

**CAPITAL PROJECTS ADVISORY REVIEW BOARD**

**Minutes**

**1500 Jefferson – Presentation Room**

**Olympia, Washington**

**February 12, 2015**

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<b><u>Members Present</u></b>	<b><u>Representing</u></b>	<b><u>Members Absent</u></b>	<b><u>Representing</u></b>
Vince Campanella	General Contractors	Mark Riker	Construction Trades Labor
Ty Heim	Public Hospital Districts	Vacant	Senate (R)
Senator Bob Hasegawa	Senate (D)	Vacant	Cities
Steven Crawford	School Districts	Rep. Vincent Buys	House (R)
Santosh Kuruvilla	Engineers	John Ahlers	Private Industry
Alexis Oliver	OMWBE	Rep. Hans Dunshee	House (D)
Robert Maruska (Chair)	Washington Ports	Christopher Hirst	Private Industry
Alan Nygaard	Higher Education	William Frare	DES
Gary Rowe	Counties		
Walter Schacht	Architects		
Ed Kommers (Vice Chair)	Specialty Contractors		
Charles Horn	Insurance/Surety Industry		
Andrew Thompson	General Contractors		
Greg Fuller	Specialty Contractors		
Lee Newgent	Construction Trades Labor		

**STAFF & GUESTS are listed on the last page**

**Welcome & Introductions**

Vice Chair Ed Kommers called the Capital Projects Advisory Review Board (CPARB) meeting to order at 9:09 a.m.

A meeting quorum was attained.

Everyone present provided self-introductions. New members Santosh Kuruvilla and Lee Newgent introduced themselves and provided information about their respective experience and company.

Chair Maruska reported on the appointment of Representative Hans Dunshee to the Board as the Democrat Representative from the House. Helaine Honig is resigning from her position because of family issues.

**Approve Agenda**

*Ed Kommers moved, seconded by Lee Newgent, to approve the agenda as published. Motion carried.*

**Approve December 11, 2014 Meeting Minutes**

*Gary Rowe moved, seconded by Lee Newgent, to approve the December 11, 2014 minutes as published. Motion carried.*

**Public Comments**

Chair Maruska encouraged public comments throughout the meeting.

*Alexis Oliver arrived at the meeting.*

**Project Review Committee (PRC)**

***January Meeting***

Linneth Riley-Hall, Chair, PRC, reported on the results of the January 22 PRC meeting. The PRC panels reviewed six GC/CM applications and approved five.

Project applications included:

1. Washington State Convention Center Public Facilities District. The project is a new facility expansion located one block north and one block east of the Washington State Convention Center at the intersection of Pine Street and Ninth Avenue. Selection of the GC/CM is scheduled in February/March/April with construction commencing in January 2017 and completion anticipated by December 2019. The PRC panel agreed the project included strong team members and met all criteria for both the team and the project. The team appeared to understand the project, GC/CM needs, and what's required for the project to be successful. The panel unanimously approved the application.
2. Seattle Public School District #1. The project is a modernization of the existing elementary school, Loyal Heights Elementary School, originally constructed in 1932. The PRC Panel agreed the project and team meets GC/CM criteria. Although experience by the district is light, the team provides the experience needed. The panel unanimously approved the application.
3. Tahoma School District. The project is a full renovation of the Lake Wilderness Elementary School. Selection of the GC/CM is in February/March 2015 with construction scheduled to begin in April 2016 and completion of the project scheduled by December 2017. Of the six-member panel, four members approved the application (two-thirds majority required). The panel expressed some concerns about staffing, which didn't appear to be realistic and appropriate; however, those concerns were adequately addressed by representatives from the Tahoma School District. The project/team meets statutory requirements despite concerns. The application was approved.
4. City of Federal Way. The project is a new Federal Way Performing Arts and Conference Center as part of Phase 1 of the city's revitalization of its town center. In a split decision 3/3, the application was not approved primarily because the project design had nearly completed the design development phase and some panel members believed it was too far along to gain any significant benefits from a GC/CM. Some panel members agreed the team continuity was not able to sufficiently demonstrate their GC/CM experience or sufficiently demonstrate how incorporating a GC/CM at the current stage of design would benefit the public over a publicly bid project.
5. Central Valley School District. The project is renovation and modernization of an existing 42,000 square-foot facility built in 1968. The panel unanimously approved the application as it met the criteria of the RCW and provided significant public benefit for GC/CM engagement. The project was well suited for GC/CM.
6. Central Valley School District. The project is renovation and modernization of the Sunrise Elementary School built in 1980. The panel unanimously approved the application. The team and organization met RCW requirements and the project and project team were well suited to GC/CM.

The next meeting is scheduled on March 26, 2015. No project applications have been received to date. The meeting agenda includes training for new PRC members that will also serve as refresher training for current members.

Chair Maruska asked whether the PRC anticipates a resubmittal from Federal Way of its application. Ms. Riley-Hall advised that in a follow-up conversation with city staff, the city is determining next steps in terms of resubmittal or whether to pursue a bidding process for the project.

Andy Thompson asked whether GC/CM experience for Federal Way was in-house or through GC/CM consultants. Ms. Riley-Hall replied that the city utilized consultants as well; however, the consultant team didn't have GC/CM experience. The consultant team has also contacted PRC to attend the GC/CM training.

Lee Newgent referred to questions and issues surrounding the Tahoma School District and asked whether any direction was provided to the school district. Ms. Riley-Hall said some concerns addressed the consultant team's capacity. Tahoma School District representatives did not have concerns about its capacity because of continued availability of the consultants when needs arose.

