

PUBLIC MEETING AGENDA



Sustainability Commission

MEETING DATE

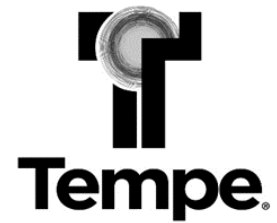
Monday, February 11, 2019
4:30 p.m.

MEETING LOCATION

Public Works Conference Room
31 E. 5th Street, City Hall, garden level
Tempe, Arizona

AGENDA ITEM	PRESENTER	ACTION or INFORMATION
1. Public Appearances 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 (4:30 – 4:35 pm)	Information
2. Approval of Meeting Minutes The Commission will be asked to review and approve meeting minutes from the January 14, 2019 meeting.	Kendon Jung, Commission Chair (4:35 – 4:40 pm)	Action
3. Chair Update Chair will provide updates.	Kendon Jung, Commission Chair (4:40 – 4:45 pm)	Information
4. Presentation by the City Clerk City Clerk will provide information on the Open Meeting Law related to Boards and Commissions.	Brigitta Kuiper, City Clerk (4:45 – 5:05 pm)	Information
5. Update on Climate Action Plan Staff will provide updates on the Climate Action Plan.	Braden Kay, Sustainability Director (5:05 – 5:20 pm)	Information
6. Update on Electric Vehicles (EVs) City Staff will provide updates on Fleet Electrification.	Kevin Devery, Fleet Manager, (5:20 – 5:35 pm)	Information
7. Update on Autonomous Vehicles (AVs) City Staff will provide updates on Autonomous Vehicles.	Braden Kay, Sustainability Director (5:35 – 5:50 pm)	Information
8. Update on Urban Core Master Plan City Staff will provide updates.	Braden Kay, Sustainability Director (5:50 – 6:05 pm)	Information
9. Climate Action Plan Prioritization Chair and Staff will provide updates on timelines for the Climate Action Plan.	Kendon Jung, Commission Chair, Braden Kay, Sustainability Director (6:05 – 6:15 pm)	Information
10. State of the Neighborhoods Sustainability Awards Staff will provide updates on the upcoming awards ceremony.	Braden Kay, Sustainability Director (6:15 – 6:20 pm)	Information
11. Housekeeping Items -Retreat	Kendon Jung, Commission Chair (6:20 – 6:25 pm)	Action
12. Future Agenda Items Commission may request future agenda items.	Kendon Jung, Commission Chair (6:25 – 6:30 pm)	Information

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.



Minutes City of Tempe Sustainability Commission January 14, 2019

Minutes of the Tempe Sustainability Commission meeting held on Monday, January 14, 2019, 4:30 p.m., at the Public Works Conference Room, City Hall, 31 E. 5th Street, Tempe, Arizona.

(MEMBERS) Present:

Kendon Jung (Chair)
Ryan Mores (Vice Chair)
John F. Kane
Arnim Wiek
Stephanie Milam-Edwards

Gretchen Reinhardt
Serita Sulzman
Barbie Burke
Steven Russell
Sukki Jahnke

(MEMBERS) Absent:

Reyna Olvey

City Staff Present:

Marilyn DeRosa, Deputy Public Works Director - Engineering
Grace DelMonte Kelly, Energy Management Coordinator
Amanda Nelson, Public Information Officer
Robert Yabes, Principal Planner
Vanessa Spartan, Transportation Planner

Guests Present:

Deron Lozano, Valley Metro
Lauren Withycombe-Keeler, ASU
Chloe Durfee-Sherman, ASU
Cliff Anderson, Citizen's Climate Lobby

Chair Jung called the meeting to order at 4:30 p.m.

Agenda Item 1 – Public Appearance

Chair Jung asked the guests to introduce themselves.

Agenda Item 2 – Approval of Meeting Minutes

Chair Jung introduced the minutes of the December 10th meeting. Vice Chair Mores made a motion to approve the minutes. Commissioner Burke Seconded.

Motion: Vice Chair Mores

Second: Commissioner Burke

Decision: Approved 10-0, all present approved

Voted to Approve:

Kendon Jung (Chair)

Ryan Mores (Vice Chair)

John F. Kane

Annim Wiek

Stephanie Milam-Edwards

Gretchen Reinhardt

Serita Sulzman

Barbie Burke

Steven Russell

Sukki Jahnke

All present approved

Agenda Item 3 – Introduction of New Commissioners

Chair Jung asked new commissioner members to introduce themselves. All new and existing commissioners introduced themselves.

Agenda Item 4 – Tempe Air Quality

Justin Bern the City's Environmental Services Program Supervisor introduced himself and said his Division is responsible for making sure the city complies with regulations in all air quality activities. He discussed:

- Tempe air quality activities
- Regulatory measures
- Organizational and structure – environmental compliance ensures the city meets federal, state requirements
- Oddvar Tveit, Environmental Quality Specialist, is responsible for environmental compliance
- Code enforcement also assists with compliance

Environmental programs include responsibility for required permits for city operations. We comply with county and county rules. We have generators that have emissions or can have dust from over seeding grass. PM 10 readings are in our reporting to ADEQ (Arizona Department of Environmental Quality) and Maricopa County Air Quality. We have a report that is part of a state implementation plan. We work with our partners at MAG (Maricopa Association of Governments) and Maricopa County to meet goals for air quality for PM 10.

We do inspections of city-run facilities. There are permits that are required and we make sure we are doing everything we said we will do for air quality issues and storm water issues. If we see something, we can report that.

Oddvar is a member and previous chair of the MAG Air Quality Technical Advisory Committee which coordinates information on permits for valley cities.

Justin talked about:

- City air quality involvement
- Particulate matter PM 2.5 includes fire smoke and vehicle emissions
- PM 10 – fugitive dust & over seeding, dust in a wind storm
- Focus on point control

He said they are permitted for generators at fire facilities and block dust control so that all city plans are covered. This is the basis for where we regulate.

We cooperate with Maricopa County very closely. We have a good relationship with Maricopa County:

- Clean Air Act is a Federal Directive
- Delegated to states
- In Arizona, like other states, authority is delegated to counties because everyone has a different challenge.
- Some counties are primarily farmland.
- Maricopa County regulates cities, gives us permits, regulates emissions from fire places, outdoor fire burning, etc.

Air quality monitoring is needed. There are ways to monitor it. Arizona has an air quality monitoring department to collect data and crunch it through planning. They enforce and work with cities on a regional level to make sure we are in compliance with health-based standards for people. By ADEQ an MAG, we adopt it through city ordinances to enforce on those activities covered by state implementation plan.

Open burning, with PM 2.5 is delegated to the county. They have enforcement and authority over PM 2.5. This is generators, gas resale and permits for small particulate matter. Fire places are regulated by the county. There is a burn permit. City goes to the county before the fire training center burns cars or wood for fire personnel training.

In summary, Environmental Compliance is indirectly enforcing ordinances such as storm water permits. We enforce and track out through our storm water permit, dust and dirt on road. We get good at coordinating compliance, we make sure we are operating within the law and the spirit of the law. We wanted to let you know we are here and that we are responding to calls. There is an interest in the commission to further reduce emissions. We want your input, so we can come back with a thoughtful response at future meetings.

