Study, 1982 - 1983
 - National Committee Chair for Teller's Committee, 1981 - 1982
 - Wisconsin State President, 1980 - 1981
 - Wisconsin State Secretary, 1979 - 1980
- Tau Beta Pi (Honorary Member)
- Women in Engineering Programs & Advocates Network (WEPAN)
 - Mentor for Women College Engineering Students
- World Federation of Engineering Organizations (WFEO), 2004 - 2008
 - ComTech Committee Vice President, 2004 - 2007
 - US Representative to WFEO, 2006
 - Member of WFEO President's Advisory Board, 2006
 - Co-Chair, World Summit on Women in Science, Engineering and Technology, November 2006

Technical Papers and Presentations

Dr. Galloway is a prolific writer and world renowned speaker having authored over 120 papers, 30 peer reviewed journal articles and nearly 200 public speaking (including over 45 keynote addresses) engagements regarding leadership, corporate governance, ethics and professionalism, communication, risk management, dispute resolution, contract administration, program and project management, project controls, women in engineering and other topics (*see attached Technical Papers and Presentations*). Dr. Galloway has also been featured in many international publications:

- "Risk by the Numbers," *PM Network*, Project Management Institute, March 2012, Volume 26 Number 3
- "STEM to the Rescue?" *PE, The Magazine for Professional Engineers*, published by NSPE, March, 2012
- "Patricia Galloway: Changing the Face of Construction and Engineering," *ENR New York, A Supplement to Engineering News-Record*, October 10, 2011
- "Staying Smart: Engineers and Universities Advance Career-Long Learning," *ENR.com*, October 31, 2011
- "Interview with Dr. Patricia Galloway: CEO of Pegasus Global Holdings Inc. and First Woman President of the American Society of Civil Engineering," *The Daily Femme*, New York., April 25, 2011

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- *PM Network Magazine*, Project Management Institute, March 2011 Vol. 25, No. 3 “Too Big to Handle? Megaprojects and meeting the triple constraints”
- *Public Works Magazine*, March 2011, Op-ed article: "Something Fishy with Failures?"
- ASCE Industry Leaders Council, Monthly “Insights – Perspectives from Civil Engineering Industry Leaders,” podcast, January 31, 2011
- “2011 – Seven Who Blaze New Pathways,” 21 Leaders for the 21st Century, Women’s Enews.org, January 4, 2011
- “Engineering Future Success For Students,” NYIT Magazine, Winter, 2011
- “Top of Their Game,” NYIT Magazine, Summer, 2010
- Curiosity Project, Discovery Channel, Screening in 2011
- Touch Stone International Learning Management System, Online English Teaching Program, February 2010
- Interview with Patricia D. Galloway, *ADR Perspectives*, February 2010
- *Federal Technology Watch*, “Interview with National Science Board Vice Chair,” January 26, 2009
- Profile of Patricia Galloway. Hatch, Sybil, *Changing Our World: True Stories of Women Engineer*, American Society of Civil Engineers, 2006
- “Building a Better Role Model,” Continental Airline's *In-Flight Magazine*, November 2005 Issue
- Bad Idea. You'll Flunk Out. *Time Magazine*, Science Section, First Person: Pat Galloway, Authored by Deirdre Van Dyk, March 7, 2005 Issue
- America's Infrastructure, Live Media Radio and Television appearances in over 25 cities across the United States, October 2004
- *Engineering Marvels-Seven Modern Engineering Wonders of the World*, Co-host to ABC / Discovery Channel Television Series, April, 2004
- People “Pat Galloway: Civil Engineer, Company CEO,” by Kathleen McGinn, *U.S.1 Newspaper*, New Jersey, February 3, 2003
- “First Woman President Installed to Lead Civil Engineering Society,” *EWRI Currents*, Vol. 5, No. 4 Winter 2003/2004
- “Going International: Profit or Peril?,” Interview with Patricia D. Galloway, Executive Vice President, The Nielsen Wurster Group, Inc., *Worldwide Projects*, Spring 1993

Arbitration / Mediation / Dispute Resolution

Publications

- “Mapping Strategies for a Successful Mediation,” co-authored with K Nielsen, *Nepal Council of Arbitration (NEPCA) Half Yearly Bulletin*, Volume 18, February, 2012
- “Mapping Strategies for a Successful Mediation,” co-authored with K Nielsen, *Construction Law International*, International Bar Association, Volume 6, Issue 4, December 2011
- “Saving Time by Using Experts Effectively in Arbitration,” Superconference, San Francisco, December 16, 2011
- “The Engineer’s “Study Notes” for Understanding the Arbitration Process,” *Journal of Legal Affairs and Dispute Resolution*, American Society of Civil Engineers, Volume 3, Number 2, May 2011
- “Arbitration is Voluntary and a Creature of Contract and Party-Appointed Arbitrators,” American Bar Association, Mid-Winter Meeting of the Construction Forum Proceeding, New York City, January 20, 2011
- “Is Mediation a Real Option for Resolving Disputes?,” Blog, *Engineering News Record*, June, 2009
- “Cumulative Impact, Current Trends in Construction Law,” International Project Management and Dispute Resolution: The South Central American Project, International Arbitration Disputes Conference in conjunction with Peckar & Abramson; São Paulo, Brazil, June 5 – 6, 2006

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- Delay: Use of CPM Schedules for Concurrency, Allocation, Proof, and Window Analysis, Proceedings, Hurry Up and Slow Down: Dealing with Delays in Construction, American Bar Association Forum on the Construction Industry Conference, New York, New York, January 23, 1997
- “The Contractor's Right to Finish Early,” Proceedings, Hurry Up and Slow Down: Dealing with Delays in Construction, American Bar Association Forum on the Construction Industry Conference, New York, New York, January 23, 1997
- “CPM Schedule Delay: Window Analysis, Concurrency, and Proof,” co authored with K. Nielsen and M. Ramey, World Conference on Construction Risk, Paris, France, April 28 - 29, 1994
- “Disruption / Productivity Cost Claim Analyses,” co-authored with K. Nielsen, Construction Disputes-Analysis and Management, Winnipeg, Canada, November 1 - 5, 1993
- “CPM Scheduling Delay: Window Analysis, Concurrency and Proof,” co authored with K. Nielsen and M. Ramey, Construction Disputes-Analysis and Management, Winnipeg, Canada, November 1 - 5, 1993
- “Using an Expert Effectively in ADR,” Resolving Disputes in International Construction Contracts Through ADR Techniques, AAA & Nielsen-Wurster conference proceedings, Geneva, Switzerland, November 12 – 13, 1992
- “Overcoming Schedule Delay-Analyzing and Resolving this Project Nemesis,” co-authored with K. Nielsen, IIR National Construction Conference, Sydney, Australia, August 28 - 29, 1991
- “International Construction Dispute Proofs,” co-authored with K. Nielsen, Nordnet '91 Transactions: The Practice and Science of Project Management, Trondheim, Norway, June 3 - 5, 1991
- “Pricing and Proving Contractor Claims for Changes in Scope and Unforeseen Conditions,” Proceedings, Construction Litigation Superconference, Andrews Conferences, Inc., April 11 - 12, 1991
- “Computerized Document Control-The Expert Witness's View,” co authored with Pamela Moon, *The International Construction Law Review Journal*, Volume 8, Part 2, April 1991
- “Pricing and Proving Contractor Claims for Changes in Scope and Unforeseen Conditions,” Proceedings, Construction Litigation Superconference, Andrews Conferences, Inc., December 6 - 7, 1990
- “Contract Administration,” Proceedings, Arbitration and Mediation Construction Claims Seminar, American Arbitration Association, Charleston, West Virginia, November 1, 1990
- “Resolving Claims: Selecting the Right Alternative,” AAA ‘Resolving Construction Disputes,’ Hershey, Pennsylvania, October 5, 1990
- “Evaluating the Contractor's Right to Finish Early,” co-authored with K. Nielsen, Project Management Institute Book of Proceedings, Calgary, Alberta, Canada, October 16, 1990
- “Concurrent Schedule Delay in International Contracts,” co-authored with K. Nielsen, *The International Construction Law Review*, Volume 7, Part 4, pp. 386 - 401, October 1990
- “Schedule Delay Concurrency Issue Analysis & Proof,” co-authored with K. Nielsen, Proceedings, International Cost Congress, Paris, France, April 1990
- “Pricing, Proving and Calculating Construction Claims,” Proceedings, Construction Litigation Superconference, Andrews Conferences, Inc., April 6 - 7, 1989
- “Proof Development for Construction Litigation,” co-authored with K. Nielsen, *The American Journal for Trial Advocacy*, Volume 7, No. 3, Cumberland School of Law of Samford University, Birmingham, Alabama, Summer 1984; Yearbook of Construction Articles, Volume 4, Federal Publications, 1985
- “Second Guessing the Engineer,” co-authored with K. Nielsen, *Civil Engineering*, American Society of Civil Engineers, November 1985
- “Avoiding Lengthy and Costly Litigation by Negotiation Resolution Methods,” co-authored with K. Nielsen, Proceedings, American Society of Civil Engineers Spring Convention, Denver, Colorado, April 1985
- “Window Analysis: An Innovative Concept to Schedule Delay Analysis,” co-authored with K. Nielsen, Project Management Institute, Philadelphia, Pennsylvania, October 1984
- “Schedule Delay: A Productivity Analysis,” co-authored with K. Nielsen, and J. Leverette, Project Management Institute National Convention Proceedings, Houston, Texas, October 1983

Conference Presentations / Teaching / Instruction

- “Optimizing Your Client’s Construction Arbitration Hearing,” co-presented with Mr. Albert Bates, American Arbitration Association Spring Conference, New York City, June 1, 2012
- “Building the Construction Arbitration Process to Optimize its Advantages,” American Arbitration Association / International Centre for Dispute Resolution Neutrals Conference, Scottsdale, Arizona, March 9 – 10, 2012
- “Arbitration is Voluntary and a Creature of Contract and Party-Appointed Arbitrators,” American Bar Association, Mid-Winter Meeting of the Construction Forum Proceeding, New York City, January 20, 2011
- “Construction Dispute Resolution in the U.S. – International Techniques That Can Be Used Domestically,” American Arbitration Association Webinar, presented with Albert Bates, May 10, 2010
- Panel Member, “Controlling the Discovery Monster in Arbitration,” NW Dispute Resolution Conference in Seattle, May 1, 2010
- Moderator, The Cultural and Legal Landscape to Consider – Regional Considerations for International Construction Projects, 8th Annual Miami International Arbitration Conference, March 21 - 22, 2010
- “Hot Topics in International Construction Dispute Resolution,” American Arbitration Association Webinar, presented with John W. Hinchey, September 10, 2009
- “Construction Delay-How Opposing Experts Can Come to Different Conclusions From the Same Set of Facts: Honest Mistake, System Failure or Deceptive Practice,” Construction Claim Advisor - Audio Conference, November 12, 2007
- Panel Member, "Intellectual Honesty in Proving Delay," Project Management Institute College of Scheduling Conference, Vancouver Canada, April 17, 2007
- “Common Disputes on Light Rail Transit Projects and How to Resolve Them,” Construction Superconference, San Francisco, California, December 7 - 8, 2006
- “Cumulative Impact, Current Trends In Construction Law,” International Project Management and Dispute Resolution: The South Central American Project, São Paulo, Brazil, June 5 - 6, 2006
- Panelist, "Intellectual Honesty in Proving Delay," Federal Board of Contract Appeals, Hilton Alexandria Mark Center, Alexandria, Virginia, April 3, 2001
- “Analyzing Schedule Delay, Minimizing Risks in Construction Projects and Resolving Construction Disputes,” Hong Kong, September 28 - 29, 1998
- “Delay: Use of CPM Schedules for Concurrency, Allocation, Proof, and Window Analysis, Hurry Up and Slow Down: Dealing with Delays in Construction,” American Bar Association Forum on the Construction Industry Conference, New York, New York, January 23, 1997
- “The Contractor's Right to Finish Early, Hurry Up and Slow Down: Dealing with Delays in Construction,” American Bar Association Forum on the Construction Industry Conference, New York, New York, January 23, 1997
- “Delay: Use of CPM Schedules for Concurrency, Allocation, Proof, and Window Analysis,” Taisei Corporation P.M. Conference, Tokyo, Japan, October 31, 1996
- “CPM Schedule Delay: Window Analysis, Concurrency, and Proof,” World Conference on Construction Risk, Paris, France, April 28 - 29, 1994
- “Disruption / Productivity Cost Claim Analyses,” Construction Disputes-Analysis and Management, Winnipeg, Canada, November 1 - 5, 1993
- Co-presenter, "Schedule Delay Analysis & Early Completion," Nielsen-Wurster Seminar on Managing Risk and Minimizing Disputes in Construction Contracts, Hilton Head Island, South Carolina, October 6 - 8, 1993
- “CPM Scheduling Delay: Window Analysis, Concurrency and Proof,” Construction Disputes-Analysis and Management, Winnipeg, Canada, November 1 - 5, 1993
- Co-presenter, "Schedule Delay Analysis," WASHTO Annual Conference, Oklahoma City, Oklahoma, June 23 - 24, 1993

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- Presenter, "Early Completion Claim Analysis and Expert Delay Analysis," The Nielsen-Wurster Seminar on Construction Issues Facing the Public Transportation Industry, Sacramento, California, April 28 - 30, 1993
- Co-presenter, "Utilizing an Expert Effectively in ADR," Resolving Disputes in International Construction Contracts through ADR, AAA and Nielsen-Wurster conference, Geneva, Switzerland November 12 - 13, 1992
- "International Construction Law – Opportunities and Risks in the '90's", The American Bar Association Forum on the Construction Industry, Stouffer Mayflower Hotel, Washington, D.C., November 5 – 6, 1992
- "Analyzing Scheduling Delays by Use of Window Analysis," The Nielsen Wurster Seminar on Managing and Resolving Construction Disputes, Lake Tahoe, Nevada, March 1992; San Diego, California, April 1992; Key West, Florida, October 1992
- "Overcoming Schedule Delay-Analyzing and Resolving this Project Nemesis," IIR National Construction Conference, Sydney, Australia, August 28 - 29, 1991
- "Pricing and Proving Contractor Claims for Changes in Scope and Unforeseen Conditions," Construction Litigation Superconference, Andrews Conferences, Inc., April 11 - 12, 1991
- "Pricing and Proving Contractor Claims for Changes in Scope and Unforeseen Conditions," Construction Litigation Superconference, Andrews Conferences, Inc., December 6 - 7, 1990
- "Contract Administration," Arbitration and Mediation Construction Claims Seminar, American Arbitration Association, Charleston, West Virginia, November 1, 1990
- "Resolving Claims: Selecting the Right Alternative," American Arbitration Association, Hershey, Pennsylvania, October 5, 1990
- Co-presenter, "Construction Dispute Seminar," Florida Department of Transportation, Tallahassee, Florida, August 1989
- "Pricing, Proving and Calculating Construction Claims," Construction Litigation Superconference, Andrews Conferences, Inc., April 6 - 7, 1989
- "Analyzing Schedule Delays By Use of Window Analyses," The Nielsen Wurster Group Construction Disputes Seminar, San Antonio, Texas, April 1991; New Orleans, Louisiana, April 18 - 20, 1988
- "Construction Delay Analysis," The Nielsen-Wurster Group Construction Disputes Seminar, New Orleans, Louisiana, April 18 - 20, 1988
- "Pricing Contractor's Claims," American Society of Civil Engineers Course, "Construction Claims," Anchorage, Alaska, March 1986; San Francisco, California, May 1987
- "Window Analysis: An Innovative Concept to Schedule Delay Analysis," Project Management Institute, Philadelphia, Pennsylvania, October 1984
- "The Use of Schedules in Claim Preparation," The Nielsen-Wurster Group Construction Dispute Proofs Seminar, Conference, New Orleans, Louisiana, 1988 and 1989; Seattle, Washington, 1987; Lake Buena Vista, Florida, May 18 - 20, 1983; Minneapolis, Minnesota and Denver, Colorado, April 1984; Tampa, Florida and Boston, Massachusetts, May 1984
- "Schedule Delay: A Productivity Analysis," Project Management Institute National Convention, Houston, Texas, October 1983

Management / Prudence / Performance Audits

Publications

- "Leadership and Risks during a Global Financial Crisis," co-authored with K. Nielsen and J. Dignum, *The Fifth Civil Engineering Conference in the Asian Region (CECAR5)*, Sidney, Australia, August 9-11, 2010
- "New Day for Prudence," co-authored with K. Nielsen and Charles W. Whitney, *Public Utilities Fortnightly*, December 2009
- "Design-Build/EPC Contractor's Heightened Risk-Changes in a Changing World," *Journal of Legal Affairs and Dispute Resolution*, American Society of Civil Engineers, February 2009, Volume 1, Number 1."

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- “The Ubiquitous Requirement of Performing to High International Standards,” co-authored with K. Nielsen, published Proceedings, The Second Civil Engineering Conference in the Asian Region, Tokyo, Japan, April 16 - 18, 2001
- “Combining PURPA, Prudence and Avoided Cost Rate Design; A New Cost Engineering Environment,” co-authored with K. Nielsen, Proceedings, American Association of Cost Engineers 9th Annual Mid Winter Symposium Transactions, San Francisco, California, February 1987. Reprinted, Cost Engineering, Volume 31, No. 1, page 16, January 1989
- “The 5-Year Living Schedule,” co-authored with R. Cochran, American Association of Cost Engineers Annual Convention, Atlanta, Georgia, June 1987
- “Preparing for the Utilities' Future-Managing the Prudence Issues,” co authored with K. Nielsen, *Electric Potential*, Volume 2, No. 4, July - August 1986
- “Utilities Forced Delays-Controllable or Uncontrollable,” co-authored with K. Nielsen, Proceedings, American Association of Cost Engineers Annual Convention, Chicago, Illinois, June 1986
- “Preparing for Utilities Future-An 'Attack Plan' for Minimizing Disallowable Costs In Outage and Future Capital Construction,” co-authored with K. Nielsen, American Association of Cost Engineers, 8th Annual Mid-Winter Symposium Transactions, New Orleans, Louisiana, February 1986; Project 2, 5th Annual Outage Symposium Proceedings, Cambridge, Massachusetts, May 1986
- “Utility Prudence Time Impact Evaluation,” American Association of Cost Engineers Annual Convention Transactions, Denver, Colorado, July 1985
- “The Prudence Management Audit: A New Challenge For the Civil Engineer,” co-authored with K. Nielsen, American Society of Civil Engineers Spring Convention, Denver, Colorado, April 1985
- “Performance Audits,” co-authored with D. Law, Proceedings, Project Management Institute Symposium, Toronto, Ontario, Canada, October 1982

Conference Presentations / Teaching / Instruction

- “The Nuclear Industry Post-Fukushima,” *Platts 8th Annual Nuclear Energy Conference*, Bethesda, Maryland, February 9, 2012
- Deutsche Bank “Road Show,” London, U.K., June 8 – 12, 2010
- Deutsche Bank “Road Show,” London, U.K., April 20 – 24, 2009
- Utilities Serving Our Needs: US Experience in Serving Its Communities, National Engineering Forum-Energy, Water and Telecommunications, Cooma, NSW, Australia, April 21, 1999
- Panel Moderator, "The Multi-Billion Dollar Issue Facing the Nuclear Power Industry: Decommissioning Versus Life Extension," The Future of the US and International Environmental Industry, Washington, D.C., November 10 - 12, 1997
- Co-presenter, "Electric Utility Capital Project Prudence Issues," National Association of Regulated Utility Commissioners Annual Meeting, Hartford, Connecticut, May 1985
- Co-presenter, "Prudence Concepts," American Association of Cost Engineers, Ramapo Section, April 1985
- “Performance Audits,” Project Management Institute Symposium, Toronto, Ontario, Canada, October 1982

Program/Project Management

Publications

- “Engineer's Liability Considerations in Specifying Corrugated High Density Polyethylene (HDPE) Pipe,” *Journal of Professional Issues in Engineering Education & Practice* American Society of Civil Engineers, January 2008
- “Managing Risks on Defense Projects Using CPM Scheduling,” co-authored with Ed Blow, Scheduling The Next Generation: Third PMI College of Scheduling Conference, Orlando, Florida, April 23 - 26, 2006

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- “CPM Scheduling - How Industry Views Its Use, Cost Engineering,” *The AACE International Journal of Cost Estimation, Cost / Schedule Control, and Project Management*, January 2006
- “Is Our Perspective Truly Global?”, American Society of Civil Engineers, *ASCE News*, April 2004
- “CPM Scheduling-Its Importance in Monitoring and Demonstrating Construction Progress,” published proceedings, Japan Society of Civil Engineers, JSCE First International Symposium on Construction and Project Management-Human Resources Development under Globalization, Tokyo, Japan, October 16 - 17, 2003
- “Privatization and the Use of IVHS in the 1990s,” Proceedings, ASCE Transportation Conference on IVHS, co-authored with K. Nielsen and M. Ramey, San Diego, California, October 1995
- “The Utilization of Computer Technology in the Presence of Evidence,” co authored with Pamela Moon, *La Gestion de los Asuntos Mercantiles en los Juzgados de Primera Instancia*, Madrid, Spain, October 26, 1994
- “CPM Schedule Delay: Window Analysis, Concurrency, and Proof,” co authored with K. Nielsen and M. Ramey, Nielsen-Wurster Seminar on Emerging Risks in Construction: How to Minimize, Manage and Avoid Disputes, New Orleans, Louisiana, May 10 - 12, 1995; Indian Wells, California, October 19 - 21, 1994
- “International Contract Administration Issues: Project Documentation, Dispute Proofs, Programmes, Productivity,” co-authored with K. Nielsen, IDLI Conference, Rome, Italy, December 12, 1991
- “Delivering a Successful Project, Proceedings, Civil Engineering International Conference on Asian Infrastructure,” Sustainable Development and Project Management, Manila, Philippines, February 19 - 20, 1998
- “Defining Scheduling,” The Nielsen-Wurster Group Construction Dispute Proofs Seminar Handbook, Conference, New Orleans, Louisiana, 1988 and 1989; Seattle, Washington, 1987; Lake Buena Vista, Florida, May 18 - 20, 1983; Minneapolis, Minnesota and Denver, Colorado, April 1984; Tampa, Florida and Boston, Massachusetts, May 1984
- “Preparing a Project Control Specification,” co-authored with K. Nielsen, Proceedings of Eleventh Annual PROJECT / 2 Utility Users Group Conference, Birmingham, Alabama, November 17 - 19, 1986
- “Failure Proof Your Projects,” co-authored with K. Nielsen, *Consulting Engineer*, June 1985
- “Scheduling the Super Projects, preprint, Engineering and Construction Projects, The Emerging Management Roles,” ASCE Specialty Conference, New Orleans, Louisiana, March 17 - 19, 1982
- “Schedule Control for CPM Projects,” co-authored with K. Nielsen, *Journal of the Construction Division*, Proceedings of the Society of Civil Engineers, Volume 107, No. CO2, June 1981

Conference Presentations / Teaching / Instruction

- “Managing Complex Projects: Best Practices Here & Abroad,” panelist, McGraw Hill’s Ground Breaking Women in Construction annual conference, The McGraw Hill Companies, New York, New York, May 9, 2011
- “Managing Your Projects to Minimize Disputes,” Lecture, Construction Management School, Central Washington University, November 9, 2009
- “Trends in the Construction Industry,” U.S. Law Firm Group Construction Committee, Buffalo, NY, October 23, 2009
- “Design-Build Contracting in a Changing World,” CH2M Hill in-house design-build conference, Denver, CO, October 10, 2008
- “Reading Between the Pipes,” IKO Concrete Pipe Association, Kentucky, June 27, 2008
- “Mega Projects - A Primer for Finance (or How Can Finance Help Improve Results),” Nexen Finance Forum Scottsdale, AZ - Co-presentation with Jack Dignum February 19, 2008
- “Managing Risks on Defense Projects Using CPM Scheduling,” Scheduling The Next Generation: Third PMI College of Scheduling Conference, Orlando, Florida, April 23 - 26, 2006
- “CPM Scheduling and How the Industry Views Its Use,” Association for the Advancement of Cost Engineering International’s 49th Annual Meeting, New Orleans, Louisiana, June 26 - 29, 2005

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- Speaker, "CPM Scheduling - How Industry Views its Use," Second Annual PMI College of Scheduling Conference, Scottsdale, Arizona, May 22 - 24, 2005
- "CPM - Current Trends in Education: A Comparative Study Between Europe, Asia and North America," On the Road to Better Scheduling-PMICOS Conference, Montreal, Canada, April 25 - 28, 2004
- PMI Scheduling Practice Standard Panel, On the Road to Better Scheduling-PMICOS Conference, Montreal, Canada, April 25 - 28, 2004
- Moderator, "The Impacts to Public Contracting in a Post 9 / 11 Environment," Luncheon Panel, Construction Super Conference, San Francisco, California, December 2003
- "CPM Scheduling," Visiting Professor, Special Lecture Series, Kochi University of Technology, Kochi, Japan, November 22, 2003
- "Mission of the Civil Engineer in the Movement of Globalization," Michigan Tech University, Houghton, Michigan, January 16, 2003
- Moderator, "Conception to Birth of a Project," Infrastructure 2000, San Francisco, California, June 7, 2000
- "Harmonizing Japanese and US Practices for Effective Project Management," Taisei Corporation M.I.T. Conference, Tokyo, Japan, November 1, 1996
- "Employing Effective Project Management to Achieve Project Success," Taisei Corporation P.M. Conference, Tokyo, Japan, October 31, 1996
- "Tricks of the Trade New Uses and Misuses of CPM Scheduling," BCQS Project Managers Chartered Quantity Surveyors, The Nielsen-Wurster Group Construction Management Consultants, Whitman Breed Abbott & Morgan Construction Attorneys' Seminar on Controlling Construction Risk and Conserving Your Cash, Radisson Hotel, Grand Cayman Islands, February 26, 1996
- "Privatization and the Use of IVHS in the 1990s," ASCE Transportation Conference on IVHS, San Diego, California, October 1995
- Co-presenter, "Construction Scheduling: Preparation, Liability, Claims and Damages," Panama Canal Commission, June 12 - 16, 1995
- "The Utilization of Computer Technology in the Presence of Evidence," co authored with Pamela Moon, La Gestion de los Asuntos Mercantiles en los Juzgados de Primera Instancia, Madrid, Spain, October 26, 1994
- "CPM Schedule Delay: Window Analysis, Concurrency, and Proof," Nielsen-Wurster Seminar on Emerging Risks in Construction: How to Minimize, Manage and Avoid Disputes, New Orleans, Louisiana, May 10 - 12, 1995; Indian Wells, California, October 19 - 21, 1994
- "The Contractor's Right to Finish Early," Nielsen-Wurster Seminar on Emerging Risks in Construction: How to Minimize, Manage and Avoid Disputes, New Orleans, Louisiana, May 10 - 12, 1995; Indian Wells, California, October 19 - 21, 1994
- Co-presenter, "Project Manager nei settore delle costruzioni," Visiting Professor, University of Bologna, SINNEA, Bologna, Italy, May 25 - 27, 1994
- Co-presenter, "Project Management for Design and Construction," Panama Canal Commission, Panama, June 28 - July 2, 1993
- Co-Presenter, "International Contract Administration Issues: Project Documentation, Dispute Proofs, Programmes and Productivity," Training Workshop on International Construction Contracts and Contractor Claims, The International Development Law Institute (IDLI), Rome, Italy for the Finnish International Development Agency (FINNIDA), Helsinki, Finland, October 13 - 16, 1992
- "Contract Administration," Masters Degree Course, SINNEA, Istituto Di Studi Per La Cooperazione E La Piccola E Media Impresa, Bologna, Italy, September 25, 1992
- "Effective Construction Contract Administration," University of Wisconsin-Madison, College of Engineering, Madison, Wisconsin, April 7 - 10, 1992
- "International Contract Administration Issues: Project Documentation, Dispute Proofs, Programmes, Productivity," IDLI Conference, Rome, Italy, December 12, 1991

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- Co-presenter, "Inefficiency Seminar," Florida Department of Transportation, Deland, Florida, August 1991
- Co-presenter, "Advanced CPM Scheduling," Pennsylvania Department of Transportation, West Palm Beach, Florida, May 1991
- Co-presenter, "Contract Administration," West Virginia Division of Energy, Charleston, West Virginia, March 1991
- Co-presenter, "CPM Scheduling," Kentucky Department of Transportation, Lexington, Kentucky, December 1989
- CPM Scheduling Seminar, Reale, Fosse & Perry, P.C., Pittsburgh, Pennsylvania, November 1989
- Claims Avoidance Seminar, Loney Construction Co., Inc., Keene, New Hampshire, January 1989
- Minimization of Claims Seminar, Weyerhaeuser Paper Company, Jackson, Mississippi; Birmingham, Alabama, November 1988
- "Defining Scheduling," The Nielsen-Wurster Group Construction Disputes Seminar, New Orleans, Louisiana, April 18 - 20, 1988
- "Scheduling Super Projects," Visiting Professor, University of Wisconsin, Madison, Wisconsin, January 1987
- "Preparing a Project Control Specification," Eleventh Annual PROJECT / 2 Utility Users Group Conference, Birmingham, Alabama, November 17 - 19, 1986
- "Construction Claims Prevention and Analysis," Visiting Professor, University of Wisconsin, Madison, Wisconsin, May 1985, June 1986 and May 1987
- "Defining Scheduling," The Nielsen Wurster Group Construction Dispute Proofs Seminar, Conference, New Orleans, Louisiana, 1988 and 1989; Seattle, Washington, 1987; Lake Buena Vista, Florida, May 18 - 20, 1983; Minneapolis, Minnesota and Denver, Colorado, April 1984; Tampa, Florida and Boston, Massachusetts, May 1984
- "The Schedule, Its Use and Development," The Nielsen-Wurster Group Scheduling Seminar, Conference, Atlanta, Georgia, October 1983
- Session Moderator, "Super Projects, Case Studies," ASCE Spring Convention, Philadelphia, Pennsylvania, May 1983
- Session Moderator, "Project Management Control," ASCE Spring Convention, New York, New York, May 1981

Risk Management

Invited and Keynote Presentations

- Keynote Address "Role, Responsibility and Risk Considerations of the Engineer Regarding Sustainability," Florida Engineering Society Annual Meeting, Naples, Florida, August 8, 2008
- Keynote Speaker, "Engineer, Contractor and Owner Risk in Constructed Projects," Wisconsin Transportation Builders Association WISDOT Contractor Engineer Conference, Madison, Wisconsin, January 31, 2008
- Keynote Address, "How Leaders Should be Viewing Risk Today," CII Annual Conference, Orlando, Florida, August 1, 2007
- Keynote Address, "Risks and Liabilities in Specifying HDPE Pipe," Mountain States Concrete Pipe Association 5th Annual Concrete Pipe Seminar, Illinois, February 28, 2007
- Keynote Address, "Engineer, Contractor and Owner Risk in Constructed Projects," Wisconsin Transportation Builders Association WISDOT Contractor Engineer Conference, Madison, Wisconsin, January 31, 2007
- Keynote Address, "Risks and Liabilities in Specifying HDPE Pipe," Mountain States Concrete Pipe Association 5th Annual Concrete Pipe Seminar, Salt Lake City, Utah, October 26, 2006
- Keynote Address, "Risks and Liabilities in Specifying HDPE Pipe," American Concrete Pipe Association Fall Short Course, Charlotte North Carolina, October 16, 2006

Publications

- “Risk by the Numbers,” co-contributed with J. Dignum, *PM Network*, Project Management Institute, March 2012, Volume 26 Number 3
- “Design-Build/EPC Contractor’s Heightened Risk – Changes in a Changing World,” *Journal of Legal Affairs and Dispute Resolution*, American Society of Civil Engineers, February 2009, Volume 1, Number 1.”
- “Risk Based Processes that Assure Anti-Corruption Processes and Promote Transparency and Governance in Resource Extraction Industries,” co-authored with Kris Nielsen, International Conference on Infrastructure Development and the Environment, Abuja, Nigeria, September 10 - 15, 2006
- “Risk Management-Now More Than Ever,” Published Proceeding, World Engineers' Congress, Session C2. Sustainable Development of Mega-cities on Model of Transportation Structure, Model of Public Transportation First and so on, Shanghai, China, November 2 - 5, 2004
- “Basic Project Execution Risk Management,” co-authored with J. Dignum, Proceedings, North American Tunneling 2002 Conference, Seattle, Washington, May 18 - 22, 2002
- “Risk Management Analysis Techniques for Projects With Significant Environmental Issues,” co-authored with K. Nielsen, Proceedings, ASCE-SAS Second Regional Conference and Exhibition, Beirut, November 16 - 18, 1995
- “Project Risk Management-A Necessity for Today's Engineered Projects,” Proceedings of the American Society of Civil Engineers Saudi Arabia Section First Regional Conference and Exhibition on Advanced Technology in Civil Engineering, Manama, Bahrain, September 18 - 20, 1994
- “Anticipating Problems: Project Risk Assessment and Project Risk Management,” co-authored with Kris Nielsen, Chapter 6, “*Collaboration Management, New Project and Partnering Techniques*,” edited by H. Shaughnessy, John Wiley and Sons 1994
- “Project Risk Management – Achieving Goals,” co-authored with K. Nielsen, Proceedings, 11th INTERNET World Congress on Project Management, Florence, Italy, June 16 – 19, 1992

Conference Presentations / Teaching / Instruction

- “Design-Build/EPC Contractor's Heightened Risk - Changes in a Changing World,” Canadian Society of Civil Engineering Conference, May 30, 2009
- “Role, Responsibility and Risk Considerations Of the Engineer Regarding Sustainability,” Florida Association of County Engineers and Road Superintendents, Doral, Florida June 26, 2008
- “The 21st Century Engineer,” Seminar to the Civil Department, Civil Department Advisory Committee and to the Engineering Department, University of British Columbia (UBC) Vancouver, British Columbia, Canada, May 1, 2008
- “Viewing Risks and Liability in Light of Sustainability,” The Environment and Critical Infrastructure, IBTTA Facilities Management Conference, Orlando, Florida, April 29, 2008
- “Role Responsibility and Risk Considerations for the Engineer Regarding Sustainability,” Kentucky American Concrete Pipe Association Conference, Louisville, Kentucky, October 5, 2007
- “How Leaders Should be Viewing Risk Today,” AES Global Engineering & Construction Conference, San Francisco, California, September 18, 2007
- “Risks and Liabilities in Specifying HDPE Pipe,” American Concrete Pipe Association Fall Short Course, San Antonio, Texas, October 13, 2006
- “Risk-Based Processes that Assure Anti-Corruption Processes and Promote Transparency and Governance in Resource Extraction Industries,” International Conference on Infrastructure Development and the Environment, Abuja, Nigeria, September 10 - 15, 2006
- “Basic Project Execution Risk Management,” North American Tunneling 2002 Conference, Seattle, Washington, May 18 - 22, 2002
- Panelist, "Using Risk Management Techniques to Improve the Return on Investment," The Global Construction Superconference, London, United Kingdom, November 5 - 6, 2001

DR. PATRICIA D. GALLOWAY

- Presenter, "Risk Assessment & Management," Foster Wheeler Law Department Conference, Warren, New Jersey, October 23 - 24, 2001
- The Industry Forum for Contractors, Owners and Their Attorneys, "The Nielsen-Wurster Group Examines the Risks That Must be Recognized and Managed by Owners and Contractors in a Lump Sum, EPC Project," prepared by William K. Kerivan, presented by Patricia D. Galloway and Marianne C. Ramey, The 14th Annual Construction Industry Networking Nirvana, The Millennium Construction Superconference, The Fairmont Hotel, San Francisco, California, December 9 - 10, 1999
- "Managing the Unknowns in Restarting Projects," Inter-Pacific Bar Association Ninth Annual Meeting and Conference, Shangri-La Hotel, Bangkok, Thailand, April 30 - May 4, 1999
- Panel Moderator, "Dealing with Risks on Nuclear Waste Sites," The Environmental Superconference, Washington, D.C., April 28 -29, 1999
- Panel Moderator, "Minimizing Risk in Design / Build Projects," Construction Superconference, San Francisco, California, December 10 - 11, 1998
- In-House Training Seminar, "Project Risk Management," Panama Canal Commission, Panama, March 9 - 12, 1998
- Co-presenter, "Panel of Experts-Specific Risks to Consider," World Conference on Construction Risk III, Paris, France, April 25 - 26, 1996
- "Risk Management Analysis Techniques for Projects With Significant Environmental Issues," ASCE-SAS Second Regional Conference and Exhibition, Beirut, November 16 - 18, 1995
- Co-presenter, "Panel of Experts-Specific Risks to Consider," World Conference on Construction Risk II, Singapore, October 5 - 6, 1995
- "Project Risk Management-A Necessity for Today's Engineered Projects," ASCE-India Section, Calcutta, India, January 30, 1995
- Co-presenter, "Construction Management and Administration, Construction Claims and Project Risk Management," In-House Training Seminar, Pt. Wijaya Karya, Jakarta, Indonesia, January 23 - 27, 1995
- "New Risks with CPM Scheduling-Tricks of the Trade," Nielsen-Wurster Seminar on Emerging Risks in Construction: How to Minimize, Manage and Avoid Disputes, New Orleans, Louisiana, May 10 - 12, 1995; Indian Wells, California, October 19 - 21, 1994
- "A New Game Plan for Intelligent Risk Identification / Allocation, Charting the Course to the Year 2000-Together!," DART, Hyatt-Lexington, Lexington, Kentucky, October 16 - 19, 1994
- "Project Risk Management-A Necessity for Today's Engineered Projects", Tarumanagara University, Jakarta, Indonesia, May 2, 1994
- Co-presenter, "Project Risk Management," Panama Canal Commission, Panama, April 20 - 22, 1994
- "Project Risk Management-Achieving Goals," 11th INTERNET World Congress on Project Management, Florence, Italy, June 16 - 19, 1992
- Co-chairman, Moderator, "Reducing Risks and Liability through Better Specifications and Inspection," ASCE Specialty Conference, San Diego, California, Spring 1981

