MEMBERS ATTENDING: Hugh McMillan III, chair
Adeeba Mehboob, vice chair
Gerardo Alfonso
Vinay Ananthrachar
Abdel Darwich
J. Eduardo Donoso
Vikram Murthy
Luca Stefanutti
Karen (Kay) Thrasher
Renison (Rennie) Tisdale, Jr.
Yew Wah (Raymond) Wong
Kelley Cramm, BOD ExO
Tim Wentz, consultant

STAFF PRESENT: Cindy Michaels, staff liaison, Editor of Special Publications
Sarah Foster, Editor of ASHRAE Journal
**MOTION**

<table>
<thead>
<tr>
<th>No.</th>
<th>Motion</th>
<th>Vote*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The proposed book [Engineer and Contractor-Led HVAC Projects] requires further information before it can be approved.</td>
<td>PASSED 8-2-0, CNV</td>
</tr>
</tbody>
</table>

* Votes for these motions are recorded as yes-no-abstain; CNV = chair not voting.

**ACTION ITEMS**

<table>
<thead>
<tr>
<th>No.</th>
<th>Responsibility</th>
<th>Action Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vikram Murthy</td>
<td>To write up the background information to accompany Motion #1 and the request to the author for more information on the proposed book Engineer and Contractor-Led HVAC Projects.</td>
</tr>
<tr>
<td>2</td>
<td>Adeeba Mehboob, Vikram Murthy, Eduardo Donoso</td>
<td>To draft the survey questions to be sent to ASHRAE members regarding the need for and topics of the proposed series of Application Guides by the committee’s September conference call.</td>
</tr>
</tbody>
</table>

1. **Call to Order**

Hugh McMillan III called the meeting to order at 12:03 p.m. and noted that a quorum was present.

2. **Article Scoring Spreadsheet**

Hugh McMillan III reviewed the *ASHRAE Journal* article scoring spreadsheet available on Basecamp and encouraged members to catch up on reading and scoring any articles they haven’t gotten to yet.

3. **Engineering and Contractor-Led HVAC Projects Proposal**

Committee members reviewed the Publications Request Form that had been discussed at the 2020 Winter Conference in Orlando as well as the additional information requested of the proposed author and additional text he supplied (Attachment A). Hugh McMillan III shared that he had emailed the chairs of TCs 7.1 and 7.2 twice and got no response from TC 7.1 and was told TC 7.2 did not have information about this proposal, suggesting perhaps it had been discussed with a member but not officially discussed during a committee meeting.

Committee members discussed who the target audience would be for the publication and the proposed contents. Vikram Murthy suggested that because integrated projects are often driven by a project team, a more useful product would be a tool on how to use BIM to go through IPD. Kelley Cramm suggested that the author be requested to write an article on IPD for *ASHRAE Journal* to see how the topic goes over. Eduardo Donoso and Gerardo Alfonso stated that such a book would be useful for contractors in their countries.

After the discussion a motion was proposed and modified; the final motion as proposed and seconded follows (MOTION #1):

**Motion:**
The proposed book requires further information before it can be approved.

MOTION #1 PASSED with a roll call vote (8 yea votes, 2 no votes, no abstentions, CNV).
After the vote, Murthy volunteered to write up the background information to accompany the motion and the request to the author for more information (ACTION ITEM #1). The request will include clarification on the target audience and the main point of the book (will it be narrow, for HVAC infrastructure and engineers only, or broad, for the entire integrated project team?), summaries of the outlined contents sections, clear delineation of contents (in some areas it seems broad and in others it seems very detailed), written support for the book and agreement to oversee its creation from TCs 7.1 and 7.2, and a recommendation that the proposed author contact Sarah Foster to discuss the possibility of his writing an article on IPD for potential publication in *ASHRAE Journal*.

### 4. Application Guides

Presidential member Tim Wentz, who first proposed the idea of a series of Application Guides and who currently serves as a consultant to Publications Committee, stated that the debate between providing research-based theory and practical application-based education has occurred in many settings. He reiterated that the idea for the books is that they be thin guides providing the basics: what a practitioner needs to know, the resources they need on hand, and how to do it.

