



# PUBLIC MEETING AGENDA

## Sustainability & Resilience Commission

### MEETING DATE

Monday, September 18, 2023  
4:30 pm – 6:30 pm

### MEETING LOCATION

[Click here to join the meeting](#)  
Meeting ID: 225 486 248 85  
Passcode: opUGKh  
[Download Teams](#) | [Join on the web](#)  
**Or call in (audio only)**  
[+1 480-498-8745, 8219046#](#) United States, Phoenix  
Phone Conference ID: 821 904 6#

AGENDA ITEM	PRESENTER	ACTION or DISCUSSION
<b>1. Welcome New Members and SRC Mission</b>	Kendon Jung, Commission Chair (4:30 – 4:35 pm)	
<b>2. Public Appearances</b> The Sustainability Commission welcomes public comment for items listed on this agenda. There is a <i>three-minute time limit</i> per citizen	Kendon Jung, Commission Chair (4:33 – 4:35 pm)	
<b>3. Review of Meeting Minutes</b> The Commission will be asked to review meeting minutes from the August 21, 2023 meeting.	Kendon Jung, Commission Chair (4:35 – 4:37 pm)	Action
<b>4. Energy Equity Pilot Program and Energy Efficiency Proclamation</b>	Andy Escobar, Climate Justice and Energy Equity Coordinator Brianna Fisher, Climate Action Manager (4:37 – 5:05 pm)	Action
<b>5. Designing a Resilient Desert City Competition Update</b>	Commissioner Shawn Swisher (5:05 – 5:25 pm)	Discussion
<b>6. International Green Construction Code Update and Letter of Support</b>	Kendon Jung, Commission Chair Eric Iwersen, SRO Director (5:25 – 5:45 pm)	Action
<b>7. Sustainability and Resilience Office Updates and Housekeeping</b> Staff Updates Commission Composition Timeline Chair and Vice Chair Updates	Eric Iwersen, SRO Director Kendon Jung, Commission Chair (5:45 – 6:15 pm)	Discussion
<b>8. Future Agenda Items</b> - Commission may request future agenda items.	Kendon Jung, Commission Chair (6:15 – 6:25 pm)	Action

According to the Arizona Open Meeting Law, the Sustainability Commission may only discuss matters listed on the agenda. The City of Tempe endeavors to make all public meetings accessible to persons with disabilities. With 48 hours advance notice, special assistance is available at public meetings for sight and/or hearing-impaired persons. Please call 350-2775 (voice) or 350-8400 (TDD) to request an accommodation to participate in a public meeting.

# Our Charge

To **research**, **advise**, and **recommend** to the city council policies and programs that advance sustainability in Tempe...



Tempe

# Our Scope

...with particular attention to sustainability in the following areas:

- Energy management
- Climate Action Plan
- Local food & agriculture
- Livable neighborhoods & happy communities
- Land use & development
- Building practices
- Purchasing practices
- Economic development
- Solid waste, recycling, & hazardous waste
- Water & wastewater management
- Transportation
- Dark skies
- Air quality
- Environmental justice
- Preparedness and resiliency



# Our Objective

- **Assist** city departments **in executing** approved **policies and programs**;
- To **support education and outreach** related to the city's sustainability practices;
- To **identify** potential sustainability **partnerships** with public, private and educational entities; and
- To **recommend** for city council consideration a comprehensive sustainability **plan with measurable goals and benchmarks** to ensure year-to-year progress (Ord. No. O2015.24, 6-25-15)



# Mission Statement

*To be a culture-catalyst.*

To provide leadership, education, and guidance on sustainability programs and policies to City Council and for our entire community to transform Tempe into a healthy and resilient city that inspires the region, the nation, and the world.



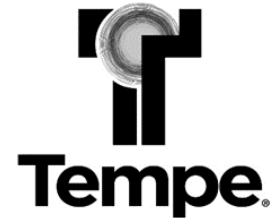
Tempe.

# Strategic Priorities

**Council Priority: Implementing sustainable growth and development strategies, including improving Tempe's public transit system to meet future needs, by actively seeking innovative technologies and leading the way in creating a more sustainable community**

- **Priority #1: Roadmap for CAP Highlights**
- **Priority #2: CAP 2021 Public Engagement**
- **Priority #3: Monitor and recommend**





## Minutes

### City of Tempe Sustainability Commission August 21, 2023

Minutes of the Tempe Sustainability Commission meeting held on Monday, August 21, 2023, 4:30 p.m. at a virtual meeting on MS Teams, through City Hall, 31 E. 5<sup>th</sup> Street, Tempe, Arizona.

**(MEMBERS) Present:**

Kendon Jung (Chair)  
Barbie Burke (Vice Chair)  
Natalie Mendoza  
Katja Brundiers

Jake Swanson  
Shawn Swisher  
Erin Boyd

**(MEMBERS) Absent:**

Morgan Winburn

**City Staff Present:**

Andy Escobar  
Maddie Mercer  
Eric Iwersen  
Mike Baxley  
Erin Kirkpatrick  
Shauna Warner  
Mercedes Payne  
Tom Duensing

**Guests Present:**

Greg Kinkel - Quest Energy

**Agenda Item 1 – Welcome**

## **Agenda Item 2 – Public Appearances**

No public appearances.

## **Agenda Item 3 – Approval of Meeting Minutes**

Meeting minutes could not be approved as the commission did not reach a quorum.

## **Agenda Item 4 – Voluntary IgCC Adoption**

Eric Iwersen, Mike Baxley, and Greg Kinkel gave a presentation on IgCC adoption. Iwersen noted that the code is being presented as a voluntary option for developers, with the prospect of future discussions about making the code mandatory.

Mike Baxley explained the many benefits of IgCC such as helping reduce a building's GHG emissions, increasing the life span of a building, reducing the Urban Heat Island effect, and reducing water consumption, among other benefits.

Iwersen provided a summary of the process. Tempe staff drafted the code with internal stakeholders, held two public meetings and have presented to Council. Once the code is reviewed it will go back to Council for approval and codification.

Currently, Tempe staff and Quest Energy, the hired contractor for this project, are looking into certain chapters and practices of IgCC that can be integrated into practice while creating a cost-effective analysis. Clark Park and Fire Station 2 have been studied, the former for renewables and the latter for site vehicle provisions.

Iwersen reminded the group that Council's first review will be October 12, 2023. City staff will ask Council to make a commitment for resolution on November 9, 2023.

### Questions:

- Chair Jung asked how the theme of flexibility applies to project cost overruns.
  - o Iwersen responded the city wants to ensure that tax dollars are being used the best they can and there will be anticipated conversations around project priorities and what practices of IgCC should and should not be used for cost purposes. The commitment is to later build a full IgCC code but currently the city wants to give flexibility on cost containment for all capital projects.
  - o Jung explained the reasoning for his question is the code cannot be seen as extra but rather just how Tempe constructs its facilities.
- Swisher was curious to know about the public reception to IgCC due to some of the feedback received about the 2050 General Plan. Swisher also asked what the timeline was for post-adoption of the code.



