



# LIVING COMMUNITY CHALLENGE<sup>SM</sup> 1.0

A Visionary Path to a  
Regenerative Future



INTERNATIONAL  
**LIVING FUTURE**  
INSTITUTE<sup>SM</sup>

# NOTIFICATION

Copyright © 2014 by International Living Future Institute

All rights reserved. No part of this document may be modified, nor elements of this document used out of existing context without written permission.

For information, address:  
The International Living Future Institute  
1501 East Madison Street, Suite 150  
Seattle, WA 98122

Living Community Challenge is a trademark of the International Living Future Institute (the Institute). The terms “Living Community,” “Living Neighborhood,” “Living Products,” “Living Buildings,” “Living Building,” “Living Building Leader,” “Living Future” and “Living Future Challenge” are also trademarks of the Institute. No use of these terms is allowed without written permission from the Institute, and no project may claim to reach “Living Product” status without review and approval by the Institute.

The Institute grants substantial limited uses in order to encourage a wide distribution, including the following:

This particular document may be printed and distributed in its entirety by any organization for the purposes of education or adoption of the Challenge. This stipulation does not apply to other Living Future Challenge documents or other related documents unless expressly specified. However, it

should be noted that the Institute does provide pre-printed, professionally bound copies on FSC paper of the Standard for purchase at a reasonable price.

This document may be transmitted in PDF form only—without any modifications made—to any individual or organization for the purposes of education or adoption of the Challenge.

This document may be posted on websites in its entirety and unmodified in PDF form for the purposes of education or to encourage the adoption of the Challenge. However, the Institute encourages organizations to instead provide a link to the Living Community Challenge website at **living-future.org** in order to maintain access to the most current version of the document.

Use of this document in any form implies acceptance of these conditions. The Institute reserves the right to modify and update the Living Community Challenge at its sole discretion.

**NOW IS THE  
RIGHT TIME  
FOR A WORLD  
OF LIVING  
COMMUNITIES**





Photo: Andres Garcia Martin / Shutterstock.com

**IMAGINE** an entire community designed and constructed to function as elegantly and efficiently as a forested ecosystem: a community informed by its bioregion's characteristics, that generates all of its own energy with renewable resources, captures and treats all of its water, and operates efficiently and for maximum beauty.

**IMAGINE** a city block or a college campus sharing resources from building to building, growing food and functioning without a dependency on fossil fuel-based transportation.

**IMAGINE** true sustainability in our homes, workplaces, neighborhoods, villages, towns and cities—Socially Just, Culturally Rich and Ecologically Restorative<sup>SM</sup>

## EMBRACE THE PSYCHOLOGY OF THE END GAME

The International Living Future Institute issues a challenge:

**TO ALL DEVELOPERS, URBAN PLANNERS, ARCHITECTS, LANDSCAPE ARCHITECTS AND CONTRACTORS** to create the foundation for a sustainable future in the fabric of our communities.

**TO LOCAL, STATE AND FEDERAL POLITICIANS AND GOVERNMENT OFFICIALS** to remove barriers to systemic change, and to realign incentives and market signals that truly protect the health, safety and welfare of people and all beings.

**TO ALL OF HUMANITY** to reconcile the built environment with the natural environment, into a global civilization comprised of individual communities that create greater biodiversity, resilience and opportunities for life with each adaptation and development.

Photo: bikeriderlondon / Shutterstock.com



# TABLE OF CONTENTS

EXECUTIVE SUMMARY	7	<b>MATERIALS</b>	<b>38</b>
HOW THE LIVING COMMUNITY CHALLENGE WORKS	11	11. Living Materials Plan	40
SUMMARY MATRIX	17	12. Embodied Carbon Footprint	41
		13. Net Positive Waste	42
<b>PLACE</b>	<b>18</b>	<b>EQUITY</b>	<b>44</b>
01. Limits to Growth	20	14. Human Scale and Humane Places	47
02. Urban Agriculture	21	15. Universal Access to Nature & Place	48
03. Habitat Exchange	22	16. Universal Access to Community Services	49
04. Human Powered Living	23	17. Equitable Investment	50
		18. Just Organizations	51
<b>WATER</b>	<b>24</b>	<b>BEAUTY</b>	<b>52</b>
05. Net Positive Water	26	19. Beauty & Spirit	54
		20. Inspiration & Education	55
<b>ENERGY</b>	<b>28</b>		
06. Net Positive Energy	30		
<b>HEALTH &amp; HAPPINESS</b>	<b>32</b>	ADDITIONAL RESOURCES FOR DEEPER ENGAGEMENT	56
07. Civilized Environment	34		
08. Health Neighborhood Design	35		
09. Biophilic Environment	36		
10. Resilient Community Connections	37		

# EXECUTIVE SUMMARY: IMPACTS ACROSS ALL SCALES OF DEVELOPMENT

The Living Community Challenge is an attempt to raise the bar, to extend the ideals established by the Living Building Challenge from the individual project site outward into the community at large. The Living Community Challenge defines the most advanced measure of sustainability in the built environment possible today and acts to diminish the gap between current limits and ideal solutions. This philosophy, advocacy tool and certification program covers communities and masterplans at all scales and is a unified tool for transformative design, allowing us to envision a future that is **Socially Just, Culturally Rich and Ecologically Restorative**. Whether the community is a single street or block, a park, a college campus or even a complete neighborhood for thousands of individuals, the Living Community Challenge provides a framework for masterplanning, design and construction and the symbiotic relationship between people and all aspects of the built environment. Indeed, “Living Community Challenge” is not merely a noun that defines the character of a particular solution for development and planning, but is more relevant if classified as a series of verbs—calls for action that describe not only the “building” of all of humanity’s longest-lasting artifacts, but also the relationships and broader sense of community and connectivity they engender. It is a challenge to immerse ourselves in such a pursuit—and many refer to the ability to do so as a paradigm shift.

Projects that achieve this level of performance can claim to be the “greenest” anywhere, and will serve as role models for others that follow. Whether the community effort is restorative, regenerative or operates with a net zero impact, it has a home in the construct of the Living Community Challenge.

Although it may seem to be ambitious to simultaneously achieve all of the requirements of the Living Community Challenge, understanding the Standard and documenting compliance is inherently easy: there are never more than twenty simple and profound Imperatives that must be met for any type of project, at any scale, in any location around the world. This Standard is decidedly not a checklist of best practices—the facets of the Living Community Challenge position the ideal outcome as an indicator of success. The specific methodology used to meet the expectations of the Living Community Challenge is assigned to the genius of the design and planning teams, who are expected to make informed decisions appropriate to the community, its inhabitants and its bioregion.

The Living Community Challenge is a cohesive standard, pulling together the most progressive thinking from the worlds of architecture, engineering, planning, landscape design and policy. It challenges us to ask the question: **How do we create communities that are good for all people through time?**

*continued >>*



Photo: Perati Komson / Shutterstock.com

What if every intervention resulted in greater biodiversity; increased soil health; additional outlets for beauty and personal expression; a deeper understanding of climate, culture and place; a realignment of our food and transportation systems; and a more profound sense of what it means to be a citizen of a planet where resources and opportunities are provided fairly and equitably?

A tall order to be sure.

The scale of change we seek is immense. But without recording these utmost visions and clarity of purpose, we as a society will never experience the type of future that is possible and necessary for our long-term survival. It is our belief that only a few decades remain to completely reshape humanity's relationship with nature and realign our ecological footprint to be within the planet's carrying capacity. Incremental change is no longer a viable option.

Over the last twenty years, green building has grown to become the most important and progressive trend in the building industry. There have been huge steps forward in the design, construction and operation of buildings and community developments, and yet when compared with the rate of change that is required to avoid the worst effects of climate change and other global environmental challenges, our progress has been minute and barely recordable. There are a lot of green masterplans in existence, but few go far enough to address the depth of challenges we face over the next few decades.

*continued >>*



## WE ARE ENTERING A PEAK OIL, PEAK WATER WORLD THAT IS GLOBALLY INTERCONNECTED YET ECOLOGICALLY IMPOVERISHED.

A world with seven billion people and counting.

A world where every single major ecological system is in decline and the rate of that decline is increasing.

A world where global temperature increases mean shifting rainfall distributions, acidified oceans and potentially catastrophic sea-level rise.

Nothing less than a sea change in building, infrastructure and community design is required. Indeed, this focus needs to be the great work of our generation. We must remake our cities, towns, neighborhoods, homes and offices, and all the spaces and infrastructure in between. This is part of the necessary process of reinventing our relationship with the natural world—reestablishing ourselves not separate from, but “part and parcel with creation.”<sup>1</sup>

<sup>1</sup> To quote Edward O. Wilson, one of the world's most distinguished scientists.

*continued >>*



Photo: DoIn Oakenheim / Shutterstock.com

Since it was launched in 2006, the Living Building Challenge has inspired and motivated rapid and significant change: projects have sprouted up all over North America and beyond—currently, there are efforts underway in a dozen countries; the regulatory environment has embraced a series of reforms; and most importantly, a new sense of what is possible has permeated design communities as a result of the successful certification of the first Living Buildings<sup>SM</sup>. The Living Community Challenge seeks to do for neighborhoods, towns and cities what the Living Building Challenge has done for individual structures. Many of the strategies we support within the Living Building Challenge work even better when applied at scale—indeed finding the right scale, the “sweet spot” for infrastructure where economics and environmental impact best align, is exciting.