Leadership / Ethics / Professionalism

Invited and Keynote Presentations

- Keynote Address, "The 21st Century Leader: The Path to Success in a Global Economy," 21st Century Leaders Speaker Series, New York Institute of Technology, New York City, November 3, 2010
- Keynote Address, "Using Organizations to Advance Tomorrow's Leaders," Keynote Luncheon Speaker, Annual Conference, Association for Women in Science Advance Workshop, Washington, D.C., October 29, 2009
- Keynote Address, "Leadership-How Professional Organizations Can Assist," NSF Advance Workshop, Washington, DC., October 29, 2009

DR. PATRICIA D. GALLOWAY

- Keynote Luncheon Address, "Ethics and Professionalism-their Importance to Engineers in the 21st Century," Kentucky Society of Professional Engineers, 2008 Annual Convention, Louisville, Kentucky, April 24, 2008
- Keynote Address, "Engineer's Role in Public Policy," International Symposium on Social Management Systems, Three Gorges Dam, China, March 11, 2007
- Keynote Address, "Engineering Leadership in the 21st Century," Second Annual Luncheon at George Mason University, Fairfax, Virginia, January 30, 2007
- Keynote Address, "The Engineer's Role and Responsibility in Specifying HDPE Pipe," American Concrete Pipe Association Short Course, Nashville, Tennessee, May 5, 2006
- Keynote Address, "Leadership, Stewardship and Control," 9th Australian International Performance Management Symposium, Canberra, Australia, March 1, 2006
- Keynote Address, "What it Takes to be a Leader," Evening with Industry; California Polytechnic State University, San Luis Obispo, California, January 27, 2006
- Keynote Address, "The Engineer's Role and Responsibility in Specifying HDPE Pipe," American Concrete Pipe Association Short Course, Las Vegas, Nevada, November 9, 2005
- Keynote Address, "Leadership," *Visiting Professor, Special Lecture Series, Kochi University of Technology*, Kochi Japan, November 22, 2004
- Opening Keynote Speaker, "Leadership and Professionalism," Rebuilding Together Annual Convention, Seattle, Washington, October 2004
- Keynote Speaker, "The Engineers Role in Public Policy, Globalization and Ethics and Professionalism," ASCE Annual Leadership Conference, New Orleans, Louisiana; New York, New York; Portland, Oregon; Chicago, Illinois, January - March 2004
- Keynote Speaker, "Ethics and Professionalism," *Tau Beta Pi Annual Awards and Induction Dinner at eb University of Florida*, December 2003
- Keynote Speaker, "Ethics and Professionalism," Society of American Military Engineers Annual Conference, Seattle, Washington, May 2003
- Keynote Dinner Address, "Motivating the Engineer," Project Management Institute, Delaware Chapter Meeting, Wilmington, Delaware, October 1989

Publications

- "Educating the Master Builder of the 21st Century Strategically," *Leadership and Management in Engineering*, American Society of Civil Engineers, Volume 11, Number 2, April 2011
- "Using Professional Organizations To Advance Tomorrow's Leaders," *Leadership and Management in Engineering*, American Society of Civil Engineers, October 2010, Volume 10, Number 4, pp 141 – 143
- "Ethics, Standards of Care and Your Engineering Profession," *Kentucky Engineer*, Official Publication of the Kentucky Society of Professional Engineers, Volume 44, Fall 2007 Panel Member, "Key to Company Success in Today's Global Market," *Shaping the Future: Global Talent Leadership in Engineering*, Princeton, New Jersey, November 2, 2006
- "The Urgent Need for Leadership in Project Controls Management Ethic," Proceeding, 9th Australian International Performance Management Symposium, Canberra, Australia, February 2, 2006
- "Innovation-Engineering a Better Engineer for Today's Work Force," *Journal of Leadership and Management in Engineering*, American Society of Civil Engineers, Volume 4, Issue 4, pp. 127 - 132, October 2004
- "Lest We Forget-The Engineering Heroes," American Society of Civil Engineers, *ASCE News*, September 2004
- "What Do Dmitrov, Russia, and a Civil Engineer's Dream Have in Common?," American Society of Civil Engineers, *ASCE News*, August 2004
- "Engineers Laugh at Lawyers and Legal Issues, but Should They?," American Society of Civil Engineers, *ASCE News*, July 2004
- "Governance Restructuring: Leading ASCE into the Future," American Society of Civil Engineers, *ASCE News*, June 2004

DR. PATRICIA D. GALLOWAY

- “ASCE's Institutes: Inclusive or Divisive,” American Society of Civil Engineers, *ASCE News*, March 2004
- “Professionalism-Have We Forgotten?,” American Society of Civil Engineers, *ASCE News*, February 2004
- “Public Policy: Friend or Foe in Advancing the Civil Engineering Profession,” American Society of Civil Engineers, *ASCE News*, January 2004
- “Our Enthusiasm Can Be Persuasive,” American Society of Civil Engineers, *ASCE News*, December 2003
- “Faculty Licensure-Will it Better the Profession?,” American Society of Civil Engineers, *ASCE News*, November 2003
- “Innovative Benefits In a Small Consulting Firm,” *ASCE Journal of Leadership and Management in Engineering*, Winter 2001, Volume 1, Number 1, pp. 45 - 47
- “Adjust Work Arrangements to Entice, Retain Professionals,” *Engineering News Record*, Viewpoint Column, January 3 - 10, 2000

Conference Presentations / Teaching / Instruction

- “Ethics and Professionalism-Their Importance in the Oil and Gas Industry,” Offshore Technology Conference, Houston, Texas, May 1, 2006
- “Professionalism,” Visiting Professor, Harbin University of Technology, Harbin, China, November 1, 2004
- “Leadership and Professionalism,” Boeing Corporation, Seattle, Washington, July 2004
- “Leaders and Leadership,” Visiting Professor, Special Lecture Series, Kochi University of Technology, Kochi, Japan, November 20, 2003
- “Roles and Responsibilities of a Board Director,” ASCE Board Orientation, Nashville, Tennessee, November 2003
- “Innovative Benefits in a Small Consulting Firm,” 1999 ASCE Civil Engineering Conference and Exposition, Charlotte Convention Center, Charlotte, North Carolina, October 17 - 20, 1999
- Panel Moderator, "Management of Construction Risk on Infrastructure Projects in Latin America," The Latin American Market, The Fourth Annual Conference, Turnberry Isle Resort & Club, Aventura, Florida, November 17 - 19, 1998
- “Project Controls and Their Significance on International Projects,” AusAID, Canberra, Australia, August 21, 1998
- “Delivering a Successful Project, Worldwide Infrastructure Partnerships,” New York, New York, June 24, 1998
- “Civil Engineering with Stars and Stripes,” presented at a joint ASCE / ICE Meeting, Epsom, United Kingdom, July 5, 1994

Engineering/STEM Education

Invited and Keynote Presentations

- “Successful K-12 STEM Education,” Project Lead The Way, Pacific Science Center, Seattle, Washington, February 28, 2012
- Commencement Speaker, December 2011 graduating class, South Dakota School of Mines, Rapid City, South Dakota, December 17, 2011
- Keynote Address, “Why it’s Cool to be an Engineer,” Morgan Middle School, Annual Career day, Ellensburg, WA, February 18, 2011
- Keynote Address: “My Personal STEM Story,” Open Forum to Engineering School, North Dakota State University, January 31, 2011
- Keynote Address, “Teachers – The Key to Empowering our Nation’s Engineering Resources,” Project Lead The Way (PLTW), Counselor Conference, Seattle University, Seattle, WA, December 13, 2010

DR. PATRICIA D. GALLOWAY

- Keynote Address, “The Critical Need to Change the Face of Science and Engineering,” Discovery Channel STEM Discovery Conference, Silver Springs, MD, August 5, 2010
- Keynote Address, “The 21st Century Engineer,” The University of Texas at Arlington, Arlington, Texas, April 14, 2010
- Keynote Opening Address, Society of Social Management Systems 2010 Annual Symposium, Kochi University, Kochi, Japan, February 4, 2010
- Keynote Address, "Challenges Facing the Civil Engineer of the 21st Century," Canadian Society of Civil Engineering Conference, New Foundland, May 28, 2009
- Keynote Luncheon Address, "The 21st Century Engineer," Engineer's Week, University of Kentucky, Lexington, KY, February 20, 2009
- Keynote Dinner Speaker, “The Critical Need to Change the Face of Science and Engineering,” NSF Advance Conference, Charleston, West Virginia, October 21, 2008
- Keynote address, "Mentoring for the 21st Century," annual Hoover Lecturer, Iowa State University, Ames, Iowa, October 1, 2008
- Keynote Dinner Speaker, "The 21st- Century Engineer: A Proposal for Engineering Education Reform," Cal Poly Pomona College of Engineering, Pomona CA, May 30, 2008
- Keynote Dinner Speaker, "Being A Leader In The 21st Century," ASCE Younger Member Evening Lecture, San Diego CA, May, 27, 2008
- Keynote Dinner Speaker, "The 21st Engineer," ASCE, The G. Brooks Earnest Awards Dinner, Cleveland, Ohio, October 9, 2007
- Keynote Address, "Engineering Education Reform," International Symposium on Social Management Systems, Three Gorges Dam, China, March 9, 2007
- Keynote Address, 2007 Western Regional Younger Member Council Banquet and Awards Ceremony, The Seattle ASCE Younger Member Forum, Seattle, Washington, February 24, 2007
- Keynote Address, "Innovation-Engineering A Better Engineer for Today's Workforce," Construction Innovation Forum, NOVA Awards Dinner, Dearborn, Michigan, April 2004

Publications

- “STEM to the Rescue?” *PE, The Magazine for Professional Engineers*, published by NSPE, March, 2012, includes contributions from Patricia D. Galloway
- “*Connecting Students to STEM: Social Networking Strategies*,” International Society for Technology in Education (ISTE), 2011, Authored by Camille Cole, includes excerpts from Patricia D. Galloway
- Forward to “*The View From Here: Optimizing Your Engineering Career From the Start*,” Reece Lumsden, Illumina Publishing, 2011
- “New Trends in Engineering Management Education,” ASEE Conference, Pittsburgh PA, June 23, 2008
- Galloway, Patricia D., “*The 21st Century Engineer: A Proposal for Engineering Education Reform*”, Reston: American Society of Civil Engineers, 2007
- “Bachelor's Plus, The Rationale for 'Raising the Bar' in Engineering Education,” *Licensure Exchange*, Publication of National Council of Examiners for Engineering and Surveying, Clemson, South Carolina, March 2004

Conference Presentations / Teaching / Instruction

DR. PATRICIA D. GALLOWAY

- Panel Member, “*Making the Case for STEM Education, Part III: A Perspective from Outside the K-12 Educational System*,” Washington State LASER’s STEM Education Leadership Institute, Seattle, Washington, June 26, 2012
- Panel Moderator, “*The Future of Science and Engineering Research and Education as the National Science Foundation Celebrates Its 60th Anniversary*,” Advancing Science Serving Society (AAAS) Annual Conference “Bridging Science and Society,” San Diego, California, February 20, 2010
- Panel Moderator “*The Creative Science Studio (CS squared)*,” Advancing Science Serving Society (AAAS) Annual Conference “Bridging Science and Society,” San Diego, Ca, February 19, 2010
- “New Trends in Engineering Management Education,” ASEE Conference, Pittsburgh PA, June 23, 2008
- Panel Member, "Engineering Education Reform-Solutions for Professional Survival," Workplace Dynamic Panel, September 28, 2006
- Panel Member, "Engineering Education Reform-Solutions for Professional Survival," American Association of Engineering Societies, Chicago, Illinois, June 19 - 20, 2006
- Engineering Educational Reform, Panelist, Curriculum Reform Leader's Conference, Purdue University, West Lafayette, Indiana, August 30, 2005

Women in Engineering / Diversity Issues

Invited and Keynote Presentations

- “The Construction Industry: From an Industry to a Profession,” ENR Groundbreaking Women in Construction Conference, New York City, May 9, 2012
- Keynote Address, “The Four C’s of Success,” Expanding Your Horizons, Washington State University – Tri-Cities Campus, March 24, 2012
- Keynote Address, “The Four C’s of Success,” Kiewit 4th Annual Women in Construction Leadership Conference, Omaha, Nebraska, December 11, 2011
- Keynote Address, “Using Organizations to Advance Tomorrow’s Leaders,” Keynote Luncheon Speaker, Annual Conference, NSF ADVANCE, Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers, Program Meeting on “Broadening Participation”, NSF/Association for Women in Science Advance Workshop, Washington, D.C., October 29, 2009
- Keynote Luncheon Speaker, "What it Takes to Be a Leader," National Women in Construction Leadership Forum, San Francisco, California, September 2004
- Keynote Address, "The Love for Amelia Earhart and the Undying Quest for her Discovery," Zonta Awards Luncheon, Albany, New York, May 2004
- Keynote Address, “What it takes To Be A Leader,” Women in Engineering Leadership Institute (WELI) Leadership Summit, University of Connecticut, Windsor, Connecticut, May 2004
- Keynote Speaker, "Breaking Through the Glass Ceiling," HDR Women's Forum 2000, Embassy Suites, Kansas City, Missouri, March 31, 2000

Publications

- “Using Professional Organizations to Advance Tomorrow’s Leaders,” Forum, Leadership and Management in Engineering Journal, American Society of Civil Engineers, October, 2010
- Engineering Education “Today in History” Blog: First Female Engineer in ASCE, Engineering Pathway, March 14, 2009
- “What Girls Want From Their Profession,” *Geo-Strata*, Volume 6, Issues 1 pp.19-21, January / February 2006
- “Extraordinary Stories of Women in Engineering,” National Academy of Engineering, May 3, 2004
- “Emily, Amelia, *et. al.*: Who Are These Women And Why Should We Care?”, American Society of Civil Engineers, *ASCE News*, May 2004
- “Leadership: Women's Role in Engineering,” A Civil Engineered World, a publication of ASCE's International Affairs Department, Volume 13, Issue 1, March 2000

DR. PATRICIA D. GALLOWAY

- “The 2-Engineer Family,” Proceedings, Society of Women Engineers, National Convention, Detroit, Michigan, June 1982

Conference Presentations / Teaching / Instruction

- “Advocacy and Outreach, Best Practices,” Panel, Powering the Network, U.S. Women in Nuclear Conference, Seattle, WA, July 19, 2010
- “How to Increase the Number of Women in Engineering,” ADVANCE luncheon, University of Washington, Seattle, WA, October 23, 2008.
- “The Critical Need to Change the Face Of Science and Engineering,” NSF sponsored workshop-Building Diversity in Higher Education: Strategies for Broadening Participation in the Sciences and Engineering, Charleston, WVA, October 21, 2008
- “Becoming a Leader in the 21st Century,” West Virginia University Center for Women's Studies Residency Program, March 31-April 4, 2008
- “Footprints for Success: Being a Female Leader in Engineering,” National Symposium for the Advancement of Women in Science (NSAWS), Harvard University, April 13, 2007
- “Creating an Effective Media / Public Affairs Campaign,” First National Summit on the Advancement of Girls in Math and Science, Washington, D.C., May 15, 2006
- Panelist, “Ground Breaking Women in Construction,” Los Angeles, California, September 21, 2005
- Panelist, "Rising to Lead," Women's Leaders Tour, Advancement of Technology for Women (ATW), Albany, New York, Austin, Texas; San Jose, California, April - May 2004
- Panelist, "How to Become a Leader," Women in Engineering Leadership Institute (WELI) Leadership Summit, University of Connecticut, Windsor, Connecticut, May 2004
- Moderator, "High Heels are Replacing Hard Hats in the Boardroom," Construction Superconference, The Fairmont Hotel, San Francisco, California, December 8, 2000
- “So Mrs. Roebling-What's Your Side of the Story?,” a one-woman play, written by P. Galloway, 1995 ASCE Annual Convention, San Diego, California, October 1995 (over 50 play performances, multiple venues, 1995-1998)
- “The 2-Engineer Family,” Society of Women Engineers, National Convention, Detroit, Michigan, June 1982

Climate Change / Sustainability

Invited and Keynote Presentations

- Keynote Address, "The Role of the 21st Century Engineer in the Midst of Global Engineering Crisis," International Symposium on Futures in Civil & Construction Engineering Institution, Seoul Korea, June 17, 2008
- Keynote Address, "The Framework of Sustainability for Engineering Design Considerations," Society for Social Management Systems 2008 Kochi, Japan. March 6, 2008
- Keynote Address, "Role, Responsibility and Risk Considerations of the Engineer Regarding Sustainability," 10th Annual INFTRA-ARHCA-CEA 2007 Transportation Conference, Alberta, Canada, March 19 - 20, 2007
- Keynote Address, "The Mission of the Civil Engineer in the Movement of Globalization," Vechellio Special Lecture Series, Virginia Tech, Blacksburg, Virginia, October 2004
- Annual Convention Keynote Speaker, "Engineer for a Sustainable World," Stanford University, California, September 2004
- Keynote Speaker, "Does Scheduling Make Any Sense in Today's World?," On the Road to Better Scheduling-PMICOS Conference, Montreal, Canada, April 25 - 28, 2004

DR. PATRICIA D. GALLOWAY

Publications

- “Problems in Underground Construction: Lessons Learned from Failures and Methods Developed for Success,” co-authored with M. Petrov, Proceedings, Underground Space for Sustainable Urban Development, ITA-AITES 2004 World Tunnel Congress, Singapore, May 2004
- “Mission of the Civil Engineer in the Movement of Globalization,” published proceedings, Japan Society of Civil Engineers, JSCE First International Symposium on Construction and Project Management-Human Resources Development under Globalization, Tokyo, Japan, October 16 - 17, 2003
- “Mission of the Civil Engineer in the Movement of Globalization,” ASCE *Journal of Leadership and Management in Engineering*, Journal Issue 3, Volume 3, pp. 122 - 127, July 2003

Conference Presentations / Teaching / Instruction

- “Responding to Climate Change: The Role of the Engineer,” ASCE International Program, American Society of Civil Engineers, International Program, November 6, 2008
- “The Engineer's Role in Public Policy,” Institution of Civil Engineers Sustainable Development Forum, New York, New York, September 9, 2005
- “Problems in Underground Construction: Lessons Learned from Failures and Methods Developed for Success,” Underground Space for Sustainable Urban Development, ITA-AITES 2004 World Tunnel Congress, Singapore, May 2004

PATRICIA D. GALLOWAY		
<i>Representative Engagement Experience [Does not include engagements where served as arbitrator]</i>		
Industry	Type	Project Name
Power	Nuclear	Bellefonte Nuclear Power Plant, Unit 1 Completion, United States (Alabama)
Power	Nuclear	Levy 1 & 2 Nuclear Power Plant, United States (Florida)
Power	Nuclear	Vogtle 3 & 4 Nuclear Generating Station, United States (Georgia)
Power	Nuclear	Seabrook Unit 2 Nuclear Generating Station, United States (New Hampshire)
Power	Nuclear	Millstone Nuclear Generating Station Unit 3, United States (Connecticut)
Power	Nuclear	Cooper Nuclear Station, United States (Nebraska)
Power	Nuclear	Connecticut Yankee Nuclear Plant, United States (Connecticut)
Power	Nuclear	Millstone Point Nuclear Generating Station, Units 2 and 3, United States (Connecticut)
Power	Nuclear	Indian Point Nuclear Power Plant Unit 3, United States (New York)
Power	Nuclear	Salem and Hope Creek Nuclear Power Plants, United States (New Jersey)
Power	Nuclear	South Texas Nuclear Plant, United States (Texas)
Power	Nuclear	Trojan Nuclear Power Plant, United States (Oregon)
Power	Nuclear	Shoreham Nuclear Plant, United States (New York)
Power	Nuclear	Nine Mile Power Plant, United States (New York)
Power	Nuclear	Bellefonte Nuclear Power Plant, United States (Alabama)
Power	Nuclear	Millstone 2 Nuclear Power Plant, Waterford, United States (Connecticut)
Power	Nuclear	Washington Public Power Supply Nuclear Plants, United States (Washington)
Power	Nuclear	Diablo Canyon Nuclear Power Plant, United States (California)

PATRICIA D. GALLOWAY		
<i>Representative Engagement Experience [Does not include engagements where served as arbitrator]</i>		
Industry	Type	Project Name
Power	Nuclear	Comanche Peak Steam Nuclear Electric Station, Units 1 & 2, United States (Texas)
Power	Nuclear	Clinton Nuclear Generating Station, Decatur, United States (Illinois)
Power	Nuclear	Pilgrim I Nuclear Power Plant, United States (Massachusetts)
Power	Nuclear	Vogtle 1 & 2, Nuclear Generating Station, United States (Georgia)
Power	Nuclear	Palo Verde Nuclear Generating Station, United States (Arizona)
Power	Nuclear	Perry Nuclear Generating Station, United States (Ohio)
Power	Nuclear	Seabrook Nuclear Generating Station Unit 1 and Unit 2, United States (New Hampshire)
Power	Nuclear	Waterford Nuclear Power Plant Unit 3, United States (Louisiana)
Power	Nuclear	Shoreham Nuclear Power Plant, United States (New York)
Power	Nuclear	Hanford, United States (Washington)
Power	Nuclear	Wolf Creek, United States (Kansas)
Power	Nuclear	Maine Yankee Nuclear Power Plant, United States (Maine)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Iatan Unit 1 & 2 Super-critical pulverized coal plant, United States (Kansas, Missouri)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Edwardsport IGCC Power Plant, United States (Indiana)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Scherer Fossil Power Plant (4 Units), United States (Georgia)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	La Paloma Combined Cycle Power Plant, United States (California)

PATRICIA D. GALLOWAY		
<i>Representative Engagement Experience [Does not include engagements where served as arbitrator]</i>		
Industry	Type	Project Name
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Sacramento Municipal Utility District (SMUD) Cosumnes Combined Cycle Plant, United States (California)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Marshall Islands Power Plant Demolition, United States Territory (Marshall Islands)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Paiton Units 1 & 2, Indonesia
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Paiton Units 7 & 8, Indonesia
Power	Cogeneration/ Combined Cycle/Fossil Fuel	JEA Northside, United States (Florida)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Osbourne, Australia
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Jiu Jiang Power Plant, China
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Cleveland Electric Illuminating Company, Fossil Power Plants, United States (Ohio)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Jeffrey Energy Center, United States (Kansas)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Wolf Hollow Plant, United States (Texas)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Covert Plant, United States (Michigan)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Dearborn Industrial Generation Project, United States (Michigan)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Illinois Power Company, United States (Illinois)

PATRICIA D. GALLOWAY		
<i>Representative Engagement Experience [Does not include engagements where served as arbitrator]</i>		
Industry	Type	Project Name
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Fossil Power Plant, Bulgaria
Power	Geothermal	Wayang Windu Geothermal Power Project, Indonesia
Power	Hydro	Xiaolangdi Dam, China
Power	Hydro	Casecnan Multi-Purpose Project, Philippines
Power	Hydro	Cirata II, Indonesia
Power	Hydro	Sulpher Creek Hydro Power Plant, United States (California)
Power	Hydro	Mill to Bull Creek Tunnel, United States (California)
Power	Waste to Energy	Valorsul Waste-To-Energy Plant, Portugal
Power	Wind Power	Brazos Wind Farm, United States (Texas)
Power	Wind Power	Caprock Wind Farm, United States (New Mexico)
Infrastructure / Transportation	Roadways	SR-99 Alaskan Way Viaduct Replacement Project, United States (Washington)
Infrastructure / Transportation	Roadways	SR-520, United States (Washington)
Infrastructure / Transportation	Roadways	Shawnee Mission Parkway, United States (Kansas)
Infrastructure / Transportation	Roadways	KDOT Project, United States (Kansas)
Infrastructure / Transportation	Roadways	New Jersey Turnpike, Section 5B-3, United States (New Jersey)
Infrastructure / Transportation	Roadways	Melbourne City Link, Australia
Infrastructure / Transportation	Roadways	Turnpike Operations Management System, United States (Florida)
Infrastructure / Transportation	Roadways	State Highway US 290 Travis County, United States (Texas)

PATRICIA D. GALLOWAY		
<i>Representative Engagement Experience [Does not include engagements where served as arbitrator]</i>		
Industry	Type	Project Name
Infrastructure / Transportation	Roadways	State Highway SR-21, United States (Florida)
Infrastructure / Transportation	Roadways	Asphalt Resurfacing Project, Highway 9, United States (Nebraska)
Infrastructure / Transportation	Roadways	Electronic Toll Collection System, United States (Florida)
Infrastructure / Transportation	Roadways	Blue Route Section 200, United States (Pennsylvania)
Infrastructure / Transportation	Roadways	Lief Erikson Tunnel, United States (Minnesota)
Infrastructure / Transportation	Roadways	Veteran's Expressway, Tampa, United States (Florida)
Infrastructure / Transportation	Roadways	Interstate 75, Kentucky (Lexington and Covington Road) United States (Kentucky)
Infrastructure / Transportation	Bridges	Columbia River Crossing, Independent Review Panel, United States (Oregon, Washington)
Infrastructure / Transportation	Bridges	Houston Ship Channel (Baytown) Cable-Stayed Bridge, United States (Texas)
Infrastructure / Transportation	Bridges	Hillsborough Avenue Bridge, United States (Tampa, Florida)
Infrastructure / Transportation	Bridges	151st Street Bridge Project, United States (Kansas)
Infrastructure / Transportation	Bridges	Hong Kong Tsing Ma Bridge, China
Infrastructure / Transportation	Bridges	Nairn Avenue Overpass Project, Canada
Infrastructure / Transportation	Bridges	New Smyrna Beach Bridge, United States (Florida)
Infrastructure / Transportation	Bridges	Hastings Bridge, Hastings, United States (Minnesota)
Infrastructure / Transportation	Bridges	Post Tensioned Segmental Bridge, Bexar County, United States (Texas)
Infrastructure / Transportation	Bridges	Interstate Highway Bridges, United States (Indiana)

PATRICIA D. GALLOWAY		
<i>Representative Engagement Experience [Does not include engagements where served as arbitrator]</i>		
Industry	Type	Project Name
Infrastructure / Transportation	Bridges	Gloucester Inlet Bridge, United States (Massachusetts)
Infrastructure / Transportation	Airports	Yosemite International Airport, United States (California)
Infrastructure / Transportation	Airports	Port of Seattle, United States (Washington)
Infrastructure / Transportation	Airports	Kuala Lumpur International Airport, Malaysia
Infrastructure / Transportation	Airports	Indianapolis International Airport, United Airlines Maintenance Operation Center, United States (Indiana)
Infrastructure / Transportation	Telecommunication	AT&T Broadband, United States (Illinois, Missouri, Michigan)
Infrastructure / Transportation	Defense	TADRS (Tactical Air Defense Radar System), Australia
Infrastructure / Transportation	Rail	Sound Transit Light Rail, United States (Washington)
Infrastructure / Transportation	Rail	Phoenix Light Rail Transit, United States (Arizona)
Infrastructure / Transportation	Rail	Vancouver Millennium Sky Train Project, Canada
Infrastructure / Transportation	Rail	Pentagon City Subway Station, United States (Virginia)
Infrastructure / Transportation	Rail	Rohr Transit Cars, United States (Washington, D.C)
Infrastructure / Transportation	Rail	North Harlem To Brewster (Hudson Harlem Lines) Electrification Program, United States (New York)
Infrastructure / Transportation	Rail	London Crossrail Project, United Kingdom
Infrastructure / Transportation	Rail	Taisei-Metro Extension Project, Bulgaria
Infrastructure / Transportation	Rail	Regional Fast Rail Project (RFRP), Australia
Infrastructure / Transportation	Rail	Southern New Jersey Light Rail Transit System, United States (New Jersey)

PATRICIA D. GALLOWAY		
<i>Representative Engagement Experience [Does not include engagements where served as arbitrator]</i>		
Industry	Type	Project Name
Infrastructure / Transportation	Rail	Singapore Mass Rail Transit, Singapore
Infrastructure / Transportation	Rail	Toronto Transit Commission Subway Line Expansion, Canada
Infrastructure / Transportation	Rail	Shaw Subway Station, United States (Washington, D.C.)
Infrastructure / Transportation	Rail	Stamford Railroad Station Stamford, United States (Connecticut)
Infrastructure / Transportation	Ship / Seaport	Central Terminal Expansion Claim Review, United States (Washington)
Infrastructure / Transportation	Ship / Seaport	Port of Seattle, United States (Washington)
Infrastructure / Transportation	Ship / Seaport	Lahad Datu Port Expansion, Malaysia
Infrastructure / Transportation	Ship / Seaport	Panama Canal Transfer Station, Panama
Infrastructure / Transportation	Ship / Seaport	Riofil / Manila South Harbor Pier 5 Extension, Philippines
Infrastructure / Transportation	Ship / Seaport	City of Venice Floodgate, Italy
Infrastructure / Transportation	Ship / Seaport	F/V Arctic Storm Ship Conversion, United States (Washington)
Infrastructure / Transportation	Ship / Seaport	Deep Sea Drilling Ship, United States (Texas)
Infrastructure / Transportation	Other	American Concrete Pipe Association (ACPA) Independent Research, United States (Tennessee)
Infrastructure / Transportation	Other	Japan Ministry of Land, Infrastructure and Transport, Analysis of US Public Construction Contracting Practice, Japan
Infrastructure / Transportation	Other	Fish Barrier Project (FBP) United States (Washington)
Infrastructure / Transportation	Other	Seattle Public Utilities (SPU) and SeaTran, United States (Washington)
Industrial / Process	Chemical / Petrochemical	Palmetto Lime Facility, United States (South Carolina)

PATRICIA D. GALLOWAY		
<i>Representative Engagement Experience [Does not include engagements where served as arbitrator]</i>		
Industry	Type	Project Name
Industrial / Process	Chemical / Petrochemical	PET Production Plants, Argentina, Holland, Spain
Industrial / Process	Chemical / Petrochemical	Zinc Recovery Plant, United States (California)
Industrial / Process	Chemical / Petrochemical	FMC Baltimore Sulfentrazone Plant, United States (Maryland)
Industrial / Process	Chemical / Petrochemical	Seraya Island Petrochemical Project, Singapore
Industrial / Process	Oil / Gas	Nations Petroleum Steam – Flood Project, United States (California)
Industrial / Process	Oil / Gas	PML Project, Singapore
Industrial / Process	Oil / Gas	Minerva Project, Australia
Industrial / Process	Oil / Gas	PEMEX Combisa EPC 22, Mexico
Industrial / Process	Oil / Gas	GASYRG Pipeline, Bolivia
Industrial / Process	Oil / Gas	PEMEX, Cantarell Project, Mexico
Industrial / Process	Oil / Gas	Foster Wheeler SINCOR Coker Project, Venezuela
Industrial / Process	Oil / Gas	Luberef Refinery Project, Saudi Arabia
Industrial / Process	Oil / Gas	PEMEX Demineralization Plant, Mexico
Industrial / Process	Oil / Gas	Perez Companc-Norcen-Corod Oritupano-Leona Oil Fields, Eastern Venezuela
Industrial / Process	Oil / Gas	Altona Refinery Expansion, Australia
Industrial / Process	Oil / Gas	INCO 92 Project, Gas Recompression Plants, Venezuela
Industrial / Process	Oil / Gas	Ahmadi Oil Distribution Facility, Kuwait
Industrial / Process	Oil / Gas	Nippon Steel On-Site Auditing / Risk Management
Industrial / Process	Pulp & Paper Mill	Chemical Recovery System at Pulp & Paper Mill, United States (Mississippi)
Industrial / Process	Pulp & Paper Mill	Weyerhaeuser Pulp and Paper Mill, Training, Contract and Administration
Industrial / Process	Microchip	Sperry Micro-Chip Manufacturing & Research Facility, United States (Minnesota)
Industrial / Process	Pipelines	Sakhalin Pipeline Project, Russia
Industrial / Process	Pipelines	Bolivia Pipeline, Bolivia

PATRICIA D. GALLOWAY		
<i>Representative Engagement Experience [Does not include engagements where served as arbitrator]</i>		
Industry	Type	Project Name
Industrial / Process	Pipelines	Bombax Pipeline Project, Trinidad, Tobago
Industrial / Process	Pipelines	HBJ Gas Pipeline, India
Industrial/Process	Water Plant	Central Brown County, United States (Wisconsin)
Industrial / Process	Water Plant	Pinellas County Water System Pipeline, United States (Florida)
Industrial / Process	Water Plant	Mount Hope Water Main Project, Panama
Industrial / Process	Water Plant	Water Treatment Plant, United States (Georgia)
Industrial / Process	Wastewater / Environmental	Upper Rouge Tunnel, United States (Michigan)
Industrial / Process	Wastewater/ Environmental	Passaic Valley Sewerage Commissioners Thickening Centrifuge Facility, United States (New Jersey)
Industrial / Process	Wastewater / Environmental	Milwaukee Water Pollution Abatement Program, United States (Wisconsin)
Industrial / Process	Wastewater / Environmental	South Bay Wastewater Treatment Plant, California, United States (California)
Industrial / Process	Wastewater / Environmental	Babylon Solid Waste Recovery Plant, United States (New York)
Industrial / Process	Wastewater / Environmental	Hamilton Wastewater Treatment Plant, United States (New York)
Industrial / Process	Wastewater / Environmental	Rockland County Sewer District Treatment Plant, United States (New York)
Industrial / Process	Wastewater / Environmental	Secondary Facilities At Newark Bay Pumping Station, United States (New Jersey)
Industrial / Process	Wastewater / Environmental	Bowery Bay Wastewater Treatment Plant, United States (New York)
Industrial / Process	Wastewater / Environmental	St. Joseph Wastewater Treatment Plant, United States (Missouri)
Industrial / Process	Wastewater / Environmental	Bergen Point Wastewater Treatment Plant, United States (New York)
Industrial / Process	Wastewater / Environmental	Coney Island Water Pollution Control Project, United States (New York)
Industrial / Process	Environmental	New Jersey Sludge Drying / Fertilizer Facility, United States (New Jersey)
Industrial / Process	Environmental	Blydenburgh Landfill, United States (New York)

PATRICIA D. GALLOWAY		
<i>Representative Engagement Experience [Does not include engagements where served as arbitrator]</i>		
Industry	Type	Project Name
Industrial / Process	Environmental	Transuranic Storage Area Retrieval Enclosure, United States (Idaho)
Industrial / Process	Environmental	Warren County Landfill, United States (New Jersey)
Industrial / Process	Environmental	Weyerhaeuser Fish Hatchery, United States (Oregon)
Industrial / Process	Environmental	Asbestos White Paper Development-Evert & Weathersby
Industrial / Process	Environmental	Foster Wheeler Asbestos Litigation, United States (New Jersey)
Industrial / Process	Wastewater / Environmental	Wastewater Treatment Plant, Canada
Industrial / Process	Iron / Steel Manufacturing	POSVEN Hot Briquette Iron Plant, Venezuela
Industrial / Process	Iron / Steel Manufacturing	Delta Brands Subcontract PPPL and ARP Expediting Services
Industrial / Process	Iron / Steel Manufacturing	IPSCO Mini-Mill, United States (Iowa)
Industrial / Process	Iron / Steel Manufacturing	NKK Steel Continuous Galvanizing Project, United States (Michigan)
Industrial / Process	Iron / Steel Manufacturing	Republic Steel Mill Project, United States (Ohio)
Industrial / Process	Iron / Steel Manufacturing	Union Park CSO Pump Station and Detention Facility, United States (Massachusetts)
Industrial / Process	Pharmaceutical	Bulk Pharmaceutical Production Plant, Singapore
Industrial / Process	Pharmaceutical	Squibb Animal Test Facility, United States (New Jersey)
Industrial / Process	Mining	Nickel-Cobalt Refinery, Western Australia
Industrial / Process	Fertilizer Plant	Petro Vietnam Fertilizer Plant, Phu My Province, Vietnam
Buildings	Educational Facilities	Princeton University, United States (New Jersey)
Buildings	Educational Facilities	DeKalb County School District, United States (Georgia)
Buildings	Educational Facilities	Delgado Community College, United States (New Orleans)
Buildings	Educational Facilities	Rutgers University Records Center, United States (New Jersey)
Buildings	Educational Facilities	Washoe County School District, United States (Nevada)
Buildings	Educational Facilities	Plainsboro Middle School, United States (New Jersey)

