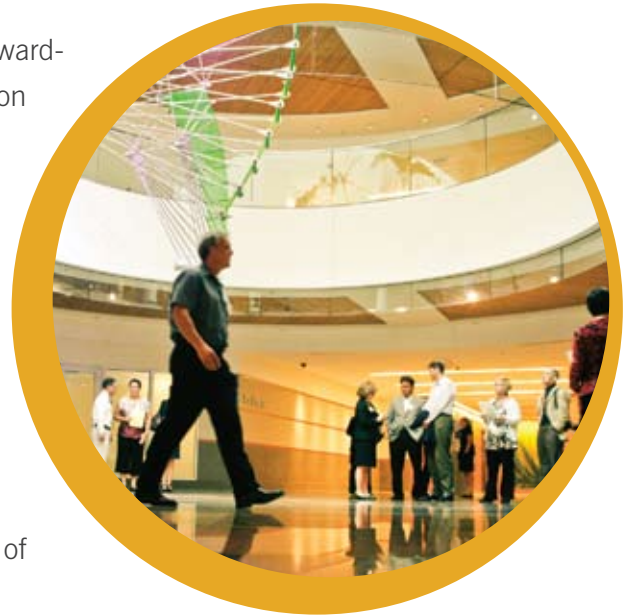


# For Healthcare Providers

Learn. Research. Share.

**The Pebble Project** is a unique and dynamic collaborative, where forward-thinking healthcare providers learn, research, and share information to create better healthcare facilities that improve patient and worker safety and clinical outcomes, while maximizing environmental performance and operating efficiency.

The Pebble Project is part incubator, part accelerator, where partners come with their goals, questions, and challenges; share and learn from the experiences of counterparts around the country and world; and, with expert guidance from The Center for Health Design’s consultants and research staff, develop strategies to implement, measure, and document the results of their endeavors.



**As a Pebble Partner, your healthcare organization will benefit from:**

Access	to the ideas, experiences and best practices of other healthcare organizations; to preliminary research findings; to planned facility tours; and, to annual Pebble Partner colloquiums.
Tools, Data and Resources	research papers and findings provide a foundation for assessment and decision-making; planning tools, expert guidance, checklists and third-party assessments help get your Pebble Project underway.
Expert Advice	from fellow members – including a variety of healthcare delivery and design professionals and product manufacturers – in the Pebble community; industry experts; and, The Center for Health Design staff.
Opportunity	to learn and test current practices and new ideas, designs and theories; to support decision-making; to determine the effect of built environment change, including ROI; to demonstrate commitment to quality and safe delivery of healthcare; and, to contribute to the field of Evidence-Based Design.

## Who are the Pebble Partners?

Today, healthcare providers of all types, sizes, and locations are Pebble Project partners:

- Large and small acute care hospitals
- Academic, research and teaching institutions
- Ambulatory care facilities and Clinics
- Specialty hospitals – children, cancer, residential care, etc.
- Health Systems
- Government Authorities



“One of the most valuable things we experienced as a Pebble Partner was networking and learning from others. This was particularly true when we attended the colloquiums where we could tangibly see what others considered and executed in their projects.”

*-Dan Miesle, former Director Facility Planning and Development, University of Kentucky Healthcare*

For information on current and alumni Pebble Partners and their projects visit [www.healthdesign.org/pebble](http://www.healthdesign.org/pebble)

## The Pebble Project and The Center for Health Design

Envisioned, created and expertly guided since 2000 by The Center for Health Design, the Pebble Project seeks to create a ripple effect throughout the healthcare industry by teaching and assisting healthcare providers to use an evidence-based design process in their healthcare environment projects, whether a new facility or a renovated space.

To support the Pebble Project, its members and their work, The Center for Health Design researchers and staff:

- Coordinate Pebble contributions to research and the body of knowledge for EBD
- Provide guidance and resources throughout the process
- Assist with access to research collaborators
- Conduct literature reviews and industry scans
- Facilitate research brainstorming sessions and meetings
- Manage third-party review and evaluation of facility design
- Provide support for writing and disseminating findings
- Act as a liaison to known resources and like-minded peers
- Foster a community to showcase benchmark projects and ideas



## What are the Pebbles doing?

Pebble Partners are planning and implementing a wide range of evidence-based design features to improve outcomes such as:

- Increased patient, staff and family satisfaction
- Fewer healthcare associated infections
- Reduce staff injuries
- Improved workflow and process
- Reduced noise
- Fewer medication errors
- Return on investment for design innovations
- Reduced patient falls
- Reduced workplace turnovers
- Improved response time

Research is focused in areas of quality of care, patient safety, staff safety, and environmental safety.