Marilyn DeRosa said that there are a lot of issues that are inter-related. The commission uses their retreat to focus efforts for the coming year. Air quality is an issue that came before the commission and hasn't been prioritized yet. Marilyn said the commission can choose to use the retreat to further define it.

The commissioners discussed:

- Do we feel comfortable that the monitoring done by Maricopa County is adequate to cover the needs of Tempe? It seems there are not that many monitoring stations, but maybe there are more. It would be good to know where they are and how that impacts quality of data coming in.
- We don't do enough to educate the kids. It would be good to have this information for educators. ADEQ has a free program and gives PowerPoints, materials, flags, to develop a place so people know what the air quality is. They said a lot of schools don't do this. We have 23 elementary schools and 7 high schools and it would be good to get schools and businesses to fly the flags about poor air quality to get the word out to businesses and schools.
- Why do we monitor PM 10 and not monitor PM 2.5? What are the differences there? Depends on the regulations/requirements.

- We are interested in how the city is doing. Are we doing well? Are we being fined? What are we dealing with? What is the vision? What is good air quality? What are the challenges and what are the goals? How are we doing at achieving the goals?
- I looked at on line air quality monitoring stations. Could you provide that link to commission?
- Did you have a 5% better than compliance? Justin said it was a regional goal to reduce PM10.

Deputy Public Works Director – Engineering Marilyn DeRosa said we do not have an air quality unit that sets a vision and makes goals for air quality. We have a program that is responsible for regulations and what we need to comply with, and then we make sure that we comply with those rules. So one of the things the commission can discuss is if the commission prioritizes air qualities and you could make some recommendations to City Council. The city today does this. Vice Chair Jung said if there are additional questions, please email staff and let them know. Environmental Services Staff will come back to the commission at a future meeting and respond to the questions at that time.

5. Tempe Mesa Streetcar Feasibility Study

Deron Lozano of Valley Metro presented the Tempe Mesa Streetcar Feasibility Study:

- Overview
- Purpose
- Study area
- Evaluation criteria
- Process and timeline

Deron said the study began when they asked if it made sense to extend the existing street car line and where would it go? Mesa is interested in the connection to the Fiesta district, MCC(Maricopa County Community College) and Mesa Riverview. Both cities are funding this study.

We are looking at the feasibility of options and looking at next steps. Prop 400 regional sales tax expires in 2026 and so the next sales tax extension will be coming up. A streetcar is one car, it is smaller than light rail and operated shares lanes with cars. Stops are more frequent, like bus stops, they integrate with community.

Study area is just north of Rio Salado to Priest Drive to Country Club to Baseline Road. We want to use these arterials as a starting point.

We have identified key stakeholders including ASU and Novus Innovation corridor. The process is a two-tier process, a high-level process looking at ridership potential to identify where people live, where jobs are, and where activity is. One driving force is all the economic development a street car can connect to.

Tier 1 should be completed this spring. We'll do conceptual designs, engineering drawings, qualitative analysis to determine what kind of ridership we can expect. The second part is transportation network integrity, and how it would impact current traffic. Once we get buyoff on Tier 1 evaluation by summer of this year, Tier 2 will take place in fall. We will wrap up in 2020 and determine whether these corridors look feasible for streetcar.

Chandler is interested. Another area is Fiesta District alternative analysis, where Mesa is looking at other transit modes, extension of light rail, enhanced bus. Third study is the Arizona Avenue analysis, a study begun led by Chandler. Their intent is to connect a corridor to connect their downtown and air park to other transit routes.

We have a website and quarterly updates on the website valleymetro.org. Once we finish studies, it will be up to Mesa and Tempe, if Tempe would like to advance street car.

Commissioners asked:

- How can we help get the city excited? It is also a build-off of the air quality issues. How do we help this project along? Deron responded we have worked it out so that we are starting with this study and it will feed into the next studies we are coordinating.
- Students will be a lot of your ridership, getting them excited and asking a sustainability class to take the map, with the studies being completed at different times, would that affect the other studies? If the Fiesta District comes up with buses, how does that impact Tempe's streetcar feasibility study?
- Is it a pre-requisite that streetcar connects to light rail or can it be an independent system? Deron said it could be an independent system.
- What kind of feedback does public have as to where the lines will be? Deron said we're not doing a public survey for just streetcar. There are opportunities for feedback.
- Does the urban core master plan plug into this? Amanda Nelson said yes, the urban core master plan has elements of TOD for Street care and affordable housing. Vanessa Spartan said we have been looking at studies to consider high capacity transit investment. This study will get into a lot more detail than urban core plan.

Commissioners said:

- There is a part of the Tempe Chamber that thinks it would be great to have a connection for South Tempe.
- South Mesa is Gilbert. South Tempe is closer to Chandler and part of making that happen is a partnership with Chandler.
- This is an extension proposal, so this makes the future conversation with Chandler more plausible.

Chair Jung thanked Valley Metro staff and city staff for the presentation and for their time.

Agenda Item 6 – 20-Minute City

Transportation Planner Vanessa Spartan introduced herself and Principal Planner Robert Yabes. The general plan identified the concept of the 20-minute city, that a person could bike, walk or bus within 20 minutes. This will help with air quality and public health issues.

At a high level, we did a transit survey to ask people why they do or don't take transit. We've been doing this in consultation with the public forums related to the climate action plan. There were 24 attendees at public forum. We had an expert forum with MAG, adjacent cities and ASU. We had online public comment forum. We've received comments.

Out of this, one survey was related to intersection safety as intersections are the most detrimental.

Our objectives are to:

- Make intersections safer for bikes/peds to use
- Improve bike facilities – more time efficient, more convenient
- Better accessibility of daily necessity destinations

We conducted an annual transit survey.

51% say they prefer car because:

- Bus stop too far away
- Takes too long
- Doesn't go where I need it to go
- Time / convenience

The reason many are not riding a bike:

- Too hot
- My health
- Distance too far
- Have little kids
- Have a car
- Time/too busy
- Lazy

Through the public forum, we asked 4 questions:

- What is your preferred mode of transportation?
- Where do people want to go?
- Why don't you walk, bike, take transit more often?
- What investments can we do that will get you out of your car more often?

What is preferred mode? Primary 42% drive alone. Secondary mode was carpool, drive, bike and walk. Places that scored high was grocery stores.

We asked what investments would get you out of your car?

- Enhanced bike facilities (top score)
- Roadway reconfiguring
- Enhanced pedestrian realm
- First/last mile program
- Reliable info

Why don't you walk, bike, take transit or carpool more often?

- Travel time (top score)
- Proximity
- Convenience
- Safety
- stress levels
- access

We asked for open-ended comments. 8% thought there would be negative impacts on car traffic. Young families and seniors said safe and accessible biking, parking, signage. People talked about smaller EVs like e-bikes and scooters. Increased frequency and light rail lines will help. We looked at reconfiguring roadway space. The other was how to distribute roadway demand.