**THIS STANDARD IS AN ACT OF OPTIMISM AND BELIEF THAT WITH THE RIGHT TOOLS IN THE HANDS OF PASSIONATE, LITERATE AND SENSITIVE INDIVIDUALS, A REVOLUTIONARY TRANSFORMATION IS POSSIBLE. WE INVITE YOU TO JOIN US, SO THAT TOGETHER WE CAN CONTINUE TO FORGE AHEAD ON OUR PATH TOWARD RESTORATION AND A LIVING FUTURE.**

## CREATING WORLD-CLASS COMMUNITY DEVELOPMENT

The Living Community Challenge is comprised of seven performance areas, or “Petals”: Place, Water, Energy, Health and Happiness, Materials, Equity, and Beauty and Spirit. Petals are subdivided into a total of twenty Imperatives, each of which focuses on a specific sphere of influence. This compilation of Imperatives can be applied to the masterplan and/or completed construction of almost every conceivable community type, be it a small city block or street, a planned residential development, a mixed-use transit community or a large college campus. Naturally, strategies to create Living Communities will vary widely by occupancy, use, construction type and location—but the fundamental considerations remain the same.

There are two levels of certification within the Living Community Challenge:

### 1. Living Community Certification

A masterplan or built project must meet all twenty Imperatives across all seven Petals to earn Living Community Certification.

### 2. Petal Community Certification

A Community must meet all the Imperatives of at least three Petals (one of which must be the Water, Energy or Materials Petal) to earn Living Community Petal Certification. Imperative 01, Limits to Growth and Imperative 20, Inspiration and Education are also required.

Compliance or Certification is available in two stages:

1. Living Community Masterplan Compliance
2. Living Community Challenge Certification

### Living Community Masterplan Compliance

The Institute recognizes that it can take years and sometimes decades to develop masterplans, then years more for those plans to evolve into completed projects ready for occupancy. The Living Community Masterplan compliance acknowledges this reality and now reviews masterplans as the first stage toward Living Community Certification. This powerful new tool can guide developers and planners during a project’s critical conceptual phases, public review or planning efforts, acknowledging and certifying world-class planning efforts at this critical early juncture.

Living Community Masterplan Compliance requires a plan review with supporting documentation and no on-site audit or third-party auditor. Compliance is valid for up to three years, after which the project’s plans must be resubmitted if construction has not yet begun. If the project has moved to the construction phase, then it is no longer eligible for Living Community Masterplan Compliance and must set its sights on Living Community Certification.

*continued >>*



Upon receiving Living Community Masterplan Compliance, developers may not market their project as a Living Community. They may promote the fact that they have created a compliant Living Community Masterplan for what aspires to be a Living Community upon completion of construction.

When any phase of a planned development's construction is complete, developers may apply for Petal or Living Community Certification. So it is feasible for a single project to contain certified built elements and compliant plans at the same time.

#### **Living Community Certification**

Once a planned Living Community has completed construction and has a minimum of twelve months of continuous operation, it may apply for Petal or Living Community Certification (assuming that the compliant Living Community Masterplan has not been undermined by actual infrastructure implementation). Because a Community is often built in phases, The Community may work with the Institute to determine if the phase is significant enough to trigger certification for that portion of the development. This is likely a suitable strategy for large community or campus plans.

Existing buildings within the community or buildings not under the ownership of the Community do not have to be certified as Living Buildings (although they are encouraged to be). However, all built infrastructure within the Living Community must meet the requirements of the program. All buildings owned or developed by the community must meet the Living Building Challenge for the project to earn full Living Community certification status.

When the project is ready for certification, a third-party audit will be organized by the International Living Future Institute to ensure compliance with all pertinent Imperatives.

There are two rules for Living Community Certification:

1. All Imperatives are mandatory.
2. Certification is based on actual, rather than modeled or anticipated, performance.

Therefore, projects must be operational for at least twelve consecutive months prior to evaluation.

To encourage proper development in specific settings, the Standard draws on the work of Duany Plater-Zyberk & Company,<sup>2</sup> who created the New Urbanism Transect model for rural to urban categorization. The Transect is a powerful basis for planning, and demonstrates that different types of standards benefit different development realities. The Living Transect™, which applies to several Imperatives throughout the Living Community Challenge, is an adaptation of the original Transect concept; the significant modification herein is a reclassification of Transect zones T3 and T4 to emphasize appropriate mixed-use densification.

**THE CHALLENGE PROMOTES THE TRANSITION OF SUBURBAN ZONES EITHER TO GROW INTO NEW URBAN AREAS WITH GREATER DENSITY, OR TO BE DISMANTLED AND REPURPOSED AS NEW RURAL ZONES FOR FOOD PRODUCTION, HABITAT AND ECOSYSTEM SERVICES.**

<sup>2</sup> [www.transect.org](http://www.transect.org)

*continued >>*



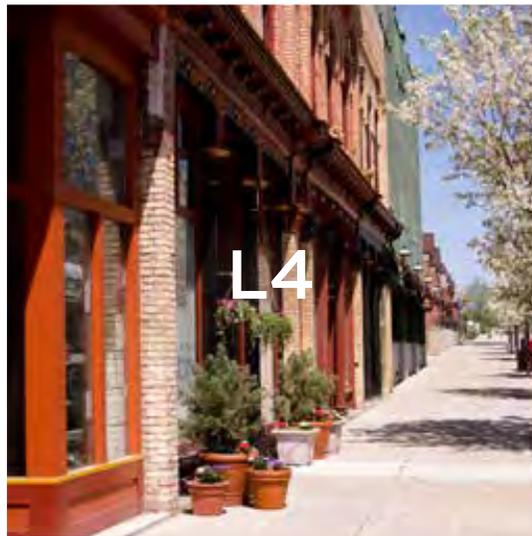
L1



L2



L3



L4



L5



L6

Every project must select a Living Transect category from the following options:

**L1. NATURAL HABITAT PRESERVE (GREENFIELD SITES):**

This is comprised of land that is set aside as a nature preserve or is defined as sensitive ecological habitat. It may not be developed except in limited circumstances related to the preservation or interpretation of the landscape, as described in Imperative One: Limits to Growth. There is a temporary exception that allows a neighborhood project to be constructed on a greenfield site in least-developed, newly industrialized or other countries with a low Human Development Index rating, where it can be clearly demonstrated that predominant societal land-use pressures require the allowance of partial development as a condition to preserve the majority of the property as a conservation area.

**L2. RURAL AGRICULTURE ZONE:** This is comprised of land with a primary function for agriculture and development that relates specifically to the production of food as described in Imperative Two: Urban Agriculture. Small towns and villages do not apply. (Floor Area Ratio of  $\leq 0.09$ )

**L3. VILLAGE OR CAMPUS ZONE:** This is comprised of relatively low-density mixed-use development found in rural villages and towns, and may also include college or university campuses. (FAR of 0.1 - 0.49)

**L4. GENERAL URBAN ZONE:** This is comprised of light- to medium-density mixed-use development found in larger villages, small towns or at the edge of larger cities. (FAR of 0.5 - 1.49)

**L5. URBAN CENTER ZONE:** This is comprised of a medium- to high-density mixed-use development found in small to mid-sized cities or in the first 'ring' of a larger city. (FAR of 1.5 - 2.99)

**L6. URBAN CORE ZONE:** This is comprised of high- to very high-density mixed use development found in large cities and metropolises. (FAR of  $\geq 3.0$ )

Photo: joyfull / Shutterstock.com

Photo: Andrew F. Kazmieriski / Shutterstock.com

**LIVING COMMUNITY CHALLENGE PROJECTS HAVE THEIR OWN ‘UTILITY,’ GENERATING THEIR OWN ENERGY AND PROCESSING THEIR OWN WASTE. THEY MORE APPROPRIATELY MATCH SCALE TO TECHNOLOGY AND END USE, AND RESULT IN GREATER SELF-SUFFICIENCY AND SECURITY. YET, THE IDEAL SCALE FOR SOLUTIONS IS NOT ALWAYS WITHIN A PROJECT’S PROPERTY BOUNDARY.**

Depending on the technology, the optimal Living Community scale can vary when considering environmental impact, first cost and operating costs. To address these realities, the Living Community Challenge has a Scale Jumping overlay to accommodate communities of varying sizes to operate in a cooperative state—sharing green infrastructure as appropriate and allowing for Living Communities to be achieved as elegantly and efficiently as possible. Refer to the summary matrix on page 17 to view all Imperatives that may employ the Scale Jumping overlay.



**Imperatives where Scale Jumping is allowed are marked with this icon.**

## SOME USEFUL GUIDING INFORMATION

- The internal logic of the Living Community Challenge is based on pragmatic experience with what has already been built in the marketplace.
- This Standard is an evolving document. Periodically, new releases that update or provide clarification of the Imperatives will be published. A Living Community Challenge toolkit will be forthcoming on the Living Community Challenge website.
- The Living Community Challenge does not dwell on basic best-practice issues, so it can instead focus on fewer, high level needs. It is assumed that to achieve this progressive standard, typical best practices are being met within the planning context. The implementation of this standard requires leading-edge technical knowledge, an integrated design approach, and proposed and actual design and construction teams well versed in advanced practices related to green building.
- Regional solutions are manifested in all Living Community Challenge projects due to a number of variables, including climate factors, building characteristics and whole systems thinking applied to the necessary scale. For example, becoming water-independent in the desert demands evolving a project's design to emulate a cactus instead of a tree. The built environment, at the levels of both structure and community, will be richer because of this response to place.