- Iwersen noted that feedback has been mostly positive. Some comments have stated that a mandatory code should be adopted. There has also been pushback related to the possibility of increasing the affordability of housing and the return of investment for green buildings. As far as the post-adoption timeline, the current goal is getting the code adopted and hiring a green buildings code specialist. Staff will then work on more next steps.
- Chief Deputy City Manager, Tom Duensing, explained that residential rental impacts will not impact Tempe's CIP program unless they decide to cash fund a project. That issue will not impact city facilities. Contingencies are built into all projects and does not see the adoption of IgCC impact CIP.
- Mendoza asked if there would be any guidelines or recommendations on how builders can create architecturally unique buildings while also being green.
  - Iwersen noted that all new construction goes through a process at the city and that Tempe is more rigorous than other cities due to development projects going through public hearings, staff meetings and council meetings. These processes that are in place help to get a better architectural product and IgCC will further help with that.
  - Greg Kinkel explained that IgCC is written with prescriptive options and code options, but this allows more flexibility on the design of the buildings.
  - Baxley explained the planning process of buildings in Tempe and looking into the design of the buildings to ensure it is architecturally appealing are part of those decision-making processes. The code will give builders the opportunity to enhance unique designs.

### **Agenda Item 5- Making Spaces – Parks Equity Study**

Erin Kirkpatrick and Mercedes Payne presented updates from the Community Services Parks Equity Study. Kirkpatrick explained that the study is looking at how their system is accessed and experienced, who is using the services and where they're used well and not used well and how the city may be able to adjust its programming and staffing to address real and perceived gaps in service.

Kirkpatrick and Payne gave an overview of the equity study process, a summary of the analysis and engagement and an introduction to the draft StoryMaps. Overall, the goal is to remove barriers, be inclusive and accessible for diverse groups of people. To hear gather community feedback, surveys were dispersed to residents and Temps staff held focus groups, neighborhood pop-up events, and organized a making space festival. Questions around socio-economic inequities, urban heat and shade, use and experience, and distribution, condition and investment were asked to gather data needs.

The study had 6 guiding principles:

- Spaces and programs for all
- Customized experiences
- Expanded parks and recreation access
- Vibrant, active, and diverse parks and recreation
- Safe environments
- Equitable prioritization process

Staff are using a StoryMap format to collect all the information collected in the study that allows people to navigate through it. StoryMaps has been organized into three sections: background overview, basic guiding principles and evaluation.

Staff have created a specific feedback form for board members and commissioners. The link was shared with the commission. The public review process of the studies' findings will begin in October 2023.

Questions:

- Chair Jung asked how the feedback form created for board members and commissioners differentiate from general members of the public.
  - o Kirkpatrick explained that the feedback form for commissioners are just for those seeing the Making Spaces presentation. General public outreach will start in October.
- Chair Jung asked how the Parks Equity Study staff's understanding of the Climate Action Plan manifest in the Equity Study document.
  - o Kirkpatrick noted that Parks Equity staff have similar goals to the CAP in terms of who they are engaging with and making sure improvements are sustainable long-term and ensuring communities are able to stay where they're at in terms of climate change impacts. Staff are being considerate as to the type of material that is going into parks, where equipment is being placed and how they're connecting to pedestrian and bike corridors.

### **Agenda Item 6- Downtown Tempe Streetscape Project**

Iwersen gave a presentation on the Mill Avenue streetscape improvement focusing on the sidewalk materials. Iwersen walked through the 3 sidewalk concepts. Streetscape Concept 1 includes lithomosaic artwork paving, concrete unit pavers, lithocrete accent paving, and salvaged brick paving. Streetscape Concept 2 includes lithomosaic artwork paving, salvaged brick paving, and concrete unit pavers. Streetscape Concept 3 includes salvaged brick paving and concrete unit pavers.

Iwersen went over the proposed tree palates and noted Silva Cell Systems would be installed to provide additional storm-water management, support tree life span and assist tree growth rate. Proposed Street Trees Concept One includes 50% Indian Laurel and 50%

Tipu as primary street trees and Ghost Gum and Mastic Tree as Median/Accent Street Trees. Concept Two includes 70% Indial Laurel as the primary street tree, 30% Tipu as the secondary street tree and Ghost Gum and the Fruitless Olive as Median/Accent Street Trees. Iwersen reinforced the reason behind the tree selection as that the listed trees are more resilient, drought tolerant and climate appropriate.

Iwersen asked for feedback on the hardscape/sidewalk concept and street tree concept. An online forum is open where residents can rank each concept. Construction will start in early 2024.

#### Questions:

- Chair Jung noted that none of the proposed trees were native to the Sonoran Desert and asked. He asked about the material composition from a cooling standpoint and asked which concept design cools the place more effectively?
  - o Iwersen responded that some native trees come with issues due to maintenance issues and keeping areas clear for pedestrians. Staff are engaging SRP-MIC for the opportunity to include a landscape near the Butte that is respectful of the Indigenous culture which would include native plants integrated into the design.
  - o Iwersen noted that porous material to help with cooling is not possible for Mill Ave but staff is looking into Green Stormwater Infrastructure for cooling. He also noted that darker brick will be able to retain heat more than lighter brick.
- Swisher suggested that the city introduce a long-term transition plan to include more Sonoran Desert trees to Mill Avenue as current trees reach the end of their lifespan. As for the GSI components, he suggests looking into curb cut opportunities. He also noted that Concept 3 is the strongest due to lithomosaic material being susceptible to wear and tear.

#### **Agenda Item 7 – USDA Grow Local Tempe Grant Update**

Maddie Mercer gave an update on the Grow Local Tempe USDA grant. Mercer reminded the commission that the goal of the grant is to promote food access, economic mobility, and community resilience by creating opportunities for urban agriculture, education, and workforce development in the Alegre, Escalante, and Victory Acres neighborhoods.

The current phase of the project included creating a Current State Analysis by developing a Tempe food asset map, a community food needs report and drafting a current state analysis report with recommendations. Next steps of the grant include planning neighborhood-level interventions by piloting 3 city-owned sites and 3 school sites and organizing educational events. The last phase is strategic city planning by asking council for direction, drafting a

local food roadmap (with youth education and workforce development components) and applying for a USDA implementation grant.

Questions:

- Chair Jung asked commissioners to send their questions over email.

### **Agenda Item 8 – Housekeeping**

Chair Jung reminded the commissioners that the General 2050 Council vote will be on Thursday August 24, 2023. Jung asked the commissioners to submit a public comment.

Chair Jung congratulated commissioner Swisher on organizing the design competition being held on Thursday, August 24, 2023.

Commissioners were also reminded about the City Manager Open House on Tuesday, August 22, 2023.

Jung announced that commission meetings will be alternating between in-person and virtual meetings. The commission will discuss their availability with each other offline.

### **Agenda Item 9 – Future Agenda Items**

**Motion:** Vice Chair Barbie Burke

**Second:** Jake Swanson

**Decision:** Approved 6-0

#### **Voted to Approve:**

Kendon Jung (Chair)

Natalie Mendoza

Shawn Swisher

Katja Brundiars

Jake Swanson

Barbie Burke

#### **Absent:**

Morgan Winburn

The meeting was adjourned at 6:35 pm.