The commission asked and commented as follows:

- What is your method for data gathering? Vanessa said public meetings and on line forums. We have demographic questions and they are optional. 50 responses is decent, but we are getting a baseline assessment, we are trying to establish a baseline.
- A lot of young people don't have cars, they are going to be biggest users, making sure they are included. Vanessa said they are working with faculty and students at the School of Urban Geography and Planning on a studio that will conduct a baseline analysis to determine how many areas are connected by 20 minutes, and how we are going to prioritize them moving forward.
- What may be helpful at University Sustainable Practices is to examine results, and do data analysis, we could get you that data.
- The state does trip reduction survey, you may be interested in how students get to school. With the trip reduction survey, they are supposed to hit a target based on size and populations. We're trying to localize these requirements.
- How about people over 50? Did you find any info to see if they would be willing to try different modes? Vanessa said it would be great to get people to choose other things. It helps us to get the word out, the carpool/vanpool is some of our highest use, we know that through our transit survey. Biggest thing requested is grocery store.

Vanessa said they will come back to the commission in May. The baseline assessment will help us to do 2 things: prioritize transportation and tell us this area needs a grocery store, can encourage it thru economic development, character area plans, to have a better understanding of where we may be deficient.

Chair Jung thanked Vanessa and Robert for the presentation.

Agenda Item 7 – New Commissioner Orientation

Chair Jung presented to the commission and said we were charged to advise council on sustainability in 15 areas. We are trying to loop these things together to strengthen the outcomes. How do we educate outside to the broader community?

The mission and purpose of the Sustainability Commission is to provide leadership, education and guidance.

Think about these and think about how to build it into a culture. He discussed:

- 2017 strategic priorities and accomplishments
- Priority 1 water
- Priority 2 construction and infrastructure
- Priority 3 ; innovation fund projects with local first and green business

Commissions are a transparent way in which the city works with the public. There are 27 boards with over 250 residents, a lot of passionate people thank you for the item you dedicate

Powers and duties:

1. Acting in advisory capacity to the city
2. Put forward recommendations that makes sense for the duties we are charged
3. Annual process to elect chair and vice chair
4. Attendance – not missing more than 3 consecutive or 6 total meetings
5. Consult on items on the agenda of the meetings
6. Review and approve meeting minutes

7. Authority to create subcommittees. No more than 3 can sit on subcommittee, an example is the water rates study, we evaluated water rates structure and came to commission on how to move forward. No more than 2 active subcommittees per year. If this is a route we want to go, we need to consider that this

Open meeting laws – No more than 3 commissioners can meet and talk about commission work. To protect the public, want to maintain transparency. That includes on line document sharing, to access documents. Send me and staff email and we will try to disseminate the info.

Terms – Each commissioner has a slot to represent the community, business, students, subject matter experts. Our charge is to research advise and recommend to council policies and programs that advance sustainability in Tempe.

Our challenge is how to capture the ideas and keep on time.

You received an email from Grace late last week about our agenda and what we'll be working on the next several months. There may be pre-work before meetings, so you can bring comments/questions.

Ryan and I will be putting together a packet of information for new commissioners.

Commissioners said:

- There is so much information each month. I would like to have more conversation about what we want to get out of these presentations, we can always ask interesting questions.
- Let's discuss the retreat
- For those of you that have been to retreats before, this could be an opportunity to get into meat and potatoes of a project we are working on. Using retreat as a working session looking at climate action plan, referencing our calendar of meetings, how does transit and energy and extreme heat fit in?

Marilyn said there are so many programs going on in the city, community development, urban forest, water, transit, there is an opportunity with the climate action plan. There is an opportunity now, the first one the city's doing, I like the idea of commission focusing on climate action plan more specifically than the way we've been addressing other issues. You don't have time to make recommendations that are fully betted. You have to rely a lot on staff. Because this opportunity exists, once the Climate Action Plan is passed, you owe it to yourself to discuss what these things are. In two hours a month, it's hard to get to a place where everyone is comfortable with where we are.

Commissioners said:

- Maybe it would be a good idea where each person shares thoughts about what they want to commission to do.
- It would be good to dedicate to the retreat.
- At the first retreat, we created presentations of 5 minutes each. I would like to go further into the Climate Action Plan, but I would like to talk about who we are and what we are interested in.
- Marilyn said transportation has a lot of information, but in your area, you are creating that work, so you can take in almost any direction you want. There will be 11 different desires, she doesn't want anyone to feel their work is not important.
- We can work on climate action plan and then, later work on retreat. If I have an expert telling me about the 20-minute city, for 17 minutes, this is not a useful of my time.
- We could review the slides and pre-prepare questions then, review material again after it's presented and draft questions to send to experts.
- That would speak to giving our questions on 20-minute city to Grace to give to staff.
- Marilyn said part of the problem is these are things they have been working on for 3 years, mostly programs, you can use them when you're framing your ideas to how to frame the topic.

- Is there a way to get a list of programs and what they are working on?
- I got a lot out of the presentations, I think the bigger issue that those of us that have been on commission for a while, that half of us have learned, how do we create a database of all of the information we've discussed, viewed, learned over the years?
- City staff can coordinate to get the information to help you advance the agenda.
- Our role in the community is individuals with insight, to be a catalyst for a healthy community –I'd like to talk about how well we are doing at that, better informing the way the city does it. How do we share documents and how we engage on these specific topics? How do we use things the city is already doing, reach into communities?
- City council members hold forums – they got back to people.
- We have had joint meetings.
- Do we know best practices of other sustainability commissions? There is a sustainability director network they may be able to share.

The retreat will be an extended meeting. Chair Jung said we'll have staff send an email to ask when you are available for the retreat.

Agenda Item 8 – Future Agenda Items

Commissioner Reinhardt requested information from Maricopa County Air quality Collation.
Commissioner Burke said water is an important issue, would like to discuss it.

A motion was made to adjourn.
All approved 10 – 0

Motion: Commissioner Kane
Second: Commissioner Mores
Decision: Approved

Kendon Jung (Chair)
Ryan Mores (Vice Chair)
John F. Kane
Arnim Wiek
Stephanie Milam-Edwards
Gretchen Reinhardt
Serita Sulzman
Barbie Burke
Steven Russell
Sukki Jahnke

The meeting was adjourned at 6:35 pm.

Prepared by: Grace DelMonte Kelly
Reviewed by: Marilyn DeRosa

Implementing Sustainability and Resilience in Tempe, Arizona

Dr. Braden Kay
Sustainability Director

January 24, 2019



Sustainable Tempe

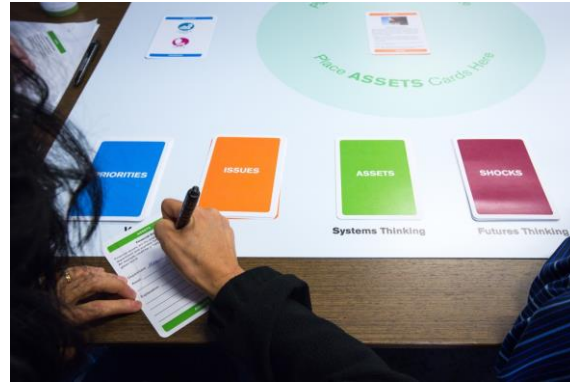


Existing Program

Sustainability Commission

Sustainability Manager

City Resilience and Future Shocks



Senior Management workshop

Sustainability ways of thinking and pre-work to build a shared language

School for the Future of Innovation and Society and the School of Sustainability at Arizona State University



- Can we embrace more ambitious sustainability and resilience goals?

