

## Building Electric-Efficient Tiny Homes: Smarter, Smaller, Sustainable

Webinar – September 10, 2025



1



This webinar was developed in partnership with the LEARN Program.

The LEARN Program is a San Diego-based workforce education and training program that has partnered with New Buildings Institute to offer free energy efficiency and electrification webinars. Please visit the LEARN website for more information:  
[www.sandiegolearn.com](http://www.sandiegolearn.com)



2

1

## Building Electric-Efficient Tiny Homes: Smarter, Smaller, Sustainable

In today's webinar we'll discuss how to build all-electric, energy-efficient tiny homes that meet modern performance standards while working within common limitations, that include working with 50-amp panels and very compact footprints.



3

## Today's Panelists



**Lindsay Wood**  
Tiny Home Lady  
Consulting



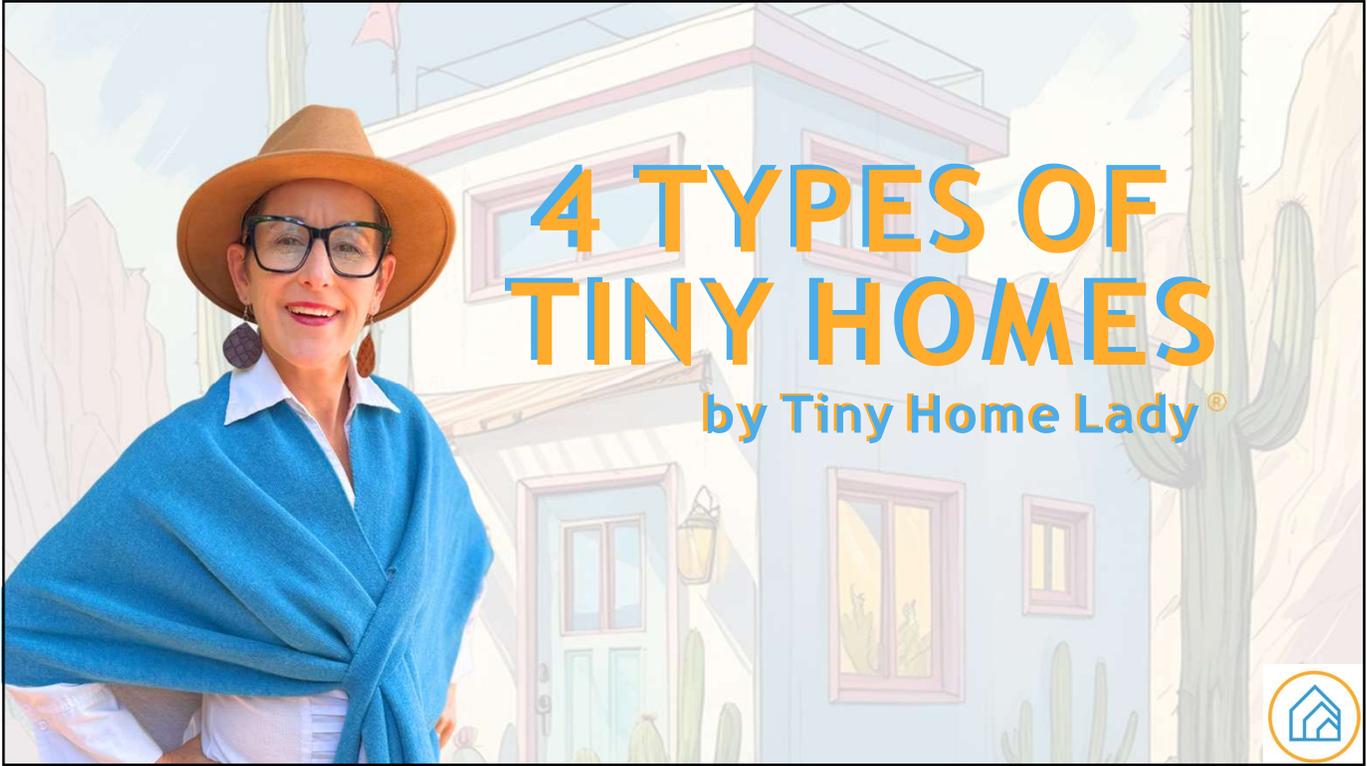
**Drew Witmer**  
JCLAY.CO



**Stacey Murphy-  
O'Galdez**  
Mystic Design by  
Stacey

4

2



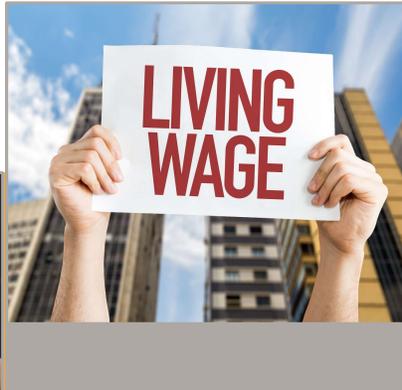
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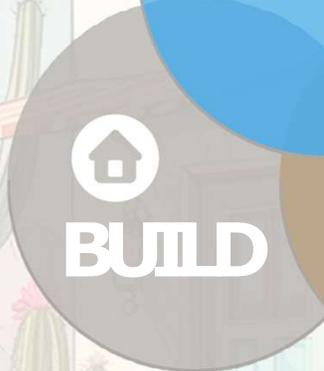
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# HOUSING CRISIS