Prepared by: Andy Escobar

Reviewed by: Brianne Fisher

Addendum:

[8/21 4:34 PM] Natalie Mendoza (Guest)

Hi, sorry I'm a few minutes late. My computer keyboard was not cooperating with me. Hopefully I haven't missed anything important.

[8/21 4:53 PM] Natalie Mendoza (Guest)

Will we also be looking at the areas/cities in the intermediate and advanced stages that we saw on the earlier slides?

[8/21 4:59 PM] Natalie Mendoza (Guest)

When you said "multiple different types of buildings", I thought of more architecturally unique buildings, such as the Gammage building at ASU. Do we have any building guidelines or recommendations for how builders could create architecturally unique buildings while also being green? Are any special considerations or solutions needed for a new building project that aims to create a more architecturally unique buildings?

[8/21 5:05 PM] Barbie Burke

Energy Efficiency Day is Oct 4th

[8/21 5:09 PM] Barbie Burke

Council member Joe Navarro will be talking about housing issues in Tempe On Sept 13th at 5:30 pm at the Tempe Public Library

like 1

[8/21 5:16 PM] Natalie Mendoza (Guest)

Awesome, thank you so much.

[8/21 5:16 PM] Katja Brundiers (Guest)

As part of future work, would special engagement with or provision of information to the community of developers be useful and something that our commission could support?

like 2

[8/21 5:16 PM] Katja Brundiers (Guest)

Thank you for your presentation and the committed work!

like 1 heart 1

[8/21 5:18 PM] Erin Boyd (Guest)

Sustainability Commission, August 21, 2023

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Katja - I was thinking the same thing. I'd love to see a checklist of how developers can be educated about the code and how they might consider implementing parts of it.

like 3

[8/21 5:20 PM] Katja Brundiars (Guest)

**Erin Boyd (Guest)**

Katja - I was thinking the same thing. I'd love to see a checklist of how developers can be educated about the code and how they might consider implementing parts of it.

This is a great idea! Maybe the other cities, which had been contacted in the process already, could share their experiences with us on that specific outreach.

like 1 heart 1

[8/21 5:20 PM] Natalie Mendoza (Guest)

Erin: Perhaps also focus on adding a time component to the checklist. For example, what can developers be doing during the planning phase of building, what can they be doing during the financing phase of building, and so forth. That may make things easier to break down into manageable tasks.

[8/21 5:20 PM] Iwersen, Eric

good ideas. i think we need to develop a list of next steps and expectations wiht the code and with timelines

[8/21 5:21 PM] Erin Boyd (Guest)

it was amazing!

[8/21 5:22 PM] Erin Boyd (Guest)

The Making Space festival was a great model. I love that the City of Tempe is creating events that add value to the community and allow neighbors to provide feedback on multiple projects at once.

heart 3

[8/21 5:23 PM] Natalie Mendoza (Guest)

One thing I would like to note is that I really like the Women's Club Park here in Tempe, because it combines accessible elements, xeriscaping, and short trails. I really enjoy hiking and taking a walk on an actual trail, but I found it ingenious how that park combined my desire for a more nature, trail-based park with paved sidewalks that enable people with other needs to also enjoy the park. There is also a small playground, which makes it enjoyable for kids, but the trails and interesting desert plants provide older teens and adults something more interesting and engaging as well.

[8/21 5:42 PM] Katja Brundiars (Guest)

Sustainability Commission, August 21, 2023

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Thank you for this informative presentation! Is the equity-based decision-making rubric to identify priorities a tool that could be used city-wide, too?

like 1

[8/21 5:44 PM] Katja Brundiers (Guest)

Indeed - a wealth of information! I look forward to look into the feedback and recommendations related to extreme heat. Thank you!

[8/21 5:46 PM] Kendon Jung

I can also shave some time on my items as well

[8/21 5:47 PM] Kirkpatrick, Erin

**Natalie Mendoza (Guest)**

One thing I would like to note is that I really like the Women's Club Park here in Tempe, because it combines accessible elements, xeriscaping, and short trails. I really enjoy hiking and taking a walk on an actual trail, but I found it ingenious how that park combined my desire for a more nature, ...

Thank you, that park is definitely a gem.

heart 1

[8/21 5:59 PM] Natalie Mendoza (Guest)

I would like to note that fruitless olive trees are not always fruitless. I have a fruitless olive tree in my backyard that started producing a large quantity of olives approximately seven years after it was planted. As a result, we have a lot of birds (pigeons) in our backyard that eat the olives and we have had to train our dog to not eat (and later barf) the olives that drop onto the ground. I have no problem with this olive tree because it is a wonderful source of shade, but I would the city of Tempe to consider the risks of having a fruitless olive tree produce olives after many years, since it would affect everyone.

[8/21 6:00 PM] Jake Swanson (Guest)

One question, I know that during street car implementation there was support provided to the local businesses on navigating impact to business due to construction. During this project, is there going to be similar outreach and support to businesses impacted during this process?

like 1

[8/21 6:00 PM] Erin Boyd (Guest)

Will the sidewalk concepts help with the usability of the sidewalk? (movement of pedestrians, how to look for traffic at intersections, etc.) or is purely artistic?

[8/21 6:00 PM] Katja Brundiers (Guest)

Sustainability Commission, August 21, 2023

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Thank you for the presentation! Re sidewalks: what criteria help to decide which materials to use? I heard : storage/costs, aesthetics. What about eco-footprints - e.g., compatibility with the IgCC, ability to deal with rain and heat, and reuse (like the salvaged bricks)?

like 1

[8/21 6:01 PM] Natalie Mendoza (Guest)

Palo Verdes are a very good source of shade as well.

like 1

[8/21 6:02 PM]

Barbie Burke (Guest) was invited to the meeting.

[8/21 6:07 PM] Natalie Mendoza (Guest)

To what Shawn is saying about not recreating other cities, absolutely! I have particularly noticed that Palm Trees are in so many locations in Arizona (including Tempe), and it does not make sense to me that we are trying to look just like California. Especially when many Palm Tree species require a lot of water to survive.

[8/21 6:07 PM] Katja Brundiers (Guest)

To Shawn's comment of making e.g., GI visible, this visibility could be enhanced through arts-based information/education about it ... like street-art-infographics....

[8/21 6:08 PM] Katja Brundiers (Guest)

Thank you for the presentation!

[8/21 6:09 PM] Katja Brundiers (Guest)

Congratulations, Maddy! This is super amazing!

like 1 heart 1

[8/21 6:09 PM] Katja Brundiers (Guest)

Thank you, Eric, for sharing this important success with us.

[8/21 6:09 PM] Natalie Mendoza (Guest)

Katja: What do you mean by GI? I only think of the gastrointestinal system when I hear the abbreviation GI, but I do not think that is what you mean.

[8/21 6:09 PM] Kendon Jung





laugh 1

[8/21 6:11 PM] Katja Brundiars (Guest)

**Natalie Mendoza (Guest)**

Katja: What do you mean by GI? I only think of the gastrointestinal system when I hear the abbreviation GI, but I do not think that is what you mean.

