

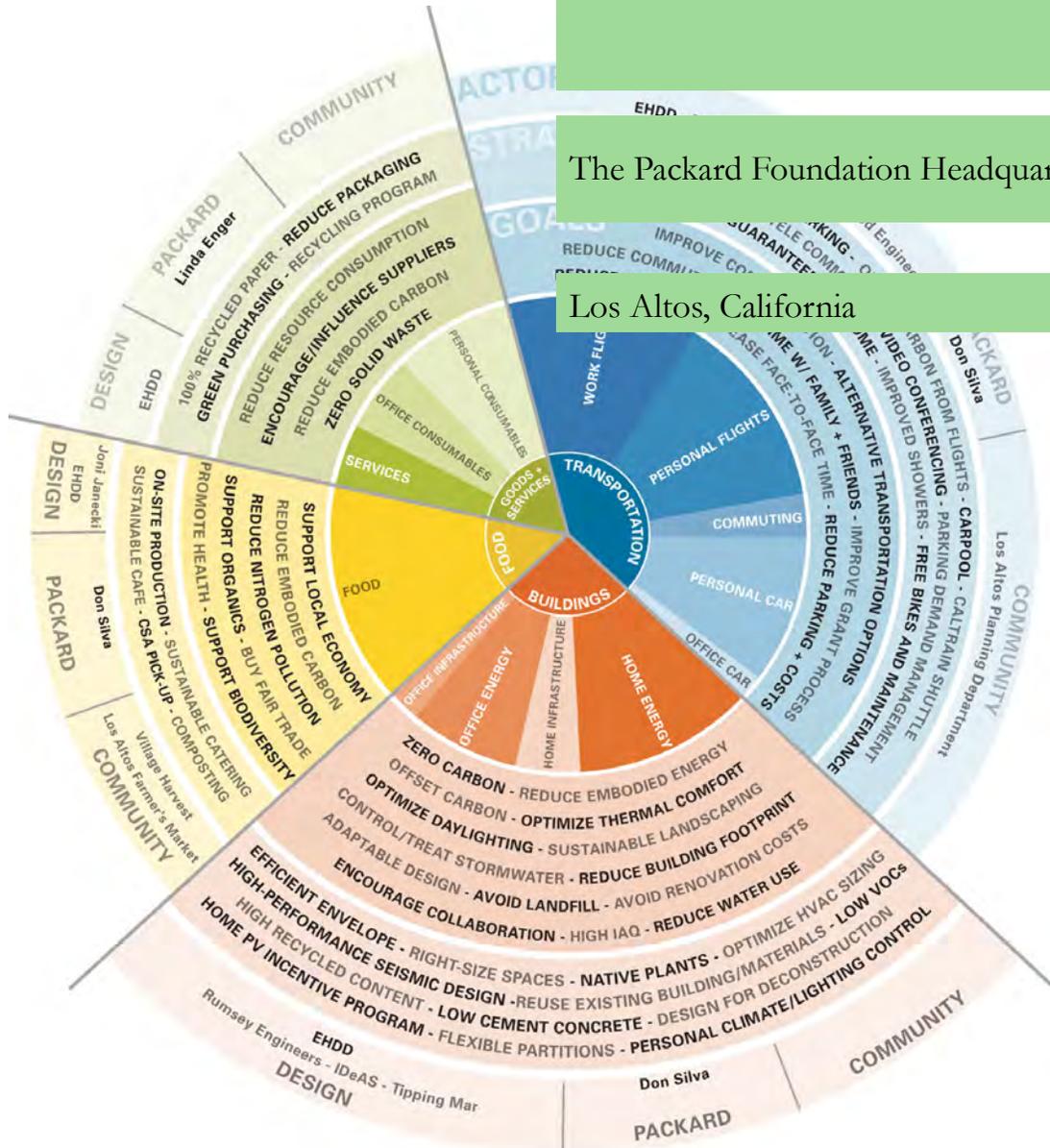
Sustainability in Practice

Building and Running

343 Second Street

The Packard Foundation Headquarters

Los Altos, California



Robert H. Knapp
 Physics and Sustainable Design
 Evergreen State College

Sustainability in Practice: Introduction and Summary

The Buddhist scholar and deep ecologist Joanna Macy frequently says to her audiences, “Hope isn’t something you *have*; it’s something you *do*.” The same goes for sustainability. This much-voiced, multi-faceted, contentious term refers to a pattern of living and working, not a gadget, device or trophy. Sustainability isn’t something you *have*, it’s something you *do*. Few American efforts of the last decade embody this as deeply as the design, construction and operation of the David and Lucile Packard Foundation’s new headquarters building in Los Altos, California.



photo: Jeremy Bittermann

Known inside the foundation by its address, 343 Second Street, the new Packard headquarters represents not only a physical structure but also a living organization, to which professionals and support staff devote many waking hours and through which they pursue the multiple goals of their working lives. The story of the new headquarters is one of recognizing that hopes for a sustainable place of work require ongoing engagement of all staff. The Packard project’s achievement lies in devising not only a fine physical setting but also modes of engagement that are truly manageable and satisfying for the long term.