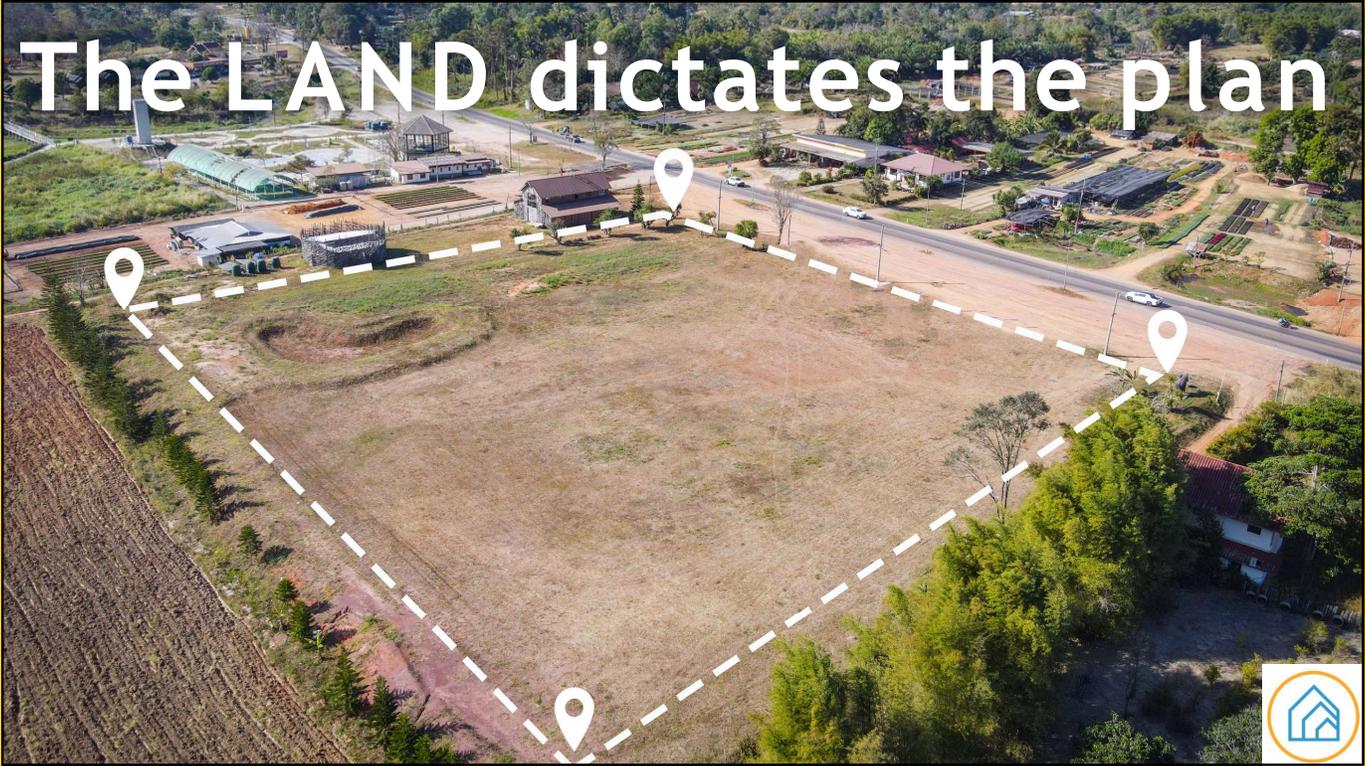


# 3 PILLARS TO GO TINY

by Tiny Home Lady®



# The LAND dictates the plan



# All 4 Types are built in a Factory and arrive on wheels...not all stay on wheels





11

# 1. NFPA 1192 RECREATIONAL VEHICLE

(National Fire Protection Association)



- Width 8.5 or less
- Height 13.5 or less
- 320 square foot or less
- Electrical 50amp or less
- TEMPORARY LIVING



12

# 2. ANSI A 119.5 RV PARK MODEL

(American National Standards Institute)

- Width 10' or more
- Height 13.6 or more
- Up to 400 Sq ft (decks and lofts not incl.)
- 50 Amp or More
- TEMPORARY LIVING
- No Property taxes unless you secure to foundation and deed as real estat



6



### 3. IRC- INTL RESIDENTIAL CODE



- Modular
- Pre-Fab
- Factory-Built