Oh my! Thanks for that clarification question. I meant Green Infrastructure Solutions. Is the acronym for that also "GIS"?

[8/21 6:12 PM] Natalie Mendoza (Guest)

Katja: Thanks for the clarification, that makes a lot more sense.

[8/21 6:14 PM] Iwersen, Eric

**Natalie Mendoza (Guest)**

I would like to note that fruitless olive trees are not always fruitless. I have a fruitless olive tree in my backyard that started producing a large quantity of olives approximately seven years after it was planted. As a result, we have a lot of birds (pigeons) in our backyard that eat the olives ...

thanks and good feedback Natalie

[8/21 6:18 PM] Iwersen, Eric

**Natalie Mendoza (Guest)**

To what Shawn is saying about not recreating other cities, absolutely! I have particularly noticed that Palm Trees are in so many locations in Arizona (including Tempe), and it does not make sense to me that we are trying to look just like California. Especially when many Palm Tree species require ...

date palms have a great food element and do really well in our climate. california palms and mexican palms are also very drought tolerant (one of them is actually native to az) but shade is not strong with palms . we generally have placed palms where we have tight space or where we are looking to have a sense of grandeur or arrival...

like 1

[8/21 6:18 PM] Iwersen, Eric

**Natalie Mendoza (Guest)**

Palo Verdes are a very good source of shade as well.

ironwoods and mesquites are as well.

[8/21 6:19 PM] Natalie Mendoza (Guest)

**Iwersen, Eric**

date palms have a great food element and do really well in our climate. california palms and mexican palms are also very drought tolerant (one of them is actually native to az) but shade is not strong with palms . we generally have placed palms where we have tight space or where we are looking to...

Sustainability Commission, August 21, 2023

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Thanks for the information. I did not know that---I usually consider palm trees to be larger water guzzlers, but I'm glad to hear that that is not entirely the case.

[8/21 6:22 PM] Iwersen, Eric

**Erin Boyd (Guest)**

Will the sidewalk concepts help with the usability of the sidewalk? (movement of pedestrians, how to look for traffic at intersections, etc.) or is purely artistic?

more variety of materials can generally lead to more maintenance, simpler is less o & m. all the materials proposed will meet ADA and be "usable", and i would say that the treatment options are really about aesthetics and installing materials that will be durable like 1

[8/21 6:25 PM] Jake Swanson (Guest)

 {standing ovation} 

like 2 heart 1

[8/21 6:25 PM] Erin Boyd (Guest)

Congratulations on this research and outreach.

The grocery store - Street Corner Urban Market - will open at Culdesac Tempe at the end of this month. 10% of the floor plan will be fresh produce from Sun Produce Cooperative. The store will accept SNAP/EBT.

It will be the closest grocery store located in the Escalante neighborhood. We'd love to support these efforts. I'll email you, Maddie!

heart 1

[8/21 6:26 PM] Jake Swanson (Guest)

Thoroughly enjoyed hearing about outreach. It sounds holistic and engaging at various levels, looking at an entire system. Really appreciate the work you are doing.

heart 1

[8/21 6:28 PM] Jake Swanson (Guest)

Thank you for all the hard work, Shawn. Really excited to see the visualizations!

[8/21 6:29 PM] Mercer, Madeline

**Erin Boyd (Guest)**

Sustainability Commission, August 21, 2023

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Congratulations on this research and outreach. The grocery store - Street Corner Urban Market - will open at Culdesac Tempe at the end of this month. 10% of the floor plan will be fresh produce from Sun Produce Cooperative. The store will accept SNAP/EBT. It will be the closest grocery st...

Yes, I'd love to connect about this! I was just on-site at Culdesac today to launch our Composting Program with Cocina Chiwas, and I'd love to learn more about the other food sustainability practices being incorporated into the Street Corner Urban Market!

[8/21 6:30 PM] Erin Boyd (Guest)

Fantastic. Thank you, Maddie!

[8/21 6:30 PM] Jake Swanson (Guest)

Sounds great to me.

[8/21 6:30 PM] Natalie Mendoza (Guest)

When will the in-person meetings start?

[8/21 6:32 PM] Kendon Jung

A house divided

[8/21 6:32 PM] Erin Boyd (Guest)

I'll need to excuse myself. Thank you all for an action-packed meeting

[8/21 6:35 PM] Natalie Mendoza (Guest)

Thank you.

[8/21 6:35 PM] Erin Boyd (Guest)

thank you

[8/21 6:35 PM] Katja Brundiers (Guest)

Thank you all!

# Energy Equity Pilot Program

Andy Escobar, SRO

9/18/2023



# 2022 CAP Update

## Climate Justice Agenda



### Actions

#### Extreme Heat and Energy Equity



*A pedestrian walking in the heat.*

Residents want to live comfortably in a cool, walkable Tempe with adequate living standards that conserve energy. Unfortunately, some disadvantaged residents have to choose between paying for electricity and other necessities because the cost of cooling their homes is too expensive. Unsheltered residents, who use the least energy, are the most at risk from extreme heat.

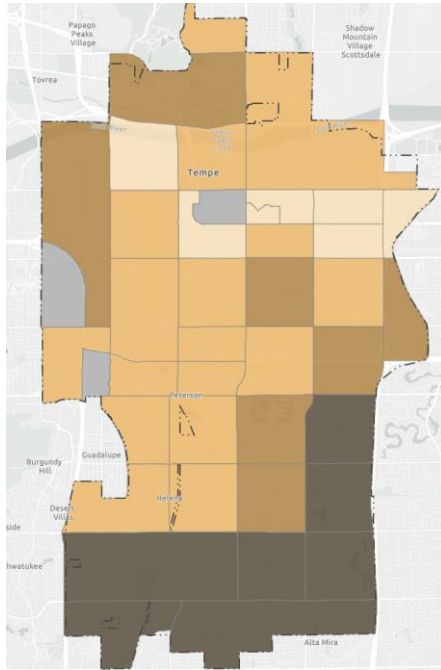
The overall health and well-being of Tempe residents can improve with the following processes and policies:

- **Unsheltered Population:** support and respect unsheltered persons
- **Neighborhood Funding:** mobilize neighborhoods as a collective energy action
- **Green Stormwater Infrastructure (GSI):** promote water conservation and increase native vegetation
- **Energy Savings:** set an allotted amount of energy at no cost; lower-income residents would benefit the most
- **Property Renovations:** weatherize and update existing living spaces
- **Energy Efficiency:** incentivize the use of natural and clean energy resources