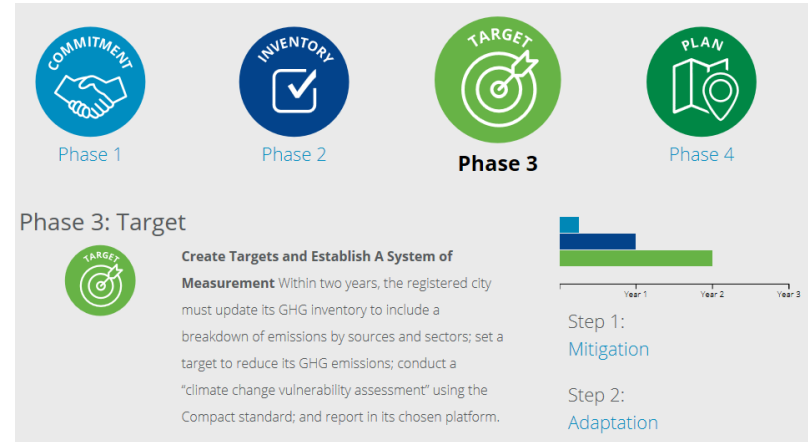


- How can we start to move towards those ambitious goals with investments and actions today?

Looking Forward: Process



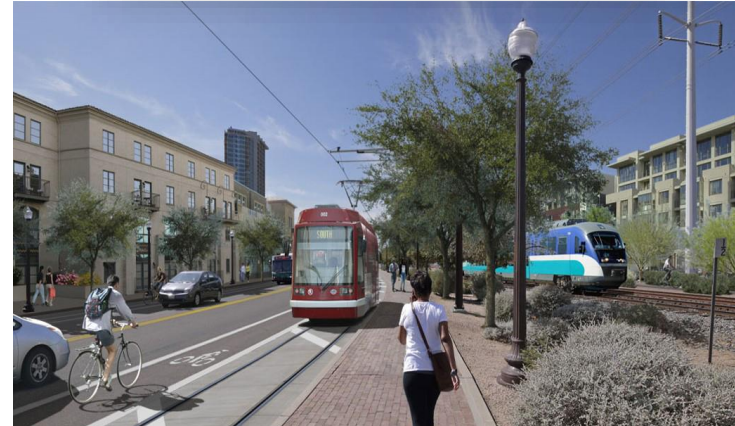
- Climate Action Plan
- Strategic Management Planning Process
- Capital Improvement Plan Budget
- Design, Codes and Standards
- Financing



Looking Forward: Investments



- Utility-scale solar
- Electric fleet
- Urban Core Master Plan
- Water Infrastructure
- Urban Forestry Master Plan
- Tempe Streetcar



Action Plan



As part of the City's Commitment with the Global Covenant of Mayors:

1. Letter of Intent from Mayor and Council
2. Complete a greenhouse gas emissions inventory
3. Will set a target to reduce GHG emissions
4. Develop Climate Action Plan on how Tempe will reduce GHG emissions

Community GHG Emissions Inventory completed

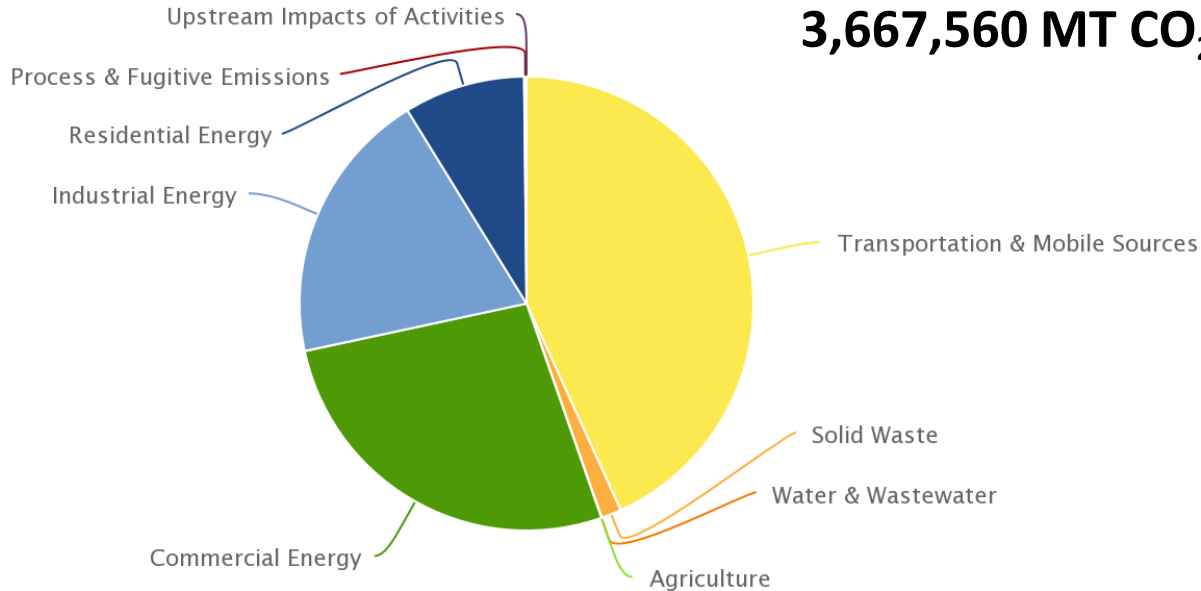
- If you can't measure it you can't manage it
- Sets a baseline to set reduction targets
- Identifies major sources of emissions
- Measures effectiveness of programs over time



Tempe's Community Greenhouse Gas Inventory

CO₂e across all categories for current inventory

Total Emissions:
3,667,560 MT CO₂e



What Does a “Climate Action Plan” look like in Tempe?

- New **goal** for carbon reduction
- New **goal** for resilience to extreme heat
- Menu of **potential investments** (Including projects in current CIP, and projects to put in year 5 before next bond authorization)
- Develop **community support, and data** to support actions and investments (Partnership with ASU)

What Areas Does a Climate Plan Address?

- Emissions reduction
 - Energy (Efficiency and renewables)
 - Transportation (Including city fleet and transit)
 - Water
 - Waste
 - Food
- Resilience
 - Extreme heat (Prevention and emergency response)



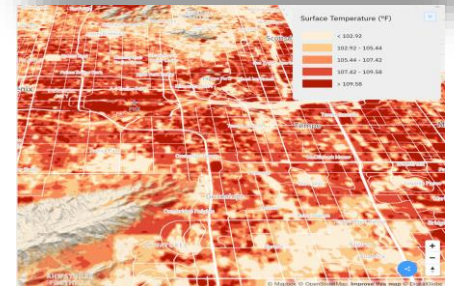
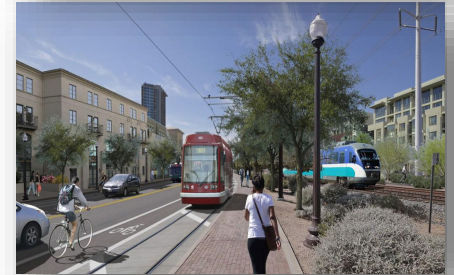
What Areas Does our Climate Plan Address?

