



PechaKucha

**“INVENT! IMITATE! or INNOVATE!”
10 x 10 Trends**

Alex Glenn and Dan Wildenhaus

Quick tour – Winning Assets Leading to Dependable Outcomes

- Tools
- IAQ tools
- Materials
- Water tools
- Energy tools
- NetZero Project



Who's worked with this?

Why does indoor air quality matter?

People are increasingly concerned about mold, radon, carbon monoxide, and toxic chemicals in their homes. Poor indoor air quality can lead to eye irritation, headaches, allergies, respiratory problems such as asthma, and other serious health problems.

EPA studies show that levels of many indoor air pollutants can be two to five times higher than outdoor levels. And since most people spend close to 90% of their time indoors, keeping indoor pollution levels as low as possible is the right thing to do for you and your family.

How can building practices help improve indoor air quality?

Builders can use a variety of construction practices and technologies to decrease the risk of poor indoor air quality, including careful selection and installation of building materials; heating, ventilating, and air-conditioning (HVAC) systems; combustion-venting systems; and moisture control techniques.

It's not easy for homebuyers to keep track of all the preferred construction details that lead to improved indoor air quality. That's why EPA created the Indoor airPLUS label. Ask for it in your next new home.



Only ENERGY STAR Certified Homes are eligible to earn the Indoor airPLUS label.

Office of Air and Radiation
EPA 402/F-14/001 | February 2014

www.epa.gov/indoorairplus



Breathe Easy In Your NEW Indoor airPLUS Home

Designed and built for improved indoor air quality and energy efficiency.



All Indoor airPLUS qualified homes also meet strict guidelines for energy efficiency set by ENERGY STAR, the nationally-recognized symbol for energy efficiency.





HAYWARD
SCORE

Version: 1.15.2 beta

Dan Wildenhaus

tacoma, WA 98403
September 11, 2017

Your Hayward Score

42
▼

Very Poor

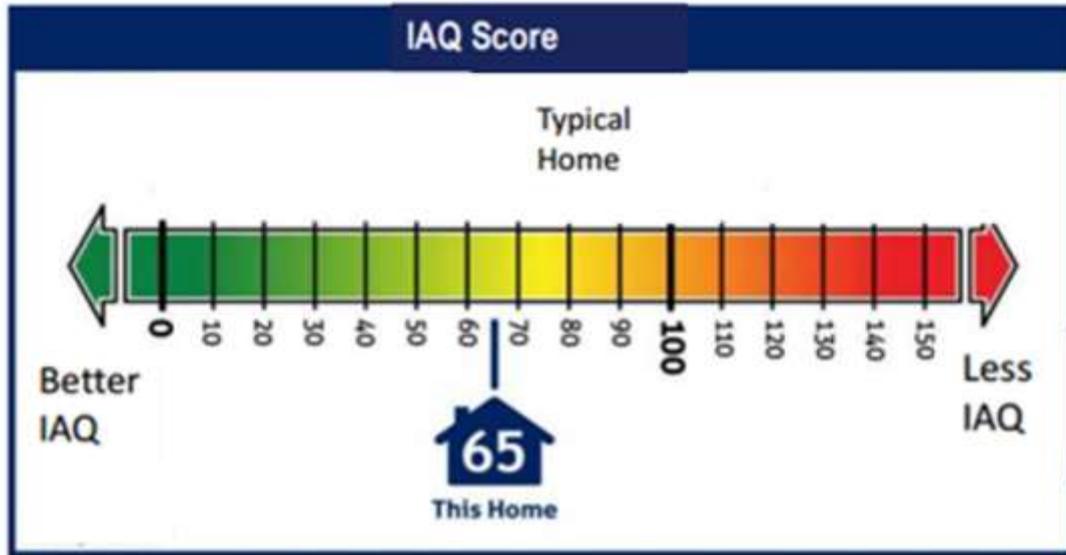
Poor

Fair

Good

Excellent

The future



GREENGUARD CERTIFICATION

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What else is out there?