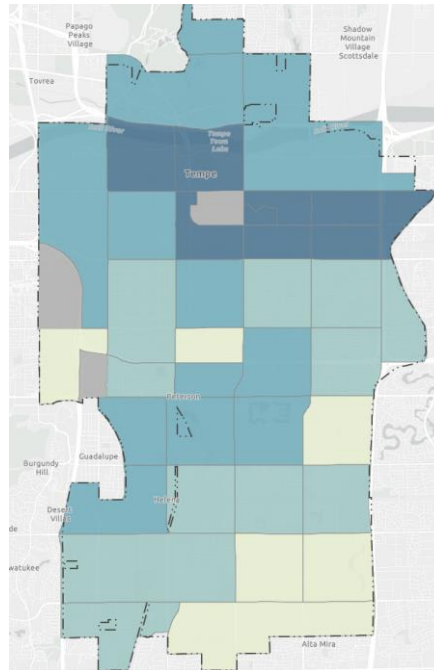
# Data Journey



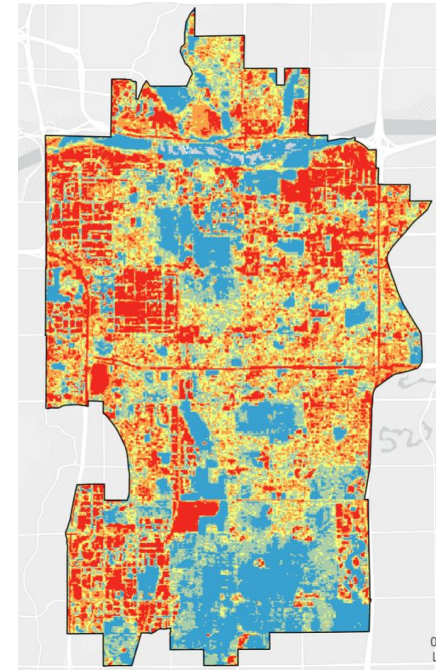
## Existing Data



Median Income

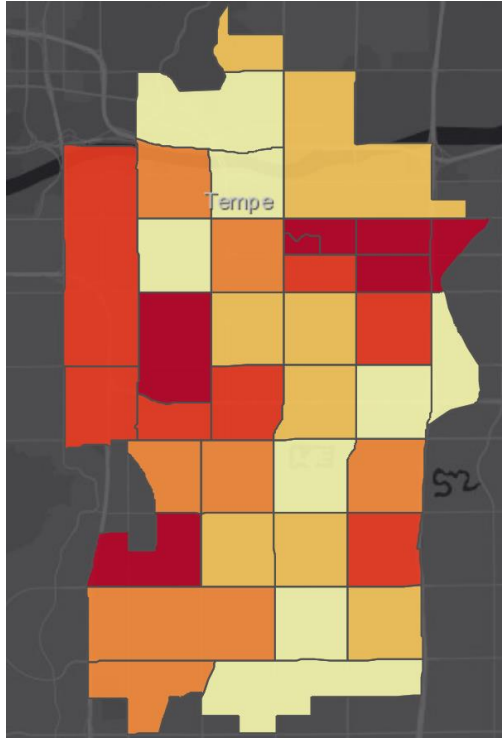


Poverty Rate



Median LST

# Data Journey, contd.



Heat Priority Areas

- Data Needs
  - Energy Burden
  - Qualitative Data
    - Cooling barriers
    - Coping mechanisms
    - Overall lived experience

# Phase 1 Recap

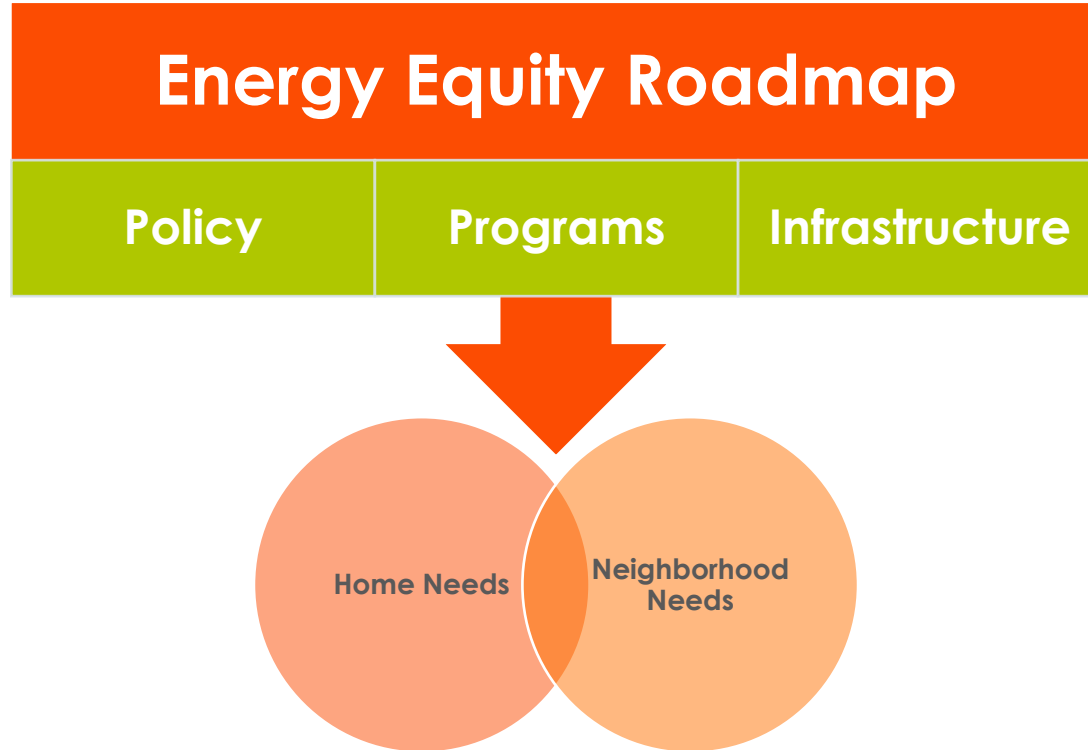


- Home Energy Kits
  - 48 households
- RAIL CDC
  - Community recruitment and feedback for design