# SUMMARY MATRIX

 Solutions beyond project footprint are permissible

## THE 20 IMPERATIVES OF THE LIVING COMMUNITY CHALLENGE

	LIVING COMMUNITY CHALLENGE	LIVING BUILDING CHALLENGE 3.0	
PLACE			01. LIMITS TO GROWTH
		<b>SCALE JUMPING</b>	02. URBAN AGRICULTURE
		<b>SCALE JUMPING</b>	03. HABITAT EXCHANGE
			04. HUMAN POWERED LIVING
WATER		<b>SCALE JUMPING</b>	05. NET POSITIVE WATER
ENERGY		<b>SCALE JUMPING</b>	06. NET POSITIVE ENERGY
HEALTH & HAPPINESS			07. CIVILIZED ENVIRONMENT
			08. HEALTHY NEIGHBORHOOD DESIGN
			09. BIOPHILIC ENVIRONMENT
			10. RESILIENT COMMUNITY CONNECTIONS
MATERIALS			11. LIVING MATERIALS PLAN
		<b>SCALE JUMPING</b>	12. EMBODIED CARBON FOOTPRINT
			13. NET POSITIVE WASTE
EQUITY			14. HUMAN SCALE + HUMANE PLACES
			15. UNIVERSAL ACCESS TO NATURE & PLACE
			16. UNIVERSAL ACCESS TO COMMUNITY SERVICES
		<b>SCALE JUMPING</b>	17. EQUITABLE INVESTMENT
			18. JUST ORGANIZATIONS
BEAUTY			19. BEAUTY + SPIRIT
			20. INSPIRATION + EDUCATION

# PLACE

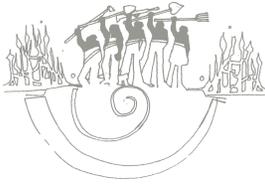


Photo: littleny / Shutterstock.com

# PLACE

**RESTORING A HEALTHY COEXISTENCE WITH NATURE**



**SCALE JUMPING PERMITTED FOR URBAN AGRICULTURE (IMPERATIVE 02) AND HABITAT EXCHANGE (IMPERATIVE 03)**

## PETAL INTENT

The intent of the Place Petal is to clearly articulate in a Community where it is acceptable for people to build and how to protect and restore a place once it has been developed, and to encourage the creation of Communities that are once again based on the pedestrian rather than the automobile. In turn, these Communities should be supported by local and regional agriculture, since no truly sustainable Community can rely on globally sourced food production.

The continued spread of sprawl development threatens the few wild places that remain. The decentralized nature of our Communities impedes our capacity to feed ourselves in a responsible way and also increases transportation impacts and pollution. As flat, prime land for construction diminishes, more and more development tends to occur in sensitive areas that are easily harmed or destroyed. Invasive species threaten ecosystems, which are already weakened by the constant pressure of existing human developments.

Automobiles, often used as single occupancy vehicles, have become integral to our Communities when we should depend on “people power”—walking and bicycling—as the primary mode of travel, and supplement it with shared transit.

## IDEAL CONDITIONS + CURRENT LIMITATIONS

The Living Community Challenge envisions a moratorium on the seemingly never-ending growth outward, and a focus instead on compact, connected communities filled with individual Living Buildings and populated with mindful citizens. It is designed to conserve the natural resources that support human health and the farmlands that feed us. As previously disturbed areas are restored, the trend is reversed and nature’s functions are invited back into a healthy interface with the built environment.

Human behavior and attitudes are the most significant barriers to transforming our developed surroundings. There is a frontier mentality that seems to encourage people to keep pursuing the next open territory and to value the untouched site more than the secondhand site. Humanity is territorial by nature, and we tend to view our impacts through a narrow lens. It is not unusual for us to encourage unhealthy solutions, so long as they are “not in my backyard” and allow us the social stature to “keep up with the Joneses.” We must erase the taboos associated with certain forms of transit that have the potential to connect Living Communities to one another and the notion of reclaiming abandoned industrial and commercial facilities, and we must once again give our regard to the many others that cohabit the earth with us.

PLACE

# LIMITS TO GROWTH



Projects in developed countries may only be built on greyfields or brownfields, previously developed<sup>3</sup> sites that are not classified as on or adjacent to any of the following sensitive ecological habitats:<sup>4</sup>

- Wetlands: maintain at least 15 meters, and up to 70 meters of separation<sup>5</sup>
- Primary dunes: maintain at least 40 meters of separation
- Old-growth forest: maintain at least 60 meters of separation
- Virgin prairie: maintain at least 30 meters of separation
- Prime farmland<sup>6</sup>
- Within the 100-year flood plain<sup>7</sup>

The Community must document site conditions prior to the start of work. On-site landscape must be designed so that as it matures and evolves it increasingly emulates the functionality of indigenous ecosystems with regard to density, biodiversity, plant succession, water use, and nutrient needs. It shall also provide wildlife and avian habitat appropriate to the Community's transect through the use of native and naturalized plants and topsoil. No petrochemical fertilizers or pesticides can be used for the operation and maintenance of the on-site landscape.<sup>8</sup>

A Community in a developing country may build on a greenfield site as long as the project permanently conserves (through a partnership with a reputable land trust) twice as much land on or adjacent to the Community as is developed.

- 3 Greenfield communities that are immediately adjacent to sites developed before 12/31/2007 on at least 75% of the project boundary are allowed. The surrounding development must abut the community, but can consist of multiple, non-contiguous developments. Alternatively, greenfields around which the contiguous sites are not developed may be developed on a case-by-case basis when the majority of the surrounding half-kilometer area is developed.
- Communities planned for and proposed to be developed at densities of at least L-4 under jurisdiction-sanctioned Growth Management Plans ratified before 5/31/2014 are allowed. The Growth Management Plan must define a long-term urban/rural line based on planned growth capacity of the overall planned area.
- 4 A project whose purpose it is to protect or interpret one of the sensitive ecological habitats is exempt as long as the site's ecological systems are not disturbed.
- 5 Minimum buffer widths vary, depending on the wetland classification.
- 6 There is an Exception for projects whose primary purpose is related to farming or is a working farm/ farmhouse.
- 7 There is an Exception for working ports, docks and all Landscape and Infrastructure projects, as well as projects whose primary purpose is related to farming. There is also an Exception for projects that are part of an existing historic community developed prior to 1945, or in neighborhoods that meet the density threshold of Transect L5 or L6
- 8 In this context, "landscape" is considered to be planted area outside of the square footage of agricultural cover required, per Imperative Two: Urban Agriculture.

PLACE

# URBAN AGRICULTURE



The Community must integrate opportunities for agriculture appropriate to the scale and density of the Community using the Floor Area Ratio (FAR) as a basis for calculation. The urban agriculture area can be aggregated in a central area or dispersed throughout the Community.

The basic chart below outlines mandatory agricultural allowances:

## PERCENT OF THE COMMUNITY AREA FOR FOOD PRODUCTION

**Project F.A.R.      Minimum Percent Required**

< 0.05	80%
0.05 - 0.09	50%
0.10 - 0.24	35%
0.25 - 0.49	30%
0.5 - 0.74	25%
0.75 - 0.99	20%
1.0 - 1.49	15%
1.5 - 1.99	10%
2.0 - 2.99	7.5%
> 3.0	5%



PLACE

# HABITAT EXCHANGE



# 03

For each hectare of development, an equal amount of land away from the Community must be set aside in perpetuity through the Living Future Habitat Exchange Program<sup>9</sup> or an approved Land Trust organization.



<sup>9</sup> See [www.living-future.org/exchange](http://www.living-future.org/exchange)

PLACE

# HUMAN POWERED LIVING



# 04

The Community should contribute toward the creation of walkable, pedestrian-oriented communities and provide public transit linkages to surrounding neighborhoods. It shall be predominantly designed for humans and human-powered mobility, rather than for cars.

Public bike storage shall be conveniently distributed throughout the Community, enough for 15% of the Community occupants.

A network of safe, secure, and pleasant walkways and bikeways, adequate to enable human-powered transportation and mass transit as the primary means of mobility, shall be provided throughout the Community.

The Community must evaluate the potential to support a human-powered lifestyle based on the density and the ratio of the following occupancy types within a defined catchment area<sup>10</sup> surrounding the project site:

- Residential
- Commercial (Business or Mercantile), Assembly, Educational, Institutional
- Light Industrial (Factory, Storage)

Pedestrian-oriented communities are optimized when all three occupancy types are represented and not one is demonstrably dominant.

The Community may not lower the density of the existing site or the catchment area.

The Community also may not cause the predominant occupancy type within the catchment area to exceed the maximum percentage allotted in the table below:

TRANSECT	L1	L2	L3	L4	L5	L6
Maximum percentage of any single occupancy type within catchment area	-	-	70%	60%	50%	40%

<sup>10</sup> The catchment area is defined as a one-kilometer radius from the center of the Community, excluding water bodies, freeways etc.

# WATER



Photo: aceshot1 / Shutterstock.com

# WATER

CREATING WATER INDEPENDENT SITES,  
BUILDINGS AND COMMUNITIES



## PETAL INTENT

The intent of the Water Petal is to realign how people use water and to redefine “waste” in the built environment, so that water is respected as a precious resource. Scarcity of potable water is quickly becoming a serious issue as many countries around the world face severe shortages and compromised water quality. Even regions that have avoided the majority of these problems to date due to a historical presence of abundant fresh water are at risk: the impacts of climate change, highly unsustainable water use patterns, and the continued drawdown of major aquifers portend significant problems ahead. A water-independent community is a stronger, more resilient community, and the Challenge calls for Communities that honor the realities of each project’s bioregion.

## IDEAL CONDITIONS AND CURRENT LIMITATIONS

The Living Community Challenge envisions a future whereby all buildings, infrastructure, and communities are configured based on the carrying capacity of the development’s site: harvesting sufficient water to meet the needs of an entire population while respecting the natural hydrology of the land, the water needs of the ecosystem the site inhabits, and those of its neighbors. Indeed, water can be used and purified and then used again—and the cycle repeats.