PATRICIA D. GALLOWAY		
<i>Representative Engagement Experience [Does not include engagements where served as arbitrator]</i>		
Industry	Type	Project Name
Buildings	Educational Facilities	Hunter College, United States (New York)
Buildings	Educational Facilities	York College, United States (New York)
Buildings	Educational Facilities	School Project, United States (Indiana)
Buildings	Resorts / Casinos / Hotels	Regent Las Vegas Resort, United States (Nevada)
Buildings	Resorts / Casinos / Hotels	Hotel / Condominium Complex, Indonesia
Buildings	Resorts / Casinos / Hotels	Phoenician Hotel and Resort, (Arizona)
Buildings	Resorts / Casinos / Hotels	Westin Hotel, United States (Texas)
Buildings	Resorts / Casinos / Hotels	Safety Harbor Spa, United States (Florida)
Buildings	Resorts / Casinos / Hotels	Intercontinental Hotel, United States (Texas)
Buildings	Resorts / Casinos / Hotels	Hyatt Regency Hotel, United States (Missouri)
Buildings	Apartments / Condominiums / Housing	99100 Park Towers at Hughes Center, United States (Nevada)
Buildings	Apartments / Condominiums / Housing	Ortley Beach Commons, United States (New Jersey)
Buildings	Apartments / Condominiums / Housing	Louisville Housing Authority Project, United States (Kentucky)
Buildings	Centers / Arenas	University of Washington Basketball Arena, United States (Washington)
Buildings	Centers / Arenas	Jacksonville Pre-Trial Detention Center, United States (Florida)
Buildings	Centers / Arenas	San Diego Convention Center, United States (San Diego, California)
Buildings	Centers / Arenas	Washington State Convention Center, United States (Washington)

PATRICIA D. GALLOWAY		
<i>Representative Engagement Experience [Does not include engagements where served as arbitrator]</i>		
Industry	Type	Project Name
Buildings	Centers / Arenas	Worcester Civic Center (Centrum), United States (Massachusetts)
Buildings	Centers / Arenas	Riverside Civic Center, United States (New York)
Buildings	Stadiums	Fresno Multipurpose Stadium, (Grizzlies Stadium) United States (California)
Buildings	Stadiums	Arizona State University, Sun Devil Stadium Expansion, United States (Arizona)
Buildings	Medical / Hospitals	Alameda County Medical Center / Highland General Hospital, United States (California)
Buildings	Medical / Hospitals	Colombo General Hospital, Sri Lanka (Colombo)
Buildings	Medical / Hospitals	Stoney Brook Hospital, United States (New York)
Buildings	Medical / Hospitals	Madigan VA Hospital, United States (Washington)
Buildings	Medical / Hospitals	Kodiak Health Care Facility, United States (Alaska)
Buildings	Medical / Hospitals	University Medical Center, United States (Louisiana)
Buildings	Research Laboratory	TA-35 Los Alamos National Laboratory, United States (New Mexico)
Buildings	Offices	Unit Atrium One Building, United States (Ohio)
Buildings	Offices	One Summit Square Office Building, United States (Indiana)
Buildings	Offices	Equitable Tower Office Building, United States (New York)
Buildings	Offices	Loney Construction Brattleboro Projects, United States (Vermont)
Buildings	Offices	IBM Office Complex, United States (New York)
Buildings	Offices	Gold Building Parking Garage, United States (Connecticut)
Buildings	Offices	American Standard Office Building, United States (Oklahoma)
Buildings	Distribution / Storage / Warehouse	Olefins Terminal Storage Complex
Buildings	Distribution / Storage / Warehouse	TRW Record Storage Complex, United States (New Jersey)
Buildings	Distribution / Storage / Warehouse	New Jersey State Food Distribution Center, United States (New Jersey)
Buildings	Distribution / Storage / Warehouse	Trenton Record Storage Center, United States (New Jersey)

PATRICIA D. GALLOWAY		
<i>Representative Engagement Experience [Does not include engagements where served as arbitrator]</i>		
Industry	Type	Project Name
Buildings	Other	Courthouse Construction Program Oversight, United States (California)
Buildings	Other	Parking Garage, United States (Ohio)
Other	Seminar / Training	Nexen Corporate Management, Risk Management / Program / Project Management Training, United States.
Other	Seminar / Training	AES: Corporate / Project Management, Risk Management Training, United States & Canada
Other	Seminar / Training	Japan Bank for International Cooperation, Japan
Other	Seminar / Training	West Virginia DOT Training Seminar, United States (West Virginia)
Other	Seminar / Training	Claims Seminar, Texas Department of Transportation, United States (Texas)
Other	Seminar / Training	Project Risk Management Seminar, Panama Canal Commission, Panama
Other	Seminar / Training	Partnering Seminar, Kentucky Transportation Cabinet, United States (Kentucky)
Other	Seminar / Training	Florida Department of Transportation, United States (Florida)
Other	Seminar / Training	Seminar: Department of Energy, United States (West Virginia)
Other	Seminar / Training	University of Wisconsin-Madison Seminar, United States (Wisconsin)
Other	Seminar / Training	Fluor Corporate Risk / Claims Management, United States (California)
Other	Seminar / Training	Claims Avoidance & Management Training, United States (Arizona)
Other	Seminar / Training	Identifying, Minimizing & Quantifying Risk, England
Other	Seminar / Training	Claims Seminar On Construction Issues, Canada
Other	Seminar / Training	CPM Scheduling Course, United States (Pennsylvania)
Other	Seminar / Training	Claims Minimization Seminar, United States (New Hampshire)
Other	Other	Nunez Employment Discrimination Suit, United States (Texas)

DR. PATRICIA D. GALLOWAY

<i>PATRICIA D. GALLOWAY</i>		
<i>Representative Engagement Experience [Does not include engagements where served as arbitrator]</i>		
Industry	Type	Project Name
Other	Other	Foster Wheeler Risk Management Corporate Advisor
Other	Other	Royal Grading Golf Course and Country Club



Areas of Expertise

- Arbitrator
- Corporate Governance
- Risk Management
- Risk Assessment
- Prudence Analysis and Audits
- Performance Audits
- Project Management Audit
- International Contracting
- Trend Evaluations / Analytics
- Industry Best Practices
- Contract Administration
- Executive Management
- Financial /Investment Funds
- Mergers and Acquisitions
- Feasibility Studies / Reviews
- Compliance Review / Audits
- Strategic Planning
- Engineering & Construction Management
- Engineering & Construction Management
- Project / Program Management
- Project Control Systems
- Project and Program Estimating
- Change Management
- Standard of Care
- Claims Prevention
- Claims Negotiation
- Design – Build Consulting
- Damages Calculation
- Fraud / Abuse / Waste

Professional Background

As Chairman and President of Pegasus Global Holdings, Inc.®, Dr. Nielsen provides strategic direction to the firm’s operations. Dr. Nielsen has directed and participated on matters covering the entire project delivery process in the energy and infrastructure industries and has worked on behalf of private and public sector clients globally. With an extensive background in engineering, construction and project management, including project controls, he has advised Board audit and compliance committees, Owners, Engineers, and Contractors relative to Execution Management, Corporate Governance and Enterprise Risk Management issues. He has also presented expert witness testimony in legal proceedings around the world and served as a chairman and member on dispute review boards, as well as, an arbitrator and mediator on dispute matters. Dr. Nielsen also provides high level advice to senior management and boards in the energy and financial sectors.

With over 45 years of experience, Dr. Nielsen has extensive international experience having worked on some of the world’s largest projects including: Vogtle Nuclear Units 1,2,3,4; Iatan Units 1 and 2 super-critical pulverized coal fired plants; Edwardsport IGCC coal plant; London’s Crossrail Project; L.A. Metro Rail Operations Management System, California; Guri Dam and Hydroelectric Complex, Venezuela; Xiaolangdi Dam, China; Parramatta Rail Link Project, New South Wales, Australia; Sakhalin Island, Russia; Venice Lagoon Floodgate Project, Italy; City of Winnipeg, Canada, Capital Improvement Program; Melbourne Citylink Project, Victoria, Australia; PEMEX-Cadereyta, Mexico; Milwaukee Water Pollution Abatement program, Wisconsin; United Rail Group Tender Risk Review, New South Wales, Australia; HBJ Pipeline Project, India; Murrin Murrin Nickel-cobalt Project, Western Australia; Vancouver Island Highway Project, British Columbia, Canada; Mounds Laboratory U.S. Dept of Energy, Ohio, North America and multiple nuclear power plant projects each costing well over \$1 Billion.

DR. KRIS R. NIELSEN

Dr. Nielsen's experience includes: audits and assessments of executive and operational management process, performance, prudence and related project-specific and corporate issues; risk management including audits, evaluations and assessments of project-specific and corporate risks; comprehensive project management, standard of care, termination, fraud, project controls, design and development, management evaluations, change management, contract negotiations, administration, feasibility studies, partnering, value engineering, project management instruction and training.

Drawing upon his extensive dispute resolution experience, Dr. Nielsen also consults on claims prevention, management and negotiation. As a global innovator in the development and application of risk management techniques, he has developed and led training and instructional programs for a variety of private, multinational and public agency clients.

Dr. Nielsen also leads many evaluations and training for private firms, government entities, financial/investment funds, etc. with respect to such wide ranging issues as mergers & acquisitions, markets, and project specific issues. He also provides many investment fund managers and analysts with strategic advice. He has chaired multiple independent review panels on mega projects including the Parramatta Rail Link Project in Sydney Australia, the Detroit Combined Sewer Overflow Project, and is currently the Chair for the Vogtle Construction Review Board (VCRB).

Dr. Nielsen has been retained as a keynote speaker and lectures and presents on topics including arbitration, alternative dispute resolution, risk management, governance, project and program management, and trends in the energy and infrastructure industries.

Dr. Nielsen's career has included a variety of project and corporate management positions, including previously as Chairman and a Principal of The Nielsen-Wurster Group, and earlier as Chairman of Nielsen-Wurster ESB, Inc., an international power and process plant management consulting and Software Company and Chairman of Nielsen-Wurster Asia-pacific Pty. Ltd., an Asia-Pacific firm located in Melbourne, Australia, specializing in management consulting, risk management, and dispute resolution

Prior to founding Nielsen-Wurster, Dr. Nielsen served as a project engineer and project manager on process and building projects. At MBM, an international construction management firm, Dr. Nielsen served as Vice President of Construction Consulting Services, where he led the development of the United States Government's Construction Management Control System (CMCS) and managed their global consulting division.

At Wood and Tower, Dr. Nielsen served as the Project Manager for the development of the most widely used construction cost and time estimating system and data banks, the CBC System, now owned by McGraw-Hill. He also performed in various project management positions on infrastructure, process and building projects.

Registrations / Certification

- Licensed Attorney, Commonwealth of Virginia, Inactive.
- Certified Project Management Professional (PMP) #0028-84
- Professional Member of the Royal Institution of Chartered Surveyors, Faculties of Project Management and Risk Management (MRICS) #1177397
- Certificate of Director Education, NACD
- Private Pilot

Arbitration / DRB Panel Memberships

- American Arbitration Association (AAA)
- International Centre for Dispute Resolution (ICDR)
- Association for International Arbitration (AIA)

DR. KRIS R. NIELSEN

- International Chamber of Commerce (ICC)
- United Nations Commission on International Trade Law (UNCITRAL)
- Member of Dispute Resolution Board Foundation (DRBF) Panel
- Member of Caltrans DRB Panel

Dr. Nielsen serves as an arbitrator in several arbitration forums including the American Arbitration Association on its Commercial, Construction, and Large Complex case panels; the International Center for Dispute Resolution Panel, the International Chamber of Commerce, and the United Nations Commission on International Trade Law. He is also a member of the AIA and the Dispute Resolution Board Foundation (DRBF). He has served as a sole arbitrator, Chair and member of three-member panels arbitrating a large number of disputes involving commercial and construction issues of private and governmental facilities in the energy, process, and building industries with claims ranging from US \$100,000 to US\$100 million. Dr. Nielsen has also served as both a consulting and testifying expert in numerous domestic (AAA) and international arbitration forums (International Chamber of Commerce (ICC) arbitrations, UNCITRAL, SAIC, London), with disputes ranging from US\$1 million to US\$6 billion.

For Profit Boards

- Pegasus Global Holdings, Inc., 2000 - Present
- The Nielsen-Wurster Group, Inc., 1976 - 2008
- Unionville Vineyards (Partner), 1986 - 2008
- Nielsen-Wurster Asia-Pacific Pty. Ltd., 2001 – 2008
- Unionville Aviation, 1987 – 2005
- Nielsen-Wurster ESB, 1986 - 1989

Non-Profit Boards

- Life Support, 2008 – Present
 - Chairman, 2009-Present
- Construction Institute, 2004 - 2009
- Board Alternate to the Construction Industry Institute Board of Advisors, 2007 – Present
- Civil Engineering Forum for Innovation (CEFI), Member of Corporate Advisory Board, 1994 - 2000

Honors and Awards

- American Society of Civil Engineers (ASCE) Outstanding Projects and Leaders (OPAL) Award, Construction, 2011
- Pan American Academy of Engineering, Elected in 2008

Education and Courses

Education

- Ph.D., Infrastructure Systems (Civil) Engineering, Kochi University of Technology, Kochi, Japan, 2005
- J.D., George Washington University Law School, Washington, D.C., 1970
- B.S.E., Mechanical, Princeton University, Princeton, New Jersey, 1967

Arbitration Training

- 42 hour training in Mediating the litigated Case, Straus Institute for Dispute Resolution, Pepperdine University School of Law, Malibu, California,
- ADR & Tribal Contract Disputes Symposium, Seattle University School of Law

- Dealing with Delay Tactics in Arbitration, American Arbitration Association
- Arbitrator Ethics and Disclosure, American Arbitration Association
- Arbitrator II Training (Advanced Case Management Techniques), American Arbitration Association
- Arbitration Awards: Safeguarding, Deciding & Writing Awards, American Arbitration Association
- Prose: Managing Cases Involving Self-Represented Parties, American Arbitration Association
- Chairing an Arbitration Panel: Managing Procedures, Process & Dynamics, American Arbitration Association
- Construction Industry Arbitration Workshop, American Arbitration Association
- International Training for Dispute Resolution, American Arbitration Association, International Symposium in Advanced Case Management Issues
- Construction Arbitrator Training Workshop, American Arbitration Association
- The Dispute Review Board Administration and Practice Workshop, The Dispute Review Board Foundation
- Caltrans, CA Dispute Review Board Administration and Practice Workshop

Industry Research

- Industry Leaders Council, American Society of Civil Engineers, 2010 - Present
- Construction Industry Institute Research Team RT 260-Reimbursable Contract, 2008 – 2010
- Deutsche Bank and Nomura, Economic and Market Dynamics with Respect to oil & Gas, Power and Infrastructure Sectors, 2007 - Present
- Kochi University of Technology, Future of the Engineering and Construction Industry in Japan and China and the Challenges that Both Face, 2005

Memberships

- American Arbitration Association, 2009 - present
- American Association of Engineering Societies
 - Vice Chair of International Activities Commission, 1998 - 2001
- American Bar Association
 - Member of Construction Litigation Committee, Inception - Present
 - Member of Public Contract Law Committee, 1970 - Present
- American Nuclear Society, 1984 - Present
- American Society of Civil Engineers, 1970 - Present
 - Member, International Activities Committee, 2003 - 2005
 - Chair of National Research Policy Committee, 1996 - 1998
- Association for the Advancement of Cost Engineering (AACE) International, 1970 - Present
- Association for International Arbitration, 2008 – Present
- Civil Engineering Forum for Innovation, 1994 - 2004
 - Corporate Advisory Board, 1994 - 2000
- Construction Institute, 2003 - Present
 - Member of the Board of Directors, 2004 - 2009
- Construction Industry Institute, 2002 - 2010
 - Corporate Advisory Board Alternate, 2007 - 2010
- Construction Management Association of America, 2008 - Present
- Dispute Review Board Foundation, 1990 - Present
- Inter-Pacific Bar Association, 1990 - Present
 - Member of Major Projects Committee, 1992 - Present
 - Vice Chair of Major Projects Committee, 1997 - 2001, 2008 - 2010
- International Bar Association, 1999 - Present

- Member of Committee “I”, Construction, 1999 - Present
- Japan Society of Civil Engineers (JSCE), 2005 - Present
- National Association of Corporate Directors, 2007 - Present
- Order of the Engineer, 2004 - Present
- Project Management Institute, 1980 - Present
- Royal Institution of Chartered Surveyors, 2003 - Present
- Society for Social Management Systems, 2004 - Present
- Society of Petroleum Engineers, 2008 - Present

Publications and Presentations

Dr. Nielsen is a prolific writer and speaker globally, having authored 4 books and chapters of books, over 200 papers, 30 peer-reviewed journal articles and nearly 125 public speaking (including over 75 keynote addresses) engagements regarding Management and Strategic Issues, Management Audits (Prudence, Compliance and Performance); Program and Project Risk Management; Arbitration, Mediation, and Dispute Review Boards; Dispute Resolution, and other topics (*see attached list of Technical Papers and Presentations*). Dr. Nielsen has also been featured in many international publications:

- *Flynn’s Harp*, Feature Article, July 21, 2010, “Is Gulf Spill Oil Industry’s Three Mile Island?”
- “European Oil Services-Gulf of Mexico Exposures and Implications,” *Pit Stop*, Deutsche Bank, AG, London, United Kingdom, June 17, 2010
- “European Oil Services-Reading Between the Lines,” *Pit Stop*, Deutsche Bank, AG, London, United Kingdom, August 2009
- “European Oil Services,” *Pit Stop*, Deutsche Bank, AG, London, United Kingdom, April 2009
- “*Infrastructure Boom: Potholes Ahead*,” David Bogoslaw, *Business Week*, January 6, 2009
- “European Oil Services-Eyes Wide Open,” *Pit Stop*, Deutsche Bank, AG, London, United Kingdom, July 23, 2008.
- “European Oil Services,” *Pit Stop*, Deutsche Bank, AG, London, United Kingdom, May 27, 2008
- “Oil Service Contracts – Re-positioning the ‘Risk’ Pendulum,” Deutsche Bank, AG, London, United Kingdom, April 24, 2008
- “Going Solo”, *PM Network*, Michele Meyer, Project Management Institute, November 2007
- “European Oil Services”-*Pit Stop*, “Eyes Wide Open”, Deutsche Bank, AG, London, United Kingdom, May 23, 2007
- Interview with Kris R. Nielsen, President, *The Advisory*, July 3, 1986

Authored Books and Book Chapters

- Nielsen, Kris R., Galloway, Patricia D., Dignum, Jack L., “Managing Gigaprojects-From Those Who Have Been There, Done That,” ASCE Press, Reston, VA American Society of Civil Engineers, scheduled for publication release September, 2012
- “Endangered Species, The Japanese Construction Industry,” Eiko-Sha, Tokyo, Japan, January 2008
- Member of Research Team, *CII Guide to Reimbursable Contracting, Implementation Resource 260-2*, Construction Industry Institute, The University of Texas at Austin, 2011
- Member of Research Team, *CII Construction Institute Reimbursable Contracts, Research Summary 260-1*, Construction Industry Institute, The University of Texas at Austin, 2011
- “Anticipating Problems: Project Risk Assessment and Project Risk Management”, Chapter 6, Collaboration Management, New Project and Partnership Techniques, edited by H. Shaughnessey, John Wiley & Sons, 1994

- “Damages: The Cost Impact from Failures”, Failures Handbook, Albert Dib, Editor, Clark Boardman, 1985
- Construction Cost Management, Techniques and Applications, American Institute of Architects, 1972, American Society of Civil Engineers, 1974

Management and Strategic Issues

Invited, Keynote and Featured Presentations

- “EPC From a Global Perspective,” *The Oil Council’s World Oilfield Services and Engineering Assembly*, London, United Kingdom, June 28, 2012
- “Nuclear Plant Engineering & Construction”, Japan Society of Civil Engineers, Tokyo, Japan, April 18, 2011
- “An Industry On The Brink of Change,” *10th Annual Deutsche Bank Oil & Gas Conference*, London, United Kingdom, September 23, 2010
- “Leadership and Risks during a Global Financial Crisis,” co-authored with P. Galloway and J. Dignum, *The Fifth Civil Engineering Conference in the Asian Region (CECAR 5)*, Sidney, Australia, August 9 -11, 2010.
- “Trends in the Construction Industry,” to the U.S. Law Firm Group Construction Committee, Buffalo, NY, October 23, 2009
- “The Oil & Gas Service Sector: Good Prospects for the Medium to Long Term”, *9th Annual Deutsche Bank Oil & Gas Conference*, London, United Kingdom, September 24, 2009
- “A Management System for Infrastructure Construction, Meeting the Needs of the Next Two Decades,” *International Symposium on Social Management Systems, Annual Conference for the Society of Social Management Systems*, Kochi, Japan, March 5-8, 2009
- “The Challenge to Sustainable Power Infrastructure Development in a Multinational Environment,” XXXI UPADI Convention, Brasilia, Brazil, December 1, 2008
- “Near and Mid Term Economic Impacts from Global Economic Conditions on the O&G Services Sector,” 2008 Deutsche Bank Oil & Gas Conference, London, United Kingdom, September 25, 2008
- “Integration of Social Science & Engineering,” International Symposium on Social Management Systems, Annual Conference for the Society of Social Management Systems, Kochi, Japan, March 7, 2008
- “Infrastructure Construction in 2008 Global Public and Private Sectors” Seminar, *Gearson Lehman Group Institute*, New York, New York, December 18, 2007
- “Current Risk Management Issues in the Oil & Gas Industry,” *2007 Deutsche Bank Oil & Gas Conference*, London, United Kingdom, September 27, 2007
- “Observations Regarding Global Oil & Gas Construction, Projects and Contractors-The Changing Picture of Execution Risk,” *Shell Construction Law Workshop*, London, United Kingdom, January 31, 2007
- “Observations Regarding Public, Private, Partnership from Around the World,” Practical Strategies for Successful International Projects, São Paulo, Brazil, November 20 - 21, 2006
- “Risks Must Be Managed More Than Ever in Today’s Oil & Gas Industry,” *Deutsche Bank Global Oil & Gas Conference 2006*, London, United Kingdom, September 28, 2006
- Keynote Speaker, “Is Ethics Dead in Project Control Management?,” *Second Annual PMI College of Scheduling Conference*, Scottsdale, Arizona, May 22 - 24, 2005
- “Risk Management Techniques Evolving Project Management Tools For All Seasons,” The Third Civil Engineering Conference in the Asian Region (The 3rd CECAR), Seoul, Korea, August 16 - 19, 2004
- Moderator, “Risks and Challenges to the Successful Execution of Major Offshore Projects,” Offshore Technology Conference-Innovation Without Limits, Houston, Texas, May 3 - 6, 2004
- “How Risk Management is Causing an Evolution in Project Management Consulting,” 2003 Special Lecture Series, Kochi University of Technology, Kochi, Japan, November 21, 2003

- “Risk and Legal Perspective-ASCE: In Tune or Out of Touch on Construction Site Safety?” American Society of Civil Engineers (ASCE) Nashville 2003 Civil Engineering Conference & Exposition, Infrastructure Track; ASCE Construction Institute, Committee on Safety, Nashville, Tennessee, November 13, 2003
- “The Benefits and Challenges in the Globalization of Project Management Knowledge and Usage,” Japan Society of Civil Engineers’ First International Symposium on Construction and Project Management, Tokyo, Japan, October 16 - 17, 2003
- “Energy Development and Risk,” *Alternative Energy and Environmental Futures*, Boston University, Boston, Massachusetts, April 10, 2002
- “The Ubiquitous Requirement of Performing to High International Standards,” Proceedings, *The Second Civil Engineering Conference in the Asian Region*, Tokyo, Japan, April 16 - 18, 2001
- “Construction Risk and Application to AusAID Projects,” AusAID, Canberra, Australia, August 21, 1998
- “Risk Allocation in Design-Build and BOT Projects,” Civil Engineering International Conference on Asian Infrastructure, Sustainable Development and Project Management, Manila, Philippines, February 19 - 20, 1998
- “What are Today’s Emerging Risks?” Identifying, Minimizing and Quantifying Construction Risk and Disputes, London, England, October 31 – November 1, 1996
- “Trends and Evolving Risks in Design-Build, BOT and BOOT Projects,” ASCE / ICE Triennial Conference, Session IV: Pitfalls in International Engineering and Construction: What to Watch For, Philadelphia, Pennsylvania, October 17-20, 1996
- “Risk Management Analysis Techniques for Projects with Significant Environmental Issues,” co authored with P. Galloway, ASCE-SAS Second Regional Conference and Exhibition, Beirut, November 16 - 18, 1995
- “Anticipating Problems: Project Risk Assessment and Project Risk Management,” Chapter 6, *Collaboration Management, New Project and Partnering Techniques*, edited by H. Schaughnessy, John Wiley & Sons 1994
- “International Contract Administration Issues: Project Documentation, Dispute Proofs, Programmes and Productivity,” Training Workshop on International Construction Contracts and Contractor Claims, The International Development Law Institute (IDLI), Rome, Italy for the Finnish International Development Agency (FINNIDA), Helsinki, Finland, October 13 - 16, 1992
- “Contract Administration,” West Virginia Division of Energy, Charleston, West Virginia, March 1991
- Co-program Leader and Panelist, “Project Construction, Financing, and Management,” and Paper on “Project Risk Management,” Alternative Power in New England-Opportunities and Risks, Farmington, Connecticut, November 1989
- Seminar Leader and Primary Presenter, “CM for 84” Conference, Construction Management Association of America, Madison, Wisconsin, May 31 - June 2, 1984
- “Managing Risk on CM Projects,” Proceedings of CM Forum 84 Conference, Construction Management Association of America, Madison, Wisconsin, May 31, 1984
- “Risks and Liabilities of Specifications,” co authored with M.J. Nielsen, American Society of Civil Engineers, Specialty Conference on Specifications and Inspection Manual, New Orleans, Louisiana, March 1982
- “CPM Network-Based Management Information Systems,” *Building Research Advisory Board Conference*, National Academy of Engineering, Washington, D.C., July 1975
- “Construction Cost Management,” two day presentation at Arizona Society of Architects Professional Development Seminar, March 1975
- “Construction Cost Management,” Professional Development Seminar Manual, Arizona Society, American Institute of Architects, April 1975
- “Management Control Systems in the Construction Industry,” *Building Research Institute Fall Conference Proceedings*, November 1973

Publications

- “An Industry On The Brink of Change,” *10th Annual Deutsche Bank Oil & Gas Conference*, London, United Kingdom, September 23, 2010
- “European Oil Services-Gulf of Mexico Exposures and Implications,” *Pit Stop*, contributing Author, Deutsche Bank, AG, London, United Kingdom, June 17, 2010
- “European Oil Services-Reading Between the Lines,” *Pit Stop*, Contributing Author, Deutsche Bank, AG, London, United Kingdom, August 2009
- “European Oil Services,” *Pit Stop*, Contributing Author, Deutsche Bank, AG, London, United Kingdom, April 2009
- “Infrastructure Boom: Potholes Ahead,” *Business Week*, January 6, 2009, go to and click on Archive.
- “Oil Service Contracts – Re-positioning the ‘Risk’ Pendulum,” Contributing-Author, Deutsche Bank, AG, London, United Kingdom, April 24, 2008
- “European Oil Services,” *Pit Stop*, Contributing Author, Deutsche Bank, AG, London, United Kingdom, May 27, 2008
- “Applying Risk Management Techniques to Global Growth in Sustainable Infrastructure Projects,” co-authored with Lia Nielsen, *Proceedings of the 4th Civil Engineering Conference in Asia Region*, ACCEC, Taipei, Taiwan, June 26, 2007
- “European Oil Services”-*Pit Stop*, “Eyes Wide Open”, Deutsche Bank, AG, London, United Kingdom, May 23, 2007
- “Some Practical Thoughts-Risk Allocation Regarding Airport Projects in China,” *IPBA Conference: Risk Allocations on Airports Session*, Beijing, China, April 23, 2007; also published on the Society of Social Management Systems (SSMS), Internet Journal, 2007
- “Risk-Based Processes that Assure Anti-Corruption Processes and Promote Transparency and Governance in Resource Extraction Industries,” co-authored with Patricia Galloway; *International Conference on Infrastructure Development and the Environment*, Aguja, Nigeria, September 10 - 15, 2006; *Society of Social Management Systems (SSMS), Internet Journal*, 2007
- “Risk Management Lessons from Six Continents,” *Journal of Management in Engineering*, Volume 22, No. 2, pp. 61, April 2006
- “The Ubiquitous Requirement of Performing to High International Standards,” co authored with P. Galloway, published Proceedings, *The Second Civil Engineering Conference in the Asian Region*, Tokyo, Japan, April 16 - 18, 2001
- “Trends and Evolving Risks in Design-Build, BOT and BOOT Projects,” *The International Construction Law Review*, Volume 14, Part 2, April 1997
- “International Contract Administration Issues: Project Documentation, Dispute Proofs, Programmes, Productivity,” co-authored with P. Galloway, IDLI, Rome, Italy, December 12, 1991
- “International Construction Dispute Proofs,” co-authored with P. Galloway, *Nordnet '91 Transactions: The Practice and Science of Project Management*, Trondheim, Norway, June 3 - 5, 1991
- “Schedule Delay Concurrency Issue Analysis & Proof,” co authored with P. Galloway, *The International Construction Law Review*, Volume 7, Part 4, October 1990, pp. 386 - 401
- “Multiple Jeopardies,” *Cogeneration & Resource Recovery*, Volume 8, No. 3, April 1990
- “Combining PURPA, Prudence and Avoided Cost Rate Design; A New Cost Engineering Environment,” co-authored with P. Galloway, *American Association of Cost Engineers 9th Annual Mid-Winter Symposium Transactions*, San Francisco, California, February 1987; Reprinted, *Cost Engineering*, Volume 31, No. 1, p. 16, January 1989
- “Second-Guessing the Engineer,” co-authored with P. Galloway, *Civil Engineering*, American Society of Civil Engineers, November 1985
- “Failure Proof Your Projects,” co-authored with P. Galloway, *Consulting Engineer*, June 1985

- “Calculation of Lost Profits from Lost Business Opportunities,” co authored with J. Galeno, Transactions of the Eighth International Cost Engineering Congress and 28th Annual Convention of the American Association of Cost Engineers, Montreal, Quebec, Canada, June 26, 1984
- Monthly issues of the *Construction Cost Report*, December 1973 - November 1983
- “A Project Management Case Study, The Raul Leoni Dam, Guri Final Stage Venezuela,” Proceedings of 1983 American Society of Civil Engineers Spring Convention, Philadelphia, Pennsylvania, May 1983
- “Schedule Control for PCM Projects,” co-authored with P. Galloway, *Journal of the Construction Division, Proceedings of the Society of Civil Engineers*, Volume 107, No. C02, June 1981
- “Legal Implications of Professional Project Management,” co authored with M.J. Nielsen, American Society of Civil Engineers Specialty Conference on Project Management Manual, San Diego, California, February 1981
- “Bid Mistakes,” co-authored with M.J. Nielsen, *International Construction*, November 1980
- “Contract Management and Claim Prevention,” co-authored with M.J. Nielsen, *Journal of Community Management*, January 1980
- “Quantitative Tools for Assessing the Impact of Energy Price Increases on Construction Costs,” *Quarterly Cost Focus*, Second Quarter 1975
- “Reducing Facility Construction Costs,” *Klimet's Reports*, October 1975
- “Tax Considerations in Building Design,” AIA Journal, September 1973
- “Life Cycle Cost-What, When & How,” BAC Journal of Continuing Education, September 1973
- “Construction Cost Management, Techniques and Applications,” *Textbook for American Institute of Architects and American Society of Civil Engineers Continuing Education*, 1972
- “Construction Cost Management and the Computer,” *The Valuation Consultant*, November 1972
- “Estimating and Cost Analyses Made More Useful with New Computerized Systems,” Florida Builder, October 1971
- “Management Firms: Watchdog of Construction Costs,” Building Design and Construction, July 1971

Conference Presentations

- Nomura “Road Show,” London, United Kingdom, June 29, 2012
- “What’s Next for the Engineering Sector?,” Panel discussion, *The Oil Council’s World Oilfield Services and Engineering Assembly*, London, United Kingdom, June 28, 2012
- Deutsche Bank “Road Show,” London, United Kingdom, September 20 – 24, 2010
- Deutsche Bank “Road Show,” London, United Kingdom, June 8 – 12, 2010
- Deutsche Bank “Road Show,” London, United Kingdom, September 21 – 25, 2009
- Deutsche Bank “Road Show,” London, United Kingdom, April 20 – 24, 2009
- Deutsche Bank “Road Show,” London, United Kingdom, September 24 – 27, 2008
- “De-Mystifying and Repositioning the Risks Between IOCs, NOCs and E&C Contractors,” The International Construction Superconference, London, United Kingdom, September 4, 2008
- Deutsche Bank “Road Show”, London, U.K., June 23 – 29, 2008
- “International Project Risk Ratings and Emerging Trends in Project Management,” Clayton Utz Major Projects Conference 3, Sydney, Australia, April 16, 2002
- “Conception to Birth of a Project,” Infrastructure 2000, San Francisco, California, June 7, 2000
- Moderator, “Minimizing Risks on International Projects by Developing and Maintaining Effective Project Documentation,” Worldwide Infrastructure Partnerships, New York, New York, June 24, 1998
- “Privatization and the Use of IVHS in the 1990s,” co-authored with P. Galloway and M. Ramey, ASCE Transportation Conference on IVHS, San Diego, California, October 1995
- “Preparing a Project Control Specification,” co authored with P. Galloway, Proceedings of Eleventh Annual Project/2 Utility Users Group Conference, Birmingham, Alabama, November 17 -19, 1986
- “The Value of Earned Value,” Eleventh Annual Project /2 Utility Users Group Conference, Birmingham, Alabama, November 18, 1986

- “New Directions in Project Control for the Utility / Construction Industries,” 8th Annual Mid Winter Symposium, New Orleans, Louisiana, February 13, 14, 1986
- “Improving Estimating Procedures to Avoid Costly Bidding Mistakes,” Engineering News Record Conference on “Construction Contracting: How to be Successful and Avoid Losses”, January 1979
- “Construction Delay Claim Analysis,” “Life-Cycle Costing,” “Construction Economics,” Conference Manual on Profitable Construction Cost Estimating in Today’s Economy, presented in ten cities in 1976
- “The Construction Economics,” *National Aeronautics and Space Administration Facilities Conference*, Lyndon B. Johnson Space Center, Houston, Texas, November 1, 1974
- “Computer Based Control Systems for Construction Management,” *Engineering News Record's Costec II Conference*, April 1973
- “Computerized versus Manual Take-off,” *Engineering News Record's Costec Conference*, November 1972
- “Construction Cost Control,” two-day AIA and ASCE Continuing Education seminar, presented eight times in 1974, 1973 and 1972

Management Audits (Prudence, Compliance and Performance)

Invited, Keynote and Featured Presentations

- “The Challenge to Sustainable Power Infrastructure Development in a Multinational Environment,” XXXI UPADI Convention, Brasilia, Brazil, December 1, 2008.
- “Utilities Serving Our Needs: U.S. Experience in Serving its Communities,” National Engineering Forum Energy, Water and Telecommunications, Cooma, NSW, Australia, April 21, 1999
- “The Multi-Billion Dollar Issue Facing the Nuclear Power Industry: Decommissioning Versus Life Extension,” The Future of the U.S. and International Environmental Industry, Washington, D.C., November 10 - 12, 1997
- “Trends and Evolving Risks in Design-Build, BOT and BOOT Projects,” ASCE / ICE Triennial Conference, Session IV: Pitfalls in International Engineering and Construction: What to Watch For, Philadelphia, Pennsylvania, October 17 - 20, 1996
- Keynote Address, “Delivery of the Project from the Deep Pocket’s Perspective,” *Project Management Institute, Southern New England*, Hartford, Connecticut, October 26, 1988
- Interview with Kris R. Nielsen, President, *The Advisory*, July 3, 1986
- “Electric Utility Capital Project Prudence Issues,” *National Association of Regulated Utility Commissioners Annual Meeting*, Hartford, Connecticut, May 1985