● Emissions reduction

- Energy
 - Business engagement
 - Renewables
 - Energy efficiency financing
- Transportation
 - 20 minute city (Demand response, transit and roadway configuration)
 - Electric vehicles
 - Autonomous vehicles

● Resilience

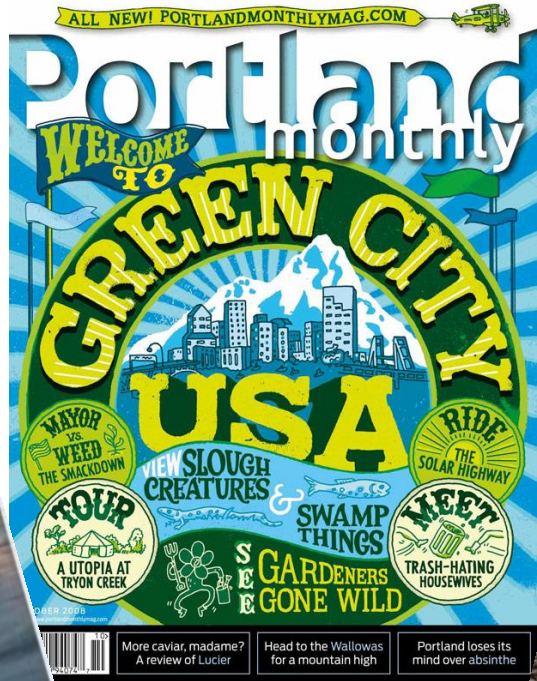
- Extreme heat
 - Emergency response
 - Building and landscape code
 - Urban forestry
- Drought
- Air Quality





Local Climate Action:

Portland's plan for an equitable,
prosperous, healthy way forward



1970's Portland = 180 Air Quality Violations





REAL PROGRESS



REAL PROGRESS

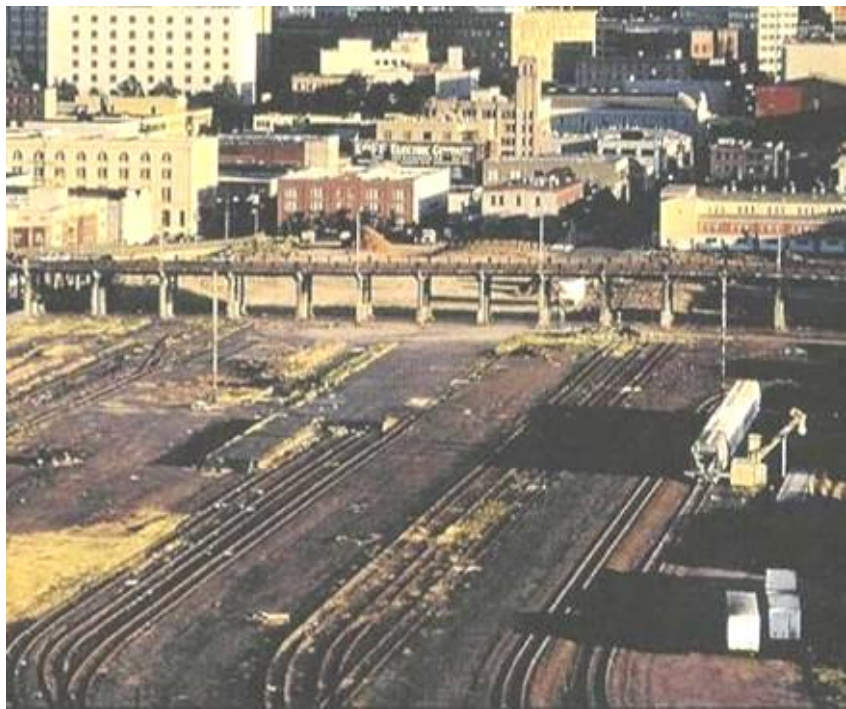


Harbor Drive

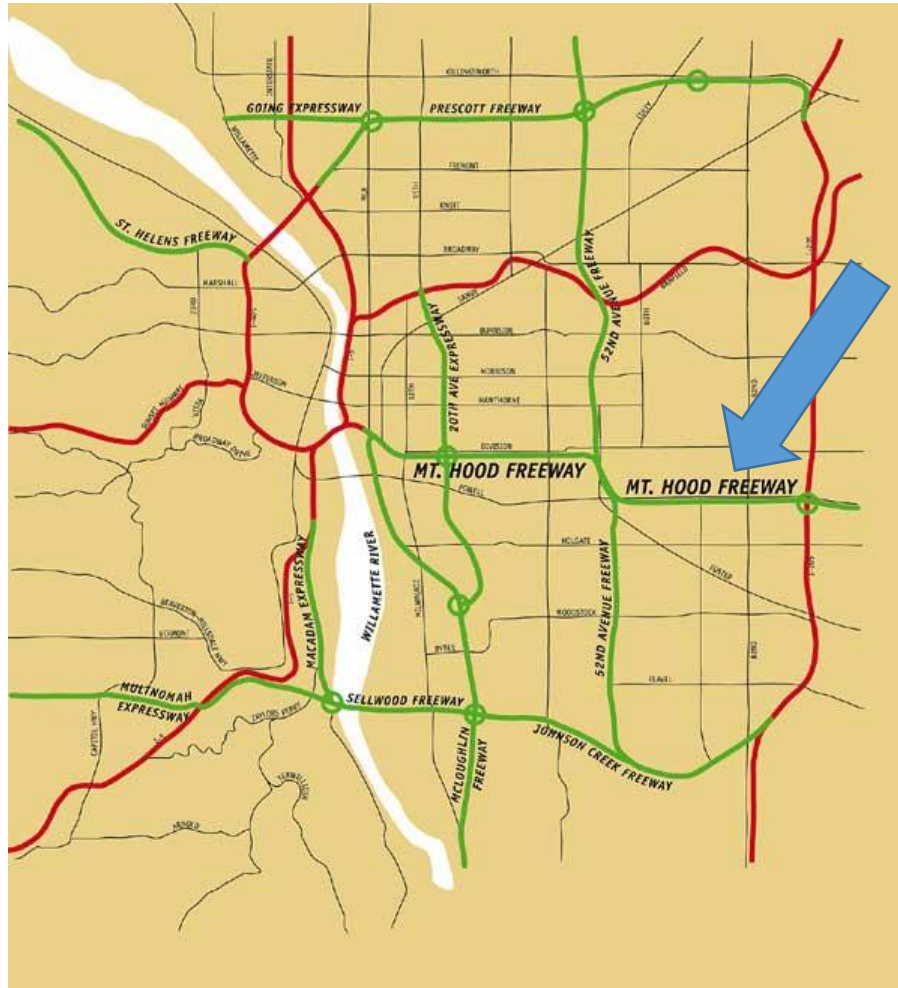


Waterfront Park

REAL PROGRESS



Pearl District



REAL PROGRESS



Mt. Hood Freeway "ghost ramp"