Currently, such practices are often illegal due to health, land use and building code regulations (or because of the undemocratic ownership of water rights) that arose precisely because people were not properly safeguarding the quality of their water. Therefore, reaching the ideal for community-wide water use means challenging outdated attitudes and technology with decentralized site-or district-level solutions that are appropriately scaled and efficient.



SCALE JUMPING PERMITTED

WATER

# NET POSITIVE WATER



# 05



Community water use and release must work in harmony with the natural water flows of the Community<sup>11</sup> and its surroundings.

100%<sup>12</sup> of the Community's water needs must be supplied by captured precipitation or other natural closed loop water systems, and/or by recycling used Community water, and must be purified as needed without the use of chemicals.

All stormwater and water discharge, including grey and black water, must be treated and managed at the Community scale either through reuse, a closed loop system, or infiltration.

<sup>11</sup> Scale Jumping is limited to the watershed of the Community only.

<sup>12</sup> There is an exception for water that must be from potable sources due to local health regulations, including sinks, faucets and showers but excluding irrigation, toilet flushing, janitorial uses and equipment uses. However, due diligence to comply with this Imperative must be demonstrated by filing an appeal(s) with the appropriate agency (or agencies).



# ENERGY



photo: CreativeNature.nl / Shutterstock.com

# ENERGY

RELYING ONLY ON  
CURRENT SOLAR INCOME



SCALE JUMPING PERMITTED

## PETAL INTENT

The intent of the Energy Petal is to signal a new age of planning, wherein a proposed Community relies solely on renewable forms of energy and operates year-round in a pollution-free manner. In addition, it aims to prioritize reductions and optimization before technological solutions are applied to eliminate wasteful spending—of energy, resources, and dollars. The majority of energy generated today is from highly unsustainable sources, including coal, gas, oil and nuclear power. Large-scale hydro, while inherently cleaner, results in widespread damage to ecosystems. Burning wood, trash or pellets releases particulates and carbon dioxide (CO<sub>2</sub>) into the atmosphere and often strains local supplies of sustainably harvested biomass. The effects of these energy sources on regional and planetary health are becoming increasingly evident through climate change, the most worrisome major global trend attributed to human activity.

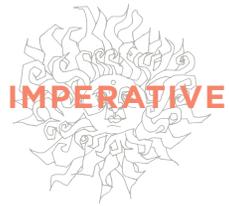
## IDEAL CONDITIONS AND CURRENT LIMITATIONS

The Living Community Challenge envisions a safe, reliable and decentralized power grid, founded on renewable energy that supplies incredibly efficient buildings and infrastructure without the crutch of combustion. Living Communities will incorporate energy systems capable of supporting and sustaining entire districts, which will infuse strength and resiliency into the proposed Community.

Although there has been considerable progress made to advance renewable energy technologies, there is still a need for a greater yield from these systems and for new ways to store the energy they generate. These, together with the current cost of the systems available, are the major limitations to reaching our goals.

ENERGY

# NET POSITIVE ENERGY



# 06

105% of the Community's energy needs must be supplied by Community-generated renewable energy on a net annual basis, including all energy for water and waste conveyance.<sup>13</sup>

Use of combustion-based energy supply is not allowed. A Community must provide local energy storage for resiliency.<sup>14</sup>

## PETAL INTENT

- 13 Scale Jumping is allowed only where opportunities for conservation and renewables are exhausted within the boundary of the Community, and the Scale Jump renewables are owned by and within 100 miles of the Community.
- 14 Energy storage must be provided for one week of the critical and emergency services for the Community, such as fire stations, community centers, and water treatment systems.



# HEALTH & HAPPINESS

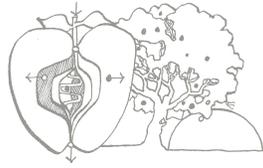
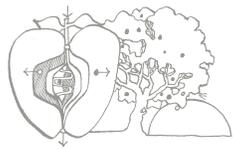


Photo: Crjlan / Shutterstock.com



# HEALTH & HAPPINESS

MAXIMIZING PHYSICAL AND PSYCHOLOGICAL HEALTH AND WELL BEING



The intent of the Health and Happiness Petal is to focus on the major conditions that must be present to create robust, healthy Communities filled with happy, productive people, rather than to address all of the potential ways that our neighborhoods and cities can compromise the human experience. Most development that occurs overlooks the requirements necessary to create a healthy and positive backdrop for our lives and instead focuses on parking counts, vehicular traffic and maximum instant property value. This Petal provides the framework for positive planning decisions at the street, block, district and community scales.

## IDEAL CONDITIONS AND CURRENT LIMITATIONS

The Living Community Challenge envisions nourishing, highly productive and healthful environments incorporated into indoor and outdoor spaces throughout the Community. However, even best-laid plans require acceptance and engagement by projects' inhabitants and owners. It is difficult to ensure that places will remain vibrant over time, since sensory aspects such as air quality, thermal control, and visual comfort can easily be compromised in numerous ways. It can also be complicated to ensure optimal conditions due to the unpredictable nature of how people operate and maintain the interior and exterior spaces where they live, work and recreate.



HEALTH & HAPPINESS

# CIVILIZED ENVIRONMENT



The Community must promote frequent social connections between people and plan for the ongoing connectivity that creates a Civilized Environment for all by having adequate staff positions<sup>15</sup> (either volunteer or paid)<sup>16</sup> to oversee the ongoing inclusion of the following Community initiatives:

- Local food program
- Car and bike sharing program
- Transit information center
- Community tool sharing
- Community book library
- Children, teen, adult and senior art and recreation programs
- Community “Hub” for information sharing and community meetings

The Community must honor its heritage through actively protecting buildings considered to have historical significance by the local or regional historic preservation society. The Community must inventory local heritage sites or facilities and maintain a current preservation plan.

<sup>15</sup> The number of positions will vary with the size of the Community.

<sup>16</sup> A Community with four buildings or less must only incorporate two or more initiatives.

HEALTH & HAPPINESS

# HEALTHY NEIGHBORHOOD DESIGN



The Community must incorporate design features and strategies to promote and optimize the health and well-being of its residents. The Community must provide:

**Transects 1-2:**

Not required

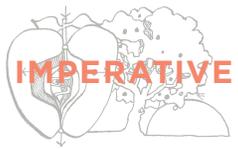
**Transects 3-6:**

- Access for residents and occupants to either dedicated walking trails, sidewalks or pedestrian paths directly accessible from every building.
- Passive recreation in the form of parks, plazas, squares and bike trails no further than ½ mile from any point in the Community.
- Active recreation such as pools, tennis or ball courts, fitness centers, soccer/football/rugby fields or skateboard parks within ½ mile from any point in the Community, scaled appropriately to the density and population of the development.
- A health and wellness education plan<sup>17</sup> for every resident that is kept current on a Community website.

<sup>17</sup> Details are forthcoming on the Living Community Challenge website.

HEALTH & HAPPINESS

# BIOPHILIC ENVIRONMENT



The Community must be designed to include elements that nurture the innate human/nature connection. The Community must engage in a minimum of one all-day exploration of the Biophilic design potential for the project. The exploration must result in a biophilic framework and plan for the Community that outlines the following:<sup>18</sup>

- How the Community will be transformed by deliberately incorporating nature through Environmental Features, Light and Space, and Natural Shapes and Forms.
- How the Community will be transformed by deliberately incorporating nature's patterns through Natural Patterns and Processes and Evolved Human-Nature Relationships.
- How the Community will be uniquely connected to the place, climate and culture through Place-Based Relationships.
- The provision of sufficient and frequent human-nature interactions, in both the interior and exterior of the project to connect the majority of occupants with nature directly.

The Biophilic plan must contain methods for tracking Biophilia at each phase.

The plan should include historical, cultural, ecological, and climatic studies that thoroughly examine the site and context for the Community.

<sup>18</sup> Each of the Biophilic Design Elements outlined on Table 1-1, Page 15 of *Biophilic Design: The Theory, Science, and Practice of Bringing Buildings to Life* by Stephen R. Kellert, Judith H. Heerwagen, and Martin L. Mador should be used as a reference.

HEALTH & HAPPINESS

# RESILIENT COMMUNITY CONNECTIONS



The Community must incorporate design features, strategies and community-based programs to ensure resilience through infrastructure, community resources and social interactions in order to weather disruptions or disasters of any type.

The Community must:

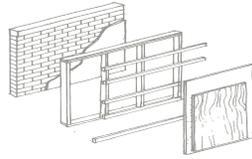
**For Transects 5 & 6 (using the floodplain exception):**

- Provide a place or places to allow 100% of residents to marshal and congregate in a dry, covered, and secure location that is out of the flood plain.
- Require that all facilities (except single-family residences) have a working back-up generator or battery back-up for emergency power needs that is located above the flood plain.
- Ensure that all sensitive infrastructures, such as lift stations, sub-stations, sewage treatment, community centers, schools and the like, are out of the flood plain.

**All Transects:**

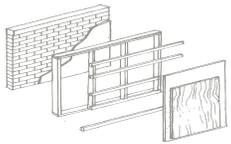
- Create, actively maintain on a yearly basis, and disseminate to all residents and tenants a disaster response plan that identifies emergency contacts and shelter locations and provides specific guidance for various types of disruption.
- Assign, train and keep current two “block captains” or building captains for every 500 residents. Captains should be highly versed in disaster response, first aid and general safety procedures. The positions may be voluntary.
- Keep an emergency contact roster for all residents in both hard-copy and electronic forms.
- Have an active neighborhood watch and community program that has a mandate to look out for resident well-being and safety.