Publications

- “New Day for Prudence,” co-authored with Patricia Galloway and Charles Whitney, *Public Utilities Fortnightly*, Dec. 2009, p. 48-52.
- “Multiple Jeopardies,” *Cogeneration & Resource Recovery*, Volume 8, No. 3, April 1990
- “Combining PURPA, Prudence and Avoided Cost Rate Design; A New Cost Engineering Environment,” co-authored with P. Galloway, *American Association of Cost Engineers 9th Annual Mid-Winter Symposium Transactions*, San Francisco, California, February 1987; Reprinted, *Cost Engineering*, Volume 31, No. 1, p. 16, January 1989
- “Outages Different Regulatory Technical Standards,” American Association of Cost Engineers, 10th Annual Mid Winter Symposium Transactions, Phoenix, Arizona, February 1988
- “Preparing for the Utilities’ Future-Managing the Prudence Issues,” co-authored with P. Galloway, *Electric Potential*, Volume 2, No. 4, July - August 1986
- “Preparing for Utilities Future An ‘Attack Plan’ for Minimizing Disallowable Costs in Outage and Future Capital Construction,” co-authored with P. Galloway, American Association of Cost Engineers, New Orleans, Louisiana, February 1986

- “Calculating Utility Prudence Issue Costs,” *1985 American Association of Cost Engineers Annual Convention Transactions*, Denver, Colorado, July 1985
- “A Project Management Case Study, The Raul Leoni Dam, Guri Final Stage Venezuela,” Proceedings of 1983 American Society of Civil Engineers Spring Convention, Philadelphia, Pennsylvania, May 1983
- “Legal Implications of Professional Project Management,” co authored with M.J. Nielsen, American Society of Civil Engineers Specialty Conference on Project Management Manual, San Diego, California, February 1981

Conference Presentations

- “Dealing with Risks on Nuclear Waste Sites,” The Environmental Superconference, Washington, D.C., April 28 - 29, 1999
- “Effect of Current State Regulatory Environment on Outage Management,” 6th Annual Project /2 Outage Symposium, Cambridge, Massachusetts, June 29 - July 1, 1987
- “Utilities Forced Delays-Controllable or Uncontrollable,” co authored with P. Galloway, American Association of Cost Engineers Annual Convention, Chicago, Illinois, June 1986
- Presenter, “Prudence Issues in the Outage Arena,” PSDI Project 2 Users Conference, Cambridge, Massachusetts, May 1986
- Co-presenter, “Prudence Concepts,” *American Association of Cost Engineers*, Ramapo Section, April 1985
- “The Prudence Management Audit: A New Challenge For the Civil Engineer,” co authored with P. Galloway, American Society of Civil Engineers Spring Convention, Denver, Colorado, April 1985

Program and Project Risk Management

Invited, Keynote and Featured Presentations

- Panel Member, “The Engineers Responsibility for Risk Management,” *International Symposium on Social Management Systems, Annual Conference for the Society of Social Management Systems*, Ying Chang, Hubei, China, March 9 - 11, 2007
- “Risk Management Techniques Evolving Project Management Tools For All Seasons,” The Third Civil Engineering Conference in the Asian Region (The 3rd CECAR), Seoul, Korea, August 16 - 19, 2004
- “How Risk Management is Causing an Evolution in Project Management Consulting,” 2003 Special Lecture Series, Kochi University of Technology, Kochi, Japan, November 21, 2003
- “Energy Development and Risk,” *Alternative Energy and Environmental Futures*, Boston University, Boston, Massachusetts, April 10, 2002
- “Construction Risk Management Simplified,” *University of Wisconsin*, Madison, Wisconsin, March 26 - 27, 2001
- “Principles and Practices of Effective Risk Management,” *University of Wisconsin*, Madison, Wisconsin, April 14 - 15, 1999
- “Construction Risk and Application to AusAID Projects,” AusAID, Canberra, Australia, August 21, 1998
- “Risk Allocation in Design-Build and BOT Projects,” Civil Engineering International Conference on Asian Infrastructure, Sustainable Development and Project Management, Manila, Philippines, February 19 - 20, 1998
- “What are Today’s Emerging Risks?” Identifying, Minimizing and Quantifying Construction Risk and Disputes, London, England, October 31 – November 1, 1996
- “Risk Management Analysis Techniques for Projects with Significant Environmental Issues,” co-authored with P. Galloway, ASCE-SAS Second Regional Conference and Exhibition, Beirut, November 16 – 18, 1995
- “Overlooked Risks-A Project Risk Manager’s Experience,” World Conference on Construction Risk, Singapore, October 5 - 6, 1995

- Co-presenter, “Project Risk Management-A Necessity for Today’s Engineered Projects,” *Tarumanagara University*, Jakarta, Indonesia, May 2, 1994
- “Anticipating Problems: Project Risk Assessment and Project Risk Management,” Chapter 6, “*Collaboration Management, New Project and Partnering Techniques*,” edited by H. Schaughnessy, John Wiley & Sons 1994
- “Project Risk Management,” *Panama Canal Commission*, Panama, April 20 - 22, 1994
- “Project Risk Management-Preventative Medicine for Your Project,” *Resolving Disputes in Construction Contracts through ADR Techniques*, Geneva, Switzerland, November 12 - 13, 1992
- “Project Risk Management,” *Alternative Power in New England Conference Book*, Farmington, Connecticut, November 7 - 8, 1989
- “Managing Risk on CM Projects,” Proceedings of CM Forum 84 Conference, Construction Management Association of America, Madison, Wisconsin, May 31, 1984

Publications

- “Some Practical Thoughts-Risk Allocation Regarding Airport Projects in China,” *IPBA Conference: Risk Allocations on Airports Session*, Beijing, China, April 23, 2007; also published on the Society of Social Management Systems (SSMS), Internet Journal, 2007 “Force Majeure-Managing This Project Risk,” *Inter-Pacific Bar Association, 4th Annual Conference*, Singapore, May 3 - 6, 1994
- “Risk Management Lessons from Six Continents,” *Journal of Management in Engineering*, Volume 22, No. 2, pp. 61, April 2006
- “Project Risk Management-Achieving Goals,” co-authored with P.D. Galloway, 11th INTERNET World Congress on Project Management, Florence, Italy, June 16 - 19, 1992

Conference Presentations

- “De-Mystifying and Repositioning the Risks Between IOCs, NOCs and E&C Contractors,” The International Construction Superconference, London, United Kingdom, September 4, 2008
- “Large-Scale Railway Projects – Mitigating the Risks,” Panel Chairman, Inter-Pacific Bar Association, Los Angeles, CA, USA, April 29, 2008
- “Experienced Based Recommendations on Risk Allocations for Both Owners and Contractors,” Practical Strategies for Successful International Projects, São Paulo, Brazil, November 20 - 21, 2006
- “Risk-Based Processes that Assure Anti-Corruption Processes and Promote Transparency and Governance in Resource Extraction Industries,” co-authored with Patricia Galloway; *International Conference on Infrastructure Development and the Environment*, Aguja, Nigeria, September 10 - 15, 2006; *Society of Social Management Systems (SSMS), Internet Journal*, 2007
- “Case Study Summaries: Talk vs. Practice-or the Truth vs. Practice on Risk Management Usage by Contractors and Owners,” *Construction Institute Regional Conference*, Chicago, Illinois, June 15 - 16, 2006
- “Risk Management Lessons from Six Continents” ASCE Pipeline 2004 Conference, San Diego, California, August 2, 2004
- “Execution Risk Management in Design-Build Infrastructure Projects,” Proceedings of the Construction Institute Atlantic Coast Construction Conference, Tysons Corner, Virginia, May 12 - 13, 2004
- “Risk Identification and Allocation,” Global Construction Superconference, London, United Kingdom, November 5 - 6, 2001
- “Project Risk is Not Generic and Can be Improved during Conception to Birth of a Project,” *Infrastructure 2000*, San Francisco, California, June 7, 2000
- “Risk Management in the International Marketplace” International Markets Conference, The International Steering Committee of the American Consulting Engineers Council, Washington, D.C., June 5 - 6, 2000
- “Dealing with Risks on Nuclear Waste Sites,” The Environmental Superconference, Washington, D.C., April 28 - 29, 1999

- “Management Approaches to Construction Risk on Infrastructure Projects in Latin America,” The Latin American Market, The Fourth Annual Conference, Turnberry Isle Resort & Club, Aventura, Florida, November 17 - 19, 1998
- “The Essence of Construction Risk,” Minimizing Risks in Construction Projects and Resolving Construction Disputes, Hong Kong, September 28 - 29, 1998
- Moderator, “Minimizing Risks on International Projects by Developing and Maintaining Effective Project Documentation,” Worldwide Infrastructure Partnerships, New York, New York, June 24, 1998
- “Structured Risk Identification and Allocation as a Component of Construction Program Management: A Process that Knows No Boundaries,” *ASCE Washington, D.C. Convention, Session: International Contracting Practices*, Washington, D.C., November 11, 1996
- “Panel of Experts-Risks Most Overlooked,” World Conference on Construction Risk III, Paris, France, April 25 - 26, 1996
- “What are Today’s Emerging Risks?,” Seminar on Emerging Risks in Construction: How to Minimize, Manage & Avoid Disputes, New Orleans, Louisiana, May 10 - 12, 1995; Indian Wells, California, October 19 - 21, 1994
- “Project Risk Management: Concepts and Applications,” Seminar on Emerging Risks in Construction: How to Minimize, Manage & Avoid Disputes, New Orleans, Louisiana, May 10 - 12, 1995; Indian Wells, California, October 19 - 21, 1994
- “International Construction Projects-Managing Risk in the Field,” *World Conference on Construction Risk*, Paris, France, April 28 - 29, 1994
- Co-presenter, “Project Risk Management & Reviewing and Analyzing Damages” *Seminar on Managing Risk and Minimizing Disputes in Construction Contracts*, Hilton Head Island, South Carolina, October 6 - 8, 1993
- “Project Risk Management-Achieving Goals and Minimizing Disputes,” *Construction Superconference*, San Francisco, California, December 3 - 4, 1992
- “Risks and Liabilities of Specifications,” American Society of Civil Engineers Specialty Conference, San Diego, California, February 1981

Arbitration, Mediation & Dispute Review Boards

Invited, Keynote and Featured Presentations

- “Practical Thoughts Regarding International Arbitrations,” Practical Strategies for Successful International Projects, São Paulo, Brazil, November 20 - 21, 2006
- “Current Trends in Entitlement in Construction Disputes on Major International Projects,” Current Trends in Construction Law, International Project Management and Dispute Resolution: The South and Central American Project, São Paulo, Brazil, June 5 - 6, 2006
- “Contract Administration Needs in the New Concept of Dispute Review Boards,” 2003 Special Lecture Series, Kochi University of Technology, Kochi, Japan, November 21, 2003
- “Thoughts from the Dispute Review Board (DRB) World,” as part of “A New Era in Job-Site Dispute Resolution: Dispute Review Boards,” *University of Kentucky / Dispute Avoidance and Resolution Task Force (DART) Seminar on Charting the Course to the Year 2000 - Together!*, Lexington, Kentucky, October 16 - 19, 1994
- “Partnering-Application on International Projects,” *Proceedings of the American Society of Civil Engineers Saudi Arabia Section First Regional Conference and Exhibition on Advanced Technology in Civil Engineering*, Manama, Bahrain, September 18 - 20, 1994
- “The Alternative Disputes Resolution Process,” Construction Disputes-Analysis and Management, Winnipeg, Canada, November 1 - 5, 1993
- Presenter, “Partnering,” Kentucky Department of Transportation, Bowling Green, Kentucky, June 17 - 18, 1993

- “Project Risk Management-Preventative Medicine for Your Project,” *Resolving Disputes in Construction Contracts through ADR Techniques*, AAA and Nielsen-Wurster conference, Geneva, Switzerland, November 12 - 13, 1992

Publications

- “Mapping Strategies for a Successful Mediation,” co-authored with P Galloway, *Nepal Council of Arbitration (NEPCA) Half Yearly Bulletin*, Volume 18, February, 2012
- “Mapping Strategies for a Successful Mediation,” co-authored with P Galloway, *Construction Law International*, International Bar Association, Volume 6, Issue 4, December 2011
- “Engineer’s “Study Notes” for Understanding the Arbitration Process”, *Journal of Legal Affairs & Dispute Resolution in Engineering and Construction*, American Society of Civil Engineers, Volume 3, Number 2, May 2011
- “Practical Thoughts Regarding International Arbitrations”, Practical Strategies for Successful International Projects, São Paulo, Brazil, November 20 – 21, 2006
- Current Trends in Entitlement in Construction Disputes on Major International Projects”, Current Trends in Construction Law, International Project Management and Dispute Resolution: The South and Central American Project, São Paulo, Brazil, June 5 – 6, 2006
- Partnering-Application on International Projects,” *Proceedings of the American Society of Civil Engineers Saudi Arabia Section First Regional Conference and Exhibition on Advanced Technology in Civil Engineering*, Manama, Bahrain, September 18 – 20, 1994
- “CPM Scheduling Delay: Window Analysis, Concurrency and Proof”, Construction Disputes – Analysis and Management, Winnipeg, Canada, November 1 – 5, 1993
- “Project Risk Management-Preventative Medicine for Your Project,” *Resolving Disputes in Construction Contracts through ADR Techniques*, AAA and Nielsen-Wurster conference, Geneva, Switzerland, November 12 - 13, 1992
- “Avoiding Lengthy and Costly Litigation by Negotiation Resolution Methods,” co authored with P. Galloway, American Society of Civil Engineers Spring Convention, Denver, Colorado, April 1985

Conference Presentations

- “Panel Discussions Re: Issues Related to DRB Hearings,” The Dispute Review Board Foundation, Inc. Annual Meeting and Conference, Minneapolis, Minnesota, October 4, 1997
- “Avoiding Lengthy and Costly Litigation by Negotiation Resolution Methods,” American Society of Civil Engineers Spring Convention, Denver, Colorado, April 1985
- “Risks and Liabilities of Specifications,” American Society of Civil Engineers Specialty Conference, San Diego, California, February 1981

Dispute Resolution

Invited, Keynote and Featured Presentations

- “Quantifying the Damages,” Minimizing Risks in Construction Projects and Resolving Construction Disputes, Hong Kong, September 28 - 29, 1998
- “Construction Scheduling: Preparation, Liability, Claims and Damages,” Panama Canal Commission, June 12 - 16, 1995
- “Standard Construction Contracts,” Construction Disputes-Analysis and Management, Winnipeg, Canada, November 1 - 5, 1993
- “Construction Disputes: Framing the Management Issue,” Construction Disputes-Analysis and Management, Winnipeg, Canada, November 1 - 5, 1993
- “Disruption / Productivity Cost Claim Analyses,” co authored with P. Galloway, Construction Disputes - Analysis and Management, Winnipeg, Canada, November 1 - 5, 1993

- “CPM Scheduling Delay: Window Analysis, Concurrency and Proof,” co authored with P. Galloway and M. Ramey, *Construction Disputes-Analysis and Management*, Winnipeg, Canada, November 1 - 5, 1993
- Co-presenter, “Schedule Delay Analysis,” *WASHTO Annual Conference*, Oklahoma City, Oklahoma, June 23 - 24, 1993
- “International Contract Administration Issues: Project Documentation, Dispute Proofs, Programmes and Productivity,” Training Workshop on International Construction Contracts and Contractor Claims, The International Development Law Institute (IDLI), Rome, Italy for the Finnish International Development Agency (FINNIDA), Helsinki, Finland, October 13 - 16, 1992
- “Overcoming Schedule Delay-Analyzing and Resolving this Project Nemesis,” co-authored with P. Galloway, *IIR National Construction Conference* in Sydney, Australia, August 28 - 29, 1991
- “Schedule Delay Concurrency Issue Analysis & Proof,” co-authored with P. Galloway, *International Cost Congress*, Paris, France, April 1990
- Co-program Leader and Papers, “Schedule Delay: A Productivity Analysis,” Kentucky Transportation Cabinet and Kentucky Transportation Center Critical Path Method Scheduling Course, Lexington, Kentucky, December 1989
- “The Techniques of Analysis and Pricing of Damages that Flow from a Construction Failure,” co-authored with P. Galloway and R.F. Jacobsen, *Construction Failure and Disaster Superconference*, New York, New York, March 23 - 24, 1988
- “Damages: The Cost Impact from Failures,” *Failures Handbook*, Albert Dib, Editor, Clark Boardman, 1985

Publications

- “Force Majeure-Managing This Project Risk,” *Inter-Pacific Bar Association, 4th Annual Conference*, Singapore, May 3 - 6, 1994
- “International Contract Administration Issues: Project Documentation, Dispute Proofs, Programmes, Productivity,” co authored with P. Galloway, IDLI, Rome, Italy, December 12, 1991
- “International Construction Dispute Proofs,” co-authored with P. Galloway, *Nordnet '91 Transactions: The Practice and Science of Project Management*, Trondheim, Norway, June 3 - 5, 1991
- “Schedule Delay Concurrency Issue Analysis & Proof,” co authored with P. Galloway, *The International Construction Law Review*, Volume 7, Part 4, October 1990, pp. 386 - 401
- “Evaluating the Contractor’s Right to Finish Early,” co authored with P. Galloway, *Project Management Institute Book of Proceedings*, Calgary, Canada, October 1990
- “Proof Development for Construction Litigation,” co-authored with P. Galloway, *The American Journal for Trial Advocacy*, Volume 7, No. 3, Cumberland School of Law of Samford University, Birmingham, Alabama, Summer 1984, *Yearbook of Construction Articles*, Volume 4, Federal Publications, 1985
- “Calculation of Lost Profits from Lost Business Opportunities,” co authored with J. Galeno, *Transactions of the Eighth International Cost Engineering Congress and 28th Annual Convention of the American Association of Cost Engineers*, Montreal, Quebec, Canada, June 26, 1984
- “Construction Failures: Litigation, Experts and Damages,” *Manual for American Bar Association/American Society of Civil Engineers Conference on Construction Failures: Legal and Engineering Perspectives*, Houston, Texas, October 1983
- “Schedule Control for Professional Construction Management Projects,” 1981
- “Construction Claims,” *American Association of Cost Engineers*, Atlanta Section, September 1978

Conference Presentations

- “New Ways to Build and Manage Projects-Understanding International Claims,” *The Associated Owners and Developers’ 2004 National Conference*, Atlanta, Georgia, September 27, 2004; New York, New York, October 1, 2004; Miami, Florida, December 3, 2004

- “Claims Identification & Management,” Foster Wheeler Law Department Conference, Warren, New Jersey, October 23 - 24, 2001
- “The Essence of Construction Risk,” Minimizing Risks in Construction Projects and Resolving Construction Disputes, Hong Kong, September 28 - 29, 1998
- “Proving Damages-The Techniques of Analysis and Pricing of Damages that Flow from Physical or Performance (Breach) Failures,” co authored with P. Galloway, Seminar on Emerging Risks in Construction: How to Minimize, Manage & Avoid Disputes, New Orleans, Louisiana, May 10 - 12, 1995; Indian Wells, California, October 19 - 21, 1994
- Co-presenter, “Project Risk Management & Reviewing and Analyzing Damages” *Seminar on Managing Risk and Minimizing Disputes in Construction Contracts*, Hilton Head Island, South Carolina, October 6 - 8, 1993
- “Early Completion Claim Analysis and Expert Delay Analysis,” Seminar on Construction Issues Facing the Public Transportation Industry, Sacramento, California, April 28 - 30, 1993
- “Project Risk Management-Achieving Goals and Minimizing Disputes,” *Construction Superconference*, San Francisco, California, December 3 - 4, 1992
- “Construction Economics as a Litigation Proof Tool,” *Conference Manual on Construction Dispute Proofs*, Princeton, New Jersey, September 1982; Lake Buena Vista, Florida, May 1983; Minneapolis, Minnesota and Denver, Colorado, April 1984; Tampa, Florida and Boston, Massachusetts, May 1984; Seattle, Washington, July 1986; New Orleans, Louisiana, April 1988; New Orleans, Louisiana, April 1989; Scottsdale, Arizona, March 1990; New Orleans, Louisiana, May 1990; San Antonio, Texas, April 1991
- “Productivity Analyses as a Proof Tool,” *Conference Manual on Construction Dispute Proofs*, Minneapolis, Minnesota and Denver, Colorado, April 1984; Tampa, Florida and Boston, Massachusetts, May 1984; Seattle, Washington, July, 1986; New Orleans, Louisiana, April 1988; New Orleans, Louisiana, April 1989; Scottsdale, Arizona, March 1990; New Orleans, Louisiana, May 1990; San Antonio, Texas, April 1991
- “Construction Proof Concepts,” *Conference Manual on Construction Disputes Proofs*, Princeton, New Jersey, September 1982; Lake Buena Vista, Florida, May 1983; Minneapolis, Minnesota and Denver, Colorado, April 1984; Tampa, Florida and Boston, Massachusetts, May 1984; Seattle, Washington, July, 1986; New Orleans, Louisiana, April, 1988; New Orleans, Louisiana, April 1989; Scottsdale, Arizona, March 1990; New Orleans, Louisiana, May 1990; San Antonio, Texas, April 1991
- “Construction Proof Concepts,” “Construction Economics,” “Proving Damages,” and “Productivity Delay Damages Case Illustration,” *State of Florida Department of Transportation Construction Disputes Seminar*, Tallahassee, Florida, August 1989
- “Window Analyses: An Innovative Concept to Schedule Delay Analysis,” co-authored with P. Galloway, *Project Management Institute*, Philadelphia, Pennsylvania, October 1984 “Preparing for the Utilities’ Future An ‘Attack Plan’ for Minimizing Disallowable Costs In Outage and Future Capital Construction,” co authored with P. Galloway, American Association of Cost Engineers, 8th Annual Mid Winter Symposium Transactions, New Orleans, Louisiana, February 1986; Project 2, 5th Annual Outage Symposium Proceedings, Cambridge, Massachusetts, May 1986
- Co-presenter, “Calculation of Lost Profits from Lost Business Opportunities,” Eighth International Cost Engineering Congress, Montreal, Quebec, Canada, June 26, 1984
- “Schedule Delay: A Productivity Analysis,” co authored with P. Galloway and J. Leverette, Project Management Institute National Convention Proceedings, Houston, Texas, October 1983
- “Construction Claims Damages Quantification,” *Federal Publications Construction Contract Litigation Seminar*, October 1977
- “Construction Claims Litigation,” *Conference Manual*, MCI Symposia, Inc. Chicago, Illinois, 1976
- “Construction Delay Claim Analysis,” “Life-Cycle Costing,” “Construction Economics,” *Conference Manual on Profitable Construction Cost Estimating in Today’s Economy*, presented in ten cities in 1976

Teaching & Training

- “Trends in the Construction Industry” to the U.S. Law Firm Group Construction Committee, Buffalo, NY, October 23, 2009
- Visiting Professor, Project Management, Harbin University, Harbin, Heilongjing, 2004 - 2005
- Visiting Professor, Department of Infrastructure Systems Engineering, Kochi University of Technology, Kochi, Japan, 2003 - Present
- “Claims Identification & Management,” Foster Wheeler Law Department Conference, Warren, New Jersey, October 23 - 24, 2001
- Co presenter, “Contract Administration, Management Claim Analysis and Project Risk Management,” In-house Training Course, PT, Wijaya Karya, Jakarta, Indonesia, January 23 - 27, 1995
- Co-presenter “Project Manager nei settore delle costruzioni” *SINNEA University*, Bologna, Italy, May 25 - 27, 1994
- “Contract Administration,” Masters Degree Course, SINNEA, Istituto Di Studi Per La Cooperazione E La Piccola E Media Impresa, Bologna, Italy, September 25, 1992
- “Construction Law,” *Iona College Facility Management Program for Minority Contractors*, 1981 and 1980
- Visiting Professor, “Construction Cost Management,” Columbia University, New York, New York, 1978 - 1979
- Visiting Professor, “Cost Management,” Polytechnic University, Brooklyn, New York, 1978-1979
- Four guest lectures annually from 1974 through 1982, “Construction Management and Construction Law,” *Columbia University Graduate School of Architecture*
- Guest Lecturer “Construction Management,” *School of Professional Studies, Pratt Institute*, November 21, 1973

<p style="text-align: center;">KRIS R. NIELSEN <i>Representative Engagement Experience</i></p>		
Industry	Type	Project Name
Power	Nuclear	Levy 1 & 2, Progress Energy Florida, United States (Florida)
Power	Nuclear	Bellefonte Options, TVA, United States (Alabama)
Power	Nuclear	INEEL Spent Nuclear Fuel Storage Project, United States (Idaho)
Power	Nuclear	Kewaunee Nuclear Plant Replacement Steam Generator, United States
Power	Nuclear	Cooper / Lincoln Electric, United States (Iowa)
Power	Nuclear	Salem and Hope Creek Nuclear Power Plants, United States (New Jersey)
Power	Nuclear	Salem Nuclear Power Plant, United States (Pennsylvania)
Power	Nuclear	Texas Utilities Stockholder Litigation, United States (Texas)
Power	Nuclear	Nine Mile Power Plant, United States (New York)
Power	Nuclear	Palo Verde Power Plant, United States (Arizona)
Power	Nuclear	Washington Public Power Nuclear Plant, United States (Washington)
Power	Nuclear	Cooper Nuclear Station, United States (Iowa, Nebraska)
Power	Nuclear	Marble Hill Nuclear Generating Station, Indiana (Madison)
Power	Nuclear	Diablo Canyon Units 1 & 2, United States (California)
Power	Nuclear	Indian Point Nuclear Power Plant Unit 3, United States (New York)
Power	Nuclear	Wolf Creek Nuclear Generating Station, United States (Kansas)
Power	Nuclear	Vogtle Nuclear Generating Station, United States (Georgia)
Power	Nuclear	Vogtle Nuclear 3 & 4, United States (Georgia)
Power	Nuclear	Pilgrim I Nuclear Power Plant, United States (Massachusetts)
Power	Nuclear	Millstone Unit 3, United States (Connecticut)

<p style="text-align: center;">KRIS R. NIELSEN <i>Representative Engagement Experience</i></p>		
Industry	Type	Project Name
Power	Nuclear	Millstone Unit 3, United States (Connecticut)
Power	Nuclear	Palo Verde Audit, United States (Arizona)
Power	Nuclear	Hanford, United states, (Washington)
Power	Nuclear	Perry 1 & 2, United States (Ohio)
Power	Nuclear	Bellefonte, United States (Tennessee)
Power	Nuclear	Turkey point 3 & 4, United States (Florida)
Power	Nuclear	Peach Bottom 1 & 2, United States (Pennsylvania)
Power	Nuclear	Satop 3 & 5, United States (Washington)
Power	Nuclear	Marble Hill, United States (Indiana)
Power	Nuclear	Calvert Cliffs, United States (MD)
Power	Nuclear	Maine Yankee, United States (Maine)
Power	Nuclear	Vermont Yankee, United States (Vermont)
Power	Nuclear	Prairie Island 2, United States (MN)
Power	Nuclear	Belene 1, Bulgaria
Power	Nuclear	UK Nuclear Decommissioning Agency, United Kingdom
Power	Nuclear	Waterford Unit 3, United States (Louisiana)
Power	Nuclear	Seabrook Power Plant, United States (New Hampshire)
Power	Nuclear	Connecticut Yankee Nuclear Plant, United States (Connecticut)
Power	Nuclear	Millstone Point Nuclear Power Plant, United States
Power	Nuclear	South Texas Nuclear Plant, United States (Texas)
Power	Nuclear	Trojan Nuclear Power Plant, United States (Oregon)
Power	Nuclear	Shoreham Nuclear Plant, United States (New York)
Power	Nuclear	Comanche Peak Steam Nuclear Electric Station, Units 1 & 2, United States (Texas)
Power	Nuclear	Comanche Peak Nuclear Power Plant, United States (Texas)

<p style="text-align: center;">KRIS R. NIELSEN <i>Representative Engagement Experience</i></p>		
Industry	Type	Project Name
Power	Nuclear	Pleasant Prairie Nuclear Generating Station Unit 2, United States (Wisconsin)
Power	Nuclear	Clinton Nuclear Generating Station, United States (Illinois)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Duke Energy Indiana Edwardsport IGCC coal plant, United States (Indiana)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Reid Gardener 4, United States, Washington
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Kansas City Light and Power, Iatan 1 & 2, United States (Missouri)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Scherer Fossil Power Plant, United States (Georgia)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Sacramento Municipal Utility District Cogent Plant, United States (California)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Conoco Cogeneration Plant, United States (Texas)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Elsta Cogeneration Power Plant, Terneuzen, The Netherlands
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Newington Energy Combined Cycle Plant, United States
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Osborne Cogeneration Gas-Fired Power Plant, South Australia, (New South Wales)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Rabigh Project Combined Cycle Power Plant, Saudi Arabia
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Ave Fenix Power Plant

<p style="text-align: center;">KRIS R. NIELSEN <i>Representative Engagement Experience</i></p>		
Industry	Type	Project Name
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Omnibus Experts for Covert Power Plant, United States (Michigan)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Princeton University Cogeneration Plant, United States (New Jersey)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Wolf Hollow Plant, United States (Texas)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Northeastern Power Co., Reading Terminal, United States (Pennsylvania)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Dearborn Power Plant, United States (Michigan)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Geothermal Plant, United States (California)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Spurlock I Fossil Power Generating Station, United States (Kentucky)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Red Hills Power Plant, United States (Mississippi)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Paiton Units 7 & 8, Indonesia (Jakarta)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Indiana & Michigan Electric Breed Generating Station, Coal Boilers, Indiana (Sullivan)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Marshall Islands Power Plant Demolition, United States Territory (Marshall Islands)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Paiton Units 1 & 2, Indonesia

KRIS R. NIELSEN <i>Representative Engagement Experience</i>		
Industry	Type	Project Name
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Shawnee Steam Plant, United States (Kentucky)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Consolidated Edison Generating Station, United States (New York)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Jeffrey Energy Center, United States (Kansas)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Cleveland Electric Illuminating Company, United States (Ohio)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Santa Rita Power Plant, Batangas, Philippines
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Sultan Salahuddin Abdul Aziz Power Station
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Fossil Power Generating Plant, United States (Illinois)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Merilectrica Gas Turbine Plant, Colombia
Power	Cogeneration/ Combined Cycle/Fossil Fuel	ISAB Energy S.r.L., Italy (Sicily)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Covert, United States(MI)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Jiangxi, China
Power	Cogeneration/ Combined Cycle/Fossil Fuel	JEA Northside, United States (Florida)

KRIS R. NIELSEN <i>Representative Engagement Experience</i>		
Industry	Type	Project Name
Power	Cogeneration/ Combined Cycle/Fossil Fuel	PP9, Saudi Arabia
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Iatan 1 and 2, United States (Missouri)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Millenium Power, United States (California)
Power	Hydro-Electric	Guri Dam and Hydroelectric Complex, Venezuela
Power	Hydro-Electric	Casecnan Multi-Purpose Project, Philippines
Power	Hydro-Electric	Cirata II, Indonesia
Power	Hydro-Electric	Madeira River Project, Brazil
Power	Hydro-Electric	Bakun Hydroelectric Power Plant, Philippines
Power	Other	Babcock Power, United States (Massachusetts)
Power	Other	First Energy, United States (Ohio)
Power	Other	Illinois Power Company, United States (Illinois)
Power	Other	CGE Ford Heights Power Plant, United States (Illinois)
Infrastructure / Transportation	Roadways	Texas Department of Transportation, United States (Texas)
Infrastructure / Transportation	Roadways	City Link, Australia (Melbourne)
Infrastructure / Transportation	Roadways	Texas Department Of Transportation Group 5 Matter, United States (Texas)
Infrastructure / Transportation	Roadways	State Highway U.S. 290 Travis County, United States (Texas)
Infrastructure / Transportation	Roadways	Houston Ship Channel Cable-Stayed Bridge, United States (Texas)
Infrastructure / Transportation	Roadways	Vancouver Island Highway, Canada
Infrastructure / Transportation	Roadways	Interstate 94, United States (Minnesota)

KRIS R. NIELSEN <i>Representative Engagement Experience</i>		
Industry	Type	Project Name
Infrastructure / Transportation	Roadways	U.S. Route 385, Brewster County, United States (Texas)
Infrastructure / Transportation	Roadways	Duluth Freeway / Lief Erikson Tunnel, United States (Minnesota)
Infrastructure / Transportation	Roadways	State Route 705 Connector (21st Street to Schuster Parkway), United States (Washington)
Infrastructure / Transportation	Bridges	Transcanada Highway Lions Gate Bridge
Infrastructure / Transportation	Bridges	Nairn Avenue Overpass Project, Canada (Manitoba)
Infrastructure / Transportation	Bridges	Baytown Bridge, United States (Texas)
Infrastructure / Transportation	Bridges	Interstate Highway Bridges, United States (Gary, Indiana)
Infrastructure / Transportation	Airports	Pan Am Maintenance Facility, United States (New York)
Infrastructure / Transportation	Airports	International Terminal, Detroit Metropolitan Airport, United States (Michigan)
Infrastructure / Transportation	Airports	KL International Airport, Malaysia (Selangor)
Infrastructure / Transportation	Telecommunication	Williams-Northern Line Layers, United States (Boston)
Infrastructure / Transportation	Telecommunication	Broadwing-El Paso Global Network, Inc., United States (Texas, Arizona, New Mexico, Nevada, California)
Infrastructure / Transportation	Telecommunication	Williams-Thoroughbred Telecommunication Technology, United States (Illinois, Indiana, Ohio, Pennsylvania, West Virginia, Virginia, Tennessee, Georgia)
Infrastructure / Transportation	Telecommunication	Williams-Weissker, United States (California)
Infrastructure / Transportation	Telecommunication	AT&T Broadband, United States (Illinois, Missouri, Michigan)
Infrastructure / Transportation	Rail	Toronto Transit Commission Subway Line Expansion, Canada (Toronto)

<p style="text-align: center;">KRIS R. NIELSEN <i>Representative Engagement Experience</i></p>		
Industry	Type	Project Name
Infrastructure / Transportation	Rail	Rohr Transit Cars, United States (Washington, D.C.)
Infrastructure / Transportation	Rail	Federal Center; SW Station; Smithsonian Station; Capitol South, United States (Washington, D.C.)
Infrastructure / Transportation	Rail	United Group Rail-Citadis & X'trapolis, Australia (Melbourne)
Infrastructure / Transportation	Rail	Tri-Rail Segment 5-Double Tracking Project, United States (Florida)
Infrastructure / Transportation	Rail	Regional Fast Rail Project (RFRP), Australia (Victoria)
Infrastructure / Transportation	Rail	Spencer Street Station Redevelopment Project, Australia (Melbourne)
Infrastructure / Transportation	Rail	Parramatta Rail Link Project for the Director General of the New South Wales Department of Transport, Australia (New South Wales)
Infrastructure / Transportation	Rail	SEPTA Rail Car Refurbishment, United States (Pennsylvania)
Infrastructure / Transportation	Rail	Northeast Highspeed Rail Improvement Program: Dispute Resolution Board Agreement, United States (New York)
Infrastructure / Transportation	Rail	Shaw Metro Station, United States (Washington)
Infrastructure / Transportation	Rail	Stamford Railroad Station Stamford, United States (Connecticut)
Infrastructure / Transportation	Rail	Port of Houston Authority, United States (Texas)
Infrastructure / Transportation	Rail	London Cross Rails, United Kingdom
Infrastructure / Transportation	Seaport	Seattle Public Utilities (SPU) and SeaTran Management Audit, Seattle (City Of Seattle Transportation Audit), United States (Washington)
Infrastructure / Transportation	Seaport	Panama Canal Transfer Station, Panama
Infrastructure / Transportation	Seaport	Port of Seattle, United States (Washington)