- Built to State Residential Building Code (IRC)
- Permanent Placement
- Known as “Real Estate”
- Property taxes are assessed with a new ADU



13



### 4. HUD- HOUSING URBAN DEVELOPMENT



- National Standard
- <76' Mobile Homes
- 76'> Manufactured Homes
- 320 Square feet or More
- Placed on permanent foundation known as Real Estate
- Property taxes are assessed with a new ADU



14

7

# SUMMARY 4 TYPES OF TINY HOMES!

**RV**

**01**

NFPA 1192

**02**

ANSI A 119.5

**Movable Tiny Home  
on Wheels**

**STATE**

**03**

IRC

**Modular  
PreFab  
Factory Built**

**NATL**

**04**

HUD

**Manufactured Home >76'  
Mobile Home <76'**





# JCLAY.CO

DREW WITMER

# SUSTAINABLE ENERGY SOLUTIONS



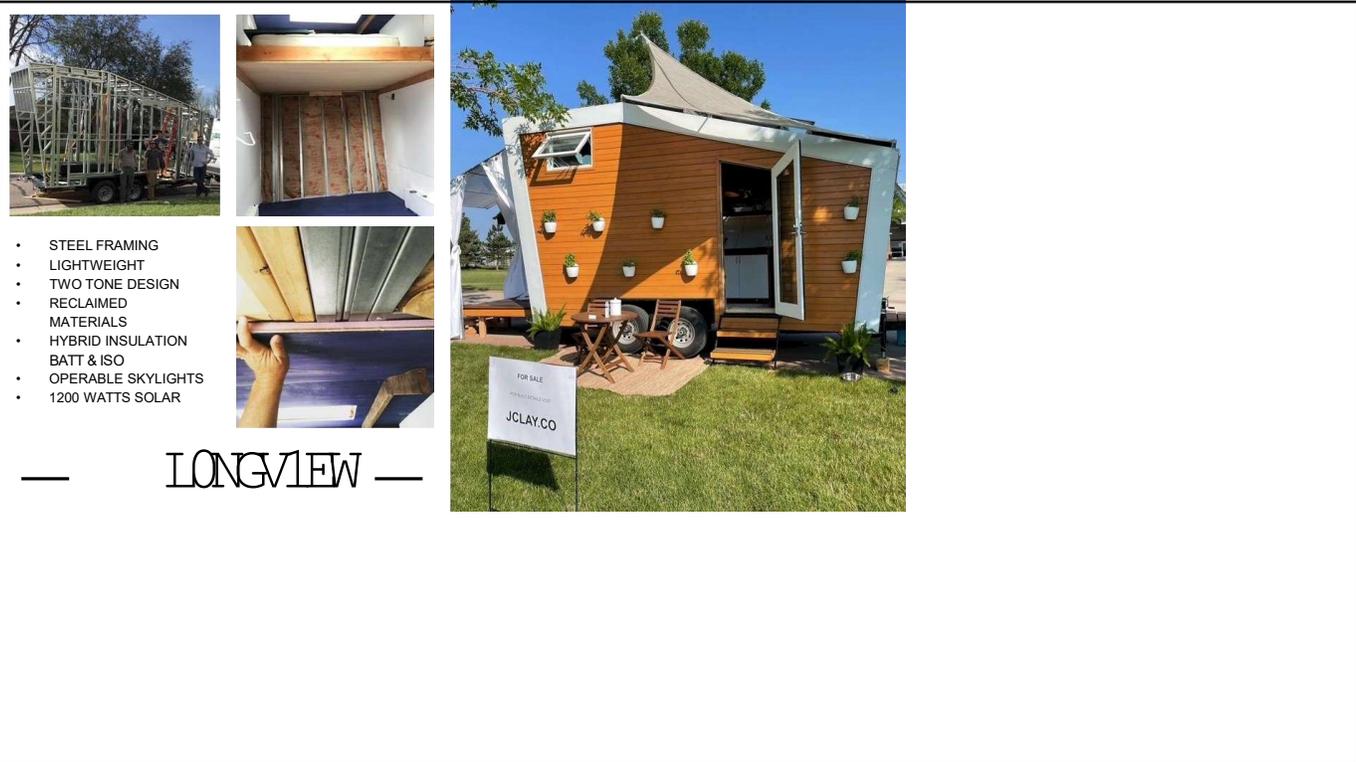
### COMMON INSULATION TYPES:

- SIPS
- BATT
- CELLULOSE
- SPRAYFOAM
- ISO FOAM





TINYHOUSES!  
CLIENT BUILDS



- STEEL FRAMING
- LIGHTWEIGHT
- TWO TONE DESIGN
- RECLAIMED MATERIALS
- HYBRID INSULATION
- BATT & ISO
- OPERABLE SKYLIGHTS
- 1200 WATTS SOLAR

— LONGVIEW —



- 3- 170AH LITHIUM/IRON BATTERY
- LED TAPE LIGHTING
- 4 GAL. ELEC WATER HEATER
- MINI FRIDGE FREEZER
- 2 BURNER INDUCT. CTOP
- 1800 WATT OVEN
- 1500 WATT SPACE HEATER
- EXPERIMENT! HHO FIREPLACE

# — THE LONGVIEW —



- ADAPTIVE REUSE
- RECLAIMED MATERIALS
- 2000 WATT BIFACIAL SOLAR
- MINERAL—WOOLINSULATION
- HYBRID FLOOR INSULATION: ISO, MINERAL- WOOL, FOIL
- DIESEL HEATER
- HYDRONIC HEATING
- OFF GRID READY

**- SPARTACUS -**  
1945 DARTAN MANOR




BIFACTAL SOLAR    POWER BANK    6 GAL ELECTRIC WATER HEATER    2 - 50 GALLON WATER TANKS    DIESEL HEATER    DIESEL WATER HEATER    EVACUATED TUBE    ROCKET STOVE  
 MINI-FRIDGE    INDUCTION CTOP    OVEN & AIRFRYER    WATER PUMP    EXPANSION TANK    REFLECTIX

**- SPARTA & S -**  
1949 SPARTAN MANOR




**WORK HARD. PLAY HARD.**

- CONCEPT MAXIMIZES VEHICLE USE
- DISASTER READY
- HYBRID INSULATION
- TOOL STORAGE/ BENCHTOP SPACE
- LED LIGHTING
- 3600 AMP-HR POWER BANK
- 12V REFRIGERATOR/FREEZER
- 2 BURNER INDUCT. CTOP
- 1800 WATT OVEN / AIR FRYER
- 12V SHOWER/FAUCET