# MATERIALS



# MATERIALS

**ENDORISING PRODUCTS AND PROCESSES THAT ARE SAFE FOR ALL SPECIES THROUGH TIME**



## PETAL INTENT

The intent of the Materials Petal is to create a successful materials economy that is non-toxic, transparent and socially equitable. Throughout their life cycle, supplies and materials are responsible for many adverse environmental issues, including illness, squandered embodied energy, pollution, and resource depletion. The Imperatives in this section aim to remove the worst known offending materials and practices from Living Communities. When impacts can be reduced but not eliminated, there is an obligation not only to offset the damaging consequences associated with the construction process, but also to strive for corrections in the industry. At the present time it is impossible to gauge the true environmental impact and toxicity of the built environment due to a lack of product-level information.

## IDEAL CONDITIONS + CURRENT LIMITATIONS

The Living Community Challenge envisions a future where all materials in the built environment are replenishable and regenerative, and have no negative impact on human and ecosystem health. The precautionary principle guides all materials decisions, first in the masterplan phase through the Living Community Challenge and, later, through the Living Building Challenge as individual structures begin to take shape.

There are significant limitations to achieving the ideal for the materials realm. Product specification and purchase have far-reaching impacts, and although consumers are starting to weigh these impacts in parallel with other more conventional attributes, such as aesthetics, function and cost, the biggest shortcoming is due to the market itself. While there are a huge number of “green” products for sale, there is also a shortage of good, publicly available data that backs up manufacturer claims and provides consumers with the ability to make conscious, informed choices. Transparency is vital; as a global community, the only way we can transform into a truly sustainable society is through open communication and honest information sharing, yet many manufacturers are wary of sharing trade secrets that afford them a competitive advantage, and make proprietary claims about specific product contents.

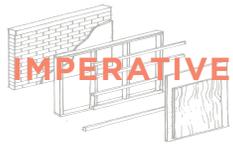
Declare, the Institute’s ingredients label for building products, is a publicly accessible label and online database with an official connection to the Materials Petal. Not only does Declare contribute to the overt methodology for removing a temporary exception, it also provides a forum for sharing the information compiled by developers, designers and builders as part of their documentation requirements for certification. It is important for the Community to set material standards and to build them into the decision-making process for all future phases of the project.



**SCALE JUMPING PERMITTED FOR EMBODIED CARBON FOOTPRINT (IMPERATIVE 12)**

## MATERIALS

# LIVING MATERIALS PLAN



# 11

In order to ensure responsible material use through time, the Community must meet the following Imperatives from Living Building Challenge 3.0 for all community facilities,<sup>19</sup> common infrastructure<sup>20</sup> and landscapes that the Community controls and is in charge of developing.

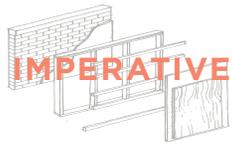
- I10: Red List
- I12: Responsible Industry
- I13: Living Economy Sourcing

<sup>19</sup> Community-provided schools, community centers, daycare, athletic or common area facilities, storage, etc.

<sup>20</sup> Streets, plazas, lanes, parks, etc.

MATERIALS

# EMBODIED CARBON FOOTPRINT



# 12

The Community must account for<sup>21</sup> the total embodied carbon (tCO<sub>2</sub>e) impact from the construction of all Community infrastructure (built or projected) and Community-owned facilities (built or projected) through a one-time carbon offset within the project boundary.<sup>22</sup>

The Institute's new Living Future Carbon Exchange program can also be utilized for the offset.

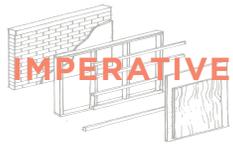


**CARBON**  
LIVING FUTURE EXCHANGE

- 21 Refer to the Living Building Challenge 3.0 Materials Petal Handbook for a list of approved carbon calculators.
- 22 The amount of carbon offsets required may be reduced by 50% for renovations of existing buildings or the reuse of existing infrastructure.

MATERIALS

# NET POSITIVE WASTE



# 13

The Community must strive to reduce or eliminate the production of waste during design, construction, operation, and end of life in order to conserve natural resources and to find ways to integrate waste back into either an industrial loop or natural nutrient loop.

**The Community must create a Material Conservation Management Plan that sets the guidelines for all buildings, landscape, and infrastructure to minimize waste in each of the following phases:**

- Design Phase, including the consideration of appropriate durability in product specification
- Construction Phase, including product optimization and collection of wasted materials
- Operation Phase, including a collection plan for consumables and durables
- End of Life Phase, including a plan for adaptable reuse and deconstruction

**During construction, the community must divert wasted material to the following levels:**

MATERIAL	MINIMUM DIVERTED/WEIGHT
Metal	99%
Paper & Cardboard	99%
Soil & Biomass	100%
Rigid foam, Carpet & Insulation	95%
All others - combined weighted average <sup>23</sup>	90%

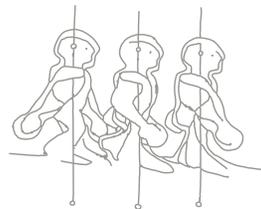
There must be dedicated infrastructure for the collection of recyclables and compostable food scraps throughout the Community. Food composting must be compulsory in the Community, and compost must be reused within the Community as a nutrient source.

The Community must feature at least ten salvaged materials or reuse at least one existing structure.

<sup>23</sup> Hazardous materials in demolition waste, such as lead-based paint, asbestos, and polychlorinated biphenyls (PCBs), are exempt from percentage calculations.

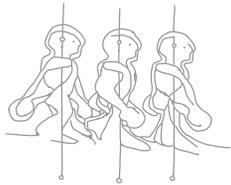


# EQUITY



# EQUITY

SUPPORTING A JUST,  
EQUITABLE WORLD



## PETAL INTENT

The intent of the Equity Petal is to correlate the impacts of design and development to their ability to foster a true sense of Community, whether that Community is composed of half a city block or an entire borough. A society that embraces all sectors of humanity and allows the dignity of equal access is a civilization in the best position to make decisions that protect and restore the natural environment. Until all Communities aspire to such greatness, our societies will always be less than they can be.

There is a disturbing trend toward privatizing infrastructure and creating polarized attitudes of “us” vs. “them”—allowing only those of a certain economic or cultural background to participate fully in community life. Although opposite on the spectrum, enclaves for the wealthy are only one step removed from the racial and ethnic ghettos that continue to plague our Communities. A subset of this trend is the notion that individuals can own access to nature itself, by privatizing admittance to waterways, beaches and other wilderness areas, cutting off most people from the few pristine environmental places that remain. Only by realizing that we are indeed all in this together can the greatest environmental and social problems be addressed.

We need to aggressively challenge the notion that property ownership somehow implies that we can do whatever we like, even externalize the negative environmental impacts of our actions onto others. For example, consider these situations: when a polluting factory is placed next to a residential community, the environmental burdens of its operation are placed on the individuals who live in those houses. The factory is diminishing its neighbors’ rights to clean air, water and soil. When a building towers over another structure, its shadow diminishes that structure’s ability to generate clean and renewable energy, thereby impeding the rights to energy independence. We all deserve access to sunlight and clean air, water and soil, both within our homes and within our Communities.

We need to prioritize the concept of “citizen” above that of “consumer” while elevating the notion of “community” above that of “self.” Equity implies the creation of Communities that provide universal access to people with disabilities,

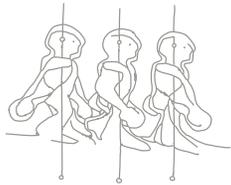
*continued >>*



SCALE JUMPING PERMITTED  
FOR **EQUITABLE INVESTMENT**  
(IMPERATIVE 17)

# EQUITY

SUPPORTING A JUST,  
EQUITABLE WORLD



and allow people who can't afford expensive forms of transportation to fully participate in the major elements of society. Indeed, most projects in the built environment greatly outlive the original owner or developer—society inherits the legacies of bad decisions and good decisions alike. Since the act of community planning leading to sizeable development foreshadows a considerable environmental impact shared by all, there is an inherent responsibility to ensure that any development provides some public good and does not degrade quality of life.

## IDEAL CONDITIONS AND CURRENT LIMITATIONS

The Living Community Challenge envisions developments that allow equitable access for all people regardless of physical abilities, age, or socioeconomic status.

Current limitations of reaching this ideal stem primarily from ingrained cultural attitudes about the rights associated with private ownership. It is necessary to change zoning standards in order to protect the rights of individuals occupying buildings and communities that are “downstream” of water, air and noise pollution, and who are adversely impacted due to lack of sunlight or exposure to toxins. Past attempts by zoning standards to protect people and communities from particularly egregious pollutants resulted in sterile single-use areas.

A healthy, diverse community is one that encourages multiple functions, and is organized in a way that protects the health of people and the environment. When planned development does occur, it can sometimes lead to gentrification of a community, raising property values and rental rates to such a level that it prices out the current inhabitants. A truly equitable community is one that provides a welcoming framework for people at all economic levels and ensures that a place doesn't push out the very people that helped to improve it, or who were its original residents.

EQUITY

# HUMAN SCALE AND HUMANE PLACES



The project must be designed to create human-scaled rather than automobile-scaled places, so that the experience brings out the best in humanity and promotes culture and interaction. In context of the character of each Transect, there are specific maximum (and sometimes minimum) requirements that contribute to livable places.