KRIS R. NIELSEN <i>Representative Engagement Experience</i>		
Industry	Type	Project Name
Infrastructure / Transportation	Seaport	Lahad Datu Port Expansion, Malaysia
Infrastructure / Transportation	Seaport	Riofil / Manila South Harbor Pier 5 Extension, Philippines
Infrastructure / Transportation	Wastewater Treatment Plant	Milwaukee Water Pollution Abatement Program, United States (Wisconsin)
Infrastructure / Transportation	Wastewater Treatment Plant	West End Water Pollution Plant, Canada (Manitoba)
Infrastructure / Transportation	Wastewater Treatment Plant	Babylon Solid Waste Recovery Plant
Infrastructure / Transportation	Wastewater Treatment Plant	Rockland County Sewer District Treatment Plant, United States (New York)
Infrastructure / Transportation	Wastewater Treatment Plant	Bergen Point Wastewater Treatment Plant Outfall, United States (New York)
Infrastructure / Transportation	Other	Lief Erikson Tunnel, United States (Minnesota)
Infrastructure / Transportation	Other	Venice Lagoon Project, Italy
Industrial / Process	Chemical / Petrochemical	PETROVIETNAM Phu My Fertilizer Project, Vietnam
Industrial / Process	Chemical / Petrochemical	PET Production Plants, Holland (Rotterdam); Spain (San Roque); Argentina (Buenos Aires)
Industrial / Process	Chemical / Petrochemical	Vitamin C Manufacturing Plant, United States (New Jersey)
Industrial / Process	Chemical / Petrochemical	Cevolution Carbon Fiber Plant, United States (Oklahoma)
Industrial / Process	Industrial Process/Power	ISAB Energy S.r.l. Integrated Gasification Combined Cycle Power Plant, Italy (Sicily)
Industrial / Process	Industrial Plants	Sperry Micro-Chip Manufacturing & Research Facility, United States (Minnesota)
Industrial / Process	Industrial Plants	GM Cadillac Assembly Plant, United States (New Jersey)
Industrial / Process	Industrial Plants	Caterpillar Assembly Plant, United States (Illinois)

KRIS R. NIELSEN <i>Representative Engagement Experience</i>		
Industry	Type	Project Name
Industrial / Process	Pharmaceutical	Vitamin B Manufacturing Plant, United States (New Jersey)
Industrial / Process	Pharmaceutical	Bulk Pharmaceutical Plant, Singapore
Industrial / Process	Pharmaceutical	Merck Bulk Pharmaceutical Plant, United States (New Jersey)
Industrial / Process	Oil / Gas	Minerva Gas Project
Industrial / Process	Oil / Gas	Combisa Cantarell EPC 22 Contract Claim Effort-Phase I, United States (Texas)
Industrial / Process	Oil / Gas	Lama NGL Project, Venezuela (Maracaibo)
Industrial / Process	Oil / Gas	Oman LNG Project, Oman
Industrial / Process	Oil / Gas	Altona Refinery Expansion, Australia (Melbourne)
Industrial / Process	Oil / Gas	INCO 92 Project, Gas Recompression Plants, Venezuela
Industrial / Process	Pipelines	GASYRG Pipeline (Willbros), Bolivia
Industrial / Process	Pipelines	Bombax Pipeline Project, Caribbean (Trinidad & Tobago)
Industrial / Process	Pipelines	HBJ Gas Pipeline, India
Industrial / Process	Iron / Steel Manufacturing	NKK Steel Continuous Galvanizing Project, United States (Pennsylvania)
Industrial / Process	Iron / Steel Manufacturing	Steel XX ROC Project, United States (Pennsylvania)
Industrial / Process	Iron / Steel Manufacturing	Murrin Murrin Nickel-Cobalt Refinery, Western Australia
Industrial / Process	Chemical	Urea & Phosphate Fertilizer Facility, United States (Ohio)
Buildings	Educational Facilities	Rutgers University Records Center, United States (New York)
Buildings	Educational Facilities	School District, College Stations, United States (Texas)
Buildings	Educational Facilities	Princeton University, United States (New Jersey)
Buildings	Educational Facilities	Plainsboro Middle School, United States (New Jersey)

KRIS R. NIELSEN <i>Representative Engagement Experience</i>		
Industry	Type	Project Name
Buildings	Resorts / Casinos / Hotels	Ritz Hotel & Casino, United States (New Jersey)
Buildings	Resorts / Casinos / Hotels	Phoenician Hotel and Resort, (United States) Arizona
Buildings	Resorts / Casinos / Hotels	Westin Hotel El Paso, United States (Texas)
Buildings	Resorts / Casinos / Hotels	Seasons On Mount Snow Resort, United States (Vermont)
Buildings	Resorts / Casinos / Hotels	Intercontinental Hotel, United States (Texas)
Buildings	Resorts / Casinos / Hotels	Hyatt Regency Hotel, United States (Missouri)
Buildings	Resorts / Casinos / Hotels	Maxwell's Plum Restaurant, United States (New York)
Buildings	Apartments / Condominiums / Housing	645 First Avenue, United States (New Jersey)
Buildings	Centers /Arenas	State of Washington Col Gym, United States (Washington)
Buildings	Centers /Arenas	City of Ketchikan Civic Center, United States (Alaska)
Buildings	Centers /Arenas	San Diego Convention Center, United States (Washington)
Buildings	Centers /Arenas	Washington State Convention Center, United States (Washington)
Buildings	Centers /Arenas	United States Army Youth Activity Center, United States (Alaska)
Buildings	Centers /Arenas	Worcester Civic Center (Centrum), United States (Massachusetts)
Buildings	Stadiums	Yankee Stadium Third Tier and Related Expansion, United States (New York)
Buildings	Stadiums	Fresno Multipurpose Stadium (Grizzlies Stadium), United States (California)
Buildings	Stadiums	Kingdome Stadium, United States (Washington)

<i>KRIS R. NIELSEN</i> <i>Representative Engagement Experience</i>		
Industry	Type	Project Name
Buildings	Stadiums	Asphalt Green Sports Center, United States (New York)
Buildings	Medical / Hospitals	Alameda County Medical Center / Highland General Hospital, United States (California)
Buildings	Medical / Hospitals	University of Medicine and Dentistry, United States (New Jersey)
Buildings	Medical / Hospitals	Veterans Administration Hospital, United States (New Hampshire)
Buildings	Medical / Hospitals	Alameda-Mortenson Analysis, United States (California)
Buildings	Medical / Hospitals	City of Ketchikan Hospital, United States (Alaska)
Buildings	Medical / Hospitals	Colombo General Hospital, Sri Lanka (Colombo)
Buildings	Medical / Hospitals	University Medical Center, United States (Louisiana)
Buildings	Offices	One Summit Square Office Building, United States (Indiana)
Buildings	Offices	Xerox World Headquarters, United States (New York)
Buildings	Offices	McConnell Securities Headquarters, United States (New York)
Buildings	Offices	Foreign Building Operations Overseas Handbook, United States (Washington)
Buildings	Offices	Seattle City Projects, United States (Washington)
Buildings	Offices	277 Park Avenue, United States (New York)
Buildings	Offices	United States Navy Mess Hall Galley, United States (Washington)
Buildings	Offices	United States GSA Federal Office Building Renovations, United States (Washington)
Buildings	Offices	Whatcom City Courthouse Addition Phase II, United States (Washington)
Buildings	Offices	Globe Plaza Office Building, United States (Washington)
Buildings	Offices	Andover Parkway Office Building, United States (Washington)
Buildings	Offices	IBM Office Complex, United States (New York)
Buildings	Offices	Trident Training Facility, United States (Washington)

<i>KRIS R. NIELSEN</i> <i>Representative Engagement Experience</i>		
Industry	Type	Project Name
Buildings	Offices	American Standard Office Building, United States (Oklahoma)
Buildings	Offices	Pitney Bowes Building, United States (Connecticut)
Buildings	Offices	Consolidated Edison Operation Center, United States (New York)
Buildings	Offices	General Services Administration, United States (New York)
Buildings	Offices	Post Office and Federal Building, Waycross, United States (Georgia)
Buildings	Offices	National Bank of Commerce, United States (Nebraska)
Buildings	Offices	Engineering & Administration Complex, United States (New York)
Buildings	Offices	Seagram Office / Research Complex, United States (New York)
Buildings	Offices	Olefins Terminal Storage Complex
Buildings	Distribution / Storage / Warehouse	TRW Record Storage Complex, United States (New Jersey)
Buildings	Distribution / Storage / Warehouse	New Jersey State Food Distribution Center, United States (New Jersey)
Buildings	Distribution / Storage / Warehouse	New Jersey Record Storage Center, United States (New Jersey)
Buildings	Laboratory	Ta-35 Los Alamos National Laboratory, United States (New Mexico)
Buildings	Laboratory	Mounds Laboratory U.S. Department of Energy, United States (Ohio)
Buildings	Other	Hull Winery, United States (New York)
Buildings	Other	INEC-TSA Building Claim, United States (Idaho)
Buildings	Other	FedEx Hangar and Aircraft Maintenance Facility, Ted Stevens International Airport, United States (Alaska)
Buildings	Other	Mirror Fusion Test Facility, United States (California)
Buildings	Other	Great Adventure, United States (New Jersey)
Buildings	Other	New York Maritime Museum, United States (New York)

<i>KRIS R. NIELSEN</i> <i>Representative Engagement Experience</i>		
Industry	Type	Project Name
Environmental	Other	Foster Wheeler Asbestos Litigation, United States (New Jersey)
Environmental	Other	United States Navy Hazardous Flammable Warehouse, United States (Washington)
Environmental	Other	Transuranic Storage Area Retrieval Enclosure, United States (Idaho)
Other	Seminar / Training	Risk Management and Dispute Awareness Workshop, United States (Texas)
Other	Seminar / Training	University of Wisconsin-Madison Seminar, United States (Wisconsin)
Other	Seminar / Training	Identifying, Minimizing and Quantifying Project Risk, United Kingdom (London)
Other	Seminar / Training	Sinnea University Masters Course, Italy
Other	Seminar / Training	Project Risk Management Seminar: Panama Canal
Other	Seminar / Training	Partnering Seminar, United States (Kentucky)
Other	Seminar / Training	Office of Foreign Buildings Operations Handbook, United States (Washington)
Other	Seminar / Training	Claims Management Support; AKA: Fluor Daniel Corporate Claims Management, United States (California)
Other	Other	Professional Service Agreement Projects for Taisei Corporation
Other	Other	Japan Bank for International Cooperation, Japan
Other	Other	Shell Construction Law Workshop, United Kingdom (London)
Other	Other	Japan Ministry of Land, Infrastructure and Transport, Analysis of U.S. Public Construction Contracting Practice
Other	Other	Foster Wheeler Risk Management Outsourcing



JACK L. DIGNUM M.A., CFCC

Senior Vice President and Chief Operating Officer

Areas of Expertise

- Management Consulting
- Corporate Governance
- Risk Management
- Risk Assessment
- Entitlement
- Prudence / Performance Analysis and Audits
- Project / Program Management
- Industry Best Practices
- Change Management
- Project Delivery and Constructing Methodologies
- Compliance Review / Audits
- Standard of Care
- Project Controls
- Damages Calculation
- Claims Prevention
- Claims Negotiation
- Disruption / Productivity
- Instruction and Training

Professional Experience

Mr. Dignum is a Senior Vice President, and the Chief Operating Officer of Pegasus Global Holdings, Inc.® With extensive experience in project management and controls, project risk management and contract disputes, Mr. Dignum is fully involved in all aspects of the firm's management consulting and services. Having held senior positions with both owner and contractor organizations in private and public environments, he is fully knowledgeable and experienced with the roles and tasks needed to ensure successful completion of complex projects throughout the power, process, infrastructure, transportation, and building industries.

With over 35 years of experience, Mr. Dignum's experience includes: strategic advice to senior management and boards in the energy and infrastructure industries; formal management compliance reviews and audits; contract formation, negotiation and compliance; project management system design and development; project control system development, implementation and use; and organization of project management teams and structures. He has performed project prudence and performance audits, progress assessments, change management and control reviews and assessments, and has consulted on critical issues and Lessons Learned. He has led project management teams, including: project management and controls formation, implementation and results assessment, and analysis of schedule, delay and cost impacts. Mr. Dignum has developed extensive project management training programs for a variety of audiences (owners, contractors, engineers and constructors) in private, multinational corporations as well as local, state and federal government agencies.

Mr. Dignum's risk management experience includes the design, development and implementation of a project risk management programs for large, international EPC contractors; development of several risk management techniques, tools and systems addressing risk identification, quantification, avoidance and mitigation plans; risk element integration into standard project control tools; and project specific risk profiling. He has led risk management teams in projects in North America, Australia, Europe, Asia and South America for both owner and contractor clients ranging in value from \$500,000 to over \$12 billion. Mr. Dignum has taught numerous training courses in every aspect of risk management in the construction industry.

Mr. Dignum has significant global experience with megaprojects and has been a member of and led teams on engagements such as Iatan Units 1 & 2 super-critical pulverized coal-fired plants, Missouri, North America; Edwardsport IGCC coal plant, Indiana, North America; City of Winnipeg, Canada, Capital Improvement Program; DeKalb County School District School Program, Georgia, North America; Crossrail Project, London,

United Kingdom; Consortium Contractor, Marine Facility, Europe; Washington Public Power Supply Nuclear Plant, Washington, North America; Comanche Peak Steam Nuclear Electric Station Units 1 and 2, Texas, North America; Parramatta Rail Link Project, New South Wales, Australia and Zimmer Nuclear Power station Ohio, North America.

Prior to joining Pegasus-Global, Mr. Dignum was Senior Vice President, the Chief Quality Officer and a Principal of The Nielsen-Wurster Group, Inc. (“Nielsen-Wurster”) where in the Dispute Resolution Division, he led and participated in myriad dispute resolution engagements, with claims ranging from \$50,000 (differing site condition issues under mediation) to \$1.5 billion (federal court litigation on a nuclear power plant). As an Engagement Director, Mr. Dignum oversaw Dispute Resolution analyses and evaluations performed by Nielsen-Wurster’s interdisciplinary teams. He has worked on a wide range of issues involving management standard of care, schedule delay, disruption, change orders, productivity and inefficiency, acceleration, early completion, causation / responsibility, measured mile, damage calculations, cumulative impact, termination and fraud. As a specialist in project management standards of care, project controls, contract formation, causation and damages, he also served as an active project team member. Mr. Dignum has prepared expert witness reports for international arbitrations (AAA, ICC, and SIAC) on claims involving breach of contract, project management standards, contract formation, scheduling, cost controls, labor productivity and other issues.

Prior to joining Nielsen-Wurster, Mr. Dignum served as Senior Contracts Director of the Americas at Kvaerner E&C, a major multinational engineering, procurement and construction (EPC) firm, where he directed, designed, implemented and presented Kvaerner’s E&C Risk Awareness Initiative to project management personnel. He was responsible for resolving and managing international claims and disputes, including the analysis of dispute and claim positions and the engagement of legal and expert assistance. Mr. Dignum also held previous positions of Manager of Subcontracting and Project Controls Manager while at Kvaerner, and as Project Manager and Contracting Manager at private construction claims consulting firms. Mr. Dignum was Division Chief for a Federal Health and Human Resources regional grant-in-aid program, where he was responsible for operations, management and supervision of division staff; consultation with state government divisions and officials on program initiation and operations; fiscal management and oversight of federal funding; project planning and operations; drafting and enforcement of federal regulations; and consultation on federal program legislation.

Mr. Dignum has rendered his expertise both in the public as well as private sectors. His experiences include working as a Project Manager for the State of Colorado and as Division Chief, US Department of Health, Education and Welfare, Region VII, Denver, Colorado. Mr. Dignum has managed all AOA Title 3 programs in six state regions. He has conducted program and performance audits as required by federal legislation. He has shown his expertise in Development Program Planning and Management System and trained state personnel in use and implementation of that system. Mr. Dignum also taught two summer seminars at the University of Southern California in Project Planning, Management and Evaluation. He has participated in redrafting of the enabling act in 1978 in Washington, D.C.

Registrations / Certifications

- Certified Forensic Claims Consultant (CFCC)
- Certificate of Director Education, NACD

For Profit Boards

- Pegasus Global Holdings, Inc. Board Member, 2004 - Present
- The Nielsen-Wurster Group, Inc., Board Member, 2004 - 2008

Education and Courses

Education

- M.A., Public Administration and Gerontology, North Texas State University, Denton, Texas
- B.A., Industrial Psychology, University of Oklahoma, Norman, Oklahoma

Courses

- ADR & Tribal Contract Disputes Symposium, Seattle University School of Law
- Expert Witness Development Series, Communications Corporation of America, Seattle, Washington
- Kvaerner E&C Leadership Development Program, Jones Graduate School, Rice University, Houston, Texas
- Small Unit Command and Control, US Army, Non-Commissioned Officers School, Fort Bragg, North Carolina

Memberships

- Construction Management Association of America (CMAA)
- Association for the Advancement of Cost Engineering International (AACCI)
- Construction Industry Institute, 2008 - 2010
- Design Build Institute of America (Pacific Northwest Chapter), 2002 – Present
- National Association of Corporate Directors, 2007 - Present
- Project Management Institute, 2000 - Present
- Inter-Pacific Bar Association, 2001 - 2007

Authored Books

- Dignum, Jack L., Galloway, Patricia D., Nielsen, Kris R., *Managing Gigaprojects-From Those Who Have Been There, Done That*, ASCE Press, Reston, VA American Society of Civil Engineers, scheduled for publication release September, 2012

Technical Papers and Presentations

Mr. Dignum has published and presented numerous technical papers and articles on construction management, engineering management, contract administration, project controls, scheduling, change management and other topics.

Management and Strategic Issues

Invited, Keynote and Feature Presentation

- “Leadership and Risks during a Global Financial Crisis,” co-authored with K. Nielsen and P. Galloway, *The Fifth Civil Engineering Conference in the Asian Region (CECAR5)*, Sidney Australia, August 9-11, 2010

Conference Presentations/ Teaching/ Instruction

- “Fukushima and its Implications in the World’s Nuclear Industry,” Hands On Relay School Conference, Pullman, Washington, March 16, 2012
- Life Support, Fall, 2010 Retreat Presentation to Board of Trustees, Cle Elum, Washington, September 7, 2010
- Life Support, Fall, 2009 Retreat Presentation to Board of Trustees, Cle Elum, Washington, October 24, 2009
- “Mega Projects – A Primer for Finance (or How Can Finance Help Improve Results)” Nexen Finance Family Forum Scottsdale, AZ – Co-presentation with Dr. Patricia Galloway, February 19, 2008
- “Engagement Manager Program,” The Nielsen-Wurster Group Corporate Program, 2005 - 2006

- “Engagement Quality Control,” The Nielsen-Wurster Group Corporate Program, 2005 – 2006
- Moderator, “Project Management into the New Century,” The Public Construction SuperConference, San Francisco, California, December 7, 2000

Management Audits (Prudence, Compliance and Performance)

Publications

- “Governance, Ethics and Compliance in the New Global Economy,” *Solutions*, December 2009

Program and Project Risk Management

Invited, Keynote and Featured Presentations

- “Zone Defense is Not for the Pros: Risk Management System Integration in Project Management Processes,” Project Management Institute, Clear Lake / Galveston Chapter Meeting, June 26, 2003
- “Risk Management Dynamics in Today’s Nuclear Project Environment,” American Nuclear Society National Meeting, San Diego, California, June 5, 2003

Publications

- “Risk by the Numbers,” con-contributed with P.Galloway, *PM Network*, Project Management Institute, March 2012, Volume 26, Number 3
- “Zone Defense is Not for the Pros: Risk Management System Integration in Project Management Processes,” Project Management Institute, Clear Lake / Galveston Chapter Meeting, Galveston, Texas, June 26, 2003,
- “Trends in Tunnel Contracting and Execution Risks, A Light Moving Toward You,” co-authored with H. Dorbin, North American Tunneling 2002, Seattle, Washington, May 18 - 22, 2002
- “Basic Project Execution Risk Management,” co-authored with P. Galloway, North American Tunneling 2002, Seattle, Washington, May 18 - 22, 2002
- “Add a Risk Profile to Your Tool Belt,” *Seattle Daily Journal of Commerce*, Seattle, Washington, March 29, 2001
- “How Owners Look at Construction Risk,” *Seattle Daily Journal of Commerce*, Seattle, Washington, March 29, 2001
- “Contractors: Remember the Golden Rule of Risk,” *Seattle Daily Journal of Commerce*, Seattle, Washington, March 29, 2001

Conference Presentations

- “Managing Risk in Project Execution: It Doesn’t End with the Plan,” The “Owner’s” International Construction Super Conference, London, United Kingdom, May 17 - 18, 2004
- “Reducing Project Risk Performance in Transportation Projects,” The Second Global Project Super Conference, London, United Kingdom, May 15 and 16, 2003
- Co-Presenter, “Multinational Power Projects-A New Look at Risks, Removing Barriers, and Limiting Disputes,” Developing, Constructing, Operating and Securing Energy Power Projects, San Francisco, California, April 17, 2002
- Moderator, “Risk Management Techniques Which Public Owners Must Employ,” The Public Construction Super Conference, San Francisco, California, December 13, 2001
- “Basic Risk Management and Risk Profile Development,” Pacific Northwest Intergovernmental Audit Forum Annual Conference (PNIAF), Portland, Oregon, October 25, 2000

Dispute Resolution

Conference Presentations

JACK L. DIGNUM

- “New Ways to Build and Manage Project-Understanding International Claims,” co-authored with K. Nielsen, The Associated Owners and Developers’ 2004 National Conference, Atlanta, Georgia, September 27, 2004; New York, New York, October 1, 2004; Miami, Florida, December 3, 2004
- Co-Presenter, “Multinational Power Projects-A New Look at Risks, Removing Barriers, and Limiting Disputes,” Developing, Constructing, Operating and Securing Energy Power Projects, San Francisco, California, April 17, 2002

<p style="text-align: center;"><i>Jack L. Dignum</i> <i>Representative Engagement Experience</i></p>		
Industry	Type	Project Name
Power	Nuclear	Bellefonte Options, TVA, United States (Alabama)
Power	Nuclear	Levy 1 & 2, Progress Energy Florida, United States (Florida)
Power	Nuclear	Vogtle 3 & 4, United States (Georgia)
Power	Nuclear	Zimmer Nuclear Power Plant, Moscow, United States (Ohio)
Power	Nuclear	Comanche Peak Nuclear Power Station, United States (Ohio)
Power	Nuclear	Washington Public Power Supply System, United States (Texas)
Power	Nuclear	Hanford Nuclear Station, United States, (Washington)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Duke Energy Indiana Edwardsport IGCC coal plant, United States (Indiana)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Kansas City Power and Light (KCP&L) Iatan Unit 1 and Unit 2, United States (Missouri)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Antelope Valley Power Station, United States (Colorado)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Delayed Coker Plant, Venezuela
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Laramie River Power Station, United States (Wyoming)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Rabigh Power Station Engineering and Construction, Saudi Arabia.
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Sacramento Municipal Utility District Power, United States, (California)

<p style="text-align: center;"><i>Jack L. Dignum</i> <i>Representative Engagement Experience</i></p>		
Industry	Type	Project Name
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Combined Cycle Peaking Station, United States, (California)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Paiton Units 7&8, Indonesia (Jakarta)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Dearborn Power Plant, United States (Michigan)
Power	Cogeneration/ Combined Cycle/Fossil Fuel	Scherer Fossil Power Plant, United States (Georgia)
Power	Hydroelectric	Dam and Hydroelectric Power Plant, Brazil.
Infrastructure / Transportation	Roadways	Sunshine State Skyway Bridge Replacement, United States (Florida)
Infrastructure / Transportation	Roadways	Kansas Department of Transportation, United States (Kansas)
Infrastructure / Transportation	Airports	Sea-Tac International Airport (Port of Seattle), United States (Washington)
Infrastructure / Transportation	Airports	O'Hare International Airport, Chicago, United States (Illinois)
Infrastructure / Transportation	Seaport	Seaport Facility, United States (Washington)
Infrastructure / Transportation	Rail	London Crossrail Project, United Kingdom. (London)
Infrastructure / Transportation	Rail	Paramatta Rail Link, Australia (New South Wales).
Infrastructure / Transportation	Rail	Road, Rail, Air and Port Projects, United States.
Infrastructure / Transportation	Other	Japan Ministry of Land, Infrastructure and Transport, Japan.
Infrastructure / Transportation	Other	Evaluation of State Contracting Methods, United States (Washington).
Infrastructure / Transportation	Other	Chicago Transit Bus Contract, United States (Illinois)

<p style="text-align: center;"><i>Jack L. Dignum</i> <i>Representative Engagement Experience</i></p>		
Industry	Type	Project Name
Infrastructure / Transportation	Other	City of Winnipeg, Audit of Project Management Practices, Canada (Winnipeg).
Infrastructure / Transportation	Other	Fiber Optic Cable Upgrade, United States
Infrastructure / Transportation	Other	Fish Barrier Project (FBP) United States (Washington)
Industrial / Process	Oil / Gas	Nations Petroleum Steam – Flood Project, United States (California)
Industrial / Process	Oil / Gas	Kharg Island Oil Transfer Facility, International
Industrial / Process	Oil / Gas	Oil and Gas Facilities, International
Industrial / Process	Chemical / Petrochemical	Ethanol Plant, United States (Nebraska)
Industrial / Process	Chemical / Petrochemical	FMC Baltimore Sulfentrazone Plant, United States (Maryland)
Industrial / Process	Chemical / Petrochemical	FMC Fertilizer Plant, United States (Maryland)
Industrial / Process	Chemical / Petrochemical	Merck Pharmaceutical Plants, United States (New Jersey, Georgia)
Industrial / Process	Other	Schering-Plough Bulk Pharmaceutical Plant, Singapore
Industrial / Process	Other	Agricultural Derivatives Plants, United States (Maryland)
Buildings	Schools	DeKalb County School District School Program, United States (Georgia)
Buildings	Resorts / Casinos / Hotels	Resort and Casino, Las Vegas, United States (Nevada)
Buildings	Resorts / Casinos / Hotels	MGM Grand Fire Restoration, United States (Nevada)
Buildings	Other	Asbestos Litigation, United States
Buildings	Libraries	Harold Washington Library, United States (Illinois)
Other	Corporate Governance	International Engineering & Construction Firm, Audit of Practices and Program Development, United States, Finland, United Kingdom, Italy, Spain.
Other	Corporate Governance	Kvaerner Engineering and Construction, United States, Netherlands, United Kingdom, France.

<i>Jack L. Dignum</i> <i>Representative Engagement Experience</i>		
Industry	Type	Project Name
Other	Other	City of Winnipeg Capital Improvement Program, Canada
Other	Other	California Public Utility Litigation, United States
Other	Other	Risk Management Program Development, Corporate Global



DANA S. HUNTER

Specialist Consultant

Areas of Expertise

- International Contracting and Management
- Management Consulting
- Risk Management
- Risk Assessments and Audits
- Change Management
- Project / Program Management
- Project Delivery and Constructing
- Procurement Management
- Contract Administration
- Project Control Systems
- Operations Management
- Design Build Management
- Claim Analysis / Negotiation
- Claim Prevention
- Strategic Planning
- Federal Acquisition Regulations (FAR)

Background

Dana Hunter is a Pegasus Global Holdings Inc. Specialist Consultant with over 34 years of experience in the construction industry and more than 25 years of experience in estimating and Project Management in commercial projects, and currently holds the position of Design-Build Manager and Chief Estimator for Weldin Construction. He is experienced in all forms of estimating which includes conceptual, hard bid, design-build with a detailed background and understanding in all disciplines of the construction industry from architectural, civil, structural, mechanical and electrical. He is instrumental in the coordination of the design efforts and preparations of the cost proposals, negotiations, value engineering to achieve contract award. Upon award he is responsible of the design advancement to insure and control the design, mitigating scope and cost slippage, and manage the project until hand-off to the construction team for construction. As an estimator he is tasked with detailed scope analysis, quantity take-off and bid review / analysis for projects in excess of \$70 million.

He maintains a diverse experience base of project management in government, public works and private sector projects ranging from extensive civil and infrastructure work, structural, heavy industrial, commercial buildings, LEED's, Building Information Modeling (BIM), environmental and hazardous remediation. He provides technical input and support for engagements involving projects in the power, process infrastructure, transportation and building industry sectors. Mr. Hunter has held diverse positions such as Building Inspector, Contractor Quality Control, Estimator, Project Manager, Superintendent and Project Engineer with tasks that included site inspection, design, project close-out, pre-design work, value engineering, change order scope / pricing and negotiations, change management, Value Engineering / Management and construction management, analyzing claims, claim support, cost analysis and design analysis. Mr. Hunter performed claim analysis involving delay, disruption, acceleration, productivity and inefficiency analyses.

In addition to the analyses with management consulting, risk management and strategic advisory services Mr. Hunter has participated in the analysis of productivity, schedule delay, constructability reviews, project management, causation and responsibility, and other issues. Utilizing the Window Analysis and Measured Mile methodologies, he has performed document review and analysis in relation to claim analysis and prevention. Mr. Hunter's experience includes projects of various type, scope and claim size.

Dana S. Hunter

Prior to joining Pegasus-Global as a specialist consultant Mr. Hunter worked for The Nielsen-Wurster Group Inc. as a senior consultant. He also worked for various General Construction Firms within Puget Sound Region of Washington. Here he estimated, managed and provided construction management services for a wide range of building types, including commercial, educational and correctional, heavy civil, heavy industrial, airport facilities, marine support facilities, hazmat remediation and infrastructure projects. In the various positions he has held over the years, he maintains a high aptitude for the various electrical and mechanical systems. His civil estimating experience is extensive and has included highway construction, underground joint utility trench estimating, structures, port construction and drainage structures. Relative to his knowledge base for the various electrical systems, experience includes high voltage primary services; generation systems; low voltage systems; communication and data systems; fire alarm and interlock systems, and intrusions detection / security systems. Extensive understanding of mechanical systems which includes heating, both air and boiler systems; supply and return ventilation; air conditioning systems both direct and closed loop cold water systems; Direct Digital Control systems and fire alarm integration. While working on the local military bases, his involvement with the interface of the various electrical, mechanical (HVAC), fire alarm and security systems with the base EMCS system to allow remote monitoring and control of the building systems.

Mr. Hunter is proficient in the use of software programs: Primavera 3.0 and 6.2, Sure Trak 3.0, Microsoft Project, Timberline Estimating, WinEst – Estimating, Heavy-bid Estimating, Progen Estimating, 4-Clicks Estimating, Microsoft Office Suite, Micro Stations 8.0 and Auto CADD 06. He has held senior positions in the estimating, construction management, quality controls, and project management arena for the following companies:

- White Mountain Construction – Senior Design Manager / Chief Estimator
- Weldin Construction, Inc. – Senior Project Manager / Chief Estimator
- The Nielsen-Wurster Group Inc. – Senior Consultant
- Denali Group, Inc. – Construction Management
- TKTM Corporation / Garco Construction – Construction Manager / Superintendent / Estimator
- Kato Construction, Inc. – Chief Estimator
- Pease Construction, Inc. – Project Manager / Estimator / Quality Control Manager
- Bodenhamer Construction, Inc. – Estimator / Project Manager
- Hartford Contracting, Inc. – Superintendent, Quality Control Manager, Project Manager
- Pacific Components / Marpac Construction – Estimator / Project Engineer / Project Manager / Quality Control Manager

Education and Courses

Education

- A.A., Construction Management, Edmonds Community College
- M.F.A., Journalism / Public Communication, University of Alaska, Anchorage

Training and Certifications

Multiple Certifications and Training in Contractor Quality Control, Safety, Safety Awareness, Lead Based Paint Awareness and Asbestos Abatement

Memberships

- Association for the Advancement of Cost Engineering (AACE) International
- Associated General Contractors (AGC)

Dana S. Hunter

- Project Management Institute (PMI)

Technical Papers and Presentations

Dana Hunter has authored a paper on “Better Project Control by Tracking Production in Schedules”

DANA S. HUNTER							
<i>Representative Engagement Experience</i>							
DR:	Dispute Resolution	RM:	Risk Management	MC:	Management Consulting		
Other:	Estimating , Project Management , Engineering Design, Construction Supervision						
Industry	Type	Project Name	DR	RM	MC	Other	
Infrastructure / Transportation	Fuel Systems	FTR 269A Brigade Complex Phase 1 Fueling Facility Ft. Richardson, Alaska					•
Infrastructure / Transportation	Rail	Sound Transit, United States (Washington)	•				
Infrastructure / Transportation	Rail	Southeastern Pennsylvania Transportation Authority (SEPTA), United States (Pennsylvania)		•			
Infrastructure / Transportation	Rail	Cross London Rail Link United Kingdom (London)		•			
Infrastructure / Transportation	Airport	Central terminal expansion Project – Sea Tac Airport, United States (Washington)	•				
Infrastructure / Transportation	Telecommunication	Telephone System, United States (Washington)					•
Infrastructure / Transportation	Bridges	EC Seismic, Clover Creek Bridge, United States (Washington)					•
Infrastructure / Transportation	Other	Mud Mountain Dam, United States (Washington)					•
Infrastructure / Transportation	Other	Various Structure and Site Drainage System Repair, United States (Washington)					•
Infrastructure / Transportation	Other	Fish Barrier Project (FBP) United States (Washington)			•		

DANA S. HUNTER <i>Representative Engagement Experience</i>							
DR: Dispute Resolution		RM: Risk Management		MC: Management Consulting			
Other: Estimating , Project Management , Engineering Design, Construction Supervision							
Industry	Type	Project Name	DR	RM	MC	Other	
Infrastructure / Transportation	Electrical	Replace Electrical Substation-1, United States (Alaska)				•	
Buildings	Resorts/ Casinos/ Hotels	Rex Hotel, United States (Washington)				•	
Buildings	Apartments/ Condominiums/ Housing	Grandview-Luxury Condominiums, United States (Washington)				•	
Buildings	Apartments/ Condominiums/ Housing	Lyon Building, United States (Washington)				•	
Buildings	Apartments/ Condominiums/ Housing	Renovation and Conversion of a Building into Housing and Counseling Center, United States (Washington)				•	
Buildings	Apartments/ Condominiums/ Housing	CC Bremerton -9 storey Restoration/ Addition /Conversion, United States (Washington)				•	
Buildings	Medical / Hospitals	Kinon Health Care Center, United States (Washington)				•	
Buildings	Medical / Hospitals	VA Energy Conservation Measures, United States (Washington)				•	
Buildings	Educational Facilities	University of Washington, United States (Washington)				•	
Buildings	Government Educational Facilities	Professional military Education Center , United States (Alaska)				•	
Buildings	Government Training Facilities	F22 Simulator & Training Center, United States (Alaska)				•	
Buildings	Educational Facilities	University of Washington – Dougan Addition Phase 1, United States (Washington)				•	
Buildings	Department of Defense Facility	Missile Assembly Building, United States (Alaska)				•	

DANA S. HUNTER <i>Representative Engagement Experience</i>						
DR: Dispute Resolution		RM: Risk Management		MC: Management Consulting		
Other: Estimating , Project Management , Engineering Design, Construction Supervision						
Industry	Type	Project Name	DR	RM	MC	Other
Buildings	Department of Defense Facility	Readiness and Control Facility, United States (Alaska)				•
Buildings	Conference Center	Susitna Re-development Project, United States (Alaska)				•
Buildings	Convention Center	Arctic Wing Event Center, United States (Alaska)				•
Buildings	Government Housing	Glacier Hall Dormitory, United States (Alaska)				•
Buildings	Government Operation Facility	Emergency Operation Center, United States (Alaska)				•
Buildings	Fire Protection Systems	Glacier Bay National Park Lodge, United States (Alaska)				•
Buildings	Medical Facility	Refractive Eye Care Center Renovation, United States (Alaska)				•
Buildings	Specialty Structures	Johnston Ridge Observatory, United States (Washington)				•
Buildings	Specialty Structures	Pier 23 Steel Structures, United States (Washington)				•
Buildings	Specialty Structures	Containment Booms & Can Dock, United States (Washington)				•
Buildings	Specialty Structures	Chena Flood Control Center, United States (Alaska)				•
Buildings	Specialty Structures	Facility Repairs, additions and upgrades, Mc Chord AFB, United States (Washington)				•
Buildings	Specialty Structures	US Army Umatilla Chemical Depot Mask Testing Facility & Guard House, United States (Oregon)				•
Buildings	Offices	NC Machinery, Inc., United States (Washington)				•

<p style="text-align: center;">DANA S. HUNTER <i>Representative Engagement Experience</i></p>							
DR: Dispute Resolution Other: Estimating , Project Management , Engineering Design, Construction Supervision		RM: Risk Management		MC: Management Consulting			
Industry	Type	Project Name	DR	RM	MC	Other	
Buildings	Offices	2-Story Multi-use Facility / Logistical / Administrative Office, United States (Washington)				•	
Buildings	Other	St. John the Baptist Church, United States (Washington)				•	
Buildings	Other	Historic Preservation, Ft. Vancouver, United States (Washington)				•	
Environmental	Asbestos	Asbestos Abatement / Remodeling, United States (Washington)				•	
Process / Manufacturing	Manufacturing Plant	Fiber Glass Insulation manufacturing Plant, Canada (Alberta)	•				
Process / Manufacturing	Fuel Depot	Manchester Fuel Depot, United States (Washington)				•	



JASON KLIWINSKI, AIA, LEED AP, BD&C, O&M

Specialist Consultant

Areas of Expertise

- Project Management
- Architecture
- Sustainable Design
- Contract Negotiation
- Programming
- Schematic Design
- Design Development
- Proposal Preparation
- Bidding & Negotiation
- Construction Administration
- LEED Certification & Oversight
- Project Close Out

Professional Experience

Mr. Kliwinski is a Pegasus Global Holdings, Inc. Specialist Consultant with over 14 years of experience and provides assistance in the LEED Certification, architecture and project management processes of public and private buildings. Since 2007, Mr. Kliwinski has served as the Director of Sustainable Design for the Spiegle Architectural Group. Mr. Kliwinski is also a founding partner of The Green Living and Building Center, an integrated green consulting, design, construction, product, and education company. Prior, Mr. Kliwinski was the Director of Sustainable Design and Operations with the Prisco Group for six years in Hopewell, New Jersey from 2001 to 2007 and a Project Manager for six years with D.F. Gibson Architects, P.C. located in downtown Newark, New Jersey from 1995 to 2001. Mr. Kliwinski is a thorough, experienced, and responsible Project Manager with extensive experience in all phases of the architectural profession including: proposal preparation and presentation, contract preparation and negotiation, programming, schematic design, design development, construction document preparation, bidding and negotiation, and construction administration including project close out. Mr. Kliwinski has been greatly involved in the restoration, preservation, and adaptive reuse/renovation of existing facilities as well as design and construction of new buildings, carbon neutral master plans, and net-zero facilities.