Car-Free Crossing of the Willamette



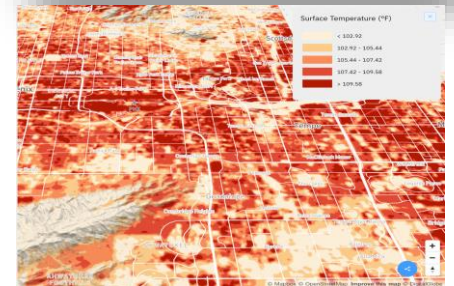
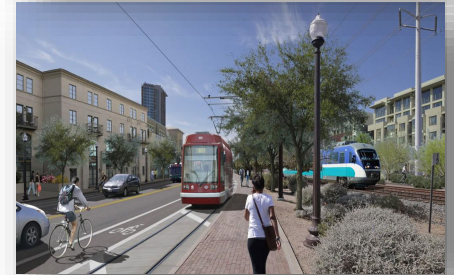
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● Resilience

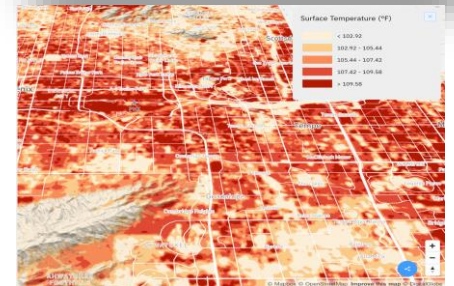
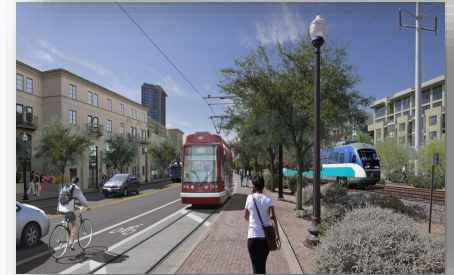
- Extreme heat
 - Emergency response
 - Building and landscape code
 - Urban forestry
- Drought
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What Areas Does our Climate Plan Address?

Transportation

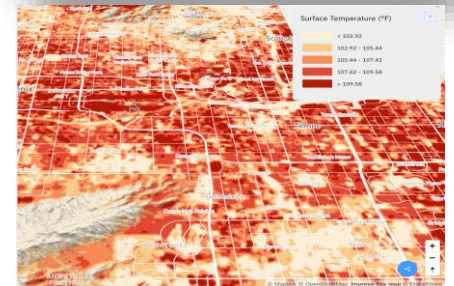
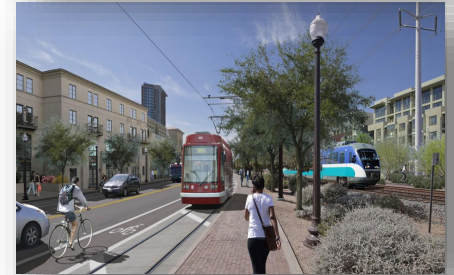
- 20 minute city (Demand response, transit and roadway configuration)
- Electric vehicles
- Autonomous vehicles



Potential Transportation Actions

Transportation

- 20 minute city
 - Trip reduction in TOD code
 - Lane configuration
 - Streetcar extension
 - Additional high capacity transit
- Electric vehicles
 - Accelerated purchasing of Evs
 - EV charging infrastructure
- Autonomous vehicles
 - Readiness guide
 - Pilot projects



Moving Forward with Electrification

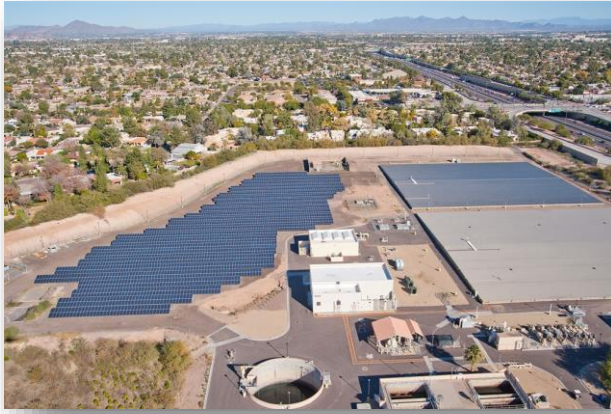
Sustainability Commission

February 11, 2019



Tempe

Making waves in the desert



Phase 1



Phase 2



Phase 3



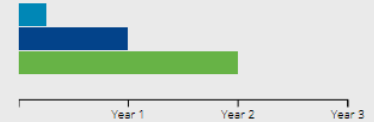
Phase 4

Phase 3: Target



Create Targets and Establish A System of

Measurement Within two years, the registered city must update its GHG inventory to include a breakdown of emissions by sources and sectors; set a target to reduce its GHG emissions; conduct a "climate change vulnerability assessment" using the Compact standard; and report in its chosen platform.



Step 1:
Mitigation

Step 2:
Adaptation



● Building a city with diverse transportation options:

- Streetcar & light rail
- Bike infrastructure & walkable streets
- Expanded bus service
- Transit fleet
- City fleet diversification





Advantages

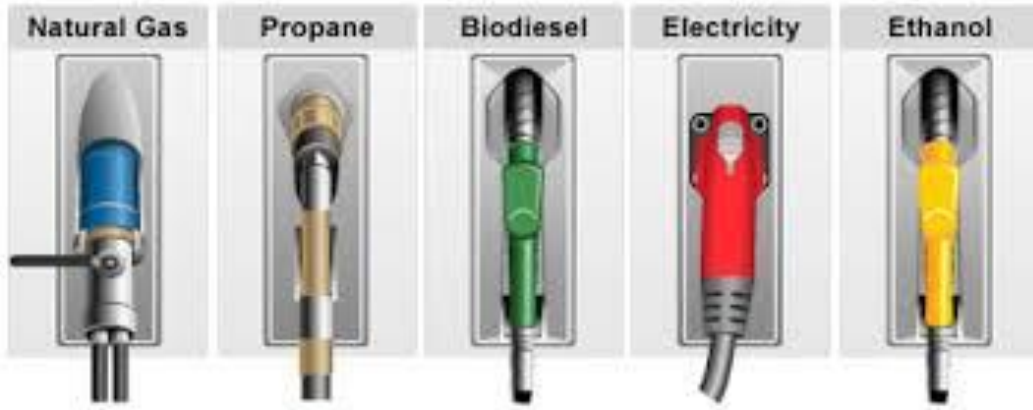
- Readily available
- High level of acceptance by manufacturers
- High knowledge level of repair technicians

Disadvantages

- Unstable cost from outside influences
- High emission levels






Fleet – Alternative fuels





Benefits

-  Financial – PEVs 60%, Alt fuels 30%.
-  Environmental – zero emission for electric and 40% reduction for alt fuels
-  Social – Leadership, customer service and stewardship