Nancy Deakins referred to the Federal Way team's inability to demonstrate GC/CM experience sufficiently. She understood project approval didn't necessarily require GC/CM experience other than the project was complex and the team had an understanding of the complexity involved in the GC/CM process. Mr. Riley-Hall advised that for project approval, an applicant could utilize in-house as well as consultant expertise. In this particular project, both teams lacked necessary GC/CM experience.

*Senator Hasegawa arrived.*

Phil Lovell reported he attended the presentation of the Federal Way project, although not as a member of the panel. Several factors played into the decision for non-approval of the application. Primarily, the project was too far advanced in design. The team pointed out how the performing arts center design was so far along that the team was in the phase of tweaking and adjusting mechanical and acoustic systems within the auditorium. Consultants were added at the last minute because the original application had not identified the consultant team. Two-thirds of the team attending the PRC presentation had no experience and several of the consultants contacted him prior to the meeting to inquire about attending GC/CM training. The third element in the deliberations was the intent by the team to stall design and pursue GC/CM because the City acquired property across the street resulting in some discussions as to whether the newly acquired property could be incorporated within the project.

***Public Body Certification Report/Update***

Ms. Riley-Hall reported the update is related to the application from Lake Washington School District for certification for GC/CM. The issue surrounds whether public agencies meet statute requirements by retaining expertise through consultants to attain agency certification. A subcommittee of 12 members met on January 21 with representation from owners and the private sector. The subcommittee reviewed the intent of the RCW and discussed ways to move forward. Members drafted some language to amend the bylaws and some recommendations to the Board; however, the recommendations and draft language have not been presented to the PRC. The March 26 PRC agenda includes a presentation of the subcommittee's recommendation for consideration to move forward to the Board.

Mr. Kommers agreed the PRC discussion was thorough in terms of PRC's role and how a member of the PRC balances internal judgment with both the statute and the proposal. He assisted the committee in drafting some language to provide clarification within the bylaws. Ms. Riley-Hall affirmed the proposed language is scheduled for review by members on March 26 with any recommended changes presented to the CPARB.

*Senator Hasegawa left the meeting to attend another meeting.*

Mr. Kommers asked that the PRC afford some time on the agenda during the training session for him and the Chair to review PRC's role and the proposed amendment to the bylaws. Ms. Riley-Hall affirmed the request.

Walter Schacht said he's tracked progress on the proposed language. Dependent upon the outcome of CPARB's decision, there is a question in terms of the RCW because it clearly defines the use of subconsultants for individual project requests but doesn't speak to using consultants for agency certification. That issue is a question that should be addressed by the Board when considering the recommendation in terms of the clarity between the two different needs of utilizing consultants for project or agency certification.

Steve Crawford said the issue was the subject of a lively exchange by the committee concerning the definition between an individual project and agency certification. There's a gray area in current language allowing for a variety of different interpretations. The issue likely will be raised in the future and should be reviewed and discussed to assist in guiding future decisions. It was very helpful to receive Mr. Kommers' historical perspectives during the discussion.

### **Review 1<sup>st</sup> Draft of Procedures/Bylaws**

Chair Maruska referred to a draft of proposed revisions to the Board's Organization and Operation surrounding some of the rules and a meeting quorum. The proposed revision is an attempt to clarify the procedures when the meeting loses a quorum. The draft was submitted to the Office of the Attorney General (OAG) for review and feedback. He introduced Mary Ellen Combo with OAG. Ms. Combo reviewed OAG's interpretation of the proposed changes.

Ms. Combo reported the issue surrounds the intent of the Open Public Meetings Act (OPMA) as to the authority of boards and commissions to continue a meeting following the loss of a quorum. RCW 42.30.020, Definitions, applicable to the OPMA describes a public agency. The CPARB is covered by statute and is considered a public agency and subject to the OPMA. Another important definition is "Action." When the Board transacts business, it's considered "Action." The proposed language reflects that the Board may continue to conduct business. There is no definition of "conducting business" within the statute. The definition relates to "action," which is a broad term that includes transaction of official business of a public agency by a governing body including but not limited to receipt of public testimony, deliberations, discussions, considerations, reviews, evaluations, and final actions. "Final Action" is a collective positive or negative decision, or an actual vote by a majority of members of a governing body when sitting as a body or entity. The proposal allows for continuation of the meeting to conduct business including public testimony, discussions, considerations, reviews, evaluations, and committee reports. The proposed language is similar to the terms under the definition of "Action" under the RCW. Ms. Combo said the proposal would not be allowed under the OPMA because when a quorum is lost the body must adjourn the meeting or recess until a quorum is reestablished.

Ms. Combo reviewed alternative language submitted by the OAG:

#### *Quorum*

*A minimum of ten of the 19 voting members of the Board must be present in order for the Board to call the meeting to order and take "action." During a meeting when a quorum is no longer present, the Board must adjourn the meeting or recess the meeting until a quorum is present. No further "action" may be taken after the quorum is lost. "Action" is defined in the Open Public Meetings Act (OPMA) RCW 42.30.020 as, "the transaction of the official business of a public agency by a governing body including but not limited to receipt of public testimony, deliberations, discussions, considerations, reviews, evaluations, and final actions. "Final*

action” is also defined in the OPMA as a “collective positive or negative decision, or an actual vote by a majority of the members of a governing body when sitting as a body or entity, upon a motion, proposal, resolution, order, or ordinance.”