Committee members discussed how to reach out to ASHRAE members to conduct a survey of whether the guides would be valuable/desired and, if so, what topics would need to be covered. Hugh McMillan questioned whether reaching out via eSociety and other e-newsletters would get a good response, and Sarah Foster stated that *ASHRAE Journal Newsletter* would be the best place to try. Adeeba Mehboob shared her belief that the committee should reach out to chapters and YEA, especially if the guides will be targeting young or new engineers; she stated that DRCs could feed the surveys to their chapter presidents. Mehboob also suggested that the survey should not be open ended but instead provide suggested topics for the guides to gauge interest. She also noted that developing economies might have different needs, which means ASHRAE may want to consider offering certain topics for certain regions.

McMillan requested that draft survey questions be ready by the committee’s September call (ACTION ITEM #2), where the committee will finalize the questions and determine the audience. Mehboob agreed to lead the subcommittee, which includes Vikram Murthy and Eduardo Donoso, in drafting the survey questions.

Wentz stated that the committee’s process is correct: success of the guides will be market driven, and the committee is reaching out to the market. Raymond Wong recommended that the application guides be patterned off the successful, succinct ASHRAE Datacom Series books.

### 5. Adjournment

Hugh McMillan III adjourned the meeting at 12:47 p.m.

Respectfully submitted,

Cindy Michaels
Staff Liaison to Publications Committee
Editor, Special Publications
Proposed Title: Engineer & Contractor Led HVAC Projects - A Wealth of Opportunities

Authors:
Howard McKew PE, FASHRAE

Source Material: Years of HVAC Infrastructure Related Projects

ASHRAE research project? No

Expansion of existing ASHRAE material? No

Supplement to ASHRAE Handbook chapter(s)? No

Other? No  $2,000 on delivering the final draft to ASHRAE Publication + 12% royalty

Format of Document: book

Size and Complexity: 250 pages based on practical engineering and construction management

What information or topics will this publication contain?
Engineer & Contractor Led HVAC Projects - A Wealth of Opportunities

Introduction
• A book focused on HVAC infrastructure opportunities.
• A book encouraging teamwork (engineer & contractor) in an Integrated Project Delivery approach
• Based on years of experience both design-bid-build and design build of HVAC projects
• Explaining the culture, the qualifications, the process, and the opportunities
• Recession-proof

The Culture & Attitude
• Philosophy of engineer-contractor led team
• Breaking the Mold of architect-led projects
• Not a Commodity
• Design-Bid-Build vs Integrated Project Delivery
• Can Do attitude thru consensus
• Repeat business

Advocating Relationships
• Visionary Leader
• Sales Engineer
• Project Manager
• Minimum 1-Year Service Contract Standard
• Client Maintenance

Team Positions
• Design Engineers
• Estimators
• Piping Foreman
• TAB & Commissioning Engineer
• Service Technician

The Clients
• Repeat Business potential
• Application potential
• Available funding e.g., grants, etc.

The Business Plan
• Know the opportunities
• 10 is better than 100
• Closing ratio of 60% Plus
• Overhead cost until sold
• Competition is the client’s budget

IPD Without the Incentive
• Want a fair profit
• Want repeat business
• Will find opportunities to save
• No shared savings
• No IPD incentives

Request for Proposal
• A small part of the business plan
• Will the RFP fit the business plan
• Prequalify the Prospect
• No can become Yes
• Request an interview
• Set a time to cancel if no decision date is set

Conceptual Phase; Pre-Proposal Period
• A culture change
• Overhead cost until sold
• Not D-B-B process
• Experience counts
• Database needed
• IPD teamwork

Team Estimating
• Client’s expectations
• Design checklist
• Video team estimating
• Consensus rules
• Your experience counts
• Purchase order
• Getting subcontractor bids
• Problem with TAB quotes
• Project timeline

The Proposal
• IPD exposure
• Recap the process and the team estimate
• Clear but vague
• Don’t close the door on service
• Include a 1-year service contract

Authorization to Proceed
• Project management
• Completing the as-builts
• Pipe material
• Submittals
• Closing out the job at the start
• Immediately after submittals
• Training
• Seamless Commissioning
Client Maintenance
• Call in advance of a design day
• Spreading the word
• Get an endorsement
Looking for Elephants
• Paid opportunity
• Chronic HVAC system problems
• Facility assessments
• Hydraulic modeling vs conservative engineering
• Specialist in infrastructure replacement
• Specialist in infrastructure expansion
• Energy retro-commissioning
• Apple-to-apple vs a better option
• When the economy drops off
Summary

Why is this publication needed? Who is the potential audience?
Consulting engineers, HVAC contractors, and HVAC service contractors.