Challenges of Alt Fuels

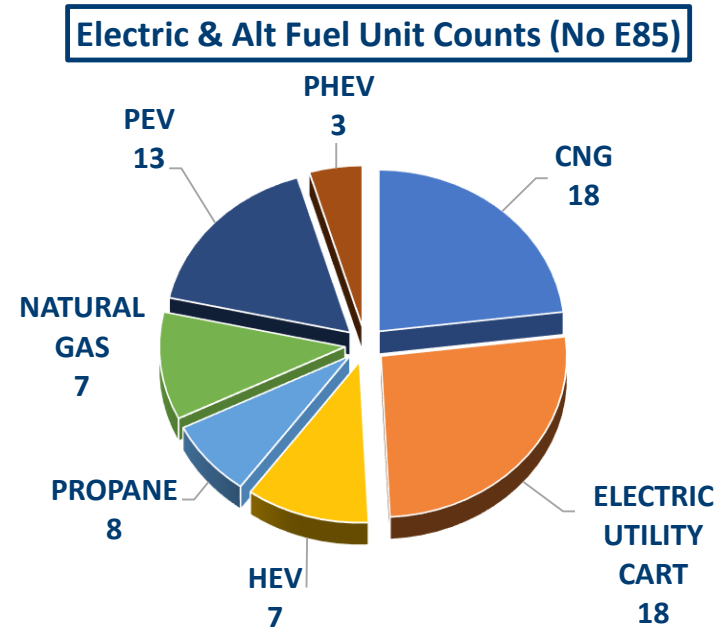
-  Special building requirements for maintenance of units
-  Infrastructure
-  Training

Fleet – Alternative fuels



● Current Fleet: 5% Electric - 40% Alt Fuel (of a total of 990 units with engines)

Unit Type	Unit count	% of fleet
Plug in Electric Vehicle - PEV	13	1.31%
Plug in Hybrid Electric Vehicle - PHEV	5	0.51%
Hybrid Electric Vehicle - HEV	7	0.71%
Compressed Natural Gas - CNG	18	1.82%
Propane	8	0.81%
Electric Utility Carts	18	1.82%
Natural Gas	7	0.71%
Ethanol (E-85)	378	38.18%
TOTAL	25	45.9%





Fleet – Electric Vehicles

- **Sustainability Objective:** Reduce emissions, fuel and maintenance costs by reducing use of petroleum

- **Initial success for automotive EV deployment**

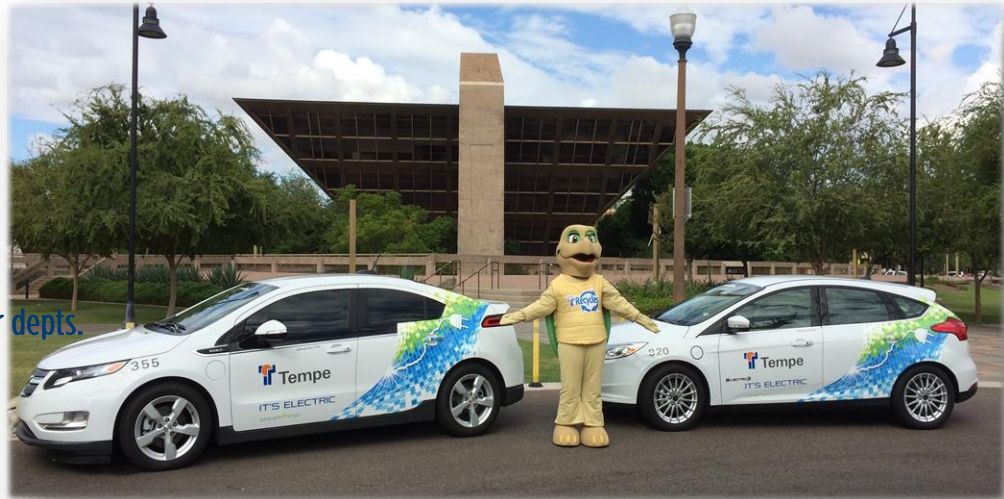
- From 0 to 2% in 2 years
- 13 Plug-in Electric Vehicles (PEVs)
- 3 Plug-in Hybrid Electric Vehicles (PHEVs)
- 20 charging stations (6 more in construction)

- **Collaboration**

- Operating budgets and collaboration with customer **depts.**
- WUD, Solid Waste Section, PD, Facilities
- Power Utilities - SRP & APS

- **Challenges**

- Charging station infrastructure
- Training: operators and technicians
- Initial higher Capital cost



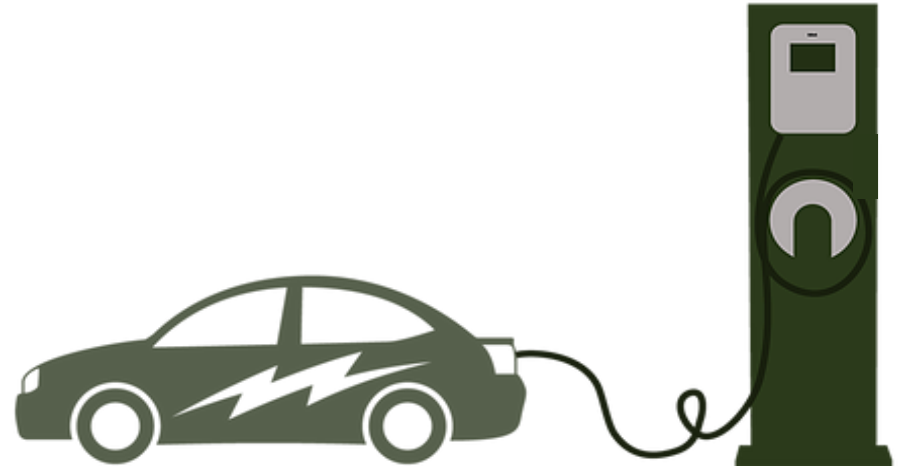


Alt fuel/Electric internal goal

- 2020 - 65% Alt fuel or Electric
- 2025 - 80% of the fleet Alt fuel or electric

Opportunities

- Council adoption of Fleet diversification goal
- Planning study
- Funding for levels of implementation
 - 5 stages through 2025
 - Potential future power utility partnerships





Taking climate action with our fleet investments

Policy: Encourage departments in embracing electric vehicles and alternative fuels

Measurement: Create Council performance measure for Fleet fuel diversity

Strategy: Add details to diversification and electrification roadmap

Investments: Identify critical infrastructure investments (within CIP and Budget supplementals) to transform Tempe into the cleanest municipal fleet in Arizona

Questions?



Tempe

Making waves in the desert

Autonomous Vehicles in Tempe

Opportunities and Risks for Tempe's Self-Driving Future



ASU Center for Smart
Cities and Regions
Arizona State University

Thaddeus Miller, PhD
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Braden Kay, PhD
Braden_kay@tempe.gov

Outline

- **Background and Goals**
- **AVs and the Role of Cities**
- **Opportunities and Risks**
- **Recommendations and Next Steps**

Goals for Report

- **Understand the role of AVs in Tempe**
- **Identify opportunities and risks**
- **Identify potential investments**
- **Identify potential policies and pilot projects**
- **Provide Mayor and Council with clear next steps**

Tempe Performance Measures

This report ensures that Tempe examines the incorporation of AVs into our city in a manner that supports and enhances the city. Specific attention is paid to how AVs can support the following Mayor and Council-adopted performance measures:

1.08 – High Severity Traffic Crashes: Achieve a reduction in the number of fatal and serious injury crashes to zero.