**BLADE CAMPER**  
FROM ME







SUPERAADOBE



CALEARTH.ORG



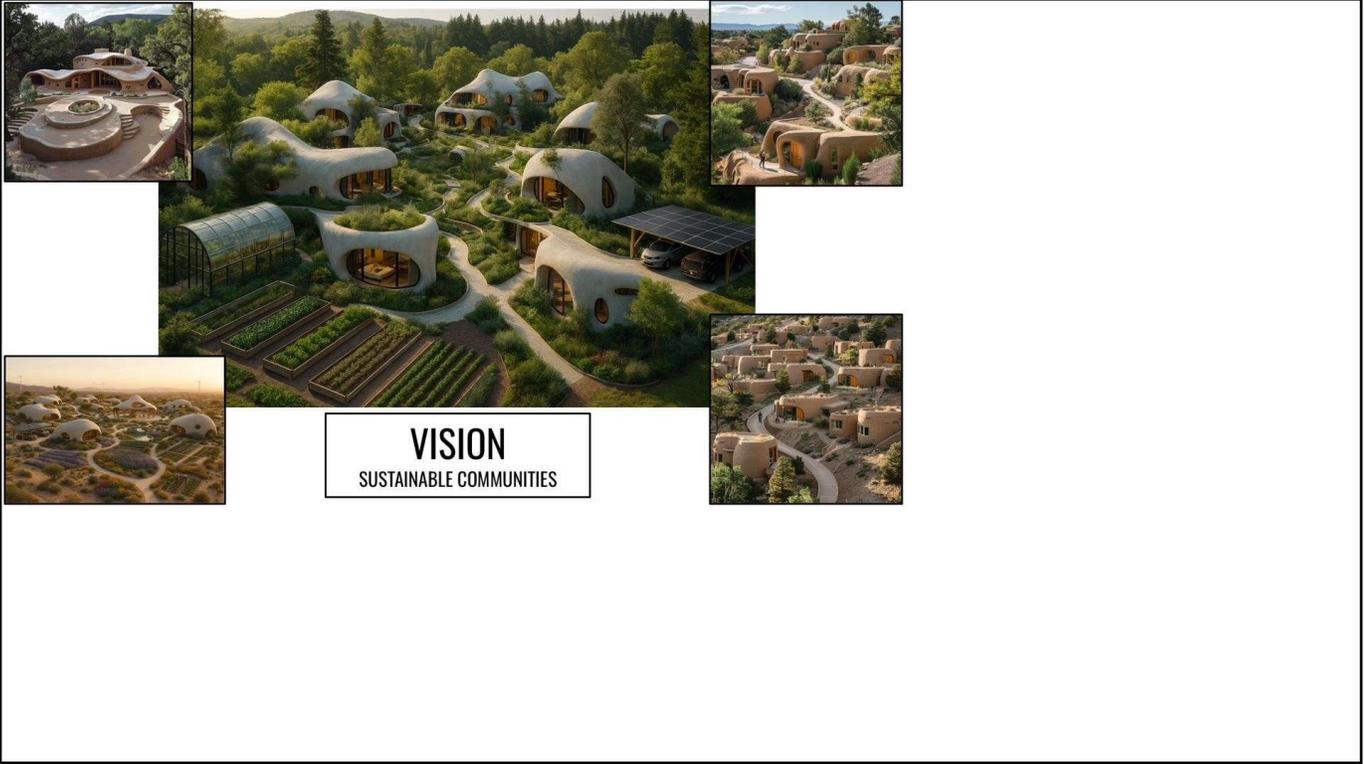
# SUSTAINABLE OPTIONS

## HEMPCRETE



## VSON NFL





**CONTACT:**

3032420799  
JCLAYCO



HERE TO HELP WITH YOUR TRAVEL JOURNEY!

*Mystic*  
**DESIGN**

BY STACEY MURPHY-O'GALDEZ

**Tiny Homes & ADUs**  
Making them  
**Attainable & Sustainable**

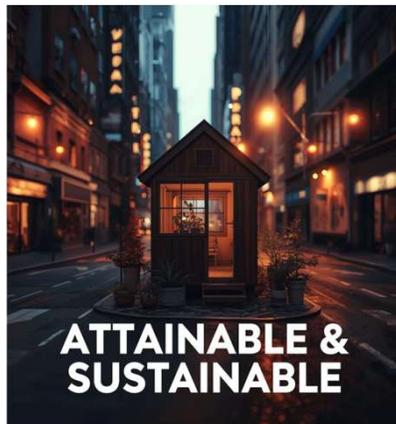


**SMARTER  
SMALLER**  
SUSTAINABLY.

**Today, I'll share:**

**Tiny Homes & ADUs:  
The Attainable & Sustainable Way**

- o The Future of **Your Business**
- o **Retrofits!** The Electrification Reality Check