What TCs or ASHRAE Committees would be interested?
TC on management and TC on Integrated Building Design

Volunteer effort with no additional funding? No

By contract with author in exchange for royalty? No

Using funding from additional listed sources? No

Funding from ASHRAE Research? No
ASHRAE Research project number:

Funding from other nonprofit association? No
Other nonprofit association source of funding:

Funding from trade association? No
Trade association source of funding:

Funding from commercial source? No
Commercial source of funding:

Funding from government source? No
Government source of funding:

Funding from other? No
Other source(s) of funding: $2,000 on delivering the final draft to ASHRAE Publication + 12% royalty

Estimated completion date: 9-months from authorization

Do you need support from ASHRAE? proof reading, editing, advice on formatting.
I assume the TC assigned to this book would put together a review team of maybe 4-5 individuals

Who will be the primary contact?
From: Howard McKew <hmckew@bss-consultant.com>
Sent: Wednesday, February 12, 2020 1:28 PM
To: Michaels, Cindy <CMichaels@ashrae.org>
Subject: Re: TC 7.1 meeting 2-03-20

As far as the proposed new book on "engineer led projects" to answer the Publication Committee’s question, “Why is this publication needed? Here are my reasons:
1. TC 7.1 Integrated Building Design has agreed to sponsor this book
2. TC 7.2 Construction & Design-Build Technology wants to co-sponsor this book

Comment: My proposed book focused on marketing, selling, designing, estimating, and construction for both design-build (D-B) projects and integrated project delivery (IPD) projects. I have not seen anything in the ASHRAE library that provides the means to implement D-B or IPD. Certainly the Handbook discusses both but I believe a book is needed to compliment the Handbook.

As far as the comment, “nontechnical books like this are not typical ASHRAE Publications” this is technical book addressing how to provide the design engineering to engineer for HVAC infrastructure solutions that would be delivered as a D-B project delivery method or and Integrated IPD method. TC 7.1 and TC 7.2 are technical committees focused on IPD and D-B project delivery methods and how to implement both yet there is no publication in the library to get into the specifics of applicable HVAC project opportunities that my book will be addressing from a design engineering point-of-view, as well as all the other activities associated with implementing both project deliveries.

Howie
Hi Cindy:

This is the third and last email for today and it is regards to my pursuit of a useful design-build book to be sponsored by TC 7.1 (Integrated Building Design) who’s Committee “Scope” is stated: TC 7.1 is concerned with facilitating interaction among all building disciplines, from earliest concept development throughout the building lifecycle, in order to achieve integration of design efforts and operation of the total building.

I was also told by TC 7.1 Chair that TC 7.2 (HVAC&R Construction & Design Build Technology) would be interested in co-sponsoring my book. Looking up this TC’s Committee Scope: TC 7.2 is concerned with enhancing the collaboration of Contractors and Design Build Firms with the entire ASHRAE membership to ensure that the relevant research, publications, and educational materials promote the design, construction, and operation of resource efficient buildings.

Being familiar with these “project delivery methods” that include Integrated Building Design (IBD) a.k.a. Integrated Project Deliver (IPD) and Design-Build (D-B) project delivery my book is intended to provide a process to educate those HVAC consultants and HVAC contractors on the steps from pursuing HVAC Engineer/Contractor-Led project opportunities through design, construction, and extended HVAC warranty. Both TC 7.1 and 7.2 Committee Scope are based on collaboration, the building lifecycle, educational materials to achieve efficient building systems.

I am confident that there is no such educational publication to support TC 7.1 and 7.2’s committee scope and that this should be of interest to ASHRAE members and non-members.

By mid-July I’d appreciate a response by ASHRAE Publication as to whether ASHRAE is interested in contracting me to write a book on engineer-contractor led HVAC project opportunities based on these two Technical Committees.

Thank you and stay safe and healthy.

Howie

Howard McKew, P.E. FASHRAE
hmckew@bss-consultant.com
BuildingSmartSoftware, LLC