While studying architecture at New Jersey Institute of Technology (NJIT), Mr. Kliwinski explored the potential of sustainable design in the built environment. Mr. Kliwinski served as President and then Vice-President of the American Institute of Architecture Students while at NJIT School of Architecture. During his tenure, Mr. Kliwinski successfully designed and petitioned the administration of NJIT for sustainable design studios and classes. Upon graduation, Mr. Kliwinski continued his educational work with various non-profit groups, such as Cornucopia Network of New Jersey, The Newark Environmental Coalition, and The Friends of the Passaic River. One personal goal has been to educate the public and private sectors as to the means and methods of creating cost effective sustainable communities. To this end, Mr. Kliwinski is an adjunct professor at NJIT in the School of Architecture's Masters in Sustainable Design degree program and one of a select few nationally recognized LEED Faculty in the country.

Mr. Kliwinski's educational efforts are based on hands-on experience. He is intimately familiar with LEED standards and has applied them to design successful "green" building projects, including: the 162,000 sq. ft. LEED NC Gold Certified Microsoft School of the Future in Philadelphia, Pennsylvania; the 3,000 sq. ft. LEED Homes Silver Certified, New Zero Energy Holmes-Rulli residence; the 50,000 sq. ft. LEED NC Silver Certified Rider University West Village residence life buildings; and LEED NC Gold Certified TD Bank prototypes including a net zero energy retail location in Florida. Mr. Kliwinski is currently involved and responsible for over fifteen LEED projects seeking certification in a variety of LEED rating systems,

including: existing buildings; schools; core and shell; homes; new construction; and neighborhood development.

As co-founder of USGBC-NJ, North East Regional Chair of the AIA Committee on the Environment, and Immediate Past President of AIA-NJ, Mr. Kliwinski understands what it takes to create momentum, get buy-in on actionable paths, and act on behalf of the organization to achieve success. Mr. Kliwinski's vigorous efforts to create a true "culture of sustainability" have led him to develop numerous seminars and workshops to educate the public, members of AIA and USGBC-NJ on the tectonics of sustainable design, incentives, and integrative thinking using LEED, including a LEED accreditation training workshop which has been used to successfully train hundreds. These efforts, combined with a track record of successful green building projects have made Mr. Kliwinski one of the prominent green experts in the field today, recognized nationally by USGBC and AIA.

Education and Specialized Training

Education

- Bachelor of Architecture, New Jersey Institute of Technology, 1994

Specialized Training

- Wetland Restoration Training Workshop, 1995
- Living Machine Design Workshop, Ocean Arks International, 1998
- LEED Accreditation, 2001
- LEED Building Design & Construction Accreditation, 2009
- LEED Operation & Maintenance Accreditation, 2010

Awards

- New Jersey Society of Architects First Place Design Award, 1989
- Golden Broom Award, City of Newark, 1993
- Alpha Rho Chi Award for Leadership, New Jersey Institute of Technology, 1994
- American School & University, Award for Educational Design Excellence, 2000
- Downtown New Jersey Redevelopment Grand Prize Award, 2000
- Architect of the Year, American Institute of Architect, New Jersey Chapter, 2011

Professional Memberships

- Co-Founder USGBC-NJ, Board Advisory Member
- Cornucopia Network of New Jersey (CNNJ), Board Member
- AIANJ Chair, Committee on the Environment (COTE) Chair, 2005 to 2009
- AIANJ President, 2010
- NorthEast Regional COTE Chair, AIA, 2009 to Present
- Adjunct Professor, New Jersey Institute of Technology, Master in Sustainable Design
- National USGBC LEED Faculty

Technical Presentations

- NJEDA, NJDEP, & NJCommerce – High Performance School Workshop Guest Speaker
- US Army Corps of Engineers
- US Environmental Protection Agency, Region II – Wetland Restoration Technology
- Earth Day Exhibition – Components of Sustainable Design
- World Energy and Engineering Conference 2003, 2004, 2006, 2008, 2010
- New Jersey Association of School Business Officials 2006, 2009, 2010
- US Green Building Council Greenbuild Design Conference 2004, 2010
- North East Sustainable Energy Association, Regional Conference 2005
- AIA-NJ Committee on the Environment High Performance Workshop 2005-2011
- New Jersey Higher Education Partnership for Sustainability, Fall Conference 2007, 2009
- New Jersey Society of Professional Engineers, Annual Meeting 2007
- International Sustainable Building Conference, Lisbon, Portugal 2007
- Society for College and University Planners, Regional & National Conference 2008, 2011
- AIA National Convention 2010
- USGBC LEED Workshop (Green Building Basics, Core Concepts & Strategies, BD&C 251, O&M 251, Cost of LEED), 2008-2011

<i>JASON KLIWINSKI REPRESENTATIVE ENGAGEMENT EXPERIENCE</i>		
Industry	Type	Project Name
Buildings	Private K-8 Education Facilities	Christina Seix Academy, LEED Silver Certification Pending (New Jersey)
Buildings	Public County Facilities	Bergen County: Public Buildings, Courthouse, and Parks ADA Compliance Assessment
Buildings	Public Higher Education Facilities	The College of New Jersey – Carbon Neutrality Masterplan (New Jersey)
Buildings	Private Higher Education Facilities	Rider University – Carbon Neutrality Masterplan & Implementation (New Jersey)
Buildings	Private Higher Education Facilities	Rider University – Residence Life, LEED Silver Certified (New Jersey)
Buildings	Public K-12 Education Facilities	Lawrenceville Public Schools – 1.2 MW Photovoltaic System (New Jersey)
Buildings	Public K-12 Education Facilities	Makefield Elementary School, LEED Gold Certification Pending (Pennsylvania)
Buildings	Private Higher Education Facilities	Princeton University – Chemistry Building, Commissioning Consultant (New Jersey)
Buildings	Public K-12 Education Facilities	Microsoft School of the Future, LEED Gold Certified (Pennsylvania)
Buildings	Public K-12 Education Facilities	Morris County School of Technology (New Jersey)
Buildings	Public K-12 Education Facilities	Hopewell Valley Middle School (New Jersey)
Buildings	Public K-12 Education Facilities	Harrison High School Conversion (New Jersey)
Buildings	Public K-12 Educational Facilities	Howell Elementary Schools- LEED Silver Designed (New Jersey)
Buildings	Public Higher Education Facilities	University of Medicine & Dentistry – Dental School Expansion (New Jersey)
Buildings	Public Higher Education Facilities	New Jersey Institute of Technology (New Jersey)
Buildings	Public Higher Education Facilities	Harrison High School – Aircraft Noise Abatement (New Jersey)
Buildings	Private Corporate Pharmaceutical Research Center	Purdue Research Center (New York)
Buildings	Public Higher Education Facilities	Thomas Edison State College – Historic Townhouse Renovation (New Jersey)

<i>JASON KLIWINSKI</i> <i>REPRESENTATIVE ENGAGEMENT EXPERIENCE</i>		
Industry	Type	Project Name
Buildings	Corporate Retail Facilities	TD Bank – LEED Gold Certified Prototypes (New Jersey; New York; Virginia)
Buildings	Apartments / Condominiums / Housing	Holmes Residence- LEED Silver Certified, Net Zero Energy (New Jersey)
Buildings	Apartments / Condominiums / Housing	Zinader Residence- LEED Silver Designed (New Jersey)



Lia Nielsen, LEED GA

Specialist Consultant

Areas of Expertise

- Construction Management
- Sustainable Construction
- LEED Certification & Oversight
- Bidding & Contract Negotiation
- Proposal Preparation
- Construction Administration
- Project Close Out
- Green Building Products Consulting

Professional Experience

Ms. Nielsen is a Pegasus Global Holdings, Inc. Consultant specializing in the management of commercial and institutional construction projects, particularly those seeking LEED certification. In 2010, Ms. Nielsen launched her green building consulting business, Gaia's Way, Inc., and was one of the founding partners of the Green Living and Building Center of Lambertville, New Jersey. She is currently the executive manager of the Green Center and runs all the day-to-day operations. Prior to her current endeavors, Ms. Nielsen worked as a project manager for the international glazing firm Permasteelisa on the Bank of America Tower in New York City, the second tallest building behind the Empire State building, and the only LEED Platinum certified high-rise in the country. With Permasteelisa, she also worked on the very complicated glazing component of the Frick Chemistry Building at Princeton University. Also at Princeton, Ms. Nielsen worked as a superintendent on the Frank Gehry designed Peter B. Lewis Science Library. Due to the nature of Frank Gehry's architectural style, this was a uniquely challenging project with many similarities to the Walt Disney Concert Hall in Los Angeles.

Through her firm Gaia's Way, Inc., Ms. Nielsen recently completed and had pre-certified the planned LEED Platinum SWS Office Building in Livingston, New Jersey. This project, which will break ground in 2012, will be the first LEED Platinum commercial office building in the state. Ms. Nielsen was an active participant in the sustainable design decisions that lead to the certification of the building. Before SWS, Ms. Nielsen was instrumental in the LEED Gold certification of the Microsoft School of the Future in Philadelphia, PA, providing documentation and oversight services.

Ms. Nielsen has extensive experience in application and certification processes of LEED buildings and solar projects. Her educational background is in Business and Construction Management, which, with her specialization in sustainable building, brings a unique perspective to the construction projects she manages. Early in her career, Ms. Nielsen worked for the well known architect David Rockwell of Rockwell Group (New York City) who is famous for his flamboyant entertainment and restaurant designs. She also worked for The Nielsen-Wurster Group, the international engineering firm, gaining experience at the opposite end of the spectrum, participating in several nuclear power projects. She began managing construction projects with The Center for Great Expectations in Somerville, New Jersey, a not-for-profit providing housing and support services to pregnant homeless women. While not LEED certified, the two buildings were built to LEED standards and utilized energy saving technologies, green materials, and solar. Ms. Nielsen is fluent in all phases of construction projects including bidding, contract preparation and negotiation, construction document preparation, project scheduling, budgeting, materials selection and value engineering, and project closeout.

In 2005, while in graduate school, Ms. Nielsen spent three months in Tokyo, Japan learning about the Japanese construction industry with Maeda Construction, one of the five largest firms in the country. She also worked with the Japan Public-Private Partnership Association, studying the ways PPP agreements are utilized in different counties and how they might best be applied to projects in Japan. Ms. Nielsen has travelled extensively in Europe, Africa and Australia. She gained a solid understanding of business working in all aspects of her family's vineyard and winery while growing up. In 2000 she spent time in Australia studying the wine industry there and how those techniques could be applied to her family's business in the US.

Ms. Nielsen was one of the first people to be certified to teach the new accreditation program for contractors, G-Pro, which was developed by the Urban Green Council, New York City's branch of the US Green Building Council. G-Pro accreditation is similar to LEED, but is geared toward contractors and tradesmen. Ms. Nielsen teaches through the Green Living and Building Center, where she runs all day-to-day operations, manages projects, prepares proposals and consults on both residential and commercial projects

Education and Specialized Training

Education

- Masters in Construction Management with Sustainable Construction Specialty, University of Florida (nearly complete)
- Bachelor of Science, Business Administration, Boston University, 2004

Specialized Training

- LEED Green Associate, 2010
- G-Pro Certified Instructor, 2010

Professional Memberships

- USGBC-NJ, Member 2009-Present
- Emerging Green Builders, NJ 2008-2010
- National Trust for Historic Preservation, Member 2005-Present
- National Association of Women in Construction, member 2005-Present
- National Association of Home Builders, University of Florida, Student Chapter
 - President 2005-2006

<i>Lia Nielsen</i> REPRESENTATIVE ENGAGEMENT EXPERIENCE		
Industry	Type	Project Name
Buildings	Private Non-Profit Facilities	NJ Carpenters Union Training Facility Solar Installation (New Jersey)
Buildings	Offices	SWS Office Building, LEED Platinum Pre-certified (New Jersey)
Buildings	Private Higher Education Facilities	Frick Chemistry Building, Princeton University (New Jersey)
Buildings	Offices	Bank of America Tower, LEED Platinum Certified (New York)
Buildings	Private Higher Education Facilities	Peter B. Louis Library by Frank Gehry, Princeton University (New Jersey)
Buildings	Private Non-Profit Facilities	The Center for Great Expectations (New Jersey)
Buildings	Public K-12 Education Facilities	Microsoft School of the Future, LEED Gold Certified (Pennsylvania)
Buildings	Apartments / Condominiums / Housing	Holmes Residence- LEED Silver Certified, Net Zero Energy (New Jersey)
Power	Nuclear	Kewaunee Nuclear Plant Replacement Steam Generator (Wisconsin)
Power	Nuclear	Hanford (Washington)



JEREMY CLARK

Supporting Consultant

Areas of Expertise

- Contract Management
- Project Management
- Financing
- Monitoring
- Scope and Design
- Project Controls
- Change Management
- Design Management
- Graphic Design
- Complex Research Initiatives

Background

Mr. Clark has over 10 years of experience in business and financing administration. As a Pegasus Global Holdings, Inc.® (Pegasus-Global) Supporting Consultant he provides assistance to senior management with the analysis of events and identification of key issues, research and document management. He has extensive knowledge of a variety of online research tools. Mr. Clark performs research, reviews and monitors budgets, develops databases and interfaces with clients and agencies in his role as a Supporting Consultant.

Mr. Clark has performed research and monitored projects, designed, reviewed and evaluated reports, and coordinated efforts of analysis teams. He has designed document management databases, spreadsheets, exhibits and graphics for use in analyzing and displaying analyzed results.

In addition he is experienced in the Microsoft Office suite, with a particular emphasis on developing, integrating, and presenting complex, Microsoft Excel data sets and graphics. Mr. Clark is also experienced in PowerPoint, Publisher and QuickBooks.

Prior to joining Pegasus-Global, Mr. Clark has managed businesses, including responsibilities with hiring, training, and managing staff. He has extensive experience in financing, managing, analyzing, and presenting results from large data sets. He works with and advises project team members in developing and presenting reports.

Education

- BA in Business Administration, Finance Specialization, Central Washington University, 2004

Technical Papers and Presentations

- Hope, Faith and Love-Rising Above the Rubble of the Aftermath of Natural Disasters, authored by Jeremy Clark, *Solutions*, December 2011

Memberships

- Project Management Institute (PMI)
- American Society of Civil Engineers (ASCE)
- Association for the Advancement of Cost Engineering International (AACEDI)

JEREMY CLARK

Languages

French - conversational / fair understanding of written word

<i>Jeremy Clark Representative Engagement Experience</i>		
Industry	Type	Project Name
Power	Cogeneration/Combined Cycle/Fossil Fuel	Edwardsport IGCC Power Plant, United States (Indiana)
Power	Cogeneration/Combined Cycle/Fossil Fuel	Iatan Unit 1 & 2 Supercritical pulverized coal plant, United States (Kansas, Missouri)



BRENDA PEARSON

Supporting Analyst

Areas of Expertise

- Contract Management
- Project Management
- Monitoring
- Scope and Design
- Document Management
- Risk Assessment
- Risk Management
- Project Controls
- Change Management
- Design Management
- Schedule Management
- Management Consulting
- Graphic Design
- Corporate Compliance

Background

Ms. Pearson is a Pegasus Global Holdings, Inc.® (Pegasus-Global) Supporting Analyst who assists senior management with analysis, research and document management. She provides assistance on a variety of Risk Management and Management Consulting engagements for construction and engineering projects including: megaprojects, power, and program and project management. Ms. Pearson has over 30 years of experience in construction management. As a Supporting Analyst she provides assistance to senior management with the analysis of events, research and document management. Ms. Pearson performs research, reviews and monitors budgets, develops databases and interfaces with clients and agencies.

She has been with the firm since 2008 and has developed skills in communication, planning, prioritizing and organization. Her responsibilities include the review and analysis of project documentation, document management, development of document management databases and spreadsheets, and exhibits.

In addition, she is proficient in Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Adobe Acrobat, Concordance, online research tools and accounting tool QuickBooks.

Prior to joining Pegasus-Global, Ms. Pearson has managed all phases of construction projects, including estimating, scheduling, planning, document management, vendor management, completion responsibilities. She has also performed many of the business functions involved in construction, including financing, marketing, accounting, payroll, human resources, and compliance.

Training

- Business Classes at Pierce College, Tacoma, Washington

Memberships

- Project Management Institute

Languages

Spanish - conversational

<i>Brenda Pearson Representative Engagement Experience</i>		
Industry	Type	Project Name
Power	Nuclear	Bellefonte Options, TVA, United States (Alabama)
Power	Nuclear	Levy 1 & 2, Progress Energy Florida, United States (Florida)
Power	Cogeneration/Combined Cycle/Fossil Fuel	Edwardsport IGCC Power Plant, United States (Indiana)
Power	Cogeneration/Combined Cycle/Fossil Fuel	Iatan Unit 1 & 2 Supercritical pulverized coal plant, United States (Kansas, Missouri)
Infrastructure / Transportation	Other	Fish Barrier Project (FBP) United States (Washington)
Industrial / Process	Oil / Gas	Nations Petroleum Steam – Flood Project, United States (California)
Buildings	Schools	DeKalb County School District School Program, United States (Georgia)



PEGASUS-GLOBAL HOLDINGS, INC.

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EXHIBIT D

DOCUMENTS RECEIVED AND REVIEWED

Documents Reviewed	
<i>Name of Document</i>	<i>Date of Document</i>
Exhibit H to CM-at-Risk Agreement – General Conditions of the CM-at-Risk Agreement for Preconstruction and Construction Phase Services – Draft	February 14, 2012
CM-at-Risk Agreement for Preconstruction and Construction Phase Services – Draft	February 14, 2012
Attachment 4 to RFQ for CM-at-Risk Firm – Fee Proposal Form – Draft	February 6, 2012
Request for Qualifications and Proposals for Preconstruction Services and Construction Management at Risk Services with a Guaranteed Maximum Price – Draft	February 6, 2012
AOC Project Delivery Methods	December 15, 2008
2012 California Environmental Quality Act (CEQA) Statute and Guidelines	January 1, 2012
California State Administrative Manual – Chapter 6800 – Budgeting	September 2010
AOC Organizational Chart	February 8, 2012
AOC Organizational Chart	April 25, 2011
Judicial Council Policy on Energy Conservation in the Courts – Report	July 3, 2001
California Trial Court Facilities Standards	April 21, 2006
Court Facilities Contracting Policies and Procedures	December 7, 2007
Court Facilities Planning: Update to Trial Court Capital-Outlay Plan and Prioritization Methodology and Projects Funded by Senate Bill 1407 – Report	October 24, 2008
Procedure 4.10 – Construction Management - Memo	June 23, 2009
Site Selection and Acquisition Policy for Court Facilities	June 29, 2007
333.20 Construction Manager at Risk (CM@R) Process (Conversion from 3.40 D&C document)	April 4, 2011
306.00 D&C Document Control Process	February 1, 2012
California Trial Court Facilities Standards 2011	August 2011
Art Policy for Judicial Branch Facilities - Draft	December 2011
Courthouse Naming Policy	May 11, 2009
Prioritization Methodology for Modifications to Court Facilities	April 24, 2009
Progress Report Template - Draft	Undated
California State Administrative Manual – Chapter 1324 – Professional Services Branch – Cost Control Section	June 2005
Judicial Branch Capital Building Program Design Excellence Forum – Agenda Outline	February 1, 2010
Judicial Branch Capital Building Program Design Excellence Forum – Notes (Steven Sundman)	February 1, 2010
Design Excellence Forum – Key Issues	February 1, 2010
Prioritization Methodology for Trial Court Capital-Outlay Projects	October 24, 2008
Trial Court Capital Projects – Project Cost Responsibility Matrix	October 5, 2009 (Revised October 13, 2009)
Capital Projects Organization: Project Manager Tasks and Team Interface – Draft	Undated (possibly July 6, 2009)
David C. Martin “Way of Thinking” document	March 26, 2009
CM@Risk Contingency – email chain with Steve Sundman, Pearl Freeman, Jim Stephenson, Clifford Ham, et. al	December 9-10, 2009
State of California – Standard Agreement – Std. 2; Exhibit A – Statement of Work; Exhibit B – Payment and Other Provisions; Exhibit C – General Terms and Conditions; Exhibit D – Hourly Rate for Extra Services; Exhibit E – Subcontractors to Contractor; Exhibit F – Contractor’s Key Personnel; Exhibit G – Description of Project	Rev. 5-91
Sundt Construction – ECC County Courthouse, 100% CD Estimate Comparison	January 9, 2009
Architectural Expression for 21 st century court buildings (Javier Arizmendi, Paul	March 7, 2011

Documents Reviewed	
<i>Name of Document</i>	<i>Date of Document</i>
Danna, Ricardo Rabines, Mark Cavagnero, Clifford Ham)	
Judicial Branch Building Program – Design Excellence Forum	February 1, 2010
Judicial Branch Capital Building Program – Design Excellence Forum 2011 (agenda with notes “GS & AO”)	March 7, 2011
Planning For and Designing Of New Courthouses Large and Small (Pearl Freeman, moderator)	Undated (likely March 7, 2011)
Courtrooms That Function Properly and How to Design Them – Design Excellence Forum	Undated (likely March 7, 2011)
Tough Choices – It Looks Great, But Can We Afford It? (Rob Uvalle, moderator)	Undated (likely March 7, 2011)
Request for Architectural and Engineering Qualifications – Qualifications Questionnaire (Superior Courts of California Projects in the Counties of Butte, Los Angeles, Tehama, Yolo, Lake, Monterey, Riverside, Sacramento, Shasta, Sonoma, Sutter, Santa Clara, and Solano) (possible draft)	Undated (likely February 26, 2009)
Request for Architectural and Engineering Qualifications – (Superior Courts of California Projects in the Counties of Butte, Los Angeles, Tehama, Yolo, Lake, Monterey, Riverside, Sacramento, Shasta, Sonoma, Sutter, Santa Clara, and Solano, for projects to be funded in Fiscal Year 2009-2010)	February 27, 2009
Request for Qualifications for Architectural, Engineering, and Related Services for Major Capital Outlay Projects – RFP Number: OCCM-FY-2008-08, formal responses to questions following 3/9/09 web-based teleconference	Undated (likely March 9, 2009)
Request for Qualifications for Architectural, Engineering, and Related Services for Major Capital Projects – RFP Number: OCCM-FY-2008-08	Undated (questions received March 5, 2009)
2009-10 AE SOQ Interview Scores – Merced Los Banos	Undated
2009-10 AE SOQ Scores – Inyo Independence	April 13, 2010
2009-10 AE SOQ Scores – Kern Delano	Undated
2009-10 AE SOQ Scores - LA Glendale	Undated
2009-10 AE SOQ Scores – LA Santa Clarita	Undated
2009-10 AE SOQ Scores – Mendocino Ukiah	Undated
2009-10 AE SOQ Scores – Merced Los Banos	Undated
2009-10 AE SOQ Scores – Kings Hanford	Undated
2009-10 AE SOQ Scores – Siskiyou Yreka	Undated
2009-10 AE SOQ Scores – Tuolumne Sonora	Undated
2009-10 List of Architects-Project	Undated
A/E Major Capital Projects – RFQ 2009-09 JMG – Counties of Inyo, Kern, Kings, Los Angeles, Mendocino, Merced, Siskiyou, Tuolumne	April 14, 2010
CMAR Interview Questions – KIM’s preferred questions	April 7, 2009
A&E RFQ 2009-10 SB1407 Addendum	Undated (likely February 26, 2010)
RFQ Schedule Update 4	Undated (2010)
Request for Architectural and Engineering Qualifications for Superior Courts of California, Counties of Inyo, Kern, Kings, Los Angeles, Mendocino, Merced, Siskiyou, Tuolumne, for projects to be funded in Fiscal Year 2009-2010 under SB1407	January 29, 2010
AE Final Score Workbook	2010-11
A&E – Major Capital Projects SB1407 FY 2010-2011 Groups 2C and 3A, B, C and D Award Announcement	January 24, 2011
Final Scores – All Projects	Undated
Request for Architectural and Engineering Qualifications for the Superior Courts of California, Counties of Alpine, Fresno, Glenn, Kern, Los Angeles, Nevada, Placer, Plumas, Riverside, San Joaquin, Santa Barbara, Sierra, and Stanislaus for projects to be funded in Fiscal Year 2010-2011 under SB1407 – RFQ Number: OCCM-2010-24-JMG	August 6, 2010

Documents Reviewed	
<i>Name of Document</i>	<i>Date of Document</i>
Request for Qualifications, Architectural, Engineering, and Related Services, RFQ Number: OCCM-2010-24-JMG	August 6, 2010
A&E – Major Capital Projects SB1407, FY 2010-2011, Groups 2C and 3A, B, C and D – Final Schedule	Undated
Courthouse Construction Program – Project Safety Program Manual	February 2011
Courthouse Construction Program – “Template Courthouse” – Owner Controlled Insurance Program Claims Manual – Draft #9	September 26, 2011
Courthouse Construction Program – “Template Courthouse” – Owner Controlled Insurance Program Manual	Undated (likely February 6, 2012)
Owner Controlled Insurance Program Pre-Bid Information	Undated (likely October 3, 2011)
AOC – OCIP Standard Operating Procedure Overview	Undated (likely February 8, 2011)
Risk Assessment template	Undated
Monthly Progress Report Template	Undated
A/E Contract Status for SB 1407 Capital Projects	February 16, 2012
Anticipated Contracts by D&C Over Next 6 Months (October – June 2012)	Undated (late 2011)
Procedure 3.40 – Delivery Method and Contractor Selection - Memo	July 28, 2009
333.00 Construction Delivery Methods (Conversion from 3.40 D&C document)	April 4, 2011
OCCM Strategic Partnering Capital Projects – Agenda	January 27, 2009
OCCM Strategic Partnering Capital Projects – Agenda	March 3, 2009
OCCM Strategic Partnering Capital Projects – Agenda	April 7, 2009
OCCM Strategic Partnering Capital Projects – Agenda	May 19, 2009
OCCM Strategic Partnering Capital Projects – Agenda	June 30, 2009
OCCM Strategic Partnering Capital Projects – Agenda	July 28, 2009
OCCM Strategic Partnering Capital Projects – Agenda	October 5, 2009
OCCM Strategic Partnering Capital Projects – Agenda	January 31, 2011
OCCM Strategic Partnering Capital Projects – Agenda	March 1, 2011
OCCM Strategic Partnering Capital Projects – Agenda	March 29, 2011
OCCM Strategic Partnering Capital Projects – Agenda	April 28, 2011
OCCM Strategic Partnering Capital Projects – Agenda	April 15, 2008
OCCM Strategic Partnering Capital Projects – Agenda	May 20, 2008
OCCM Strategic Partnering Capital Projects – Agenda	June 24, 2008
OCCM Strategic Partnering Capital Projects – Agenda	July 15, 2008
OCCM Strategic Partnering Capital Projects – Agenda	August 19, 2008
OCCM Strategic Partnering Capital Projects – Agenda	September 23, 2008
OCCM Strategic Partnering Capital Projects – Agenda	November 4, 2008
OCCM Strategic Partnering Capital Projects – Agenda	December 16, 2008
OCCM Strategic Partnering Capital Projects – Agenda	November 24, 2009
OCCM Strategic Partnering Capital Projects – Agenda	December 29, 2009
OCCM Strategic Partnering Capital Projects – Agenda	January 26, 2010
OCCM Strategic Partnering Capital Projects – Agenda	February 23, 2010
OCCM Strategic Partnering Capital Projects – Agenda	April 7, 2010
OCCM Strategic Partnering Capital Projects – Agenda	April 27, 2010
OCCM Strategic Partnering Capital Projects – Agenda	June 29, 2010
OCCM Strategic Partnering Capital Projects – Agenda	July 27, 2010
OCCM Strategic Partnering Capital Projects – Agenda	August 31, 2010
OCCM Strategic Partnering Capital Projects – Agenda	September 29, 2010
OCCM Strategic Partnering Capital Projects – Agenda	October 26, 2010
OCCM Strategic Partnering Capital Projects – Agenda	February 2, 2012
OCCM Strategic Partnering Capital Projects – Agenda	July 28, 2011
OCCM Strategic Partnering Capital Projects – Agenda	October 27, 2011
OCCM Strategic Partnering Capital Projects – Agenda	November 15, 2007

Documents Reviewed	
<i>Name of Document</i>	<i>Date of Document</i>
OCCM Strategic Partnering Capital Projects – Agenda	January 23, 2008
OCCM Strategic Partnering Capital Projects – Agenda	March 18, 2008
Capital Courthouse Construction Program Management Plan: Organizational Overview	October 7, 2009
D&C Project Management Process Flowchart	Undated
Project Advisory Group for all current Capital Projects	January 11, 2012
Project bid vs estimate analysis	Undated (likely February 16, 2012)
Procedure 4.20 Change Order Process - Draft	May 26, 2009
OCCM Approval Process for Augmentations and 20-Day Letter Requests - Memo	September 20, 2010
AOC Change Order Process revised to include iProcurement	March 4, 2011
Sample Change Order	April 15, 2009
Master Schedule Implementation of Capital Courthouse Projects Program	January 19, 2012
Capital Courthouse Construction Project Schedule	January 25, 2012
1106.00 Facility Performance Evaluation Program – Draft	February 19, 2010
1301.30 Design Plan Check Process – Draft	May 10, 2010
1301.10 Project Notification – Draft	May 10, 2010
1302.20 Inspection Request Process – Draft	May 27, 2010
1302.10 Informal Inspection Process - Draft	September 27, 2010
341.00 D&C Quality Assurance Consultant Management - Draft	October 5, 2011
Capital Projects LEED Rating Status	February 1, 2012
D&C QA Consultant Management	Undated
1106.10 Post Occupancy (POE) Evaluation Program - Draft	February 19, 2010
1302.30 Final Verified Report Process – Final Draft	November 1, 2010
AOC CEQA Compliance	Undated (likely January 2012)
Capital Projects – CEQA Tasks	Undated (likely February 7, 2012)
Capital Projects Environmental Costs	Undated
Attachment H – General Conditions of the Contract for Construction – Document 00700 Construction Manager at Risk, Lakeport Courthouse	Undated
Attachment A – CM at Risk Agreement for Preconstruction and Construction Phase Services – Lakeport Courthouse (possibly Draft)	Undated
Attachment A – Standard Agreement Sample, Consultant Services for the California Trial Court Facilities Standards, 2011 edition – Sample/Draft	Undated (2011?)
Judicial Branch AB 1473 Five-Year Infrastructure Plan Fiscal Year 2012-2013	December 12, 2011 (adopted by Judicial Council)
Judicial Branch AB 1473 Five-Year Infrastructure Plan Fiscal Year 2011-2012	August 27, 2010 (adopted by Judicial Council)
7.00 Capital Outlay Budget Change Proposal (COBCP) – Draft	April 27, 2011
7.00 Project Feasibility Report - Draft	June 6, 2011
COBCP Process – Business Planning	August 26, 2011
Capital Program Summary Report	(for period ending) December 31, 2011
B.F. Sisk Progress Report	(for period ending) June 31, 2008 [sic]
B.F. Sisk Progress Report	(for period ending) July 31, 2009
B.F. Sisk FINAL Report	July 31, 2011
Madera A/E Contract #1017874, Amendment 3	July 13, 2010

Documents Reviewed	
<i>Name of Document</i>	<i>Date of Document</i>
Madera A/E Contract #1017874, Amendment 1	November 24, 2009
Madera A/E Contract #1017874, Amendment 2	June 7, 2010
Madera A/E Contract #1017874, Amendment 4	May 5, 2011
Madera A/E Original Contract #1017874	February 25, 2009
Madera CM@R Contract #1020736, Amendment 1	July 14, 2010
Madera CM@R Contract #1020736, Amendment 2	March 14, 2011
Madera CM@R Original Contract #1020736	May 3, 2010
Madera PWB Agenda Item PP Staff Analysis	February 1, 2011 (apparent revision date)
Madera PP Form – Request for Approval to Proceed or Encumber Funds	January 27, 2011 (date signed by OCCM Director)
Madera AOC/OCCM response letter to Dept. of Finance for Preliminary Plan approvals by the State Public Works Board (SPWB)	February 3, 2011
Madera Project Cost Summary	August 27, 2008
Madera 100% Design Development Cost Check	December 3, 2010
Madera 100% Design Development Cost Check Comparison Summary	December 3, 2010
Madera 100% Design Development Estimate Executive Summary	December 3, 2010
Madera 100% Design Development Estimate Summary Level Estimate	December 3, 2010
Madera CEQA Notice of Exemption	October 1, 2008
Madera Request for Approval to Proceed or Encumber Funds	May 27, 2010 (date signed by OCCM Director)
Madera Request for Approval to Proceed or Encumber Funds	March 11, 2011 (date of last PWB/DOF approval)
Madera Request for Approval to Proceed or Encumber Funds	June 12, 2009 (date of last PWB/DOF approval)
New Madera Courthouse Superior Court of California, Count of Madera – Management Plan and Project Definition Report – Final	September 20, 2007
Madera Preliminary Plans Phase 100% Approval memo	August 29, 2011
New Madera Courthouse Gilbane Quality Assurance Program	Undated
Madera Budget Management Reporting Worksheet	December 1, 2011
Madera Project Cost Management	January 26, 2012 (last column updated)
Madera – Scope, Quality Program Room Data Sheets	Undated
Madera – Energy Simulation Report	June 16, 2010
Madera – Project Feasibility Report	September 8, 2006
Madera – Pre-Schematics Phase Report	June 2009
Madera – 100% Design Development Submittal Gross Area Summary	November 12, 2010
Madera – Progress Report	December 31, 2010 (period ending)
Madera – Preliminary Plans and Augmentation Approval	Undated
Madera – Fund Transfer Request	June 3, 2011
Madera – Fund Transfer Request	February 4, 2011
Madera – Fund Transfer Request	July 23, 2009
Madera – Consent Item, Scope Change - Draft	June 14, 2010 (likely date)
Portola Loyalton A/E Contract #MSTR-AE-009	December 15, 2006
Portola Loyalton A/E Contract #MSTR-AE-009, Amendment 1	May 15, 2007
Portola Loyalton A/E Contract #MSTR-AE-009, Amendment 2	May 15, 2008