Chair Maruska commented on how the Board meets infrequently and how members and the public have committed time to attend. He questioned whether other options are available for the Board to continue meeting without a quorum. The Board explored a number of ideas and one option could entail a committee discussion to take advantage of the investment of time by attendees. Subsequently, another option was drafted should the Board lose a quorum.

Ms. Combo advised that the proposal is a meeting of a committee after adjournment of the Board. It's possible for a committee to meet if it's properly noticed on the agenda. Any ongoing deliberation or testimony must be within the scope of the responsibilities of that committee. For example, if the Board lost its quorum and adjourned and five agenda items remained - a committee, if properly noticed, could consider action on those items as long as the items were within the scope of the committee.

Chair Maruska said another concept is the creation of another committee of Boardmembers with a scope allowing the committee to conduct specific business. Previously, the Board created two standing committees. The intent is finding a solution for a committee of the Board to continue should the Board lose a quorum.

Ms. Combo advised that state law controls the Board's procedures. The Board's procedures cannot be inconsistent with state law; however, procedures could supplement a reasonable interpretation of state law. One proposal is adopting Robert's Rules of Order as long as they are consistent with the OPMA or addressing the issue through bylaws and operating procedures.

Ms. Combo referred members to information available online through the OAG website on both the OPMA and training availability. The Governor's Boards and Commission Membership Handbook is also available online. The section on "Quorum" is the number of members who must be present to conduct official business. If a quorum is not present, any business transaction becomes null and void. The quorum protects against unrepresentative action by a small number of individuals. That section also speaks to bylaws, as well as some provisions bylaws should include. Operating procedures are easily changed whereas bylaws require a process for amendments, which is why boards and commissions should have bylaws in addition to procedures. Procedures include the detailed requirements within the bylaws. The handbook specifically states, "At meetings where a quorum is not present, the only actions that may be legally taken are to fix a time for adjournment, adjourn, recess or take measures to obtain a quorum (such as contacting absent members)." Ms. Combo said there might be some ability for a committee to conduct a previously scheduled meeting as long as it was properly noticed and the topics are within the committee's assigned responsibilities.

Mr. Lovell asked how vacancies on the Board are factored for a quorum. Ms. Combo offered to follow up on the question and provide additional information.

Ms. Deakins noted that the original guidance provided by the OAG stipulated a quorum of the Board as 10 of the voting members regardless of whether a position is vacant. The same guidance was provided to the PRC as well.

Gary Rowe cited the Governor's Handbook provision on a quorum as the number of members who must be present to conduct official business. The provision doesn't specifically cite the requirements for a quorum other than the bylaws shall set the quorum. Ms. Combo replied that a quorum must be more than 50% of the voting members. Mr. Rowe asked about any discretion the Board might have to establish a provision within

the bylaws when a vacancy exists on the Board. Ms. Combo affirmed she would follow up with additional information.

Mr. Crawford asked whether it's possible to continue a discussion after the adjournment of the official body, as it's no longer a public meeting because it's been adjourned and there is no meeting quorum. Ms. Combo replied by reviewing the definition of action. A discussion between several members and with members from the audience is possible after the meeting has been adjourned because there is no quorum that would violate the OPMA. Mr. Crawford asked about the possibility of continuing a discussion with the audience following adjournment to take advantage of the presence of individuals in attendance. Ms. Combo cautioned against any action that could be perceived as circumventing the intent of the OPMA. An informal meeting could be considered a meeting of the Board if members accepted public testimony, received or engaged in discussions, considerations, or evaluations. It's an appearance that the Board is continuing to meet without a quorum that is problematic. Without a quorum, no action is allowed because an action is considered much broader than a vote.

Mr. Rowe asked whether quorum requirements also apply to a committee. Ms. Combo affirmed quorum requirements apply to committees. Mr. Rowe asked whether it's possible for members to attend an executive committee if they are not a member of the committee. Chair Maruska noted any member could attend a committee meeting including an executive committee meeting.

Santosh Kuruvilla asked about the number of meetings disrupted by the lack of a quorum. Ms. Deakins advised that there have been approximately five to seven meetings affected over the last seven years. Several meetings were affected during the legislative session because of hearing conflicts and during the summer when vacations are scheduled.

Chair Maruska cited situations where a meeting quorum was attained but lost when members left the meeting because of other commitments. Those occurrences have been infrequent, with the most recent occurring last fall.

Mr. Rowe asked whether continuous participation of a member whose term has expired is a standard procedure, which requires no specific provision within the bylaws. Ms. Combo said the practice could be addressed within the bylaws. Many other committees enable members to continue participation until the Governor or the appointing authority appoints a new member.

Chair Maruska asked whether the recommendation is to formalize the policies through a set a bylaws. Ms. Combo recommended that the procedures, if adopted as revised, should be sufficient. However, the Board should consider developing bylaws. The Governor's Handbook provides a suggested list of topics to include in the bylaws. She offered to meet with the committee of the Board to assist in the development of bylaws. Additionally, the procedures authorize participation by telephone. She suggested including additional formality details, such as checking by the Chair to ensure the participant is still connected and engaged in the meeting.

Chair Maruska recommended moving forward with the information provided by Ms. Combo and updating the operating procedures for final approval by the Board. Mr. Kommers would lead the committee's effort to draft a set of bylaws with the assistance of Ms. Combo.

Ms. Oliver asked for the identity of members on the Operating & Procedures Committee.

Ms. Deakins identified the members of the Operating & Procedures Committee:

- Bob Maruska, Ed Kommers (Chair), Alexis Oliver, Bill Frare, and Mark Riker with legal support provided from the OAG and staff support from Nancy Deakins.