**ATTAINABLE &  
SUSTAINABLE**

*Mystic*  
**DESIGN**

### Little Tidbits About Me

- o Manifestation & Life Design Coach
- o Tiny Home Dweller, DIYer, Designer
- o My home featured in several media outlets (including the Business Insider)
- o Tiny Lifestyle SME



### #1: Why This Matters for the Industry



### #1: Policy Spotlight – HR3475

#### For Builders!

Tax credits for constructing homes under 1,200 square feet.

#### For Homeowner!

Focus on Manufactured Homes Single Wide ONLY (aka Park Models & ADUs)



### #1: Big Picture- California

#### ADU Permit Trends (2022–2024):

- o Nearly 25% of new homes permits statewide (2023).
- o In San Diego County, more ADUs vs SF. homes were built (2023).
- o SoCal Leads the ADU Charge



**#2:**  
**Retrofits: The Secret Sauce for Going 100% Electric!**



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**#2: Smart Choices – When Appliances Compete for Power**

**WHY?**  
It's an AMP Issue!



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## #2: Reality Check – Life on a 50-Amp Panel

**PROBLEM:**  
Older Parks Max Out at 50AMPs

**2 SOLUTIONS:**  
1) Conversion Wiring to Upgrade to 100AMP  
2) Portable Off-Grid Solar →

## #2: Retrofit Essentials Mini-Splits & Heat Pumps



**#2: Retrofit Essentials -  
Induction vs Gas**



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**#2: Retrofit Essentials -  
On-Demand vs  
Standard Water  
Tank**



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**#2: Retrofit Essentials -  
Washer/Dryer Units  
Combo vs  
Stackable**

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**#2: Retrofit Essentials -  
Dishwasher**

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**#3: Retrofit Essentials -  
Solar Prep**

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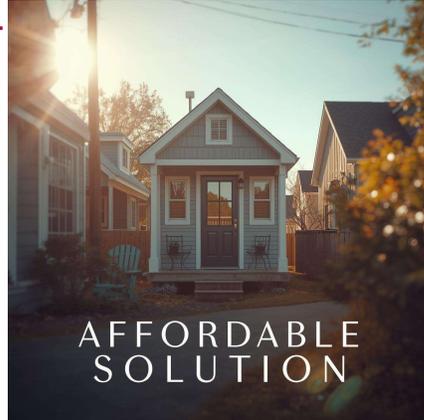
**#2: My Community Solar Farm -  
Powering Our Tiny Village**



### Attainable & Forward-Thinking Housing Affordability Solution

#### Attainable

- New Proposed Legislation!
- Cost-Effective
- Quick builds
- Flexibility



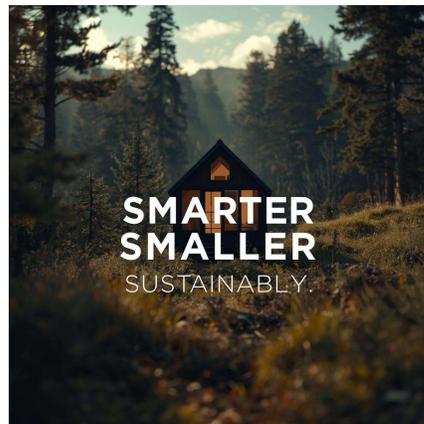
### Sustainable Climate Change Solution

ON-DEMAND:  
15-Minute Micro-Learning

Tiny Part 1:  
Tiny Carbon Footprint



Tiny Part 2:  
Sustainable Design &  
Construction



**What Next?**  
Join My November Webinar



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BUSINESS INSIDER

*Mystic*  
**DESIGN**  
BY STACEY MANNING-QUALICE



- **Web:** [MysticDesignByStacey.com](http://MysticDesignByStacey.com)
- **eMail:** [MysticDesignByStacey@gmail.com](mailto:MysticDesignByStacey@gmail.com)

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## Questions?

Thank you for your interest and  
joining us today!

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institute  
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## Share your feedback in this short survey

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