Documents Reviewed	
<i>Name of Document</i>	<i>Date of Document</i>
Portola Loyalton A/E Contract #MSTR-AE-009, Amendment 3	June 25, 2008
Portola Loyalton Contract #1016920	October 10, 2008
Portola Loyalton Contract #1016920, Amendment 1	February 6, 2009
Portola Loyalton A/E Contract #MSTR-AE-009, Amendment 4	May 15, 2009
Portola Loyalton A/E Contract #MSTR-AE-009, Amendment 5	May 15, 2010
Portola Loyalton A/E Contract #MSTR-AE-009, Amendment 6	January 1, 2011
Portola Loyalton A/E Contract #MSTR-AE-009, Amendment 7	April 1, 2011
Portola Loyalton Progress Report	March 31, 2010
Portola Loyalton (Rob Uvalle) letter to the Dept. of Finance confirming review of project documentation and scheduling for Preliminary Plans approval by the SPWB.	April 11, 2008
Portola Loyalton Consent Item – Approve preliminary plans (includes scope, CEQA, and schedule)	Undated (likely April 11, 2008)
Portola Loyalton Request for Approval to Proceed or Encumber Funds	May 9, 2008
Portola Loyalton Capital Outlay Cost, Funding and Schedule Summary	April 9, 2008
Portola Loyalton Construction Cost Estimate – Design Development Phase	April 9, 2008
Portola Loyalton Design Development plans	April 9, 2008
Portola Loyalton Augment C 3PE	September 24, 2009
Portola Loyalton Request for Approval to Proceed or Encumber Funds	October 8, 2008
Portola Loyalton Request for Approval to Proceed or Encumber Funds	August 20, 2008
Portola Loyalton Management Plan and Project Definition Report Draft #1	August 11, 2004
Portola Loyalton Management Plan and Project Definition Report Draft #2	January 30, 2007
San Bernardino Contract #MSTR-QA-C-002	April 1, 2007
San Bernardino Contract #MSTR-QA-C-002, Amendment 1	April 1, 2008
San Bernardino Contract #MSTR-QA-C-002, Amendment 2	March 31, 2009
San Bernardino CM@Risk Contract #1018160, Amendment 1	July 20, 2009
San Bernardino CM@Risk Contract #1018160, Amendment 2	November 16, 2009
San Bernardino CM@Risk Contract #1018160, Amendment 3	May 1, 2011
San Bernardino CM@Risk Contract #1018160, Amendment 4	September 1, 2011
San Bernardino CM@Risk Contract #1018160, Amendment 5	November 1, 2011
San Bernardino CM@Risk Contract #1018160, Amendment 5, Exhibit J (OCIP Manual)	Undated
San Bernardino CM@Risk Contract #1018160	April 27, 2009
San Bernardino Contract #1015037, Amendment 1	April 28, 2008
San Bernardino Contract #1015037, Amendment 2	October 6, 2008
San Bernardino Contract #1015037, Amendment 3	October 6, 2008
San Bernardino Contract #1015037, Amendment 4	May 22, 2009
San Bernardino Contract #1015037, Amendment 5	September 7, 2009
San Bernardino Contract #1015037, Amendment 6	November 5, 2009
San Bernardino Contract #1015037, Amendment 7	May 14, 2010
San Bernardino Contract #1015037, Amendment 8	June 21, 2010
San Bernardino Contract #1015037, Amendment 9	March 1, 2011
San Bernardino Contract #1015037, Amendment 10	April 18, 2011
San Bernardino Contract #1015037, Amendment 11	November 14, 2011
San Bernardino Contract #1015037	December 17, 2007
OCCM – Business & Finance Unit – Budget Management, Staff Responsibilities Contract List	November 4, 2011
Finance Division – SB1732/JB Facility Program Roles and Responsibilities	June 2008
Imperial County – New El Centro Family Courthouse – Project Cost Summary (with breakdown by phase)	January 31, 2012
Madera – Project Cost Summary (with breakdown by phase)	September 1, 2011
Judicial Branch Monthly Financial Forecast – CFARF; Summary of FY 2005-2011	February 6, 2012 (data as of January

Documents Reviewed	
<i>Name of Document</i>	<i>Date of Document</i>
	2012)
Summary of SB1407 Capital Outlay Projects	September 30, 2011
Standard California Codes – Rules of Court, Title 10 Judicial Administration Rules, Division 2 Administration of the Judicial Branch, Chapter 3 Court Facilities and Chapter 4 Management of Claims and Litigation	2010 Edition
Management Plan and Project Definition Report (template)	Undated
Design & Construction Project Management flowchart	Undated
Site Selection and Acquisition Policy for Judicial Branch Facilities	August 14, 2009
January 2012 Financial Reports – Capital Outlay Projects	February 29, 2011 [sic] (should be 2012)
AB 1473 Five-Year Infrastructure Plan Fiscal Year 2006-2007	June 1, 2005
SB 1407 Group 3D Projects – FY 2010-2011 - Binder	June 7, 2010
Judicial Branch Budget Request, Capital Outlay – Finance Letters, FY 2012-2013 - Binder	February 10, 2012
Richard E. Arnason Courthouse (Contra Costa) site tour documents - Binder	March 7, 2012
San Bernardino Contract Correction Memo - Email	May 13, 2009 – June 30, 2009
San Bernardino Request for Approval to Proceed or Encumber Funds	November 10, 2011
San Bernardino Request for Approval to Proceed or Encumber Funds	October 12, 2009
San Bernardino Request for Approval to Proceed or Encumber Funds	January 26, 2011
San Bernardino Work Order #1020414 (contract MSTR-QA-C-002, with Enovity, Inc.)	March 31, 2010
San Bernardino Project Feasibility Report	September 8, 2006
San Bernardino Management Plan and Project Definition Report - Draft	September 19, 2007
San Bernardino Progress Report	December 31, 2011
Susanville Management Plan and Project Definition Report	October 26, 2007
Mammoth A/E Contract #1015940 Amendment 1	April 13, 2009
Mammoth A/E Contract #1015940 Amendment 2	June 1, 2009
Mammoth A/E Contract #1015940 Amendment 3	June 1, 2009
Mammoth A/E Contract #1015940 Amendment 5	July 1, 2010
Mammoth A/E Contract #1015940 Amendment 6	January 6, 2011
Mammoth A/E Contract #1015940 Amendment 7	January 27, 2011
Mammoth A/E Contract #1015940 Amendment 8	June 23, 2011
Mammoth Req. for Additional Services #10 (Court and Town revisions) Revision	May 13, 2011
Mammoth Req. for Additional Services #10 (Court and Town revisions)	April 27, 2011
Mammoth Req. for Additional Services #12 (Professional Photography)	December 14, 2011
Mammoth Req. for Additional Services #11 (Video Surveillance Engineering)	September 9, 2011
Mammoth A/E Contract #1015940 Amendment 9 – Draft	October 14, 2011
Mammoth Contract Transmittal Form – Draft	April 10, 2009
Mammoth Contract Transmittal Form Construction – Draft	February 20, 2010
Mammoth Contract Transmittal Form Geotech – Draft	December 10, 2010
Mammoth Contract Transmittal Form Misc – Draft	November 19, 2009
Mammoth Contract Transmittal Form Options – Draft	July 10, 2010
Mammoth Contract Transmittal Form Snow – Draft	June 1, 2009
Mammoth Contract Transmittal Form Tech Coord. – Draft	September 15, 2010
Mammoth Contract #1015940 Amendment 9 – Draft	August 10, 2011
Mammoth Req. for Additional Services (Geotech)	November 4, 2010
Mammoth Snow Management Proposal	April 27, 2009
Mammoth MCA Contract #1015940 Value by Phase	March 11, 2009
Mammoth MCA Contract #1015940 Value by Phase	January 14, 2010
Mammoth MCA Contract #1015940 Value by Phase	June 8, 2010
Mammoth MCA Contract #1015940 Value by Phase	August 26, 2010

Documents Reviewed	
<i>Name of Document</i>	<i>Date of Document</i>
Mammoth MCA Contract #1015940 Value by Phase	November 17, 2010
Mammoth MCA Contract #1015940 Value by Phase	May 13, 2011
Mammoth Cavagnero Contract #1015940 Value by Phase	July 5, 2011
Mammoth Cavagnero Contract #1015940, Amendment 1 – Draft	April 13, 2009
Mammoth Req. for Additional Services #8 (Network Engineering)	July 26, 2010
Mammoth Req. for Additional Services #4 (Town Revisions)	October 21, 2009
Mammoth Req. for Additional Services #5 (Chambers Revisions)	December 14, 2009
Teecom Design group Security Engineering response	July 1, 2011
Mammoth Req. for Additional Services #9 (Geotech services)	November 4, 2010
Mammoth Contract #1015940	April 1, 2008
Mammoth Contract Transmittal Form – Draft	February 8, 2008
Mammoth Contract Transmittal Form – Draft	March 3, 2008
Mammoth Services Request Form (Ex. E) MSTR-AE-004	February 4, 2008
Mammoth Contract – Draft	Early 2008
Mammoth Estimate Value of Service – By Phase	November 18, 2007
Mammoth Estimate Value of Service – By Phase	January 31, 2008
Mammoth Estimate Value of Service – By Phase	October 15, 2009
Mammoth Contract #MA-PM-CM-08 (Turner Construction)	August 20, 2010
Mammoth Contract #1020811 (Turner Construction)	September 7, 2010
Mammoth Contract #1017249 (Sundt Construction)	December 23, 2008
Mammoth Contract #1017249 (Sundt Construction) Amendment 1	April 30, 2009
Mammoth Contract #1017249 (Sundt Construction) Amendment 2	April 13, 2010
Mammoth Contract #1017249 (Sundt Construction) Amendment 3	September 7, 2010
Mammoth Contract #1017249 (Sundt Construction) Ex. H – Document 00700	Undated
Mammoth Contract #1017249 (Sundt Construction) Change Order 1	August 24, 2010
Mammoth Contract #1017249 (Sundt Construction) Change Order 2	August 24, 2010
Mammoth Contract #1017249 (Sundt Construction) Change Order 3	November 22, 2010
Mammoth Contract #1017249 (Sundt Construction) Change Order 4	October 1, 2010
Mammoth Contract #1017249 (Sundt Construction) Change Order 4	December 20, 2010
Mammoth Contract #1017249 (Sundt Construction) Change Order 5	January 20, 2011
Mammoth Contract #1017249 (Sundt Construction) Change Order 6	May 4, 2011
Mammoth Contract #1017249 (Sundt Construction) Change Order 7	August 10, 2011
Mammoth Contract #1017249 (Sundt Construction) Change Order 8	September 9, 2011
Mammoth Contract #1017249 (Sundt Construction) Change Order 9	October 5, 2011
Mammoth Contract #1017249 (Sundt Construction) Change Order 10	November 11, 2011
Mammoth Uncommitted Procurement List	Undated
Mammoth Sole Source Justification Form (Casey & Associates Art Advisors)	July 15, 2011
Mammoth Pre-Qualified Subcontractors list (Sundt)	December 30, 2009
Mammoth Architect’s Field Observation Report #1	July 9, 2010
Mammoth Architect’s Field Observation Report #2	August 16, 2010
Mammoth Architect’s Field Observation Report #3	September 15, 2010
Mammoth Architect’s Field Observation Report #4	October 27, 2010
Mammoth Architect’s Field Observation Report #5	December 1, 2010
Mammoth Field Observation Report (Telecom)	February 9, 2011
Mammoth Architect’s Field Observation Report #6	March 11, 2011
Mammoth Architect’s Field Observation Report #7	June 2, 2011
Mammoth Field Observation Report (Security)	May 11, 2011
Mammoth Field Observation Report (Gayner Engineers)	October 27, 2010
Mammoth Field Observation Report (Structural) #2	August 12, 2010
Mammoth Structural Completion Letter	March 18, 2011
Mammoth \$1,280,000 Warrant for Land Acquisition – Memo	April 23, 2008
Mammoth \$1,280,000 Warrant for Land Acquisition – Letter	May 2, 2008
Mammoth Commencement of Construction Parking Lot Letter	May 13, 2010

Documents Reviewed	
<i>Name of Document</i>	<i>Date of Document</i>
Mammoth Certificate of Acceptance – Cover Sheet	March 21, 2008
Mammoth Caltrans Permit Signoff	August 26, 2011
Mammoth Certificate of Occupancy	August 26, 2011
Mammoth Conveyance Permit	September 13, 2011
Mammoth Final Verified Report	August 26, 2011
Mammoth Pest Control Report	August 11, 2011
Mammoth Notice of Completion	November 7, 2011
Mammoth Construction Phase Notice to Proceed	April 12, 2010
Mammoth Lakes Town Advisory Design Panel - Summary and Direction Letter	September 9, 2008
Mammoth Misc. Issues Regarding the Building Design – Memo	May 7, 2009
Mammoth Groundbreaking – Letter	May 14, 2010
Mammoth Grand Opening Ceremony – Program	September 23, 2011
Mammoth Bid Approval Cover Letter (DOF)	January 29, 2010
Mammoth Furniture Vendor Evaluation	July 12, 2010
Mammoth Dedication Executive Summary	September 25, 2011
Mammoth Windows at Holding Facility Doors Review – Letter	August 19, 2011
Mammoth Pre-application Meeting with State Fire Marshall	May 30, 2009
Mammoth Lakes Foundation Issues – Letter	September 1, 2007
Mammoth Construction Section 01 10 00 – Summary	December 7, 2009
Mammoth Construction Section 01 21 00 – Allowances	December 7, 2009
Mammoth Construction Section 01 23 00 – Alternates	December 7, 2009
Mammoth Construction Section 01 26 00 – Contract Modifications	December 7, 2009
Mammoth Construction Section 01 29 00 – Payment Procedures	December 7, 2009
Mammoth Construction Section 01 31 00 – Project Management and Coordination	December 7, 2009
Mammoth Construction Section 01 32 00 – Construction Progress Documents	December 7, 2009
Mammoth Construction Section 01 32 33 – Photographic Documentation	December 7, 2009
Mammoth Construction Section 01 32 80 – Electronic Data Transfer	December 7, 2009
Mammoth Construction Section 01 33 00 – Submittal Procedures	December 7, 2009
Mammoth Construction Section 01 40 00 – Quality Requirements	December 7, 2009
Mammoth Construction Section 01 42 00 – References	December 7, 2009
Mammoth Construction Section 01 43 39 – Visual Mock-Ups	December 7, 2009
Mammoth Construction Section 01 50 00 – Temporary Facilities and Controls	December 7, 2009
Mammoth Construction Section 01 56 39 – Temporary Tree and Plant Protection	December 7, 2009
Mammoth Section 01 60 00 – Product Requirements	December 7, 2009
Mammoth Section 01 73 00 – Execution	December 7, 2009
Mammoth Section 01 73 20 – Indoor Air Quality Procedures	December 7, 2009
Mammoth Section 01 73 29 – Cutting and Patching	December 7, 2009
Mammoth Section 01 73 19 – Construction Waste Management and Disposal	December 7, 2009
Mammoth Section 01 77 00 – Closeout Procedures	December 7, 2009
Mammoth Section 01 78 23 – Operational and Maintenance Data	December 7, 2009
Mammoth Section 01 78 39 – Project Record Documents	December 7, 2009
Mammoth Section 01 79 00 – Demonstration and Training	December 7, 2009
Mammoth Section 01 91 13 – General Commissioning Requirements	December 7, 2009
Mammoth Specifications Conformed Set	March 26, 2010
Mammoth Threat, Vulnerability and Risk Analysis	October 15, 2008
Mammoth AOC/OCCM Comments on 2/17/09 Progress Set	March 9, 2009
Mammoth AOC/OCCM Comments on 2/17/09 Progress Set	March 17, 2009
Mammoth Organization Chart	June 12, 2006
Mammoth Management Plan and Project Definition Report	May 7, 2007
Mammoth Management Plan and Project Definition Report	September 19, 2007
Mammoth Management Plan and Project Definition Report – Draft #1	June 6, 2006
Mammoth Management Plan and Project Definition Report – Draft #1	July 15, 2006

Documents Reviewed	
<i>Name of Document</i>	<i>Date of Document</i>
501.00 Identify Facility Modification Candidates [Rev. 1.3]	August 1, 2011
501.10 Facility Modification Naming Convention: Quality Assurance of Work Descriptions	April 8, 2011
502.00 FM Scope: Facility Modification Coordination Committee & Conceptual Estimate Process (FMCC&CE) [Rev 1.2]	August 1, 2011
503.00 FM Ranking & Scoring (Prioritization) [2 nd Draft]	January 21, 2010
503.10 Trial Court Facility Modification Working Group (TCFMWG) Meeting	January 13, 2010
504.00 FM Funding [2 nd Draft]	January 21, 2010
504.10 Shared Cost Approvals [Rev. 1.7]	March 22, 2012
505.00 FM Contracting [2 nd Draft]	January 19, 2010
506.00 FM Execution [2 nd Draft]	January 25, 2010
507.00 FM Close Out [2 nd Draft]	January 27, 2010
507.10 FM Asset Update & Preventative Maintenance Process [2 nd Draft]	January 25, 2010
2.1 Invoice Payment Procedures [5 th Draft]	October 26, 2010
The Gross Areas of a Building: Methods of Measurements – 2009 (Building Owners and Managers Association International [BOMA] standard)	2009
4.15 Selection, Procurement and Installation of Furniture [Draft]	January 19, 2012
Adoption of a Mitigated Negative Declaration for the New Santa Rosa Criminal Courthouse [Memo]	July 19, 2011
Procedure for CFARF Reports	Undated
Project Description [template]	Undated
Court Facilities: Rules and Regulations for Relocation Payments and Assistance Regarding Real Property Acquisition	November 19, 2010



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EXHIBIT E

LIST OF INTERVIEWS CONDUCTED

Pegasus-Global, as an independent auditor, met with a variety of the parties responsible for the execution the Court Capital Construction program in order to gain a full perspective and understanding of the Program’s status as well identify any potential impediments to its success. The interviews were conducted during February and March 2012 at the OCCM offices in Sacramento and San Francisco, California, with the entire Pegasus-Global audit team involved in the interview process. The interviews included representatives of the California judiciary, AOC, OCCM and one CM@Risk consultant. Information gained during the interviews was used to corroborate information developed from the documents reviewed by Pegasus-Global, identify additional documents that had not been previously produced by OCCM to Pegasus-Global, and to identify additional program and/or project issues for evaluation.

The individuals interviewed by Pegasus-Global and the dates of the interviews are shown below:

Interviews Conducted	
<i>Interview Date</i>	<i>Individuals Interviewed</i>
February 13, 2012	Hon. Brad Hill – <i>Court Facilities Working Group, Chair</i>
February 13, 2012	Hon. Patricia Lucas – <i>Court Facilities Working Group, Vice-Chair</i>
February 13, 2012	James Mullen – <i>Senior Manager Risk Management, AOC</i>
February 14, 2012	Lee Willoughby – <i>Division Director, AOC</i>
February 14, 2012	Ernie Swickard – <i>Assistant Division Director – Design & Construction, AOC</i>
February 14, 2012	Robert Emerson – <i>Assistant Division Director – Business & Planning Services, AOC</i>
February 14, 2012	Burt Hirschfeld – <i>Assistant Division Director – Real Estate & Asset Management, AOC</i>
March 5, 2012	Rona Rothenberg – <i>Senior Manager Design & Construction, AOC</i>
March 5, 2012	Robert Uvalle – <i>Manager Design & Construction, AOC</i>
March 6, 2012	Gisele Corrie – <i>Manager Business & Finance, AOC</i>
March 6, 2012	Eunice Calvert-Banks – <i>Manager Real Estate Services, AOC</i>
March 6, 2012	Pat McGrath – <i>Manager Facilities Management, AOC</i>
March 6, 2012	Kelly Quinn – <i>Senior Manager Planning & Policy, AOC</i>
March 6, 2012	Nick Turner – <i>Regional Manager NCRO, AOC</i>
March 6, 2012	Clifford Ham – <i>Principal Architect</i>
March 6, 2012	Laura Sainz – <i>Manager Enviro Analysis & Compliance, AOC</i>
March 6, 2012	Jim Stephenson – <i>Manager, AOC</i>
March 7, 2012	Curtis Child – <i>Governmental Affairs, AOC</i>
March 7, 2012	Pearl Freeman – <i>Project Manager, San Bernadino</i>
March 7, 2012	Jody Patel – <i>Administrative Director of the Courts, AOC</i>
March 8, 2012	Kim Davis – <i>Project Manager, B.F. Sisk and Madera</i>
March 8, 2012	Cody Pearson – <i>Sundt Construction Management (CM @ Risk)</i>
March 8, 2012	Ron Deal – <i>Sundt Construction Management (CM @ Risk)</i>
March 8, 2012	Steve Sundman – <i>Project Manager, Mammoth Lakes</i>
March 9, 2012	Leland Roberts – <i>Project Manager, Portola/Loyalton and Susanville</i>
March 15, 2012	Hon. Jeffrey Johnson – <i>Court Facilities Cost Reduction Committee</i>



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EXHIBIT F

AUDIT REVIEW TABLE

Exhibit F - Audit Review Table

The Audit Review Table presented here includes a summary of the program management industry standards, separated by individual program management functions. The industry standards are then used to review the OCCM policies, procedures, and processes at a program level, project level, and each phase of the project level. This includes identifying whether each phase is Uniform, Transparent, and Accountable, as well as if it meets the Standard of Care.

Further detail of the individual OCCM policies, procedures and processes within each of these categories can be found in the corresponding report section.

Policies, Procedures and Processes	Comparative Industry Standards										OCCM Policies, Procedures and Processes Section					
	Project Management Institute			CMAA (2008)				AIA	<u>Program Level</u>		<u>Project Level</u>					
	PMBOK Guide - 4th Edition (2008)	Construction Extension to the PMBOK Guide Third Edition Section Edition (2007)	PMI Standard for Program Management - 2nd Edition (2008)	Standards of Practice	Contract Administration Procedures	Time Management Procedures	Construction Management Procedures	Quality Management Procedures	The Architect's Handbook of Professional Practice (14th Edition) (2008)		Program Level Policies, Procedures and Processes	Site Selection & Acquisition	Preliminary Plans Phase	Working Drawings Phase	Construction Phase	Overlapping Policies, Procedures and Processes
										Section in Report	5.2	5.3.1	5.3.2	5.3.3	5.3.4	5.3.5
	Meets Standard of Care [Yes (Y); No (N); Partially (P); Not Applicable (N/A)]															
	Characteristics															
Program Management Function										Uniform	P	P	P	P	P	P
										Transparent	P	P	P	P	P	P
										Accountable	P	P	P	P	P	P
Project Integration Management	-	-	-	-	-	-	-	-	-	N	N	N	N	N	N	
Charter	4.1	4.1	4.1	-	-	-	-	-	-	P	N/A	N/A	N/A	N/A	N/A	
Management Plan	4.2	4.3	4.2	-	-	-	-	-	13.1	P	Y	N	N	P	N	
Execution	4.3	4.4	4.4	-	-	-	-	-	12.1	N	Y	P	N	P	N	
Monitor Work	4.4	4.5	4.6	-	-	-	-	-	-	N	P	P	N	P	P	
Change Control	4.5	4.6	3.6.9	-	-	-	-	-	12.5	N	N/A	N	N	P	P	
Closing	4.6	4.7	4.8	-	-	-	-	-	-	N	P	N	N	N	P	
Scope Management	-	-	-	8.0	-	-	-	-	-	P	N	N	N	N	N	
Requirements	5.1	5.1	5.3	-	-	-	-	-	-	N	P	P	P	N	N	
Definition	5.2	5.2	5.1	-	-	-	-	5.2.1	11.1	N	N	Y	N	N	N	
WBS	5.3	5.3	5.5	2.2; 8.2	6.2.1	-	2.12	5.2.4.1	-	N/A	N	N	N	N	N	
Verification	5.4	5.4	-	-	-	-	-	-	-	N	N	P	N	N	N	
Control	5.5	5.5	5.8	8.5	-	-	-	-	13.3	N	N	N	N	N	N	

Policies, Procedures and Processes	Comparative Industry Standards									Section in Report	OCCM Policies, Procedures and Processes Section					
	Project Management Institute			CMAA (2008)				AIA	<u>Program Level</u>		<u>Project Level</u>					
	PMBOK Guide - 4th Edition (2008)	Construction Extension to the PMBOK Guide Third Edition Section Edition (2007)	PMI Standard for Program Management - 2nd Edition (2008)	Standards of Practice	Contract Administration Procedures	Time Management Procedures	Construction Management Procedures	Quality Management Procedures	The Architects' Handbook of Professional Practice (4th Edition) (2008)		Program Level Policies, Procedures and Processes	Site Selection & Acquisition	Preliminary Plans Phase	Working Drawings Phase	Construction Phase	Overlapping Policies, Procedures and Processes
											5.2	5.3.1	5.3.2	5.3.3	5.3.4	5.3.5
	Meets Standard of Care [Yes (Y); No (N); Partially (P); Not Applicable (N/A)]															
Time Management	-	-	-	4.0	6.1.2	-	-	-	-	-	N	N	N	N	N	N
Activity Definition	6.1	6.1	-	4.2	6.2.7	4.2.2	-	-	-	-	N	Y	N	N	N	N
Activity Sequencing	6.2	6.2	-	-	6.2.8	4.2.3	-	-	-	-	N	P	N	N	N	N
Resource Estimating	6.3	6.3	-	-	-	4.3.3	-	-	-	-	N	N	N	N	N	P
Duration Estimating	6.4	6.4	-	-	-	4.5.10	-	5.5.4	-	-	N	N	N	N	N	N
Development	6.5	6.5	6.1	4.4; 4.5	6.3.2	4.2.5	7.4; 7.6	5.3.12	-	-	N	N	N	N	N	N
Control	6.6	6.6	6.2	4.3	6.5.15	4.5.5	-	-	13.3	-	N	N	N	N	P	N
Activity Weights Definition	-	6.7	-	-	-	-	-	-	-	-	N	N	N	N	N	N
Progress Curves Develop.	-	6.8	-	-	-	-	-	-	-	-	N	N	N	N	N	N
Progress Monitoring	-	6.9	-	-	-	-	-	-	-	-	P	N	P	N	P	P
Cost Management	-	-	-	3.0	-	-	-	-	13.5	-	P	P	P	N	P	N/A
Estimating	7.1	7.1	13.3	3.2; 3.3	6.3.9	-	2.2; 4.0	5.3.8	-	-	P	N	P	N	P	N/A
Budgeting	7.2	7.2	13.4	2.5	6.3.9	-	2.6; 6.0	-	-	-	P	N	P	N	P	P
Control	7.3	7.3	13.5	3.5	6.1.3; 6.5.14	-	3.7; 7.1; 8.0	-	12.4; 13.3	-	P	P	P	N	P	P
Quality Management	-	-	-	5.0	6.1.5	-	-	-	14.1	-	N	N	N	N	P	P
Planning	8.1	8.1	-	5.2	-	-	-	5.2.4.2	-	-	N	N	N	N	P	P
Assurance	8.2	8.2	-	5.3	-	-	-	5.3.7.2; 5.5.11	14.2	-	N	N	P	P	P	P
Control	8.3	8.3	-	5.5	6.5.11	-	-	5.2.4.3; 5.3.7.1	-	-	P	N	P	N	P	N
Human Resource Management	-	-	-	-	-	-	-	-	-	-	N	N	N	N	N	N/A
Planning	9.1	9.1	-	-	-	-	-	-	13.2	-	N	N	N	N	N	N/A
Acquire Team	9.2	9.2	-	-	-	-	-	-	-	-	N	N	N	N	N	N/A
Develop Team	9.3	9.3	-	-	-	-	-	-	-	-	P	Y	N	N	P	N
Manage Team	9.4	9.4	-	-	-	-	-	-	-	-	P	Y	N	N	P	N
Close Project Team	-	9.5	-	-	-	-	-	-	-	-	P	Y	N	N	P	N

Policies, Procedures and Processes	Comparative Industry Standards									Section in Report	OCCM Policies, Procedures and Processes Section					
	Project Management Institute			CMAA (2008)				AIA	<u>Program Level</u>		<u>Project Level</u>					
	PMBOK Guide - 4th Edition (2008)	Construction Extension to the PMBOK Guide Third Edition Section Edition (2007)	PMI Standard for Program Management - 2nd Edition (2008)	Standards of Practice	Contract Administration Procedures	Time Management Procedures	Construction Management Procedures	Quality Management Procedures	The Architects' Handbook of Professional Practice (14th Edition) (2008)		Program Level Policies, Procedures and Processes	Site Selection & Acquisition	Preliminary Plans Phase	Working Drawings Phase	Construction Phase	Overlapping Policies, Procedures and Processes
											5.2	5.3.1	5.3.2	5.3.3	5.3.4	5.3.5
	Meets Standard of Care [Yes (Y); No (N); Partially (P); Not Applicable (N/A)]															
Communications Management	-	-	-	-	6.1.4; 6.5.9	-	-	-	-	-	P	P	P	N	Y	N
Identify Stakeholders	10.1	-	14.2	-	6.3.3	-	-	-	-	-	P	P	P	N	N	N
Planning	10.2	10.1	10.1; 14.1	2.5	6.5.7	-	-	5.3.4	12.3	-	N	N	P	N	P	P
Distribution	10.3	10.2	10.2; 14.3	2.3	6.2.4	-	-	-	-	-	N	N	P	N	P	N
Manage Stakeholders	10.4	10.4	14.4	-	6.3.3	-	-	5.5.15	13.2	-	N	N	P	N	P	N
Reporting	10.5	10.3	10.3	2.5; 6.4; 6.5	6.5.12; 6.5.17	-	-	5.3.19; 5.6.2	-	-	P	P	P	N	P	P
Risk Management	-	-	-	-	6.1.7	-	7.3	-	-	-	N	N	N	N	N	N
Planning	11.1	11.1	11.1	-	-	-	-	-	-	-	N	N	N	N	N	N
Risk Identification	11.2	11.2	11.2	-	-	-	-	-	-	-	N	N	P	P	N	N
Qualitative Analysis	11.3	11.3	11.3	-	-	-	-	-	-	-	N	N	N	N	N	N
Quantitative Analysis	11.4	11.4	11.3	-	-	-	-	-	-	-	N	N	N	N	N	N
Response Planning	11.5	11.5	11.4	-	-	-	-	-	-	-	N	N	N	N	N	N
Monitor and Control	11.6	11.6	11.5	-	-	-	-	-	-	-	N	N	N	N	N	P
Procurement Management	-	-	-	2.4	-	-	-	-	12.4	-	Y	Y	Y	N/A	Y	N/A
Planning	12.1	12.1	12.1	-	6.3.8	4.3.6	-	-	-	-	P	Y	P	N/A	P	N
Conduct	12.2	12.2; 12.3; 12.4	12.2	-	6.4.9	-	-	-	-	-	P	P	P	N/A	Y	N
Administration	12.3	12.5	12.3	-	6.3.1; 6.4.5	-	-	-	12.5	-	P	P	P	N/A	Y	P
Closing	12.4	12.6	12.4	-	6.6	-	9.0	-	12.6	-	N	P	P	N/A	Y	N
Safety Management	-	-	-	-	-	-	-	-	-	-	Y	N/A	N/A	N/A	Y	N/A
Planning	-	13.1	-	-	-	-	-	-	-	-	Y	N/A	N/A	N/A	Y	N/A
Assurance	-	13.2	-	-	-	-	-	-	-	-	Y	N/A	N/A	N/A	Y	N/A
Control	-	13.3	-	-	-	-	-	-	-	-	Y	N/A	N/A	N/A	Y	N/A

Policies, Procedures and Processes	Comparative Industry Standards									Section in Report	OCCM Policies, Procedures and Processes Section					
	Project Management Institute		CMAA (2008)					AIA	<u>Program Level</u>		<u>Project Level</u>					
	PMBOK Guide - 4th Edition (2008)	Construction Extension to the PMBOK Guide Third Edition Section Edition (2007)	PMI Standard for Program Management - 2nd Edition (2008)	Standards of Practice	Contract Administration Procedures	Time Management Procedures	Construction Management Procedures	Quality Management Procedures	The Architects Handbook of Professional Practice (14th Edition) (2008)		Program Level Policies, Procedures and Processes	Site Selection & Acquisition	Preliminary Plans Phase	Working Drawings Phase	Construction Phase	Overlapping Policies, Procedures and Processes
											5.2	5.3.1	5.3.2	5.3.3	5.3.4	5.3.5
											Meets Standard of Care [Yes (Y); No (N); Partially (P); Not Applicable (N/A)]					
Environmental Management	-	-	-	-	-	-	-	-	-	-	Y	N	P	N	Y	N/A
Planning	-	14.1	-	-	-	-	-	-	-	-	P	N	P	N	P	N/A
Assurance	-	14.2	-	-	-	-	-	-	-	-	P	N	P	N	Y	N/A
Control	-	14.3	-	-	-	-	-	-	-	-	P	N	P	N	Y	N/A
Financial Management	-	-	-	-	-	-	-	-	-	-	Y	N	P	N	Y	N/A
Planning	-	15.1	-	-	-	-	-	-	-	-	P	N	P	N	P	N/A
Assurance	-	15.2	-	-	-	-	-	-	-	-	P	N	P	N	Y	N/A
Control	-	15.3	-	-	-	-	-	-	-	-	P	N	P	N	Y	N/A
Claim Management	-	-	-	-	-	-	-	-	-	-	N	N/A	N	N	N	N/A
Identification	-	16.1	-	-	-	-	-	-	-	-	N	N/A	N	N	N	N/A
Quantification	-	16.2	-	-	-	-	-	-	-	-	N	N/A	N	N	N	N/A
Prevention	-	16.3	-	-	-	-	-	-	-	-	P	N/A	N	N	N	N/A
Resolution	-	16.4	-	-	-	-	-	-	-	-	N	N/A	N	N	N	N/A



PEGASUS-GLOBAL HOLDINGS, INC.

1750 EMERICK ROAD CLE ELUM, WA 98922 WWW.PEGASUS-GLOBAL.COM

EXHIBIT G

ORIGINAL DOCUMENT REQUEST



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Tel: +1 (509) 857-2091 • Fax: +1 (509) 857-2092

MEMORANDUM

TO: Rona Rothenberg
FROM: Jack Dignum
DATE: 24 January 2012
CC: James Mullen
RE: Initial Document Request

Rona,

Once again, I wish to thank you for the opportunity to work with you and OCCM on this engagement. The call last Friday clarified some issues for us and enabled me to begin working on the formal audit plan to be discussed, modified as necessary and adopted at our initial kick off meeting in early February of this year. Our GAPP™ audits follow the same general plan, which is outlined within our Response to the RFP, Deliverable 1, dated December 9, 2011, and we heard nothing during our call last Friday which would significantly impact that general plan, as summarized below.

Our GAPP™ program audits consist of two elements: (1) examination of procedures and processes in place, and (2) examination of the actual practices followed during project execution. We start with the examination of the procedures and processes in place to assess the extent to which those procedures and processes in place met the industry standards for

each of the four management functions identified in the RFP: "... *budget, scope, schedule and quality of outcomes...*". Once we have completed that assessment we move into the examination of how those management functional elements were actually practiced (or planned to be followed for those projects currently in the early execution stages) during the execution of the six test projects identified within our response to the RFP. The first step is primarily done through an examination of the formal written policies, procedures, standards, etc., which are intended to guide and control the management of all projects undertaken by the OCCM. Given the 90 day performance period, we want to provide you with our initial document request now rather than waiting until after our kick-off meeting with OCCM.

The first step is heavily weighted towards a review of the primary guidance and control documents which govern the execution of all projects undertaken by the OCCM. Following a review of the primary guidance and control documents we will interview the Senior Management Staff at OCCM to fill complete our review of procedures and processes. In the interest of time, and if possible, we hope to combine those initial Senior Management interviews with our audit kick-off meeting, which means that we would like to get as early a start as possible reviewing the relevant documents. Towards that end I wanted to supply you with an initial list of documents which will be of the most help to use in this first phase of the GAPP™ audit. The documents are listed by type rather than by specific title, and should you have any questions as to what is meant by any specific document type please contact me by phone or e-mail and I hopefully I can give a more detailed description of the document we have in mind.