Danelle Bassett noted that she plans to update CPARB's webpage to include a link to all CPARB committees.

Alan Nygaard asked whether the direction is to adjourn a meeting when a quorum no longer exists with the possibility of establishing an executive committee, which could meet following the adjournment with minutes documenting the meeting. No actions would occur during the committee meeting with a full report on the results of the meeting provided to the Board at its next regularly scheduled meeting. Chair Maruska affirmed that the stated intent is a concept the committee would consider.

### **Public-Private Partnerships Status Report**

Chair Maruska reported the initial discussion was determining a definition in terms of public-private partnerships because of numerous definitions that could be applicable to include the Washington State Department of Transportation (WSDOT) models of public-private partnerships and other state definitions. Several organizational groups have described different perspectives of public-private partnerships, as well as several members involved in current WSDOT public-private partnerships. The intent is pursuing additional conversations for determining the appropriateness of conducting additional research.

Vince Campanella commented on the perspective offered by several practitioners of public-private partnerships (P3) from Canada. He met with an architect who completed work in Canada on a P3 project. The conversation was enlightening because of the positive comments. Under existing statute established for the Tacoma Narrows Bridge, it might be possible to use existing laws as a stepping stone for considering P3 options for vertical infrastructure construction projects. One major aspect of such legislation is the financial element. Some of the positive aspects of P3 include the creativity of multiple methods of financing infrastructure projects. There are also many misconceptions of what P3 means in terms of ownership. P3 includes many moving parts and pieces, but continues to be an interesting concept the Board should pursue over the next several months.

Mr. Lovell said he attended the first meeting of the group and was struck by the presence of existing statute since 2004 enabling P3 projects under WSDOT, which hasn't been utilized. The group agreed on the benefits to solicit input from more public agencies to learn about any experience with P3 or gain their perspectives about the option and whether it should be pursued.

Chair Maruska said he attended the meeting on behalf of public agencies. Some perceptions involved private funding versus public funding, and complexities associated with the financial model, especially if a public agency has the capacity to utilize private funds. The discussion generated comments about using 50% public funds and 50% private funds to extend the amount of funds to complete a larger project. Public owners would need to consider the overall benefit to pursue that type of an option.

Mr. Rowe commented that the initial legislation provided for six pilot projects. Most of the projects were not supported because of tolls on roads. The only project moving forward was the Tacoma Narrows Bridge.

Chair Maruska said the group's discussion was lengthy. Current law requires the Legislature to approve the projects. Even though the statute exists, the probability of receiving legislative approval for a P3 project was often difficult or prior experience showed it to be unattainable. One option is potentially changing the statute delegating legislative approval of transportation projects to the Transportation Commission or some other oversight body.

Mr. Rowe said current statute allows Transportation Benefit Districts (TBDs) to use tolling as a funding mechanism. The mechanism requires tolling proposals to be reviewed and approved by the Transportation Commission.

Chair Maruska agreed P3 is complex and that the next meeting would include efforts that are more exploratory.

Mr. Thompson said the role of WSDOT in determining the delivery method might be reason for extending an invitation to WSDOT representatives to attend future meetings. Chair Maruska affirmed WSDOT's participation in a number of the prior meeting discussions. The difficulty is the difference between the two statutes. RCW 39.10 includes some overlap, such as job order and others. One of the WSDOT representatives who had planned to attend the meeting was unable to do so. In that arena, it's very critical for WSDOT to be part of the discussion because of existing statutory authority by the department.

Chair Maruska recessed the meeting for a break from 10:20 a.m. to 10:39 a.m.

### **Life Cycle Cost Analysis**

Mr. Schacht provided an update on the status of moving forward with life cycle cost analysis (LCCA) to integrate efforts with the Office of Financial Management (OFM) to create a new life cycle cost tool, create a process and a system for utilizing the tool, a process for reporting, and a new state predesign manual. He introduced Maurice Perigo, Capital Budget Analyst with OFM who is leading the effort, and Jonathan French with Schacht Aslani Architects, who assisted in the presentation.

To date, the effort includes using the guidelines developed by the CPARB for completion of a beta test with the new spreadsheet tool. The effort entailed presenting to public agencies to review the new tool because the tool will become effective at the beginning of the state biennium in 2015. The new tool will be required for all state funded projects over \$5 million. The tool is a much more sophisticated approach to life cost analysis and would likely yield better decisions for any public agency.

Chair Maruska recounted the Board's discussion during the reauthorization of RCW 39.10 on the total cost of ownership and recognition that it might make more sense to optimize capital investments with the goal of reducing total O&M costs. Subsequently, the Legislature directed the Board to develop some recommendations.

Mr. Schacht reported Substitute House Bill (SHB) 1466 directed CPARB to investigate life cycle cost analysis and energy efficiency specifically for Design-Build (D-B) procurement. Committee members reviewed life cycle cost analysis relative to any project delivery type. The committee reached out to the A&E community for input. Unbeknownst to anyone at that time, the Governor issued Executive Order 13-03 directing the inclusion of life cycle and operating costs in all new public works projects. At that point, the committee and Mr. Perigo joined efforts and created the life cycle cost tool.