SUMMARY MATRIX

THE 20 IMPERATIVES OF THE LIVING PRODUCT CHALLENGE

PETAL	IMPERATIVE CERTIFICATION*	IMPERATIVE
PLACE		01. RESPONSIBLE PLACE AND HABITAT IMPACTS
		02. HABITAT EXCHANGE
WATER		03. NET POSITIVE WATER
ENERGY		04. NET POSITIVE ENERGY
HEALTH & HAPPINESS	 CORE IMPERATIVE	05. NET POSITIVE MATERIAL HEALTH
		06. HUMAN THRIVING
MATERIALS	 CORE IMPERATIVE	07. RED LIST
		08. LIVING ECONOMY SOURCING
	 CORE IMPERATIVE	09. RESPONSIBLE INDUSTRY
		10. NET POSITIVE CLIMATE
		11. NET POSITIVE WASTE
		12. PRODUCT FIT TO USE
		13. USEFUL LIFE DISPOSAL

Welcome to Pharos!

New! Try **CompAIR**: Pharos' Volatile Ingredients Calculator

Think You Know Everything There is to Know About Volatile Content?
Think again.

- Multiple methods of measurement and reporting
- Exempt chemicals can still pose health hazards
- Varying amounts of product required for application

CompAIR is FREE to use and lets you:

- Measure and compare volatile ingredients in wet-applied products as installed
- Create a library of wet-applied products to compare
- Measure volatile content avoided through product selection
- Save and edit your product library
- Export and share your results





Project Information Inputs

•User to complete the information in the white boxes.

•Orange boxes are pull-downs that require a response.

•Purple boxes are informational and grey boxes need no action.

•Cells with a small red triangle have additional guidance provided in a "fly-out" box.

Building Information		EXISTING	NEW
New or Existing?	NEW	# of bedrooms	2
Type	Single Home	# of floors	1
# of units total		ave. floor to floor ht	8.5
Sample per unit		max HR per sq ft	0.75
House footprint in ft ²	3,190.00	distance from SW to SE corner	25.00
Roof of	3,190.00	distance from SW to NE corner	16.25
Roof Type	Flat		

Climate Information		MUNICIPAL OVERRIDE	
Average Annual Temp	5.50	Average Annual Temp	7.00
Average Annual ET0	5.96	Average Annual ET0	7.00
Average Annual Wetting Months	11.00	Average Annual Wetting Months	7.00

Site Information		Maximum Allowable Impervious Per Code
Lot Size (sf)	26,200.00	21%
Encroachments	0.00	0.00% (fly-out)
Under Foot (sf)	26,200.00	0.00
Remaining Lot (sf)	35,074,736.00	0.00% (fly-out)

Collection / Irrigation / Land Use Worksheet	
All Turf (sf)	0.00
New Softscape (sf)	720.00
Existing Softscape (sf)	0.00
Water Features (sf)	0.00
Permeable Paving (sf)	0.00
TOTAL	720.00

Overhead Irr. Paving (sf)	0.00
Remaining Impervious (sf)	0.00
Prohibited Landscape Area (sf)	1,524,000.00
Other (sf)	0.00
Municipal ET0	6.00



Starting Tab: Project information and data collection



Pearl's certification system groups the assets in your home into four categories. A home asset inventory will show how you score in each of the four categories.



Building Shell

300 possible points

The roof, walls, windows and foundation that create the difference between "outside" and "inside" your home.



Heating and Cooling

360 possible points

The furnaces, air conditioners, heat pumps, ductwork and other equipment that keeps your home the temperature you want it.



Baseload

240 possible points

The equipment that you use throughout the year, like water heaters, appliances, and electronics.



Home Management

300 possible points

Smart devices, information dashboards, and plans that help you maintain and improve your home.