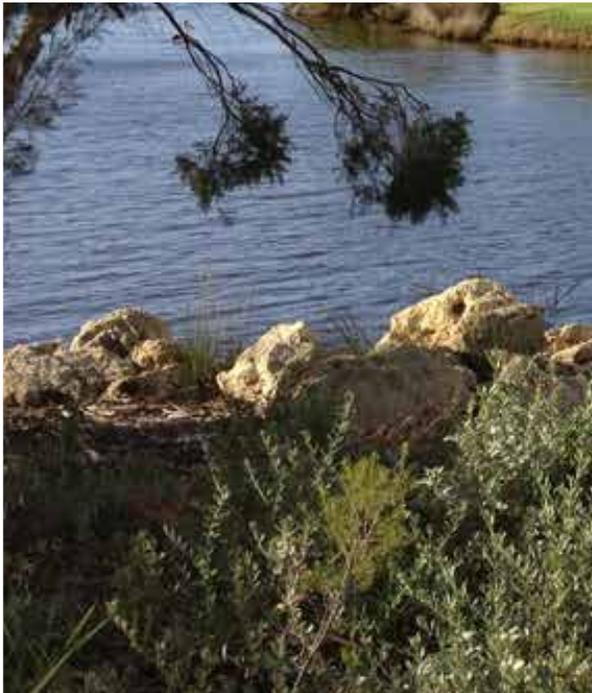
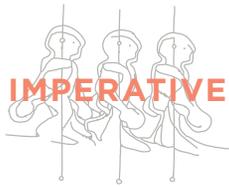
**The project must follow the following design guidelines:**

24 No billboards are allowed

TRANSECT		L1	L2	L3	L4	L5	L6
Surface Cover	Maximum dimension of surface parking lot (including drive aisle) before a separation is required on all sides (except for vehicle egress paths)	20 m x 30 m					
	Surface parking as a percentage of the project area shall be limited to the following, based on the applicable Transect. This does not include structured or underground parking. In no case may the surface parking area be larger than 2,000 square meters.	20%	20%	20%	15%	5%	0%
TRANSECT		L1	L2	L3	L4	L5	L6
Streets + Intersections (applicable only if new streets are created as part of the Community)	One-lane road with passing places.	3 m	3 m	Not applicable to these Transects			
	Two-lane road	6 m	6 m	Not applicable to these Transects			
	Alley - maximum width			3 m			
	Community cueing street—maximum curb-to-curb width and required features	Not applicable		7.5 m 6' sidewalks, street trees in min 5' planter, and on-street parking on both sides of street			
	Community main street—maximum curb-to-curb width and required features	Development of this kind is not permitted in a Natural Habitat Preserve or Rural Agricultural Zone		10.5 m 7' sidewalk, street trees in min 6' planter, on-street parking on both sides of street			
	Maximum distance between trees in furnishing zone and planted median			9 m			
	Maximum distance between walking routes			100 m			
Maximum distance between human-powered vehicle routes			300 m				
TRANSECT		L1	L2	L3	L4	L5	L6
Signage	Number of freestanding signs per Community	1					
	Maximum dimensions of freestanding sign(s) <sup>23</sup>	0.5 m x 2 m		0.75 m x 2.5 m		1 m x 3 m	
TRANSECT		L1	L2	L3	L4	L5	L6
Proportion	Maximum single-family home size	N/A	425 m <sup>2</sup>				
	Maximum footprint for any building with a single use, single owner or single tenant (excluding warehouses or factories)	3750 m <sup>2</sup> excludes floor area of atriums, courtyards and daylight shafts					

EQUITY

# UNIVERSAL ACCESS TO NATURE & PLACE



All primary transportation, roads and non-building infrastructure must be equally accessible to all members of the public, regardless of background, age and socioeconomic class—including the homeless—with reasonable steps taken to ensure that all people can benefit from the Community.

The public realm must be provided for and enhanced through design measures and features such as street furniture, public art, gardens and benches that are accessible to all members of society.

Access for those with physical disabilities must be safeguarded through designs meeting the Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA) Accessibility Guidelines.<sup>25</sup>

The Community shall provide access to, and will not diminish the quality of, fresh air, sunlight and natural waterways for any member of society. The Community must also appropriately address any noise audible to the public.

**Sunlight:** Sunlight may not be blocked above a maximum height allotted for the Transect, per the following table:

TRANSECT	L1	L2-L3	L4	L5	L6
Maximum shade height on adjacent façade, measured on Winter Solstice between 10am — 2pm (meters)	-	6m	10m	15m	20m

**Natural Waterways:** The Community shall provide access to and access pathways along natural waterways, except where such access can be proven to be a hazard to public safety or would severely compromise the function of specific water-oriented industries. No private entity may assume ownership of water contained in these bodies or compromise the quality or quantity of water that flows downstream.

<sup>25</sup> [www.access-board.gov/adaag/about](http://www.access-board.gov/adaag/about) Private residences and historic structures are exempt.

EQUITY

# UNIVERSAL ACCESS TO COMMUNITY SERVICES



The Community must incorporate access to basic community services and amenities that support the health, dignity and rights of all people.

All residents must have access to the following within ½ mile directly<sup>26</sup> or ¼ mile to a public transportation line that provides direct (without transferring) access within 2 miles.

- Places to Shop - a grocery store or farmers market that has fresh produce and meat, a mixed-use commercial zone
- Places to Congregate - a community center or youth center/senior center
- Places to Work - an office building, light industrial or hospital/clinic
- Places to Learn - a daycare, school or higher education institution.

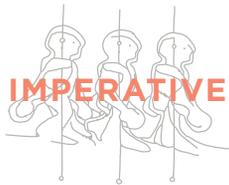
The Community must have a public transportation network that runs between 7am and 7pm (at a minimum), with range and capacity as outlined in the table below.

TRANSECT	REQUIREMENT
L3	One mode or line/ ½ mile
L4	Two modes or lines/ ½ mile
L5	Three modes or lines/ ½ mile
L6	Four modes or lines/ ½ mile

<sup>26</sup> Without having to cross any freeways.

EQUITY

# EQUITABLE INVESTMENT



IMPERATIVE



For every dollar of project cost,<sup>27</sup> the Community must set aside and donate half a cent to a charity<sup>28</sup> of its choosing or contribute to the Living Future Equity Exchange Program, which directly funds renewable infrastructure for charitable enterprises.<sup>29/30</sup>

The Community must purchase the equity offset for all projects within its direct control and encourage the offset in all others.



- 27 Defined as all project costs including land, soft costs and hard costs.
- 28 The charity must be located in the country of the project and be a registered charity or 501 c 3.
- 29 [www.living-future.org/exchange](http://www.living-future.org/exchange)
- 30 Public agencies and charitable organizations are exempt from this requirement.



EQUITY

# JUST ORGANIZATIONS



The Community must help create a more JUST, equitable society through the transparent disclosure of the business practices of the major organizations involved in constructing the Community. In all construction projects, at least two<sup>31</sup> of the following<sup>32</sup> project team roles must have a JUST Label for their organization:

- Architect of Record
- Planner of Record
- MEP Engineer of Record
- Structural Engineer of Record
- Landscape Architect of Record
- Interior Architect of Record
- Owner/Developer
- Contractor

The Community must advocate for JUST participation to all future employers within the Community.<sup>33</sup>

## Just.

**Organization Name:**  
**Organization Type:**  
**Headquarters:**  
**Satellite Facilities:**  
**Number of Employees:**

**Social Justice and Equity Indicators:**

<p><b>Diversity</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Non-Discrimination</li> <li><input type="checkbox"/> Gender Diversity</li> <li><input type="checkbox"/> Ethnic Diversity</li> </ul> <p><b>Equity</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Full Time Employment</li> <li><input type="checkbox"/> Pay-Scale Equity</li> <li><input type="checkbox"/> Employee/Union Friendly</li> <li><input type="checkbox"/> Living Wage</li> <li><input type="checkbox"/> Gender Pay Equity</li> <li><input type="checkbox"/> Family Friendly</li> </ul> <p><b>Safety</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Occupational Safety</li> <li><input type="checkbox"/> Hazardous Chemicals</li> </ul>	<p><b>Worker Benefit</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Worker Happiness</li> <li><input type="checkbox"/> Employee Health Care</li> <li><input type="checkbox"/> Continuing Education</li> </ul> <p><b>Local Benefit</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Local Control</li> <li><input type="checkbox"/> Local Sourcing</li> </ul> <p><b>Stewardship</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Responsible Investing</li> <li><input type="checkbox"/> Community Volunteering</li> <li><input type="checkbox"/> Positive Products</li> <li><input type="checkbox"/> Charitable Giving</li> <li><input type="checkbox"/> Animal Welfare</li> <li><input type="checkbox"/> Transparency</li> </ul>
---	--

**THE SOCIAL JUSTICE LABEL**  
SPC-001      EXP. 10/26/2014

INTERNATIONAL LIVING FUTURE INSTITUTE™ [justorganizations.com](http://justorganizations.com)

An innovative social justice transparency platform through which organizations can shed light on their operations, including how they treat their employees and where they make financial and community investments.

22 Social and equity indicators.

Asking all companies and organizations to accept social responsibility and to be truly transformative and transparent by publicly declaring and showcasing their social justice and equity policies and practices through the indicator metrics.

JUST label is valid for 12 months, starting with the date of issue.

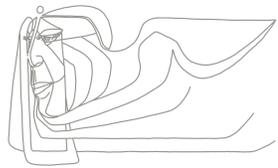
JUST classification number.

31 Over time, greater participation will be required, until eventually full disclosure is commonplace.

32 And preferably all.

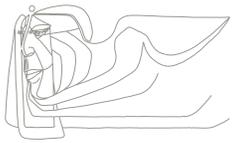
33 This must be included either in the purchase or lease agreement or within Community governance bylaws.