Under SHB 1466, owners are encouraged to include energy performance goals and validation requirements in Request for Proposals (RFPs). Executive Order 13-03 requires LCCA as a primary consideration for building design, firm selection (Design-Bid-Build, GC/CM & D-B) beginning in the 2015-2017 biennium for projects over \$5 million. CPARB LCCA guidelines currently require energy life cycle cost analysis (ELCCA) for all state-funded projects including K-12 projects. The guidelines are narrowly defined as a process to consider energy systems beginning with schematic design and ending in design development. LCCA as defined by CPARB and required by OFM through its process, begins at the time of project funding through submittal of

LCCA during predesign with reporting required throughout the entire process including a LCCA document that is filed when the project is ready for bid to enable OFM to authorize the use of the construction fund. LCCA reporting requirements extend until after the building is online. From an architect/engineers perspective, the benefit of LCCA is working with public agencies to define requirements clearly before design of buildings. Additionally, high performance needs ongoing efforts to ensure building performance is at the level of the intended design criteria, which would include commissioning buildings a year after occupancy.

The combined efforts of the committee and OFM are reflected in the 2014 OFM Predesign Manual. One of the provisions within the manual states, "As stated in the Life Cycle Cost Analysis and Energy Efficiency Report written by the Capital Projects Advisory Review Board in December 2013, 'A longer post occupancy phase, commonly referred to as enhanced commissioning, is critical to achieve the long-term desired performance outcomes and optimal building operations'."

Mr. Schacht said the intent of the efforts especially for three pending community college projects through his company is ensuring the commissioning agent is involved from the onset through the first full year after occupancy by working on a monthly basis with the facilities team to track systems and assisting the team's understanding of where performances might be drifting from set points to help the team learn more about operational aspects to ensure building performance is maximized. He cited an example of building project that failed to meet energy performance requirements during the first four months of operations causing the D-B team to incur a penalty for failing to meet energy performance guarantees. Subsequently, following a year of post-occupancy commissioning, building energy performance was achieved to its desired level to include recouping the lost performance to achieve the full performance guarantee affording the D-B team the ability to collect its full fee. Enhancing commissioning is the key to successful operation of high performance buildings regardless of the procurement method.

Mr. Schacht reviewed the results of the beta test on a 70,000 square foot education building for the Edmonds Community College using the LCCA tool. The college agreed to utilize CPARB's LCCA guidelines beginning with the schematics through contracting with the commissioning agent through post-occupancy. OFM's spreadsheet tool was beta tested beginning in the schematics phase to gauge the effectiveness rather than informing design. The college identified high and low priority requirements and the goal to achieve LEED Silver. The Energy Use Index (EUI) was targeted at 60, which is aggressive because the mean technical college building EUI is over 140. Lower priorities included familiarity with similar systems on campus and an interest in natural ventilation. In the end, familiarity with similar systems was one of the higher priorities of the owner, which drove many of the decisions even though some of the issues associated with energy use and life cycle costs were more expensive or energy extensive.

Mr. French said that from the onset of design, the LCCA tool enabled the team to consider the effect of building massing and program arrangement for daylighting. Three different options were identified to determine the effectiveness on energy usage within the building. The tool enabled direction of efforts for a basis for further design. The option selected enabled moving forward to the next process of understanding energy efficiency and life cycle costs.

Mr. Newgent asked about any comparables excluding skylights. Mr. French said the first option did not include any skylights affording an alternative for comparison. However, the project essentially includes three different building massings to address program requirements that included alternate configurations and impacts on the amount of building envelope and the efficiency of the building for daylighting performance. The shoebox model is a preliminary modeling process and provided assumptions about the envelope systems, mechanical systems, and other building systems in uniformity across the three configurations. The modeling

exercise revealed that by varying the arrangement of the program and the volume and massing of the building, it was possible to achieve an improved EUI because of improved access to natural daylight.

Mr. Schacht added that the effort was to determine how early in the process could life cycle costs be determined. The exercise indicated that during schematics, it was possible to determine how configuring the building saves or costs money. The predesign building model included all offices with exterior windows. As work continued on the schematics, practical construction and cost reasons called for shrinking the footprint, saving some initial costs as well. The change drove reconfiguring the offices within the interior of the building affording the opportunity to provide more daylighting to the building thereby reducing energy use.

Mr. French reviewed the next steps of the analysis process. Decisions were factored on DES recommendations for energy life cycle cost analysis by using the massing option that provided the optimum in energy use based on daylighting, which identified ways to isolate mechanical systems within the building. That process led to two conclusions with one revealing a high performance option resulting in a EUI of 66, which wouldn't achieve the low benchmark. The options were reviewed with the college with the college selecting an option that included a standard system using a variable air volume mechanical system as well as natural ventilation in selected locations throughout the building.

From the LCCA information, the team inputted information into the Life Cycle Cost Tool (LCCT) beta test to test the process rather than achieving results. The LCCT is a financial cost model allowing for the capture of initial replacement, operations, maintenance, and social costs of carbon. It requires energy modeling to capture full cost of architectural components. The tool incorporates a number of financial calculations automatically and requires a parallel energy model to understand how components within a building have an impact on energy use. The process includes an energy tool paired with a LCCT. The energy tool is often determined by the mechanical engineer on the team. The LCCT provides uniform formatted analyses to compare a baseline alternative with two other design options.

The study compared three different options of, 1) a code baseline (reverse engineered code baseline) by computing cost evaluations of the design, 2) an alternative where buildings stood as schematic design incorporating some program choices and material selections by the owner (maintaining the same HVAC system), and 3) an alternative using the building envelope and architectural components from the code baseline building with improvements only to the HVAC system using data from the ELCCA by using high performance energy HVAC system and incorporating LED lighting. The results reflect a breakdown of each alternative providing total construction costs, present value of capital costs over the life of the building (50 years), present value of maintenance cost over the life of the building, present value of utility costs, and the total life cycle costs. Additionally, the societal life cycle cost was incorporated within the analysis, which includes the estimated tons of carbon produced and the cost of the carbon emitted from energy production of the buildings.