Recent Pebble Project research includes:

**Affinity Health, together with Johns Manville**, evaluated the impact of thin acoustical wall treatments in controlling reverberation and related background noise levels in patient rooms. Results were disseminated in a Pebble Report in Healthcare Design Magazine (February 2010).

**The Children's Hospital in Aurora, Colorado**, engaged in a pre/post occupancy comparative study to determine family and staff satisfaction changes following a new construction project. The findings were published in the Fall 2011 issue of the Health Environment Research (HERD) Journal.

**Palomar Pomerado Hospital, Tandus, and Armstrong** evaluated the effect of flooring and ceiling tile selections on objective and subjective assessment of noise levels in patient care units. Two different parts of the report are being prepared for dissemination in two peer-reviewed publications.

**University Medical Center of Princeton at Plainsboro** received a grant from the Robert Wood Johnson Foundation to develop a "live" mock-up of a medical-surgical room that informed plans for the replacement hospital in Plainsboro, N.J. Constructed in an active patient unit, the mock-up contributed to the national body of knowledge on evidence-based hospital decision-making, equipment and furnishings to improve patient care.

**Alberta Infrastructure and Alberta Health Services** piloted their Building Performance Evaluation process at the Peter Lougheed Centre in Calgary, Alberta. The first round of results and lessons learned were published in Healthcare Design Magazine (October 2011).

**Trillium Health Centre** in Mississauga, Ontario evaluated the relationship of numerous aspects of their new wing, such as technology, decentralization and room design, against outcomes, such as patient safety, staff outcomes, cost effectiveness, and overall patient and staff satisfaction. The results were presented at the annual Healthcare Design Conference in November 2011.

Industry Pebble Partner **Philips Healthcare** worked in collaboration with The Center for Health Design to evaluate the impact of the Philips Ambient Experience program on the patient and staff experience and satisfaction. Results were presented at the annual Healthcare Design Conference in November 2010. A second study surrounding the Ambient Experience technology will be conducted at the Nemours Children's Clinic in Jacksonville, FL to evaluate mood and physiological outcomes.

*"As a Pebble I realized that the design of the building and its interior features actually contribute meaningfully to better clinical outcomes and a safer, less stressful environment."*