<http://zeroenergyproject.org/>

I AM A BUYER

Buy a zero energy home

GET STARTED

I AM A BUILDER

Build zero energy homes

GET STARTED

I AM A SELLER

Sell zero energy homes

GET STARTED

I AM A RENOVATOR

Renovate to zero

GET STARTED

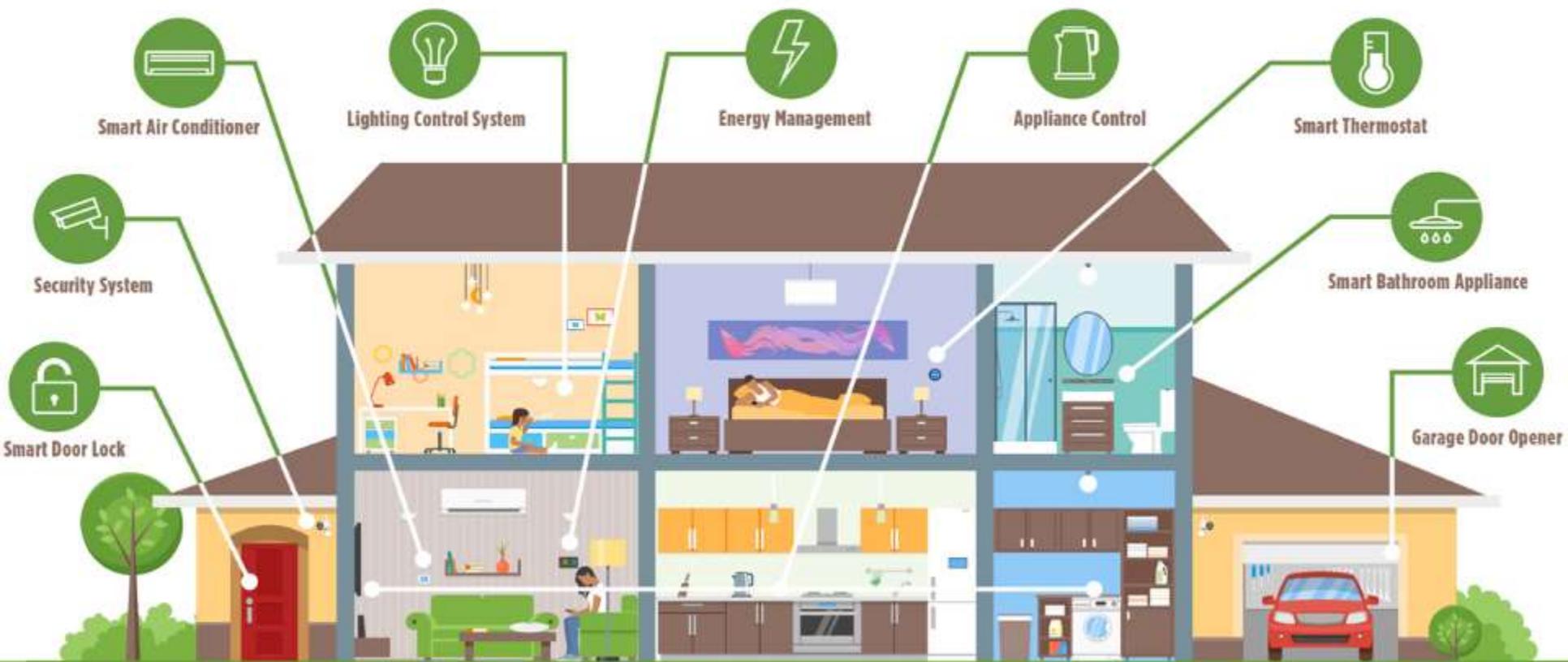


Invent! Imitate! or Innovate!



HOME, SMART HOME

Cool gadgets, practicality drive trend in residential lifestyle technology







Don't resort to
IMITATION
but rather look for
INSPIRATION
to further your own
CREATION
in pursuit of
INNOVATION



A San Francisco startup 3D printed a whole house in 24 hours

It's no mansion, but it looks perfect for people who prefer tiny



Mariella Moon, @mariella_moon
03.07.17 in Home

34
Comments



Ikea and Apple team up on augmented reality home design app

The 'Ikea Place' app lets shoppers virtually test drive furniture







High quality liquid crystal lens

High transmission lenses with brighter 3D video image

High-tech light-speed LCD shutter technology

High quality stereoscopic 3D solution



JUST ASK

amazon echo



Boston Dynamics







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