Mr. Schacht reviewed a chart of the baseline versus alternative 1 and the building components factored. The baseline included the standard hot mop roof with alternative 1 using the TPO roof (used by many agencies). The analysis showed that the TPO roof is nearly \$160,000 more over the life of the building. The owner selected the TPO roof because although the initial cost of the roof is nearly \$200,000 more, operations and maintenance costs are nearly \$45,000 less. One-time capital expenditures are funded while O&M money is more difficult to secure, which speaks to why an agency would select the option that is less expensive to maintain. Other building components compared included code fixtures versus low flow fixtures, carpet and polished concrete versus carpet, tile & terrazzo, and base architectural and alternative architectural. The analysis reflects that selection of the lowest initial cost options resulted in the lowest life cycle costs achieving nearly \$400,000 in savings. However, several factors were not reflected in the model, such as vinyl windows that have a shorter life expectancy than typical aluminum windows. Subsequently, aluminum windows would

be selected because the life expectancy is 50 years. Another element missing in the analysis is the lack of a complete design for two different buildings, which might be reflected in different numbers for the life cycle costs. It often requires too much time and additional funding to design two to three different buildings to identify the outcome targets.

Mr. French said another benefit of the LCCT is how it incorporates different methodologies, such as the residual value methodology calculation, which is automatically included within the tool to maintain consistent discount rates and fuel and maintenance escalation rates. The two options were analyzed to identify how much value could be anticipated in life cycle costs of the building by comparing the two alternatives.

Mr. Schacht reviewed lessons learned:

- LCCT Tool
  - Standardizes financial assumptions and calculations
  - Produces clear 'executive summary reports' comparing alternate designs
  - Allows quick life cycle cost analysis of individual components
  - Accounts for the societal cost of carbon
  - Energy and envelope systems are still the greatest opportunity to save money
- Data is Challenging
  - Available data and LCCA results are tied to project development
  - Quality of LCCA improves as the design progresses
  - O&M & useful life data requires a consistent, accessible source

**Opportunities:**

Implementation:

- Encourages early evaluation and collaboration between the A/E team, owner, commissioning agent, and contractor
- Post-occupancy commissioning allows for comprehensive follow through

**Barrier and Constraints:**

- Programmatic requirements
- Existing infrastructure and limited operational budgets
- Staff resources & institutional knowledge
- Training programs

Mr. French noted that the tool and process encourages iteration. As the analysis and design iterates, the quality of data improves.

Mr. Schacht said the biggest opportunities are defining the owner's project requirements early and engaging in detailed discussions with the A&E team or AEC team about how the building is expected to perform to achieve a common understanding and target. It's important to support the buildings to ensure optimization of performance. The barriers and constraints include institutional nervousness about adopting high performance building systems that are unfamiliar and can't be vetted with colleagues to assure them of effective operation. In terms of the beta test project, the main issue preventing the attainment of a EUI of 66 was the facilities department's nervousness about chill beams. The department was encouraged throughout the process to embrace the high performance system; however, the third party entity (commissioning agent) advised against

chill beams. It's important for any data collection of details for life cost analysis to include other owner experiences that have installed similar systems, experience, and lessons learned.

Mr. Kuruvilla asked whether the tool is able to recalibrate based on data inputs. Mr. Schacht replied that the tool is utilized after completion of the building as a means to understand how decisions were made and the implications of those decisions. The challenge is the time and resources to complete the process.

Chair Maruska asked about the method of data collection and lessons learned as the tool is utilized through numerous projects. Mr. Perigo said the intent is developing a database of reports. Throughout the development process, the team believed consistency was more important than accuracy for the different alternative methods to compare like data. At the end of construction, the tool would be updated with actual numbers and energy use projections to match with the installed components.

Jeffrey Hamlett asked whether the tool requires training for architects to utilize. Mr. Schacht said one of the goals is providing some presentations to industry organizations. It's important to understand that although the tool shouldn't be considered rocket science, it is new territory. During the beta test and development of the software, the team had to undergo a learning curve. When the tool is released for all state-funded projects in July 2015, there will be a learning curve for everyone involved.

Mr. French said the tool isn't meant to abolish the existing LCCA process but rather to provide another tool in place of the LCCA spreadsheet for a more comprehensive picture. Members of the team will be the same with input required from mechanical engineer, cost estimator, and others. The architect would provide information on the architectural components.

Mr. Perigo said OFM plans to conduct some training sessions during May/June for the industry on how to use the tool.

Mr. Hamlett said that speaking from the industry's perspective, he would prefer that the tool is not a limiting factor in the ability for architectural firms to pursue state contracts, as the Governor's Executive Order could be a determining factor in selecting firms. It would be important to provide some training to ensure firms are not precluded from pursuing state projects.

Mr. Campanella commented on the importance of agency knowledge, as there is a tendency to fall back on old practices because of the experience factor of maintenance staff. His company recently completed a \$60 million lab building on the Washington State University (WSU). It was recognized that maintenance did not have sufficient experience in maintaining and operating high performance buildings. Oliva Yang pursued an extended warranty program, "Transition to Sustainable Occupancy," requiring the contractor, mechanical and electrical contractors, and the engineers to continue in a diminishing role over a two-year period after commissioning of the building. The process enabled training of WSU staff for operating the building properly through several seasonal cycles.