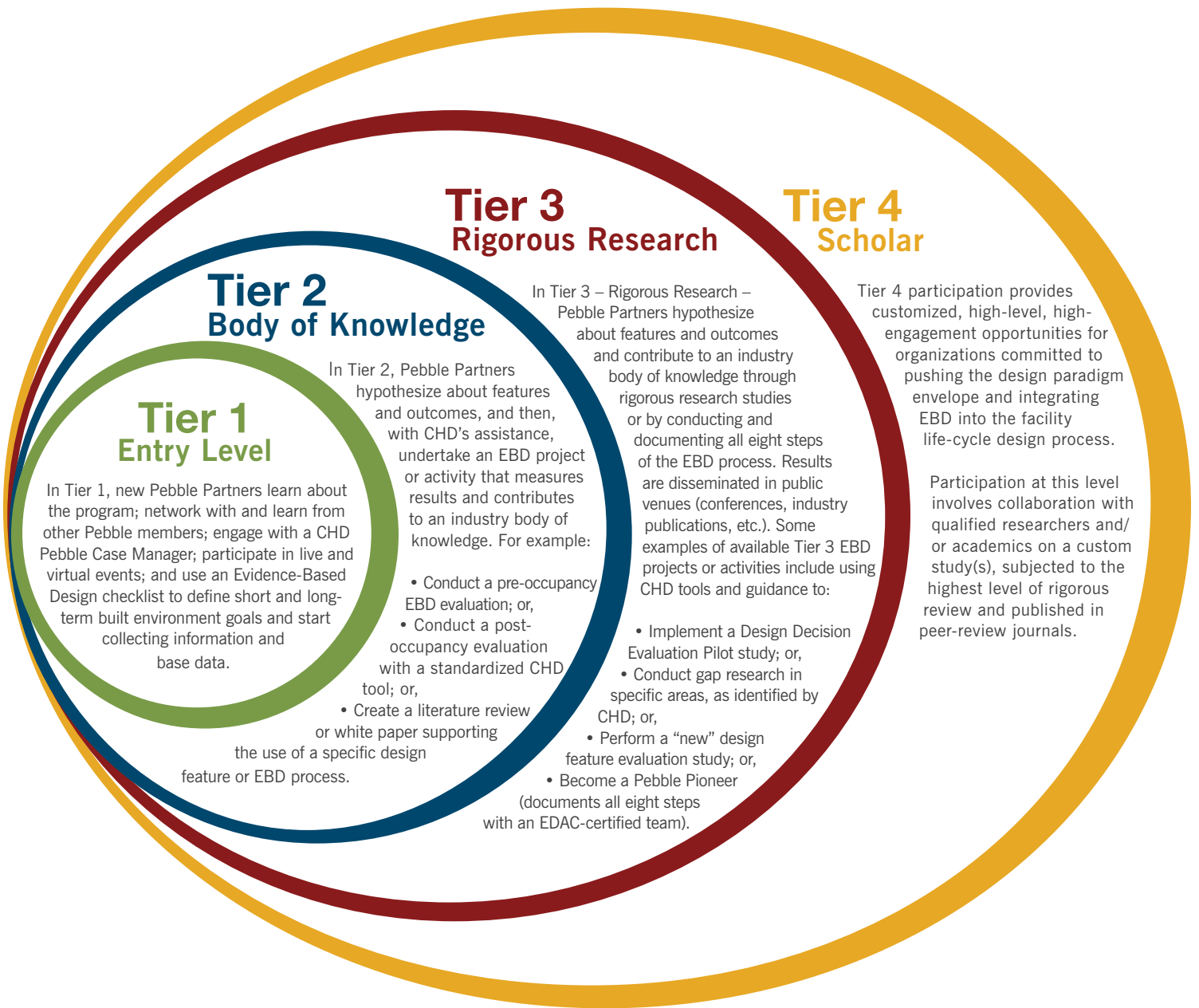
*~ Barry S. Rabner, President and CEO, Princeton HealthCare System*

*"We signed on to the Pebble Project because it provides access to resources we ordinarily don't have, in terms of experts and research. Additionally we are eager to "give something back" to the industry through the research Dublin will do and to help future generations build better buildings."*

*~Cheryl Herbert, President, Dublin Methodist Hospital*

## Becoming a Pebble Partner – Membership Structure

Recognizing that healthcare organizations have different interests, different resource availability, and are at different stages in their project planning, design and construction, the Pebble Project offers a tiered participation structure. Pebble Partners can access learning tools and resources, and participate, with fees appropriate to their level of organizational “readiness” and needs.