BEAUTY



# BEAUTY

CELEBRATING PLANS THAT PROPOSE  
TRANSFORMATIVE CHANGE



## PETAL INTENT

The intent of the Beauty Petal is to recognize the need for beauty as a precursor to caring enough to preserve, conserve and serve the greater good. As a society we are often surrounded by ugly and inhumane physical environments. If we do not care for our homes, streets, offices and neighborhoods, then why should we extend care outward to our farms, forests and fields? When we accept billboards, parking lots, freeways and strip malls as being aesthetically acceptable, in the same breath we accept clear-cuts, factory farms and strip mines.

## IDEAL CONDITIONS AND CURRENT LIMITATIONS

The Living Community Challenge envisions Communities that elevate our spirits. Mandating beauty is, by definition, an impossible task. And yet, the level of discussion and, ultimately, the results are elevated through attempting difficult but critical tasks. In this Petal, the Imperatives are based only on genuine efforts. We do not begin to assume we can judge beauty and project our own aesthetic values on others. But we do want to understand people's objectives and know that an effort was made to enrich people's lives with each square meter proposed in the plan. This intentionality must carry forth into a program for educating the public about the environmental qualities of their Living Community Challenge development.

There are no current limitations to this Petal other than our imaginations and what we as a society choose to value.

BEAUTY

# BEAUTY & SPIRIT



IMPERATIVE

# 19

The Community must contain a meaningful integration of public art and design features on every block, street, and plaza, intended solely for human delight and the celebration of culture, spirit, and place appropriate to its function.

Public art must be located with a frequency and scale to have impact in the Community. At a minimum, public art must meet the following guidelines:

- A major<sup>34</sup> installation for every 500 residents
- A minor<sup>35</sup> installation for every 100 residents

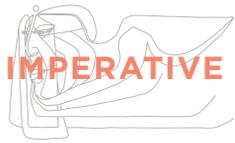
<sup>34</sup> Defined as visible and relatable from 60 meters away.

<sup>35</sup> Defined as visible and relatable from 10 meters away.



BEAUTY

# INSPIRATION & EDUCATION



Educational materials about the design and operation of the Community must be provided to share the intent of and motivate others within the Community to make change. Projects must provide:

- An annual open day for the public.<sup>36</sup>
- An educational website that shares information about the design and operation of the Community.
- A simple brochure describing the design and environmental features of the Community, as well as ways for occupants to optimize project function.
- Operations and maintenance manuals for all Community infrastructure.
- Interpretive signage that teaches visitors and occupants about the Community and its environmental goals and features.
- A Living Community Case Study to be posted on the Institute website.<sup>37</sup>

<sup>36</sup> Community-owned facilities and infrastructure should be open to the public, and the Community should encourage all other buildings to participate.

<sup>37</sup> Only the case study is required for masterplan compliance.

## ADDITIONAL RESOURCES FOR DEEPER ENGAGEMENT

THE INSTITUTE CONTINUALLY WORKS TO CREATE RESOURCES THAT ADVANCE THE UNDERSTANDING AND IMPLEMENTATION OF THE PRINCIPLES OF THE LIVING COMMUNITY CHALLENGE, AND WE WANT TO ENSURE THAT ALL ENTHUSIASTS ARE AWARE OF THE VARIOUS WAYS TO LEARN MORE ABOUT AND PARTICIPATE IN THE EVOLUTION OF THE PROGRAM. THIS SECTION LISTS SEVERAL OFFERINGS CREATED BY THE INSTITUTE THAT EXPAND THE ROLE OF THE LIVING COMMUNITY CHALLENGE BEYOND A FRAMEWORK FOR DEVELOPMENT, TO AN OVERLAY FOR EDUCATION, OUTREACH AND ADVOCACY.

### THE LIVING COMMUNITY CHALLENGE WEBSITE

[living-future.org/lcc](http://living-future.org/lcc)

The online resource for project teams and others, it provides the Living Community Challenge standard document and the resources that support the certification process—including fee schedules for certification and education resources. Detailed project team resources are being developed and will be available to registered projects.

### INTERNATIONAL LIVING FUTURE INSTITUTE MEMBERSHIP

[living-future.org/ilfi/about/membership](http://living-future.org/ilfi/about/membership)

Only Institute members can register a project, a current fee schedule is published on the Institute's website. Once logged in, members are directed to a unique homepage with links to update account details and access to the project registration form.

### REGISTER A PROJECT

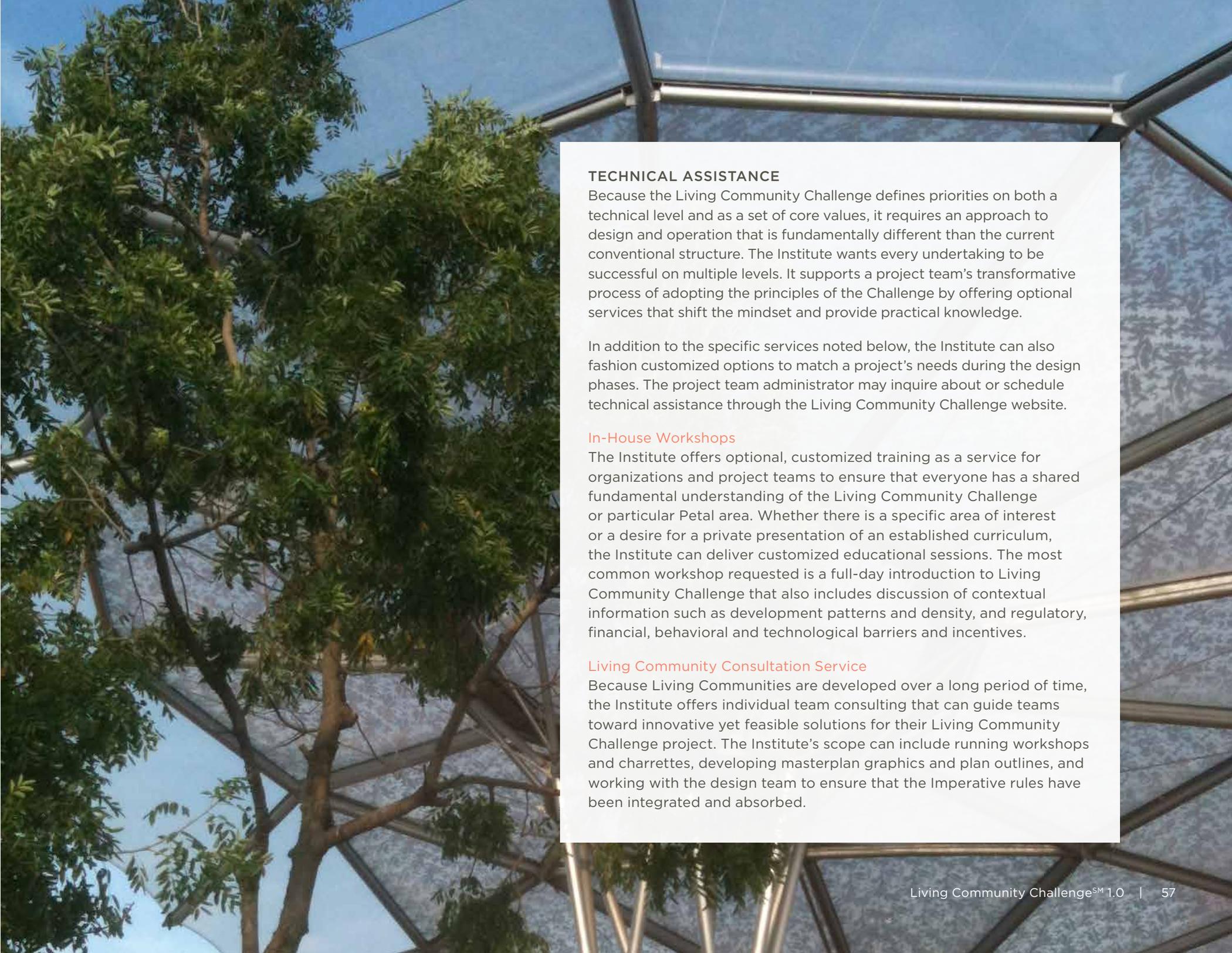
Registration is the first step toward completing a Living Community and is accessible to Institute members. Registration fees can be found on the Living Community Challenge website; registration can be completed by using the link on the website.

### LIVING BUILDING CHALLENGE

[livingbuildingchallenge.org](http://livingbuildingchallenge.org)

The Living Building Challenge is the companion program to the Living Community Challenge. It must be used for all Buildings developed or owned by the Community.

*continued >>*



## TECHNICAL ASSISTANCE

Because the Living Community Challenge defines priorities on both a technical level and as a set of core values, it requires an approach to design and operation that is fundamentally different than the current conventional structure. The Institute wants every undertaking to be successful on multiple levels. It supports a project team's transformative process of adopting the principles of the Challenge by offering optional services that shift the mindset and provide practical knowledge.

In addition to the specific services noted below, the Institute can also fashion customized options to match a project's needs during the design phases. The project team administrator may inquire about or schedule technical assistance through the Living Community Challenge website.

### In-House Workshops

The Institute offers optional, customized training as a service for organizations and project teams to ensure that everyone has a shared fundamental understanding of the Living Community Challenge or particular Petal area. Whether there is a specific area of interest or a desire for a private presentation of an established curriculum, the Institute can deliver customized educational sessions. The most common workshop requested is a full-day introduction to Living Community Challenge that also includes discussion of contextual information such as development patterns and density, and regulatory, financial, behavioral and technological barriers and incentives.