Mr. Campanella asked whether low energy cost targets by the state and stringent energy codes are considered with respect to energy performance guarantees. Mr. Schacht replied that there is significant long-term interest by the engineering community towards central plants, which is somewhat of a reversal because when high performance buildings began moving forward there was a move away from central plants because they were so inefficient. It would be easier to invest in high performance building by building. The industry has circled back and is indicating that the potential efficiencies of the central plant and the ease of maintenance actually outweigh building by building systems. Central Washington has added 500,000 square feet of new buildings

to the campus over the last 10 years that included adding to the original central plant and reducing the overall energy usage by investing in the plant.

Ms. Deakins said the new 1063 Building process also included an evaluation of using the central plant, which hasn't been upgraded. The project team elected not to tie the new building to the central plant.

Chair Maruska encouraged ongoing dialogue on the new tool.

### **Study of Impact Alternative Project Delivery on the A/E Industry**

Mr. Schacht presented information and a request to form a committee to study best practices guidelines for Design-Build project delivery.

As the architect's representative to the Board, Mr. Schacht said he sought input from the architectural and engineering industry on the impact of alternative project delivery on practice. The Board agreed to pursue discussions within the A/E industry and provide an update to the Board for possibly pursuing future action.

Participants included Jeffrey Hamlett, AIA, Van Collins CEO, American Council of Engineering Companies, serving as co-chairs. Other participants included Walter Schacht, Jon Warren, Phil Lovell, Tim Graybeal, Geoff Anderson, Mark Cork, Chad Schmidt, Larry Hurlbert, George Shaw, Dean Clark, Steve McNutt, Stanton Beck, Garth Merrill, and Tom Service.

Although the intent was reviewing alternative project delivery, all participants focused on D-B. D-B has and is having a significant impact on the practice of architecture and engineering. It may be fair to say it's disruptive, although not necessarily negative. Disruption can be a positive in terms of changes and the need to do business differently. However, disruption can lead to significant change and impacts.

Participants agreed to focus on the issues surrounding D-B:

- **Diminished Role**

- D-B transforms the relationship of the A/E team and the public agency – *architects are used to having a primary contractual relationship with the owner. Not so in D-B, as the relationship is with the contractor.*
- Perception by agencies that design services are less expensive – *Risks have increased significantly for A/E and contractors. It's more expensive to compete and more difficult to assure a profitable outcome, and there has been a significant impact on small business firms.*
- Scope of design services is limited – *Issues about the choice of the D-B as a procurement model. It's fair to say that D-B is used for every type of project a state agency might advertise for design and construction. The RCW is not clear whether current practices are prohibited.*
- A/E does not serve as strategic advisor, team leader, and CA representative
- Stakeholder participation in the design process is limited
- D-B works well as a business model for some firms – *However, many architects prefer the general contractor involved in the project as early as possible.*
- Many A/E firms identify GC/CM as preferable, if early general contractor selection is critical to project success

- **Increased risks**

- **Agency Preparedness**

- D-B can be more complex to administer than other procurement methods

*Selection process*

- Is a major issue because it's questionable whether agencies really understand the level of preparation required to be an effective client in D-B
- Predesign and/or bridging documents should be complete prior to starting the RFQ/RFP process
- Agencies should not overlap the predesign study with the RFQ/RFP process
- A/E preparing the predesign and/or bridging documents should not compete in the RFQ/RFP process – *there have been numerous instances of the A/E team preparing the predesign allowed to compete for the project putting competitors at a disadvantage*
- Cost of competing is high relative to potential reward, especially when RFP includes a design competition
- Ownership of design proposal is forfeited to the public agency – *leading to questions about the process*
- Reduced opportunities for contractors, architect, and engineers to compete
- Reduced competition increases costs to public agencies
- Risks are often too high for small businesses
- Choice of D-B as a procurement method
  - Project Selection
  - Perception of Reduced Agency Risk
  - Perception of Increased Project Value
- Evolving models
  - AIA Models:
    - Substantial support for moving toward D-B teams based on qualifications
  - Progressive Design-Build
  - Verification Phase
  - Performance Contracting

Mr. Schacht reported the recommendation is to appoint a CPARB committee on best practices for D-B procurement, invite agencies to present lessons learned who have used D-B extensively, consider structuring RFQ/RFP to reduce the A/E teams' risk, increase competitiveness, create best practices guidelines for selecting procurement method, and create best practices guidelines for preparing for D-B and selection of a team.

At this point, the industry acknowledges that much has been learned to date with some good and some problematic outcomes. The recommendation is working with the industry to take advantage of what's been learned and making it a better project delivery system.

Ato Apiafi, AAA, acknowledged the work of the participants and suggested inviting smaller architectural and women-owned firms to participant. Mr. Schacht acknowledged that although no OWMBE firms were represented, Schacht Aslani Architects is a 20-person firm completing many state agency projects.

Alexis Oliver thanked Mr. Schacht for bringing the issue forward. Previous Boardmembers have addressed the issue of examining best practices around D-B in the state. The discussion has been a robust conversation by the minority and small business community. She supports forming a committee.

Mr. Rowe suggested inviting the Design Build Institute to participate on the committee.

Bill Kent, President, NW Region, Design Build Institute of America, acknowledged interest in partnering with the committee. The organization recently formed a new owners committee co-chaired by John Palewicz, University of Washington, and Janice Zahn, Port of Seattle. The committee is tasked with working through similar issues.