The present document is a careful case study of this project—what happened, how, and how much, in the context of related building projects over the past 15 years in the US. I have considered the main readership to be professionals and leadership in organizations which are contemplating new buildings of their own, and I have therefore emphasized the process of formulation and decision-making. New-built workplaces do not drop fully formed from the skies, nor are they lined up ready-made in some catalog. They emerge, like gardens—originally untended places where ideas have grown, strongly conditioned by accidents of soil and climate, strongly but not wholly shaped by husbandry, into habits and structures which support an organization’s life (or fail to). What were the seeds, the soil and climate and the husbandry that have led to 343 Second Street?

A summary

The Packard Foundation describes its headquarters project as “a conscious decision to live the values we support,” which it articulates for this project as a threesome:

a physical manifestation of our long-term commitment to conserving the Earth's natural resources; a comfortable, healthful space for our employees to work collaboratively; support for a vital downtown in the community which has been the Foundation's home for over 45 years.¹



City of Los Altos (left); EHDD Architecture (center); Packard Foundation (right)

This study centers on sustainability, and will show how all three Packard value streams have mixed and reacted to generate the particular embodiment of sustainability which is the present headquarters.

Getting from the earliest discussions to moving in was a six-year process (2006-2012), including a 12-month halt due to the 2008 financial crisis. The building, 343 Second Street, stands on a roughly triangular 1.8 acre site at the south-east edge of Los Altos' business district. The building has room for about 120 professionals and staff, in two long, relatively narrow two-story wings (250 ft by 45 ft) about 45 feet apart, and two short perpendicular wings which bridge the gap and define a generous internal courtyard. The roofs of the long wings are mostly covered with the photovoltaic (PV) panels which provide the building's energy. These are not visible from the street, where the impression is a quietly varying facade of wooden walls, balcony projections, and frequent windows, set a little back from the sidewalk by sheltering foliage—ground cover, bushes, trees.

Results

The project set itself two major sustainability standards, LEED Platinum status and net zero energy operation, and the first year of operation, July 2012-July 2013, has seen both achieved. Equally important, 97% of its inhabitants report general satisfaction with the building, a proportion that puts it in the top 5% of a national database of building occupant surveys.² As this study will show, these results arise from a merging of very good work by design and construction professionals with a

¹ Packard Foundation, www.packard.org/about-the-foundation/our-green-headquarters/ (accessed Oct.2, 2013)

² Center for the Built Environment (University of California, Berkeley) Post-Occupancy Evaluation administered April 17-28, 2013.

very steady commitment within the Packard Foundation staff, leadership, and Board to an understanding and practice of sustainability much wider than just the building. All participants have strong reason to be proud of what they have achieved so far. At the same time, operational success and inhabitant satisfaction are qualities that need continued attention and effective action. For Packard and for any who follow these footsteps, sustainability will remain something to be done, not had. Time will be sifting the lasting ideas and practices from the temporary and the fashionable. There are decades of learning and practice ahead for all American organizations as sustainability becomes understood and embedded in the ways we work.

Preview of Conclusions

In this study, the process by which 343 Second Street came about is more important than the physical specifics of the building, persuasive as they are. The significance of Packard's process for sustainability is its intimate, judicious merging of technical possibilities with organizational priorities and values. Especially noteworthy are the adaptability and resilience of the participants to the opportunities and challenges that came along. The project experienced two stock market crashes, a "sustainability wheel" and its great expansion of vision, a mid-course design shift, a target cost commitment. Moments like these arrive in many projects, but the steadiness of the response by all participants in 343 Second Street is not so common. The basic goals remained well in view even as the path toward them showed itself to be different from expected.

The wide engagement of Packard staff in pursuing in-house sustainability has been vital to reaching this point. Attaining the net zero energy goal is an effort that reaches right to individual desks, and calls on initiative as well as cooperation. This is both challenge and opportunity. Through the creation of an active and effective in-house Sustainability Task Force and in less formal ways, Packard staff and leadership rose to it, as this study recounts in detail.

The importance of beauty to the project's success is a third noteworthy element. For inhabitants to be committed to sustainability in the workplace, connecting with their sense of beauty is commonly overlooked but profoundly important. The Packard process was able to recognize this and to find effective, broadly appealing ways of implementing it, true to the personalities and the practicalities of its situation.

As other organizations consider green buildings of their own, this threesome of steadiness, wide engagement, and beauty must of course be joined by a technical element. The individual technologies used at 343 Second Street are well established. The technical achievement, and it is considerable, is to have deployed them in a sensitively integrated fashion. The tools for doing this, such as energy modeling, are widely available. Good results in other locations await only the competent use of available technology and tools.

This all bears on the question of replicability. This has been in Packard's rhetoric and on the minds of Packard people from the start. My view on this is nuanced in many respects, but unwavering in one general way: the means are now available for a very wide range of organizations to house themselves in high-performing buildings at reasonable cost. The specific goal of net zero operation is more subject to local circumstance, but the information below about workable reductions in energy demand indicates that local solar energy will permit net zero low-rise offices in many locations. If an organization can bring steadiness, wide engagement, and internally authentic forms of beauty to a project, and if it teams up with a design team that understands integrating systems into harmonious wholes, the chances of joining the Packard Foundation's league are excellent.



photo: Jeremy Bittermann