### Living Community Consultation Service

Because Living Communities are developed over a long period of time, the Institute offers individual team consulting that can guide teams toward innovative yet feasible solutions for their Living Community Challenge project. The Institute's scope can include running workshops and charrettes, developing masterplan graphics and plan outlines, and working with the design team to ensure that the Imperative rules have been integrated and absorbed.



## EDUCATION

The Institute is dedicated to transforming theory and practice in all sectors of the building industry, and offers several ways to broaden one's knowledge of deep-green building principles and practices, including the following:

### Public Workshops + Webinars

The Institute offers in-person and online workshops taught by expert faculty about the Living Community Challenge and related topics. Workshops are continually developed throughout the year and are announced online and on the website. The Institute welcomes suggestions for future workshop content. Contact Institute staff to discuss options for hosting a workshop locally by emailing [education@livingbuildingchallenge.org](mailto:education@livingbuildingchallenge.org).

### Living Future unConference

The Institute's three-day unConference is the flagship annual event for leading minds in the green building movement seeking solutions to the most daunting global issues of our time. Out-of-the-ordinary learning and networking formats deliver innovative design strategies, cutting-edge technical information, and much-needed inspiration to achieve progress toward a truly living future.

Education sessions encourage a hopeful approach to the planet's economic, ecological and social challenges, and offer solutions for Communities, Infrastructure and Buildings.



INTERNATIONAL  
**LIVING FUTURE**  
INSTITUTE<sup>SM</sup>

*continued >>*



**TRANSFORMATIONAL DESIGN**  
**THE BUCKMINSTER SCHOOL OF THOUGHT**

**TRANSFORMATIONAL DESIGN**  
**SMITH COLLEGE BECHTEL ENVIRONMENTAL CLASSROOM TAKES ON THE CHALLENGE**

**TRANSFORMATIONAL PEOPLE**  
**JANINE BENYUS**

**TRANSFORMATIONAL ACTION**  
**DECLARE: THE INGREDIENTS LABEL FOR BUILDING PRODUCTS**

**TRANSFORMATIONAL DESIGN**  
**REGENERATING THE WHOLE**

**TRANSFORMATIONAL DESIGN**  
**UNIVERSITY OF WOLLONGONG'S SUSTAINABLE BUILDINGS RESEARCH CENTRE**

**TRANSFORMATIONAL ACTION**  
**STOP, COLLABORATE & LISTEN**

**TRANSFORMATIONAL PEOPLE**  
**DAVID SUZUKI**

**THE LIVING FUTURE ISSUE 2**

**TRANSFORMATIONAL DESIGN**  
**SINS & SALVATION OF A NATION'S ENERGY**

**TRANSFORMATIONAL DESIGN**  
**THE WATER PETAL**

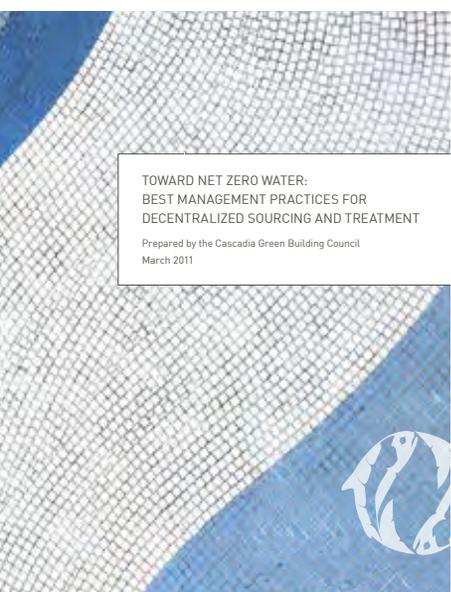
**TRANSFORMATIONAL PEOPLE**  
**ED MAZRIA**

**TRANSFORMATIONAL ACTION**  
**IMPRESSIONS FROM THE AMBASSADOR SUMMIT**

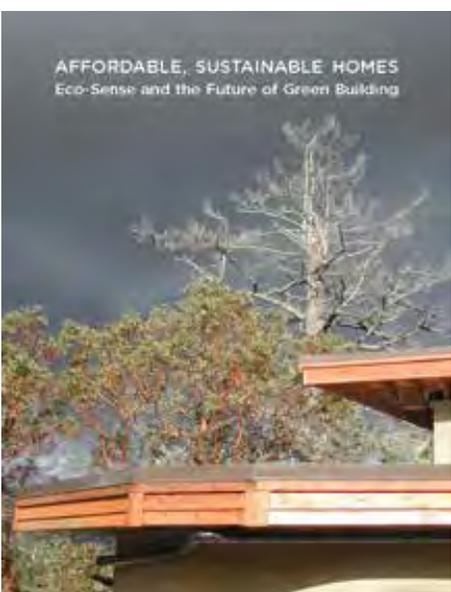
### Trim Tab

Trim Tab is the Institute's quarterly digital magazine. Each issue features provocative articles, interviews and news on the issues, designs and people that are truly transforming the built environment. Subscriptions are free, and a complete archive of past issues is available on the Institute's website: [living-future.org/trimtab](http://living-future.org/trimtab).

*continued >>*



**TOWARD NET ZERO WATER: BEST MANAGEMENT PRACTICES FOR DECENTRALIZED SOURCING AND TREATMENT**  
 Prepared by the Cascadia Green Building Council  
 March 2011



**AFFORDABLE, SUSTAINABLE HOMES**  
 Eco-Sense and the Future of Green Building



### The Greenest Building: Quantifying the Environmental Value of Building Reuse

A REPORT BY: **Preservation Green Lab** NATIONAL TRUST FOR HISTORIC PRESERVATION

WITH SUPPORT FROM: **U.S. Green Building Council**

IN PARTNERSHIP WITH: **CASCADIA GREEN BUILDING COUNCIL**, **SKANSKA**, **GreenBuilding.com**, **CSB**, **Quanta**

### Regulatory Pathways to Net Zero Water

Guidance for Innovative Water Projects in Seattle

Phase II Summary Report  
 February 2011  
 City of Seattle  
 Prepared by: **CASCADIA GREEN BUILDING COUNCIL**

### THE ECONOMICS OF CHANGE

PROJECT OVERVIEW  
 JULY 2012



**CONTENTS**

- Research Partners
- Introduction
- The Economic Problem
- What's Needed?
- Catalyzing the Shift
- Next Steps
- Resources

**PROJECTS TAKING ROOT AND TAKING SHAPE**

Living Building Challenge projects are taking shape in every kind of region and climate. In 2012, we celebrated an unprecedented number of projects moving from the drawing board to the construction site and into becoming living, breathing buildings.

The year's most exciting development was the certification of the first two projects, Partner's Hill Green (Orange) and Green 22 (San Jose, California) under our Net Zero Energy Building Program.

**TAKING SHAPE**

The 2011 Research Living Building, the first Living Building, is now open to the public. It's a place where you can see and experience the power of a Living Building in action. It's a place where you can see and experience the power of a Living Building in action.

## AMBASSADOR NETWORK—SPREADING THE WORD ABOUT LIVING BUILDING CHALLENGE

The Ambassador Network is a global initiative to encourage the rapid and widespread adoption of restorative principles guided by the Living Building Challenge and the Living Community Challenge. Living Community Ambassadors will soon be added to the Network. Professionals from all walks of life are encouraged to sign up for the Ambassador Network and help us spread the word about a Living Future. The power of the network allows best practices and ideas to be shared globally, harnessing the best of social media and communication tools for rapid interchange. The Network has been designed to support the continued flow of ideas and solutions among participants and the Institute. It presents numerous options for engagement, and the Institute has created a wealth of related training materials and resources. More information about the Ambassador Network and the online applications are available on the Institute's website: [living-future.org/ambassador](http://living-future.org/ambassador)

**Ambassador Presenters of “An Introduction to the Living Building Challenge”:** Professionals who wish to shift the focus of green building conversations are trained through the Ambassador Network to deliver one-hour, informal introductory presentations to peers, local organizations, institutions, companies and community groups. The presentations are delivered by volunteers, with the purpose of raising awareness around the Living Building Challenge. Presentations around the Living Community Challenge will be added soon. Ambassador Presenters help build local capacity for the formation of Living Building Challenge Collaboratives, a forum for sustained discussions on restorative principles.

**Living Building Challenge Collaboratives:** In communities all over the world, the principles of the Living Building Challenge are being shared and disseminated by our growing network of Collaboratives. These community-based groups meet in person regularly to share knowledge and create the local conditions that support development of Living Buildings and Communities. Collaboratives are overseen by at least two trained Collaborative Facilitators, who are responsible for cultivating a welcoming environment for grassroots involvement and outreach. Each Living Building Challenge Collaborative has an active social media presence via Facebook and various other outlets. Visit [living-future.org/ambassador](http://living-future.org/ambassador) to locate a Collaborative in your area, or contact us to learn how to start a new Collaborative in your city.

## OTHER WAYS TO GET INVOLVED

Continued advancement of the Living Building Challenge and Living Community Challenge will require many minds and great ideas. The Institute has established a presence on an array of online communication forums that make it possible to aggregate impressions, suggestions and insights—please reach out to us today to get involved and contribute to a Living Future!

 [/livingbuildingchallenge](https://www.facebook.com/livingbuildingchallenge) and [/livingfutureinstitute](https://www.facebook.com/livingfutureinstitute)

 [@livingbuilding](https://twitter.com/livingbuilding) and [@Living\\_Future](https://twitter.com/Living_Future)





# LIVING COMMUNITY CHALLENGE<sup>SM</sup>

1501 EAST MADISON STREET  
SUITE 150  
SEATTLE, WA 98122

tel: 206.223.2028

[living-future.org/lcc](http://living-future.org/lcc)