- **OCCM Standards.** This would include formal written laws, regulations, policies, procedures, or guidelines which govern the management activities listed below:
 - Procurement Standards, Procedures and Processes
 - Program/Project Risk Assessment Standards, Procedures and Processes
 - Project Contracting Standards, Procedures and Processes (for each allowable alternative, such as fixed price, cost plus, etc.)
 - Project Delivery Method Standards, Procedures, and Processes (for each allowable methodology, such as CM, CM@Risk, Design-Build, etc.)
 - Program Roles and Responsibility Standards, Procedures and Processes
 - Project Estimating and Budgeting Standards, Procedures and Processes (Budget Control)
 - Project Cost Control Standards, Procedures and Processes (Budget Control)
 - Project Payment Management Standards, Procedures and Processes (Budget Control)
 - Project Change Management Standards, Procedures and Processes (Scope Control)
 - Project Schedule Management Standards, Procedures and Processes (Schedule Control)
 - Project Quality Management Standards, Procedures and Processes (Quality Control)
 - Project Warranty and Close-out Standards, Procedures and Processes (Quality Control)

- **Standard Contracts.** This would include the standard contracting document set by which the OCCM engages the services of each of the following:
 - Program Manager
 - Project Manager
 - Architect/Engineer
 - Construction Manager/Consultant
 - Contractor

- **Test Audit Project Contracts.** This would include the contract document sets by which OCCM engaged the CMs, architects, construction contractors and/or construction consultants for the six projects to be audited:
 - B.F. Sisk Renovation Project
 - New Mammoth Lakes Courthouse
 - New Portola/Loyalton Courthouse
 - New San Bernardino Courthouse
 - New Susanville Courthouse
 - New Madera Courthouse

- **OCCM Internal Reporting.** In this case we are looking for those formal written policies, procedures which guide the project and program reporting within the OCCM and AOC including:
 - Internal OCCM Program or Project Cost or Budget Reporting Procedures and Formats (Reports prepared by OCCM for submission to AOC and/or any other governmental agency)
 - Internal OCCM Program or Project Scope Reporting Procedures and Formats (Reports prepared by OCCM for submission to AOC and/or any other governmental agency)
 - Internal OCCM Program or Project Schedule Reporting Procedures and Formats (Reports prepared by OCCM for submission to AOC and/or any other governmental agency)
 - Internal OCCM Program or Project Quality Reporting Procedures and Formats (Reports prepared by OCCM for submission to AOC and/or any other governmental agency)
 - Internal OCCM Program or Project Close-out Reporting Procedures and Formats (Reports prepared by OCCM for submission to AOC and/or any other governmental agency)
 - Internal OCCM Program or Project Warranty Reporting Procedures and Formats (Reports prepared by OCCM for submission to AOC and/or any other governmental agency)

- Internal OCCM Program or Project Evaluation Reporting Procedures and Formats (for CM's, Architects and Contractors, prepared by OCCM for submission to AOC and/or any other governmental agency)
- **Program/Project Reporting.** In this case we are looking for those formal written policies, procedures which guide the reporting from the individual Project to the OCCM, including:
 - Project Level Cost or Budget Reporting Procedures and Formats (Reports prepared by the Project for submission to OCCM)
 - Project Level Scope Reporting Procedures and Formats (Reports prepared by the Project for submission to OCCM)
 - Project Level Schedule Reporting Procedures and Formats (Reports prepared by the Project for submission to OCCM)
 - Project Level Quality Reporting Procedures and Formats (Reports prepared by the Project for submission to OCCM)
 - Project Close-out Reporting Procedures and Formats (Reports prepared by the Project for submission to OCCM)
 - Project Warranty Reporting Procedures and Formats (Reports prepared by the Project for submission to OCCM)
 - Project Level Evaluation Reporting Procedures and Formats (for CM's, Architects and Contractors, reports prepared by the Project for submission to OCCM)
- **Test Project Reports.** In this case we are looking for those actual reports prepared by, and received from, audit test projects named above to the OCCM, including (note it is possible that all of these topical areas will be contained in single, periodic Project Progress Report):
 - Project Cost or Budget Reports
 - Project Scope Reports
 - Project Schedule Reports
 - Project Quality Reports
 - Project Close-out Reports
 - Project Warranty Reports
 - Project Performance Evaluations

Essentially we use the documents listed above to both identify the standards which govern those management activities cited; how performance was measured and reported; and how the reporting flows from the individual projects through OCCM to the AOC and other governmental agencies. Likewise we are examining the documents to ascertain if at any point in setting, applying, evaluating and reporting against a standard, procedure or process there is an inconsistency between the standards as set and the standards as applied.

If you would like any additional explanation of the documents listed above or if at any time you or any of your team need to contact me, my contact information is as follows:

- Phone (509) 857-2235
- Fax (509) 857-2237
- Mobile (206) 459-7221 (Note that this number is not reachable while I am actually in our Cle Elum Office so the best number is the first phone number listed above.)
- E-mail j.dignum@pegasus-global.com

Our entire team looks forward to working with you and the OCCM staff during this GAPP™ audit.

Jack Dignum



PEGASUS-GLOBAL HOLDINGS, INC.

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EXHIBIT H

PROJECT DOCUMENT COMPARISON TABLE

BF Sisk	New Lassen (Susanville)	Plumas Sierra (Portola Loyalton)	San Bernardino	Mammoth	Madera
			• 1 Master DCC Documents		
• Agenda	• Agenda				• Agenda
○ Partnering Session I					
• Agreements-Invoices		• Agreements-Invoices	• Agreements-Invoices	• Agreements, Invoices	• Agreements-Invoices
○ AE Amendments				○ AE Amendments	
○ AE Contract		○ AE Contract	○ AE Contract	○ AE Contract	○ AE Contract [2007-2008 subfolder]
○ AE CTF		○ AE CTF	○ AE CTF [13 subfolders]		○ AE CTF
○ AE Estimate of Value Services			○ AE Estimate of Value Services	○ AE Estimate of Value Services	
○ AE Invoices		○ AE Invoices	○ AE Invoices	○ AE Invoices	○ AE Invoices
○ AE Negotiations		○ AE Negotiations		○ AE Negotiations	
○ Blueprint Invoices					
			○ CEQA		○ CEQA Rule 9510
○ CM Amendments					
○ CM Contract			○ CM Contract	○ CM Agreements [Turner subfolder]	○ CM Contract
○ CM CTF			○ CM CTF		○ CM CTF
○ CM Estimate of Value Services					
○ CM Invoices			○ CM Invoices		○ CM Invoices
○ CM Negotiations					
			○ CMAR Contract		
			○ CMAR CTF		
			○ CMAR Invoices		
			○ Commissioning Contracts		
			○ Commissioning CTF		
			○ Commissioning Invoices		
○ Dept of Forestry & Fire Protection					
			○ DGS Invoices		
○ Division of State Architectural Invoices					
			○ Environmental Contract		
			○ Environmental CTF		
○ GC Invoices					
		○ Geotechnical Negotiations			
○ Misc Invoices			○ Misc Invoices	○ Misc Invoices	
		○ MOU with Cnty		○ MOU with Cnty	○ City and County
		○ MOU with Crt		○ MOU with Crt	○ MOU with Court
○ Other Agreements					○ Other
			○ Peer Review Structural		
			▪ Agreements-Base Isolation		
			▪ Agreements-Basic Structural		
			▪ Invoices		
			○ Phase 1 & 2 Invoices		
○ State Fire Marshal Invoices					
○ URS-Associate PM					
• Bidding	• Bidding		• Bidding	• Bidding	
○ Addenda	○ Addenda		○ Approved Set & Addenda		
			▪ Addendum 1 Stamped and Signed		
			▪ Addendum 2 Stamped and Signed		
			▪ Addendum 3 Stamped and Signed		

BF Sisk	New Lassen (Susanville)	Plumas Sierra (Portola Loyalton)	San Bernardino	Mammoth	Madera
			<ul style="list-style-type: none"> Approved Set-Issued for Bid [4 subfolders w/several sub-subfolders] 		
o Advertisement	o Advertisement		o Advertisement		
o Award	o Award		o Award		
o Bid Documents	o Bid Documents				
o Bid Tabulation	o Bid Tabulation				
o Bids Received	o Bids Received		o Bids Received [5 "GMAX" subfolders]		
			o DVBE		
			o Furniture		
o Notice to Proceed	o Notice to Proceed		o Notice to Proceed		
o Other	o Other		o Other		
o Pre-qualification	o Pre-qualification		o Pre-qualification		
	o Protest Letters		o Protest Letters		
			• Ceremonies		
			o 11 03 18 Groundbreaking [subfolder w/sub-subfolders]		
• Claims-Disputes				• Claims-Disputes	
o Analysis					
o Correspondence – Incoming					
o Correspondence – Outgoing					
	• CFP				
• Construction Admin	• Construction Admin	• Construction Admin	• Construction Admin	• Construction Administration	• Construction Administration
o Accident Reports	o Accident Reports	o Accident Reports	o Accident Reports	o Accident Reports	o Accident Reports
o As-Built Drawings	o As-Built Drawings	o As-Built Drawings [6 subfolders, some sub-subfolders]	o As-Built Drawings	o As-Built Drawings [subfolder w/several sub-subfolders]	o As-Built Drawings
o Bulletins	o Bulletins	o Bulletins	o Bulletins [8 subfolders]	o Bulletins	o Bulletins
			o CEQA Issues		
o Change Orders	o Change Orders		o Change Order and Allowance Request	o CORs (ACO PCOs) [several empty subfolders]	
<ul style="list-style-type: none"> Change Order #11 – Chiller Replacement Project Potential Change Orders 			<ul style="list-style-type: none"> AOC CO #1 AOC CO #2 Flow Charts & Forms 		
		o CM Data			
		<ul style="list-style-type: none"> 3601A3 – Plumas Sierra Courthouse 			
		<ul style="list-style-type: none"> ASI's 			
		o ASI 001 [through ASI 051]			
		• Close Out			
		• Correspondence			
		• Encroachment Permit			
		• Generator Permit			
		• Inspection Reports			
		o Arch Field Reports			
		o Geo Report			
		• Jobsite Photos			
		o [128 subfolders, by			

BF Sisk	New Lassen (Susanville)	Plumas Sierra (Portola Loyalton)	San Bernardino	Mammoth	Madera
		date]			
		• Meeting Minutes			
		• Monthly Status Reports			
		• Payment Applications			
		• PCO's			
		○ [79 subfolders, 001-094 (not all #'s)]			
		• RFI's			
		○ Framing RFIs for Public Request			
		○ [RFI 001 through 137 (no 102)]			
		• Schedule			
		• Submittals			
		• SWRCB Permit			
		○ Storm Water Pics			
		• Wkly Logs			
○ Daily Reports – Inspection	○ Daily Reports – Inspection	○ Daily Reports – Inspection	○ Daily Reports - Inspection	○ Daily Reports - Inspection	○ Daily Reports - Inspection
▪ On Site Inspection			▪ [3 subfolders, 1 w/several sub-sub]		
• COR					
• Electrical Final					
• Fresno Sisk					
○ Daily Reports					
▪ Inspection Request Log					
○ Fire Sprinkler As-Builts					
▪ 07.16.10					
○ Misc					
○ Moore Twining					
▪ Moore Twining Daily Reports					
○ NOC					
○ PCO					
○ RFI [3 subfolders]					
• Fresno Sisk Correction Notices					
• Fresno Sisk Request Inspection					
○ Inspection Request [with 10 subfolders]					
• IR Log					
• Moore Twining					
• Permits					
• SFM Final					
			○ Directories		
			○ Environmental-Soil		
○ Exception Notices				○ Exception Notices	
	○ Front End Specs				
	▪ 06 12 20 Files				

BF Sisk	New Lassen (Susanville)	Plumas Sierra (Portola Loyalton)	San Bernardino	Mammoth	Madera
			o Meeting Minutes		
			▪ OAC Meetings		
			▪ Other Project Meetings		
o Notices of Non-compliance	o Notices of Non-compliance	o Notices of Non-compliance	o Notices of Non-compliance		o Notices of Non-compliance
o O&M Manuals	o O&M Manuals	o O&M Manuals	o O&M Manuals	o O&M Manuals [O&Ms, Warranties subfolders, sub-subfolders]	o O&M Manuals
			o OCIP		
			o Offsite Permits		
			o Other		
o Progress Photos	o Progress Photos	o Progress Photos	o Progress Photos [AOC & CM subfolders]	o Progress Photos [subfolder, sub-subfolders]	o Progress Photos
o Punch List	o Punch List	o Punch List	o Punch List	o Punch List	o Punch List
o Record Documents	o Record Documents	o Record Documents	o Record Documents	o Record Documents	o Record Documents
o Request for Information	o Request for Information	o Request for Information	o Request for Information [3 subfolders]	o RFIs [several subfolders]	o Request for Information
			o Safety		
			o Schedules		
			▪ 3 Week Look Ahead		
			▪ Overall Schedules		
			o SFM-DSA-CSA		
o State Fire Marshal Notices	o State Fire Marshal Notices	o State Fire Marshal Notices	o State Fire Marshal Notices	o SFM Notices	o State Fire Marshal Notices
o Stop Notices	o Stop Notices	o Stop Notices	o Stop Notices	o Stop Notices	o Stop Notices
o Submittals – Shop Drawings	o Submittals – Shop Drawings	o Submittals – Shop Drawings	o Submittals – Shop Drawings [Log, Approved, Initiated subfolders]	o Submittal – Shop Drawings [several subfolders, sub-subfolders]	o Submittals – Shop Drawings
			o Substitutions		
			o SWPPP		
o Testing Reports	o Testing Reports	o Testing Reports	o Testing Reports	o Testing Reports [subfolder]	o Testing Reports
			o Utilities		
				o WCDs [several subfolders]	
o Weekly Reports	o Weekly Reports	o Weekly Reports	o Weekly Reports	o Weekly Reports	o Weekly Reports
• Consultant Selection	• Consultant Selection	• Consultant Selection	• Consultant Selection	• Consultant Selection	• Consultant Selection
o A&E Interview Ranking	o A&E Interview Ranking				o A&E Interview Ranking
o A&E RFQ Advertisement	o A&E RFQ Advertisement				o A&E RFQ Advertisement
o A&E RFQ Ranking	o A&E RFQ Ranking				o A&E RFQ Ranking
o A&E RFQ Responses	o A&E RFQ Responses				o A&E RFQ Responses
o CEQA Transportation & Air					
		o CM Interview Ranking			o CM Interview Ranking
		o CM RFQ			
		▪ FINAL Posted on Court Info			
o CM RFQ Advertisement		o CM RFQ Advertisement		o CM RFQ Advertisement	o CM RFQ Advertisement
o CM RFQ Ranking		o CM RFQ Ranking			o CM RFQ Ranking
o CM RFQ Responses		o CM RFQ Responses			o CM RFQ Responses
o CM RFQ Solicitation					
▪ 11-06 Solicitation					
▪ Contracts Review					
▪ First Solicitation DO NOT USE					
▪ Interview Process					
▪ March 2007					
			o CMAR RFP [multiple sub, sub-subfolders]		

BF Sisk	New Lassen (Susanville)	Plumas Sierra (Portola Loyalton)	San Bernardino	Mammoth	Madera
			o Commissioning		
			o Communications		
	o Courtroom Mock-Up Photos [2 subfolders]		o Court Equipment		
o Design Criteria			o Design Criteria	o Design Criteria	o Design Criteria
o Document Review Comments [AOC, DSA, SFM]					o Document Review Comments [SFM subfolder]
			o Downtown Parking Study		
			o FAA Study		
			o FF&E		
o Geotechnical Report			o Geotechnical Report	o Geotechnical Report	
o Land Survey	o Land Survey		o Land Survey	o Land Survey	
▪ Risk Analysis					
			o LEED & Savings By Design		
o Management Plan	o Management Plan	o Management Plan	o Management Plan	o Management Plan	o Management Plan
			o Other		
o Plans [3 subfolders]				o Plans [4 subfolders, sub-subfolders]	
			o Pond Risk Assessment		
			o Pre-Design		
			o Presentations [4 subfolders]		
o Programming		o Programming	o Programming	o Programming	o Programming
			▪ AOC Criteria		
			▪ BGSF Updates		
▪ Construction Documents					
			▪ Consultant Program		
			▪ Court's Comments		
▪ Design Development		▪ Design Development [DD Drawings subfolder]		▪ Design Development	
			▪ Final Program		
▪ Schematic Design		▪ Schematic Design		▪ Schematic Design [100%, 50% subfolders]	▪ Schematic Design
			o Project Feasibility Report		
o Project Photographs [2 subfolders]					
o Reports					
▪ Interim Panel					
▪ Judicial Council					
			o Schematic Design [2 subfolders, sub-subfolders]		
o Seismic Reports			o Seismic Base Isolation		
▪ Historic Preservation					
▪ Interior Design					
▪ Lighting Design					
▪ Other Design Services					
			o Sheriff-Probation		
			o Sole Source Approvals		
			o Special IT Scope		
o Specifications				o Specifications	
▪ Div1 [Draft, Final subfolders]					
o Structural Calculations					
o Study		o Study		o Study	

BF Sisk	New Lassen (Susanville)	Plumas Sierra (Portola Loyalton)	San Bernardino	Mammoth	Madera
		<ul style="list-style-type: none"> ▪ 06 06 02-Portol Loyalton Study Phase Report 			
<ul style="list-style-type: none"> ▪ <i>Planning</i> ▪ <i>Pre-Design</i> 		<ul style="list-style-type: none"> ▪ <i>Planning</i> 			
			<ul style="list-style-type: none"> ○ SWPPP ○ Threat Assessment 		
<ul style="list-style-type: none"> ○ Title 24 Energy Compliance – Energy Analysis 					
<ul style="list-style-type: none"> ▪ <i>[Architectural, Energy, Mechanical, Structural subfolders]</i> 					
			<ul style="list-style-type: none"> ○ Utilities <i>[Applications, Correspondence subfolders]</i> <i>[see Working Drawings above]</i> 		
<ul style="list-style-type: none"> • Environmental 	<ul style="list-style-type: none"> • Environmental 	<ul style="list-style-type: none"> • Environmental <i>[in Due Diligence folder]</i> 	<ul style="list-style-type: none"> • Environmental 	<ul style="list-style-type: none"> • Environmental <i>[also in Due Diligence folder]</i> 	<ul style="list-style-type: none"> • Environmental <i>[also in Due Diligence folder]</i>
<ul style="list-style-type: none"> ○ <i>Categorical Exemption</i> ○ <i>Draft Environmental Document</i> ○ <i>Final Environmental Document</i> 	<ul style="list-style-type: none"> ○ <i>Draft CEQA</i> ○ <i>Final CEQA</i> 	<ul style="list-style-type: none"> ○ <i>Categorical Exemption</i> ○ <i>Draft Environmental Document</i> ○ <i>Final Environmental Document</i> 	<ul style="list-style-type: none"> ○ <i>CEQA</i> <i>[Draft subfolder]</i> ○ <i>CEQA</i> <i>[Final subfolder]</i> ○ <i>Construction Phase Data</i> 	<ul style="list-style-type: none"> ○ <i>Draft Environmental Document</i> <i>[subfolder]</i> ○ <i>Final Environmental Document</i> 	<ul style="list-style-type: none"> ○ <i>Draft Environmental Document</i> <i>[Due Diligence folder]</i> ○ <i>Final Environmental Document</i> <i>[Due Diligence folder]</i>
<ul style="list-style-type: none"> ○ <i>Hazardous Materials Abatement Specifications & Haz Mat Working Drawings 08 04 04</i> 					
					<ul style="list-style-type: none"> ○ <i>Notice of Determination</i> <i>[Due Diligence folder]</i> ○ <i>Notice of Preparation</i> <i>[Due Diligence folder]</i>
<ul style="list-style-type: none"> ○ <i>Other Studies</i> ○ <i>Project Description</i> 		<ul style="list-style-type: none"> ○ <i>Other Studies</i> 		<ul style="list-style-type: none"> ○ <i>Other Studies</i> 	
	<ul style="list-style-type: none"> ○ <i>Phase I & II</i> 	<ul style="list-style-type: none"> ○ <i>Phase I & II</i> 	<ul style="list-style-type: none"> ○ <i>Phase I & II</i> <i>[2 subfolders]</i> 	<ul style="list-style-type: none"> ○ <i>Phase I & II</i> <i>[also in Due Diligence folder]</i> 	
					<ul style="list-style-type: none"> ○ <i>Rule 9510</i> <i>[Environmental folder]</i>
					<ul style="list-style-type: none"> • Escrow Documents
<ul style="list-style-type: none"> • File Guide-Project Directory 	<ul style="list-style-type: none"> • File Guide-Project Directory 	<ul style="list-style-type: none"> • File Guide-Project Directory 		<ul style="list-style-type: none"> • File Guide-Project Directory 	
	<ul style="list-style-type: none"> ○ <i>File Guide</i> ○ <i>Project Directory</i> 	<ul style="list-style-type: none"> ○ <i>File Guide</i> ○ <i>Project Directory</i> 		<ul style="list-style-type: none"> ○ <i>File Guide</i> ○ <i>Project Directory</i> 	
<ul style="list-style-type: none"> • Financial 	<ul style="list-style-type: none"> • Financial 	<ul style="list-style-type: none"> • Financial 	<ul style="list-style-type: none"> • Financial 	<ul style="list-style-type: none"> • Financial 	<ul style="list-style-type: none"> • Financial
<ul style="list-style-type: none"> ○ <i>Budget Report</i> ○ <i>CAFM Reports</i> ○ <i>COBCP</i> ○ <i>Cost Estimates – External</i> ○ <i>Cost Estimates – Internal</i> 	<ul style="list-style-type: none"> ○ <i>Bond Documents</i> ○ <i>Budget Report</i> ○ <i>Cost Estimates – External</i> ○ <i>Cost Estimates – Internal</i> 	<ul style="list-style-type: none"> ○ <i>Budget Report</i> ○ <i>COBCP</i> ○ <i>Cost Estimates – External</i> ○ <i>Cost Estimates – Internal</i> 	<ul style="list-style-type: none"> ○ <i>Bond Documents</i> ○ <i>Budget Report</i> <i>[see Cost Estimates – Internal]</i> ○ <i>Cost Estimates – External</i> <i>[5 subfolders]</i> ○ <i>Cost Estimates – Internal</i> <i>[COBCP subfolder]</i> ○ <i>County Contribution</i> ○ <i>Oracle Reports</i> 	<ul style="list-style-type: none"> ○ <i>Budget Report</i> ○ <i>CAFM Reports</i> ○ <i>Cost Estimates – External</i> ○ <i>Cost Estimates – Internal</i> 	<ul style="list-style-type: none"> ○ <i>Bond Documents</i> ○ <i>Budget Report</i> ○ <i>Cost Estimates – External</i> ○ <i>Cost Estimates – Internal</i>
<ul style="list-style-type: none"> ○ <i>Fund Transfer Form</i> 	<ul style="list-style-type: none"> ○ <i>Fund Transfer Form</i> 			<ul style="list-style-type: none"> ○ <i>Fund Transfer Form</i> 	<ul style="list-style-type: none"> ○ <i>Fund Transfer Form</i>

BF Sisk	New Lassen (Susanville)	Plumas Sierra (Portola Loyaltan)	San Bernardino	Mammoth	Madera
○ JCC Approvals	○ JCC Approvals			○ JCC Approvals	○ JCC Approvals
			○ Project Cost Responsibility		
			○ Project Templates		
○ PWB Approvals	○ PWB Approvals	○ PWB Approvals	○ PWB & DOF	○ PWB Approvals	○ PWB Approvals
▪ Acquisition Final 07 10 12 [Draft, Final subfolders]			▪ Acquisition		
▪ Award Construction Contract Draft					
			▪ CD-Build [7 subfolders]	▪ Approval to Bid	
			▪ CD-Construct	▪ Approval to Construct	
▪ Preliminary Plans Draft 07 10 12					
▪ Preliminary Plans Final 07 10 12		▪ PWB PP Submittal	▪ PP	▪ Preliminary Plans Approval	▪ Preliminary Plans [Final subfolder, 100% DD sub-subfolder]
• Electronic CD					
▪ Working Drawings Proceed to Bid Draft					
▪ Working Drawings Proceed to Bid Final		▪ PWB WD Submittal			▪ Working Drawings Approval
• TAB 03 – Sisk Drawings and Project Manual [3 subfolders]					
					• FMU [11 empty subfolders]
	• Furniture [Photos subfolders]				
					• Images
					• Lease
• Legislation				• Legislation	
			• Media		
• Meeting Minutes		• Meeting Minutes	• Meeting Minutes and Documents	• Meeting Minutes	• Meeting Minutes
			○ Acquisition Phase		
			○ Agenda		
○ Construction				○ Construction	
○ County		○ County			
○ Court		○ Court		○ Court	
○ Design		○ Design	○ Design Development Phase	○ Design	
○ Environmental					
○ Financial					
○ Other		○ Other		○ Other	
○ Partnering			○ Partnering		
			○ Schematic Design Phase		
			○ Working Drawings		
				• Mono Art [iProcurement Docs subfolder]	
					• MOU
• Other Services				• Other Services	
○ Commissioning					
○ Facility Manager					
○ Facility Performance Evaluation					
○ Lessons Learned				○ Lessons Learned	

BF Sisk	New Lassen (Susanville)	Plumas Sierra (Portola Loyalton)	San Bernardino	Mammoth	Madera
○ Move Management				○ Move Management	
	• PDU Forms				
		• Photos	[see Property folder]	• Photographs	
	• Post Acquisition	• Post Acquisition	• Post Acquisition	• Post Acquisition	• Post Acquisition
		○ Correspondence			
		○ Event Licenses			
	○ FMU [11 subfolders]	○ FMU [11 subfolders]	○ FMU [11 subfolders]		○ FMU [primary folder, see above]
	○ Title	○ Title	○ Title	○ Title	○ Title
		• Pre-Drive Mitigation Files [numerous subfolders, see separate list]			
• Property	• Property	• Property	• Property	• Property	• Property
○ Acquisition Agrmnt	○ Acquisition Agrmnt	○ Acquisition Agrmnt [Drafts, Final subfolder]			○ Acquisition Agreement [Drafts, Final subfolder]
					○ Advertisement
○ Appraisal	○ Appraisal	○ Appraisal		○ Appraisal	○ Appraisal
○ Asbestos Survey					○ Broker
			○ City Sewer Removal Project		
			○ County Lot Demo		
			○ Due Diligence [3 subfolders]		○ DGS Invoices
	○ Escrow				
○ JCC Approvals	○ JCC Approvals	○ JCC Approvals		○ JCC Approvals	
		○ June 11 Submittal			
○ Legal Description		○ Legal Description		○ Legal Description	
	○ Offers			○ MOUs	
			○ Photos	○ Photos	
○ Purchase Agreement			○ Purchase Agreement	○ Purchase Agreement	○ Purchase Offers
○ PWB Approvals	○ PWB Approvals [2 subfolders, sub-subfolders]	○ PWB Approvals [3 subfolders, sub-subfolders]	○ PWB Approvals [2 subfolders, sub-subfolder]	○ PWB Approvals [4 subfolders, sub-subfolders]	○ PWB Approvals
					○ Site Acquisition [Due Dilligence, PDF subfolders, sub-subfolders]
					○ Site Criteria Form and Approvals [4 subfolders]
	○ Site Information	○ Site Selection			○ Site Selection [6 subfolders, sub-subfolders]
○ Title Reports [subfolder]	○ Title Reports [4 subfolders]	○ Title Reports [2 subfolders]		○ Title Reports [2 subfolders]	○ Title Reports [1 subfolder]
• Regulatory Issues				• Regulatory Issues	• Regulatory Issues
○ Access Compliance – Division of State Architect					
○ Elevator Permits					
○ Emergency Permits					
○ Emergency Generator Permit					
○ State Fire Marshall					
○ Title 24 – Corrections Standards Authority					
○ Utility Permits					
• Reporting	• Reporting	• Reporting	• Reporting	• Reporting	• Reporting
			○ Executive and Planning [2 site]		

BF Sisk	New Lassen (Susanville)	Plumas Sierra (Portola Loyalton)	San Bernardino	Mammoth	Madera
			subfolders		
o Judicial Council Reports					
▪ Circulating Order					
• Working Draft					
▪ Submitted Version of Report					
o Monthly Progress Reports	o Monthly Progress Reports	o Monthly Progress Reports	o Monthly Progress Reports	o <i>Monthly Progress Reports</i>	o Monthly Progress Reports
			o PWB		
o <i>Special Reports</i>				o <i>Special Reports</i>	
o <i>Weekly Progress Reports</i>					
• Schedule	• Schedule	• Schedule	• Schedule	• Schedule	• Schedule
o Contractor Schedule	o <i>Contractor Schedule</i>			o <i>Contractor Schedule</i>	
o Preliminary Schedule	o Preliminary Schedule	o Preliminary Schedule	o Preliminary Schedule	o <i>Preliminary Schedule</i>	o Preliminary Schedule
o <i>Recovery Schedule</i>	o <i>Recovery Schedule</i>				
o <i>Reports-Analysis</i>	o Reports-Analysis				
• Sustainable				• <i>Sustainable</i>	



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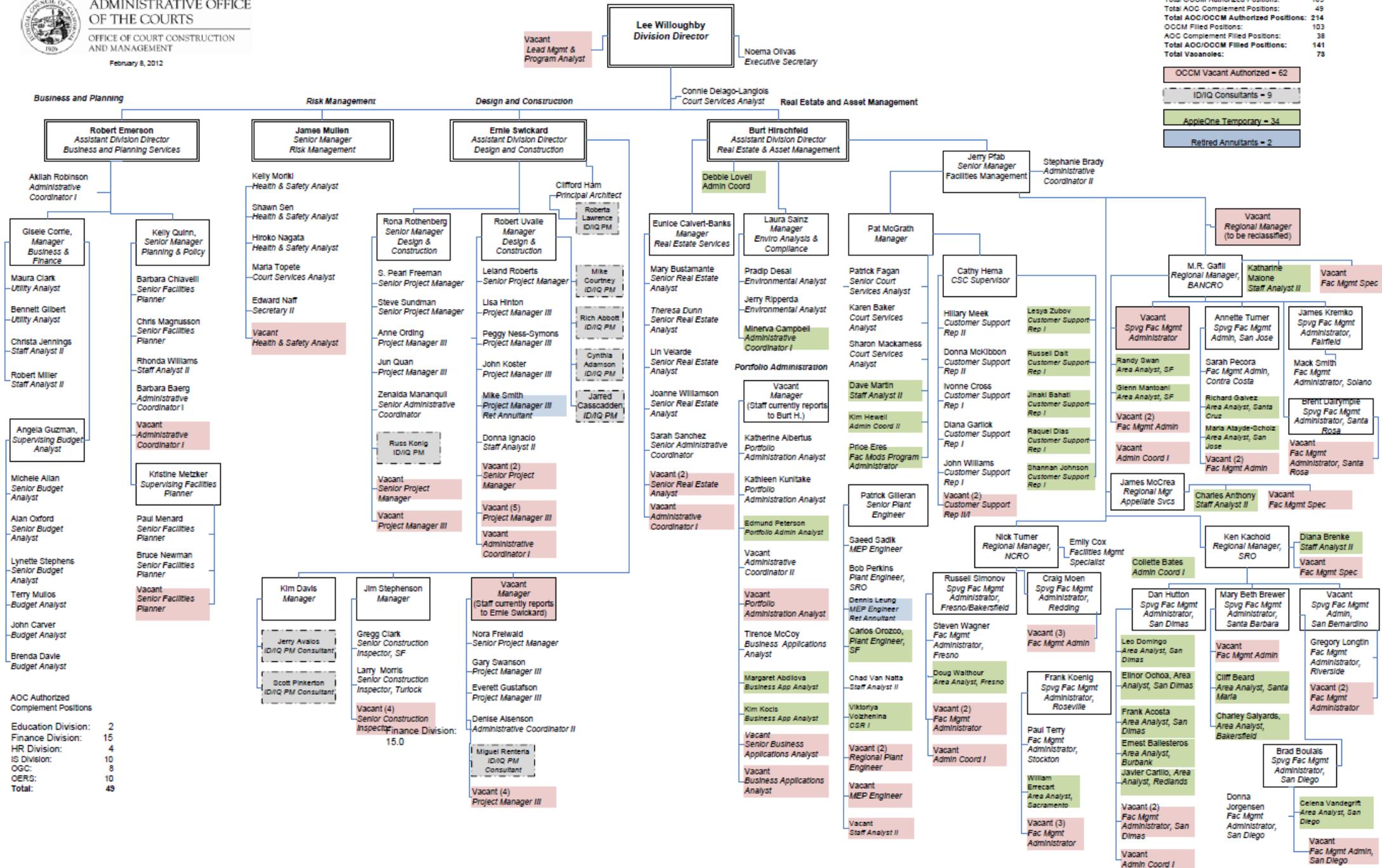
EXHIBIT I

CURRENT OCCM ORGANIZATIONAL CHART

OCCM Organizational Chart (February 8, 2012)



**ADMINISTRATIVE OFFICE
OF THE COURTS**
OFFICE OF COURT CONSTRUCTION
AND MANAGEMENT
February 8, 2012



Total OCCM Authorized Positions: 165
 Total AOC Complement Positions: 49
 Total AOC/OCCM Authorized Positions: 214
 OCCM Filled Positions: 103
 AOC Complement Filled Positions: 38
 Total AOC/OCCM Filled Positions: 141
 Total Vacancies: 73

OCCM Vacant Authorized = 62
 ID/IQ Consultants = 9
 AppleOne Temporary = 34
 Retired Annuitants = 2

AOC Authorized Complement Positions

Education Division:	2
Finance Division:	15
HR Division:	4
IS Division:	10
OGC:	8
OERS:	10
Total:	49



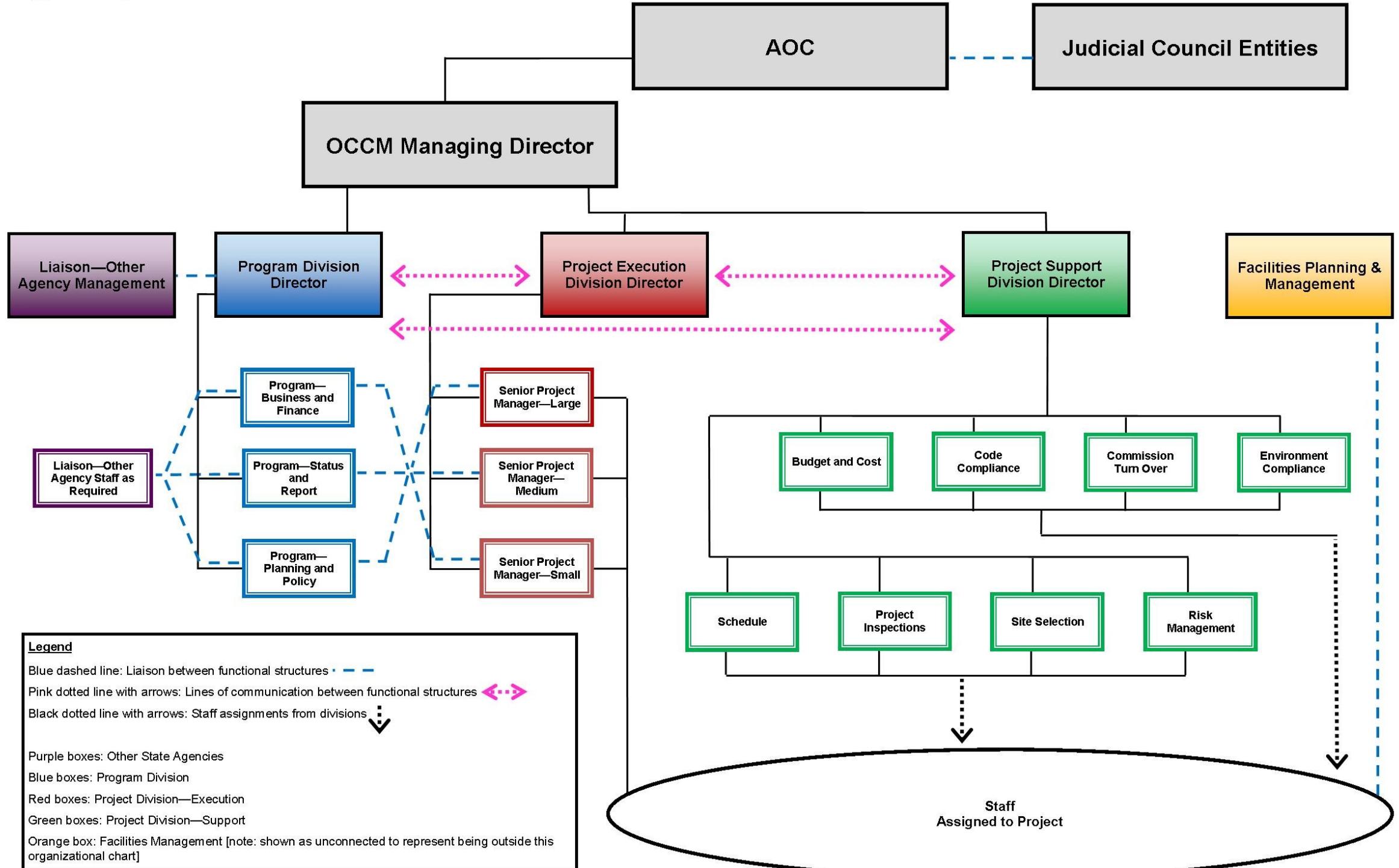
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EXHIBIT J

SUGGESTED OCCM ORGANIZATIONAL CHART

Suggested Organizational Chart



Legend

- Blue dashed line: Liaison between functional structures
- Pink dotted line with arrows: Lines of communication between functional structures
- Black dotted line with arrows: Staff assignments from divisions
- Purple boxes: Other State Agencies
- Blue boxes: Program Division
- Red boxes: Project Division—Execution
- Green boxes: Project Division—Support
- Orange box: Facilities Management [note: shown as unconnected to represent being outside this organizational chart]