Workforce Development featuring Tiny House Village and Solar Installer Program





# Tiny House Village

Instructional Innovations in the Building Trades



### **Presented by:**

Ryan Connally - Department Chair Building Trades Jason Ellis - Architecture Professor Steve Geiger - Solar Technology Professor Dr. Kim Harrell - AVP Economic & Workforce Development **Project-based** Interdisciplinary Servant Learning **Environmentally conscious** 

- Sustainable irrigation &
- Iandscaping
  Sustainable design & construction

### Social justice orientation

- Food Insecurity Homelessness
- Climate change

### **Work-readiness Skills**

- Teamwork Critical thinking Communication Project management

### Northeast Area Development Sustainable Living Collaborative





### **Awards & Investments**

2017 - Prop 39, \$180,000

- 2018 SMUD, \$47,000 Shine Award
- 2019 Teichert Construction, \$8,837
- 2019 SMUD, solar panels donation
- 2020 Strong Workforce \$76,500

### **Partnerships**

2016 - SMUD THV Competition

2016 - Habitat for Humanity

2017 - Sac Valley Nature Conservancy

2017 – Soleeva endorses solar installer

2018 - AIA Living Building Challenge

2019 - Stonebridge Properties

2019 - Otto Construction

2019 - Teichert Construction

2020 - Grid Alternatives

Awards, Investments & Partnerships to Date





## Advanced Building Techniques including:

- Lumber reduction & Advanced framing
- Air sealing & Insulating
- Zero Net Energy goal for competition
- Sustainable building materials
- High Efficiency appliances



## Renewable Energy and Energy Efficiency

- 1.3 KW solar array
- High Efficiency Mini-Split HVAC
- Building Science tested for Air-Sealing @ .19 ACH





# Solar Program

- Hands on training for living wage jobs in the solar industry
- Introducing our new Solar Certificate Program







# Solar Program

•Classes:

- Solar Photovoltaic Systems 1
- Solar Photovoltaic Systems 2
- Intro to Construction
- OSHA Safety





# Solar Program

Our partnership with GRID Alternatives provides real world hands-on experience for students.



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# **CRC** Tiny Homes

- Design/Build
  Project Based Learning that models Integrated Project Delivery
  - (Design + Construction + Owner = Team)
  - Positive environment for architecture students to learn construction and vice versa
  - Non-Profit Clients
    - Compassion Village Homeless Shelter
    - Sacramento Valley Conservancy
    - Kavanah
    - Soil Born Farms



### AIACV Design Competition, 2018/2019

Non-Profit Client: Compassion Village Homeless Shelter

AIA Award Winner: Marishia Lopez, CRC '20

Honorable Mention: Van Doan, CRC '20 Sean Martin CRC '19







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#### Caretaker's Tiny House 2017/18

<u>Non-Profit Client:</u> Sacramento Valley Conservancy Caretaker's Cottage

Selected Design: Asim Khan, CRC '18







#### SMUD Design Competition, 2016

#### <u>Selected Design:</u> Brenda Delgado CRC '16





This young lady's name is Nahal, she's doin a damn fine job of texturimg, ARCH representin!

Cabinet construction







What makes the CRC learning environment so dynamic, is that it brings trade students into the design process, allows for contractor driven feed back in 'constructability', and it brings design students into the fabrication and construction side of the build process.

-Ryan Connally – Professor, Construction Technology