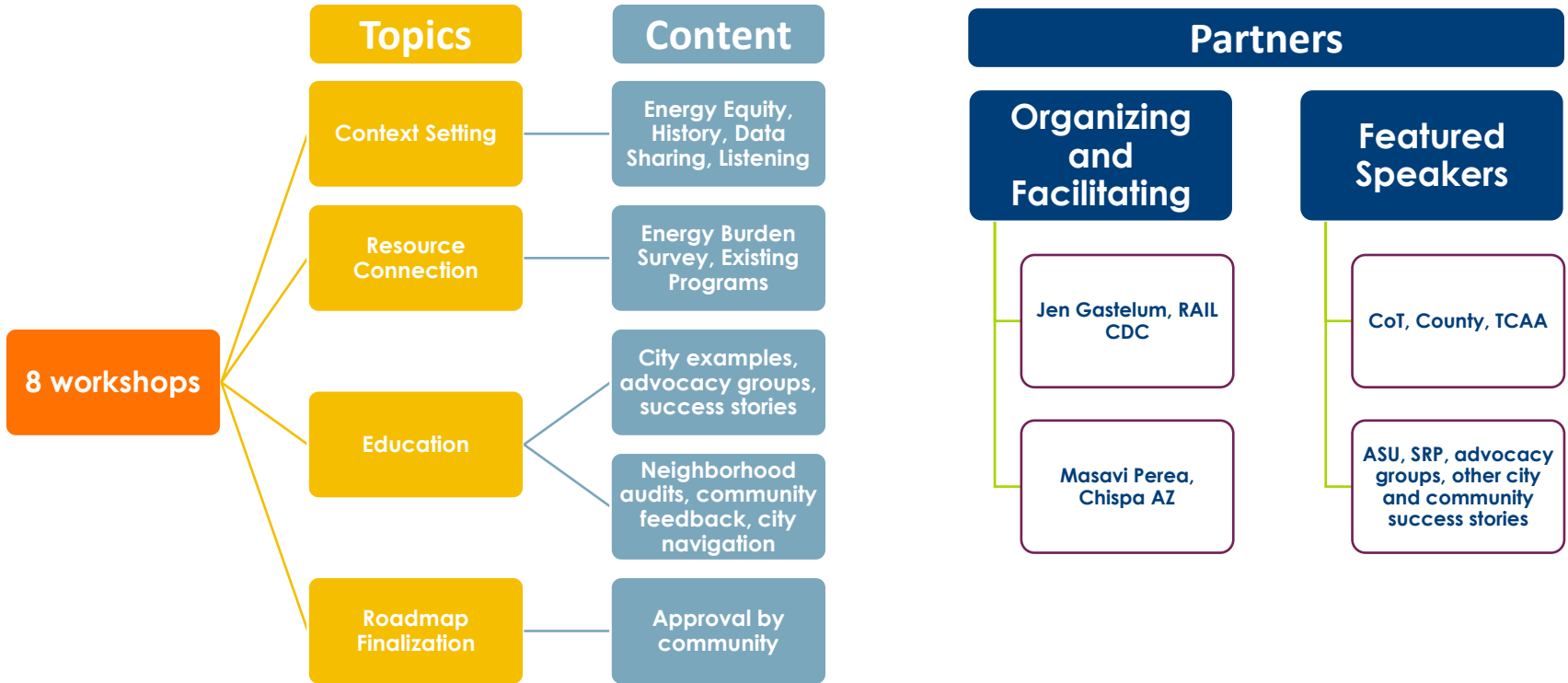




# Phase 2 – CJA Group



# CJA Workshop Structure



# Alignment With Other Work



- EECBG (formula grant)
- SRP MOU – Energy Equity
- Microgrid Master Plan
- Neighborhood Grants
- Grow Local Tempe
- Rain To Roots



# Questions?

[andy\\_escobar@tempe.gov](mailto:andy_escobar@tempe.gov)

**WHEREAS,** Energy efficiency is an efficient and effective way to meet the City of Tempe’s community and municipal 2050 carbon neutrality goals; and,

**WHEREAS,** Energy efficiency is the cheapest, quickest, and cleanest way to meet Tempe’s energy needs, avoid dangerous pollution, and reduce utility bills for residents and businesses in our community; and,

**WHEREAS,** The City of Tempe continues to work to improve efficiency across municipal buildings, outdoor lighting, water infrastructure and municipal fleet and transit fleet through assessments, retrofits, and upgrades; and,

**WHEREAS,** The Sustainability and Resilience Office, with the support of Rail CDC has created a Climate Justice Advisory Group to seek input from residents to create Tempe’s first Energy Equity Roadmap in order to achieve equitable outcomes in energy efficiency and guide the city on future programs, policies and investments; and,

**WHEREAS,** The City of Tempe is seeking a voluntary International Green Construction Code to help mitigate Green House Gas emissions with energy efficiency and help our built environment adapt to hotter weather with landscaping and building orientation; and,

**WHEREAS** The City of Tempe and the Tempe Chamber of Commerce have partnered to engage the business community to better understand how to support businesses to increase their energy efficiency.

NOW, THEREFORE, I, Corey Woods, Mayor of the City of Tempe, Arizona, do hereby declare:

**October 4, 2023**

**as**

**Energy Efficiency Day**

**in Tempe, Arizona**

IN WITNESS WHEREOF,  
I hereunto set my hand  
this 4th day of October,  
Two Thousand and  
Twenty-Three.

---

Corey D. Woods

# Designing Resilient Desert Cities Competition Update

September 18, 2023



# Background

- June 2022 Retreat
- Discussion on how to move Highlight Actions forward
- Mayor Woods letter of support January 2023
- AIA Arizona & Phoenix Metro
- ASLA Arizona
- SRP Sponsor

# Competition Overview

## Goals

- To visualize a sustainable, resilient development using the strategies in the City of Tempe's Climate Action Plan (CAP).
- To show the transformative possibilities of the CAP through physical interventions
- To inform future policies and development
- To change how we look at the design of our cities by seeing the built environment as an opportunity for creating resilient, human-centric places.

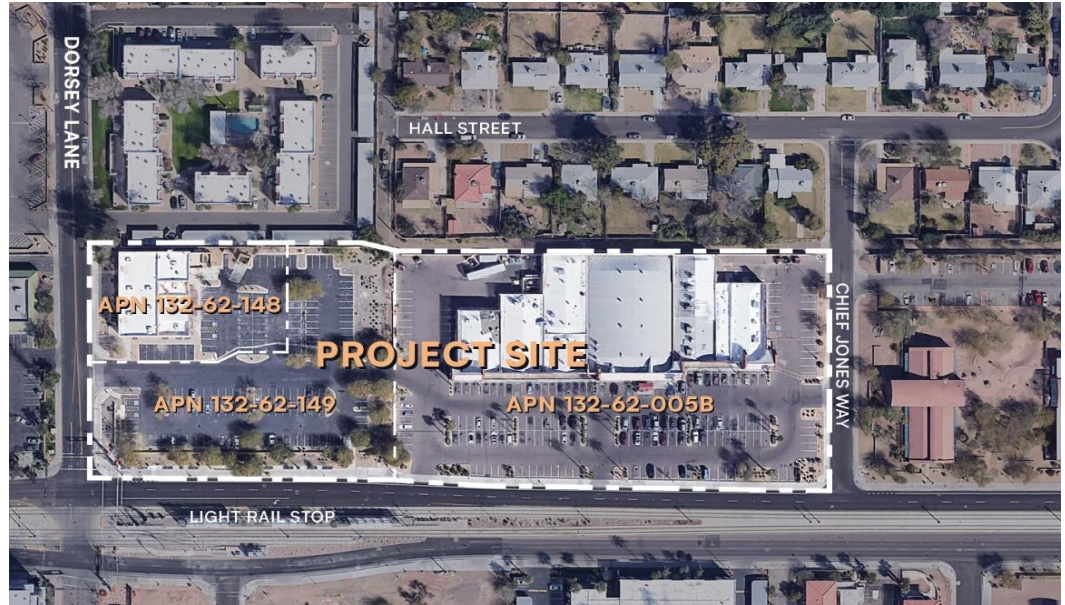




# Competition Overview

## Requirements

- Resilience hub, incorporate green stormwater infrastructure, and International Green Construction Code
- Apache Central Site