INCREASING VALUE AND BENEFITS

## Pebble Project Member Benefits

		Tier 1	Tier 2	Tier 3	Tier 4
<b>Pebble List-Serv</b>	Ask and receive answers online from Pebble community peers and industry experts.	●	●	●	●
<b>The EBD 2.2 Checklist</b>	Use this powerful, versatile, and proven spreadsheet-based tool in the programming, schematic design, and design development phases of the design process.	●	●	●	●
<b>Research Participation</b>	Partners receive first calls for participation in CHD grant-funded research.	●	●	●	●
<b>Colloquium Attendance</b>	Project team members (number varies by tier), plus the provider CEO.	●	●	●	●
<b>Pebble in Practice Workshops</b>	Attendees participate in “deeper dive” workshops into specialized topics or areas.	●	●	●	●
<b>Access to CHD Research Tables</b>	Annually updated references to a wide range of built environment topics including patient safety (infections, medication errors, falls), workplace safety and staff effectiveness; environmental safety, quality of care; patient stress and other clinical outcomes.	●	●	●	●
<b>Access to Built Environment Survey Tool</b>	Developed by the UC Berkeley Center for the Built Environment, this online tool evaluates building service provider effectiveness, facility expenditures, effectiveness of improvements, occupant perceptions and indoor environment areas such as office layout and furnishings, thermal comfort, air quality, lighting, acoustics, cleanliness and more.	●	●	●	●
<b>RIPPLE Database Access</b>	Submit to and access this open source searchable database of built environment strategies and their impacts on patient and worker safety, environmental safety and quality of care.	●	●	●	●
<b>Pebble Guidebook</b>	A roadmap for getting started, researching and sharing results – for use by providers undertaking an evidence-based design process for their building design. Includes annually updated research tables, the business case framework, a benchmarking tour questionnaire, EBD process checklist and research reporting form.		●	●	●
<b>Submit a Question</b>	Research support by CHD staff for questions of general nature.		●	●	●
<b>Onsite Pebble Orientation</b>	CHD staff will engage key stakeholders, leadership or executive committee to articulate the Pebble program and selected tier project.		●	●	●
<b>Research Project Primer</b>	Outlines steps for setting up a research project, reviews study design options, and includes a sample timeline.		●	●	●
<b>Access to Business Case Tool</b>	Based on the benchmark Fable Hospital 2.0 Use default values of input site-specific costs/data to calculate savings.		●	●	●
<b>Access to Issue Papers</b>	Developed quarterly by CHD on current topic areas, grant-funded research findings or industry sponsored topics.		●	●	●
<b>CHD-Conducted Pre-Occupancy Checklist Review*</b>	Includes more than 100 components considered in “scoring” patient-centered and EBD goals. Includes onsite evaluation by CHD staff or expert designee.		●*		
<b>CHD-Conducted Post-Occupancy Evaluation (POE)*</b>	Participate in development of a standardized post-occupancy evaluation tool. Includes onsite evaluation by CHD staff or designee a minimum of six to eight months after opening.		●*		
<b>Onsite Pre/Post Occupancy Workshop*</b>	Conducted by CHD staff or designee.		●*		
<b>Develop Literature Review / White Papers*</b>	CHD will provide dedicated staff time to develop one literature review or white paper.		●*		

\* Additional benefits to Tier 2 members, depending upon the Tier project chosen.

<b>Research Associate Support</b>	Provided annually, this access and time (hours vary by tier) can be customized and used for regularly scheduled calls and/or intermittent questions or other general research support.	●	●	●	●
<b>Research Associate Onsite Visit</b>	Annual visit includes preparation, travel, the work session, and a follow-up/next steps document.			●	●
<b>Access to Industry Experts</b>	Access industry experts in specific topic areas, such as statistical analysis or leadership level lectures.			●	●
<b>Co-Author Pebble Report</b>	CHD support to produce a Pebble Report – focused on Pebble Partner activities, high-level findings or EBD process development — for publication in Healthcare Design Magazine.		●	●	●
<b>Custom Industry Scan</b>	CHD support to identify and provide a general understanding of trends, available information, or evidence for a specific topic area; includes all references reviewed.			●	●
<b>CHD Research Database</b>	Access to CHD’s ever-growing, searchable literature database (citations and abstracts).			●	●
<b>Access to Pebble Pioneer EBD Tool*</b>	For use by Pebble Partners who commit at least eight project team members to the EDAC certification process; provides specific list of tasks and deliverables for each EBD process step.			●*	
<b>Access to Research Study Protocol*</b>	Use tools provided by CHD to conduct studies addressing specific gaps and high-priority topic areas in healthcare design industry research; maybe conducted at more than one site or in collaboration with more than one organization.			●*	
<b>Onsite Research Workshop</b>	Facilitated by a PhD-level researcher and including preparation, travel, onsite sessions and prioritization exercises.				●
<b>Research Study Development Assistance</b>	Provided by a PhD-level researcher who will work directly with the organization in the development of a custom built-environment research study.				●
<b>Writing to Co-Author Peer-Reviewed Paper</b>	CHD staff support to produce a paper for submission to a peer-reviewed journal.				●

\* Additional benefits to Tier 3 members, depending upon the Tier project chosen.

Additional services which may be added to any tier. Custom projects include:

- CHD assistance with IRB development
- CHD plan review of specific units or departments
- CHD project management services for custom research studies

**For more detailed information on Pebble Project membership tiers and benefits, Pebble Partners or The Center for Health Design, please call or email Mark Goodman, Vice President, Project Development, (925) 521-9404 x120 / [mgoodman@healthdesign.org](mailto:mgoodman@healthdesign.org).**