Mr. Kommers said in previous committees, DBIA has offered suggestions to the Board on the statute. He believes DBIA has a best practices manual. Mr. Kent replied that the organization currently has a best practices manual with many owners completing the professional designation training that includes a review of best practices. One area that has lacked attendance is from A/E/C firms. Two workshops have been held in the last year with over 70 participants and two designers. Most of the participants have been owners or practitioners. The goal is increasing participation. The organization is always willing to provide presentations and participate in discussions.

Mr. Kommers commented that the reference to D-B as a favored model might need further clarification, as there haven't been many public bodies utilizing 39.10 D-B. Mr. Schacht said a significant amount of D-B has been completed, such as WSU, which uses the method for large and small projects. He cited other projects that used D-B. Mr. Kommers said there appears to be support for establishing a committee, but his concern is with the mission of the committee and the assigned tasks. He suggested the committee should explore and clarify the mission. His concern is that the committee's outcome might have already been predefined and urged caution when establishing a committee to develop best practices agreed to by all participants.

**Vince Campanella moved, seconded by Alexis Oliver, to appoint a committee to review D-B best practices and prepare a report to CPARB on a mission and goals for the committee on how to develop recommendations on best practices for the use of D-B in the state.**

Mr. Schacht agreed that the A/E industry has reported on the impact of the practice of D-B. The report also speaks to impacts on contractors and owners. An initial step is evaluating the scope of the committee. There is no presumption by the A/E community in terms of the outcome of the committee's recommendations other than awareness of some existing problems. The state has a remarkable professional design community that is practice-oriented rather than business-oriented. The health and welfare of the A/E community is critical for all project delivery.

Mr. Newgent said there are many opinions about D-B and he's supportive of the efforts of a committee.

**Motion carried.**

Mr. Nygaard commented that as a user of the D-B community he would like to solicit some interest for potential membership from higher education.

Chair Maruska suggested that in addition to appointing members in May, efforts could continue with soliciting interest and working with the DBIA, as it likely will be a joint effort.

Ms. Oliver recommended appointing Boardmembers immediately with acknowledgement that others would be invited to participate as the committee forms.

Mr. Schacht offered to release the PowerPoint presentation immediately.

**Ed Kommers moved, seconded by Alan Nygaard, to appoint the following individuals to the D-B Best Practices Committee:**

- **Walter Schacht, Alexis Oliver, Lee Newgent, Santosh Kuruvilla, higher education representative, Vince Campanella, Bill Kent/DBIA, Steve Crawford, Greg Fuller, Washington Ports representative (Janice Zahn), Representative from Granite Construction, WSDOT Representative Mark Gaines and a representative from Sound Transit.**

**Motion carried.**

*Lee Newgent left the meeting.*

### **Legislative Update**

Chair Maruska reported no CPARB legislation is under consideration during this legislative session. However, the Board voted to support HB 1634 to increase the limit on Job Order Contracting for DES.

Ms. Deakins reviewed other bills of interest. HB 1089 adds adherence to state wage payment laws to the state's responsible bidder criteria.

*Alan Nygaard left the meeting.*

HB 1711 under Public Works Contractors affects the responsibility for bidder criteria for inclusion of the experience of the contractor for the building type. Based on analysis, Ms. Deakins recommended that the language isn't required as agencies have the ability to create requirements, which is one of the elements within CPARB guidelines. HB 1063 extends UW's alternative process (special medical contractor roster) for awarding contracts. HB 1753 would add building envelope as a building trade that must be listed on the bid form.

Mr. Schacht said the architects are generally not supportive of HB 1753.

HB 1957 concerns the maximum amount that may be awarded under a JOC for cities with a population of more than 400,000. HB 1959 concerns the Public Works Board. One bill missing from the list is HB 1920 for electronic signatures. The bill provides more clarity and structure for enabling electronic signatures and adopts the federal act. Of interest to architects are SHB 1079 and SSB 5348 on joint utilization of architectural or engineering services requiring an agreement for a specific contract for one entity to have another entity contract architectural services. It would require DES to have an interagency agreement for all projects completed for clients. SB 5462 requires public works contractors to comply with laws prohibiting discrimination. SB 5912 brings Washington state government contracting provisions into compliance with federal law as it relates to small works bonding requirements.

### **Set Agenda Items for May Meeting**

Agenda items for the May meeting include:

- Report by Operating Procedures and Bylaws Committee
- Status Report by Public-Private Partnerships Committee
- Report from Data Collection Committee
- Legislative Update
- Report from D-B Best Practices Committee
- PRC Report

**Adjournment**

**Ed Kommers moved, seconded by Alexia Oliver, to adjourn the meeting at 12:14 p.m. Motion carried unanimously.**

**Staff & Guests**

Nancy Deakins, DES  
Danelle Bessett, DES  
Aleanna Kondelis, City of Seattle  
Tom Gow, Puget Sound Meeting Services  
Frank Lemos, WA Minority Bus. Adv. Council  
Dick Lutz, Centennial Construction  
Brett Hill, NUCA  
Servando Patlan, DES  
Jeffrey Hamlett, AIA  
Ato Apiafi, AAA  
Jonathan French, Schacht Aslani Architects

David Mahalko, KCDC  
Linneth Riley-Hall, PRC & Sound Transit  
Larry Stevens, NECA  
Mike Pellitteri, NUCA  
Larry Stevens, NECA  
Allison Hellberg, AWC  
Jerry Vanderwood, AGC  
Bill Kent, DBIA  
Mary Ellen Combo, OAG  
Maurice Perigo, OFM  
Phil Lovell, PRC

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Robert Maruska, CPARB Chair

Prepared by Valerie L. Gow, Recording Secretary/President  
Puget Sound Meeting Services, psmsoly@earthlink.net