# Jury



**Elizabeth McLean, AIA**

Senior Associate  
Ayers Saint Gross  
Jury Chair



**Brian Farling, AIA**

Principal  
Jones Studio



**Selina Martinez**

Architectural Designer  
ASU Indigenous Design Collaborative



**Dr. Diane E. Pataki**

Foundation Professor & Director  
ASU School of Sustainability



**Wellington "Duke" Reiter, FAIA**

Senior Adviser to the President  
Arizona State University



**Josh Rutherford**

Economic Development Program Manager  
City of Tempe



**Byron Sampson, ASLA**

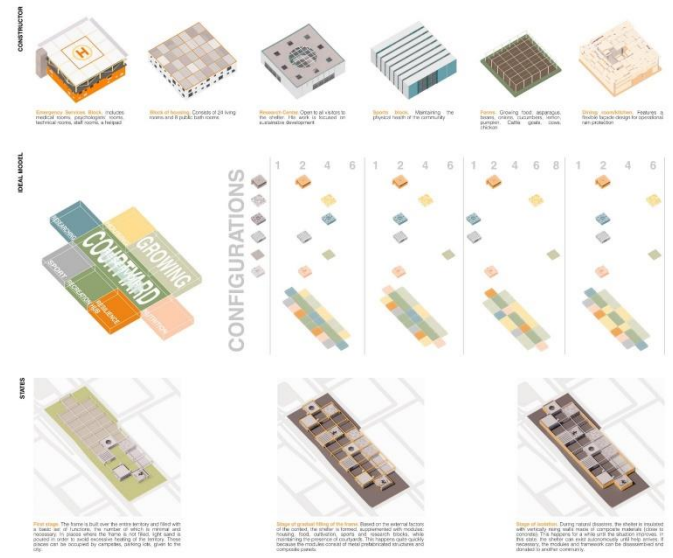
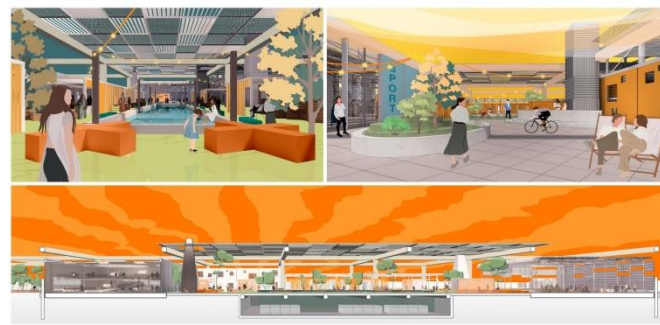
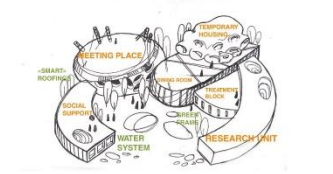
Associate Director &  
University Landscape Architect  
Arizona State University

# Student Winner

Valeev Radmir  
Nailevich  
Kazan State  
University  
Kazan, Russia

## Resilience Shelter

The better performance of the community in the face of the challenges that it will face only have working in such a complex way. The project is a response to the needs of the community. The project is a response to the needs of the community. The project is a response to the needs of the community.



# Student Winner

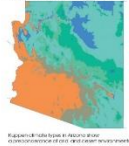
Artem Sultanov  
Kazan State University  
Kazan, Russia

## Combining thoughts

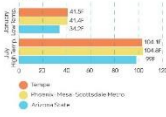


The main idea of the university center is to create a multifunctional center which includes areas of public space, education, medical assistance, residential and workshop. The center is designed to be a place where people can live, work, study and play.

## CLIMATE TYPES OF ARIZONA



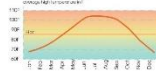
## CLIMATE



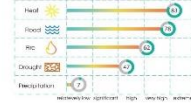
## CLIMATE CHANGE RATING FOR TEMPE



## HIGH TEMPERATURE

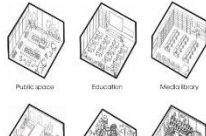


## MEDIAN RISK RATING FOR ARIZONA



## Functional program

We used the functional program of the building which includes areas of public space, education, medical assistance, residential and workshop.



The roof structure and the green facade of our building will occupy the rooftop and the facade of the building.

One of the best features of this building is its high performance with low energy consumption.

Necessary services are provided in the building to provide comfortable and safe living conditions for people, as well as to help them in case of emergency and requirements.

The transformation of the public block right in the center of the building is a key feature of the project.

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## Functional diagram

Workshop

Vertical farm

Education

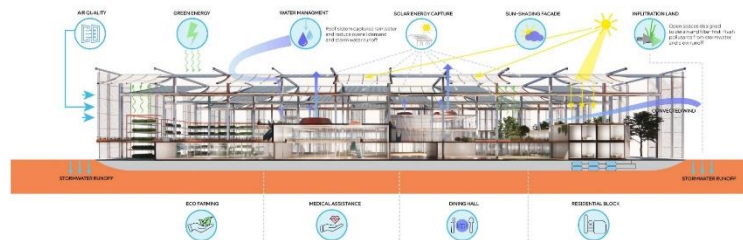
Carshare

Public block

Pubhub

Medical

Residential block



## Masterplan



## Plan



## Masterplan explanation

1. Sustainability center
2. Park
3. Green building
4. Green building
5. Green building
6. Green building

## Plan explanation

1. Public block
2. Carshare
3. Medical
4. Children studios
5. Block plan wing
6. Block residential yard
7. Additional area
8. Residential
9. Educational space
10. Workshop
11. Large open
12. Vertical farm
13. Additional area

## Transformation system

1. Public block
2. Carshare
3. Medical
4. Children studios
5. Block plan wing
6. Block residential yard
7. Additional area
8. Residential
9. Educational space
10. Workshop
11. Large open
12. Vertical farm
13. Additional area

## The proximity of the building to the street and the possibility of integration of urban infrastructure

1. Public block
2. Carshare
3. Medical
4. Children studios
5. Block plan wing
6. Block residential yard
7. Additional area
8. Residential
9. Educational space
10. Workshop
11. Large open
12. Vertical farm
13. Additional area

## Exterior



## Transformation: Public block



## Transformation: Emergency assistance center



## Green parking



## Large yard



## Block residential yard



## Roof



# Professional Honorable Mention

Chris Kelly  
Architekton

## OASIS

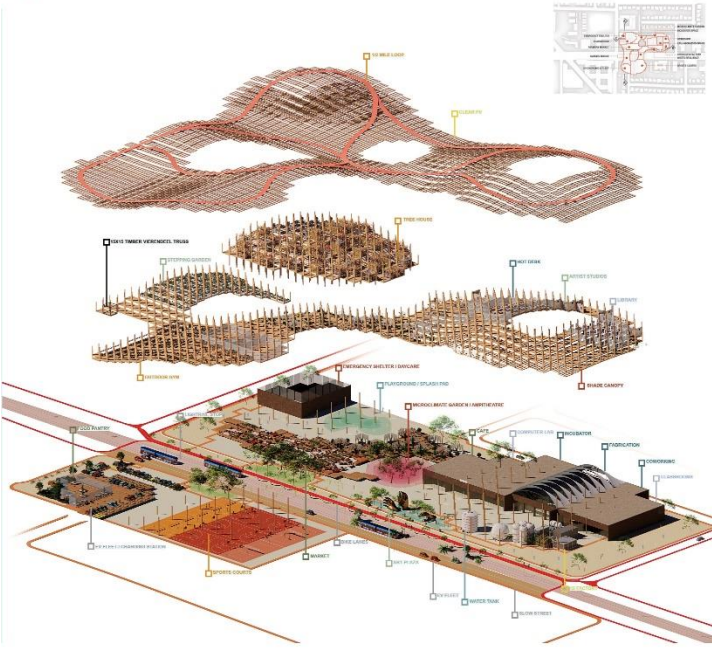
Completed in 2014 for inclusion in a district of the government, the concept of the Resilience Hub treated the site as a hub of social and cultural activities, offering a variety of uses. The goal was to create a vibrant and resilient community, offering a variety of uses. The goal was to create a vibrant and resilient community, offering a variety of uses. The goal was to create a vibrant and resilient community, offering a variety of uses.

The program for the Resilience Hub is to be a hub of social and cultural activities, offering a variety of uses. The goal was to create a vibrant and resilient community, offering a variety of uses. The goal was to create a vibrant and resilient community, offering a variety of uses. The goal was to create a vibrant and resilient community, offering a variety of uses.

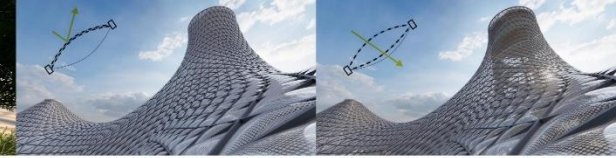


## RESILIENCE HUB

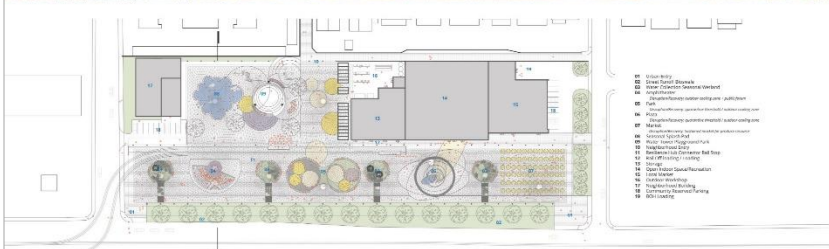
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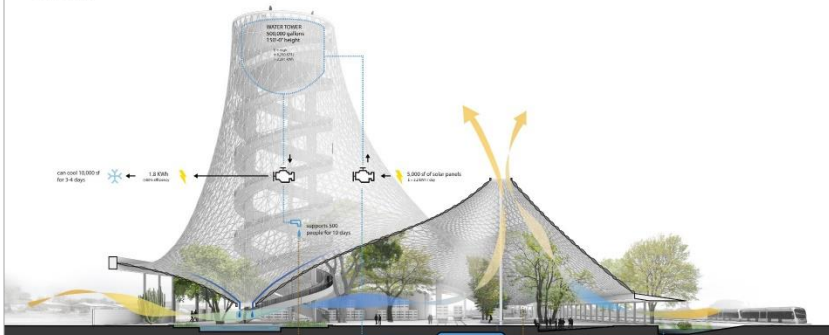
# Professional Winner



Kyle Fiano  
180 Degrees



SITE PLAN



SECTION A

## THE FABRIC

The proposed design for a modern hub seeks to transform a small plot into a large open space with a variety of public amenities. The existing building are preserved and connected to a new structure. The new structure is designed to connect the entire area as a space of connection for the future. These buildings are used to anchor, organize, define, and define public space through their form. The additional reduction of parking, a conceptual goal, is to give the local community more space to use the site and further build their sense of ownership of the fabric.

**Passive Heating, Solar Radiation**  
The design provides an elegant strategy that covers 10% of the structure's surface area to create a passive heating system. A diverse surface area from the entrance to the office and other regularly used areas is covered in solar panels. The panels are designed to be integrated into the building's facade, creating a seamless integration of solar energy.

**ETEC Concept**  
The concept is based on a series of interconnected ETEC (Energy Transfer and Exchange) units. Each unit is designed to be a self-contained system that can be used in a variety of ways. The units are designed to be interconnected, allowing for a flexible and dynamic system that can be used in a variety of ways. The units are designed to be interconnected, allowing for a flexible and dynamic system that can be used in a variety of ways.

**East Connection**  
In its essence, the site design is a connection to the adjacent city center. This connection is achieved through a series of interconnected units that are designed to be used in a variety of ways. The units are designed to be interconnected, allowing for a flexible and dynamic system that can be used in a variety of ways.

**Resilience Hub Strategy**  
The design is a resilient one, as it is designed to be used in a variety of ways. The units are designed to be interconnected, allowing for a flexible and dynamic system that can be used in a variety of ways. The units are designed to be interconnected, allowing for a flexible and dynamic system that can be used in a variety of ways.



EVERYDAY



DISRUPTION



RECOVERY

# Next Steps

How to use winning designs to continue to communicate CAP goals?

What do future competitions look like?





September 18, 2023

Dear Mayor and Council,

The Sustainability & Resilience Commission is writing in support of the adoption of the voluntary International Green Construction Code (IgCC), with the assurance of advancing towards a mandatory adoption in 2025.

Adopting a building code that reduces greenhouse gas emissions and supports urban cooling is an effective strategy to addressing climate change and preventing additional record-breaking temperature summers, like we experienced this year. The Commission has followed the development of the IgCC journey, spanning a couple of years and are grateful to the dedication of various city staff, consultants, stakeholder and the public. The adoption of green codes is outlined in the General Plan 2050 and received a remarkable amount of public support and encouragement.

The Commission strongly believes starting with a voluntary code and incrementally working towards a mandatory code will yield the greatest success in long term for Tempe. The City of Tempe has an opportunity to implement the voluntary IgCC in a way that educates across the relevant departments and work hand in hand with industry leaders while also building a culture of support for it with continued dialogue throughout the community. The approved Green Code Plans Reviewer position, housed in Community Development, should be dedicated to working with Planning, Building Safety, Engineering, Economic Development, and the Sustainability and Resilience Office to educate, promote, track and monitor the voluntary program. Tempe's success should not solely look at policies on the book, but consider the social and cultural shifts being made that will impact our built environment.

The Commission is honored to be serving a Council dedicated to being a model for integrating green codes. Adopting a resolution committing all new municipal building construction to use the IgCC will help showcase what is possible to the community and continue the refinement of a code that works uniquely for our city.

The development of the code language and approval of the voluntary IgCC is an amazing step for Tempe. This is the first step. The next step, implementation, has the power to set a trajectory for Tempe to see long term success in adopting a mandatory code and making an impact on Council's community carbon neutrality goal.

Sincerely,

**Sustainability and Resilience Commission**

Kendon Jung, *Chair*

Barbie Burke, *Vice Chair*

City of Tempe  
P.O. Box 5002  
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Tempe, AZ 85280  
480-350-8225