3.13 – Disability Social Inclusion: Achieve a score of 100 on the self-assessment tool for “Disability Social Inclusion” in accordance with the Tempe Disability Inclusion Plan (T-DIP) and the National Council on Disability.

3.26 – 20 Minute City: Achieve a multimodal transportation system (20-minute city) where residents can walk, bicycle, or use public transit to meet all basic daily, non-work needs.

3.27 – Traffic Delay Reduction: Achieve travel times at or below XX minutes per mile during during rush-hour periods along major streets (arterial corridors).

3.29 – Transportation System: Achieve ratings of “Very Satisfied” or “Satisfied” with the “Overall Satisfaction with Transit System in Tempe” greater than or equal to 80% as measured by the City of Tempe Transit Survey.

4.19 – Carbon Neutrality: Achieve the City Council goal of carbon neutrality in municipal operation by 2050 with a strategy of 100% renewable energy by 2035.

National League of Cities

NLC's Policy Preparation Guide for Autonomous Vehicles recommends:

- 1 – Planning:** AVs are on our roads today so start planning now.
- 2 – Partnership:** Policy development with the right people at the table. Include Public Safety, IT, Procurement, and Community Development.
- 3 – Policy:** Track and monitor state and federal developments and make our voices heard.
- 4 – Infrastructure and Data:** Begin planning infrastructure needs and building data and computing capacity to position your city to take advantage of an automated mobility future.



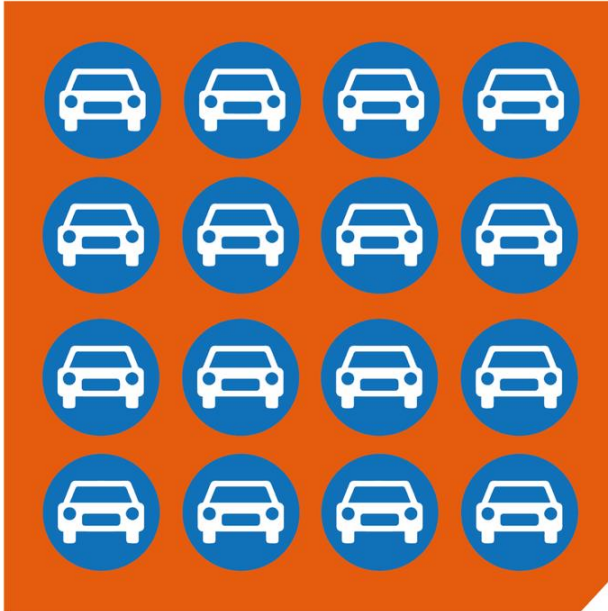
How can the City of Tempe leverage its position as an innovator to advance opportunities presented by autonomous vehicles?

How can the City of Tempe work with industry, researchers and communities to use AVs to meet local needs and advance strategic values and priorities?

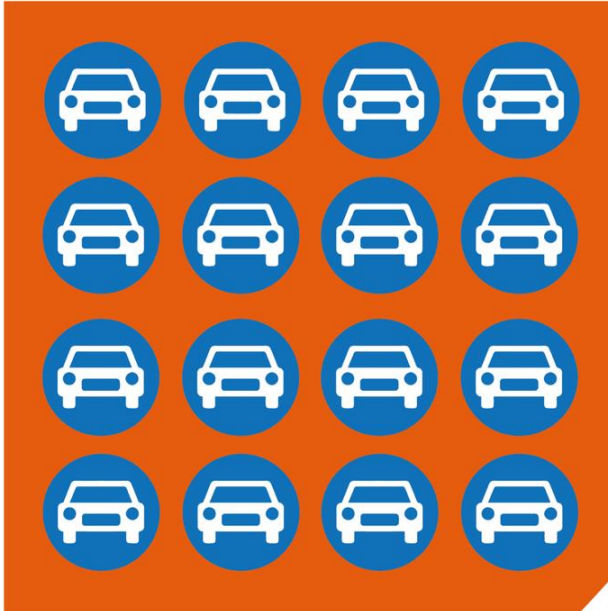
Core Challenges

- **AVs are not a standalone congestion fix**
- **AVs pose equity and access challenges**
- **AVs may threaten investments in transit**

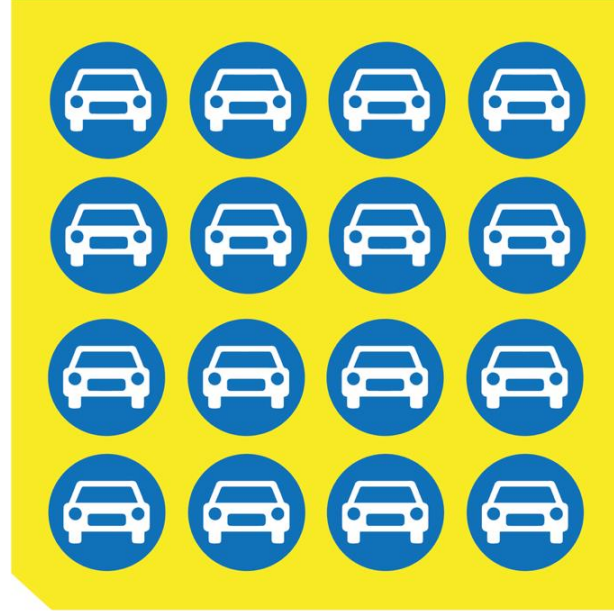
Life with cars.



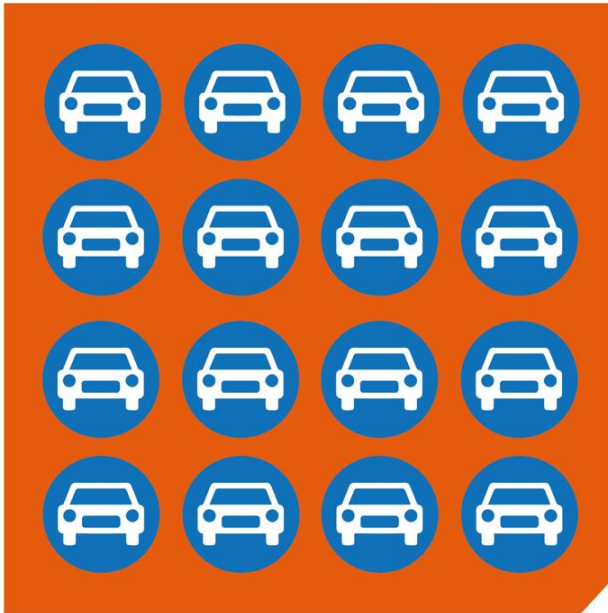
Life with cars.



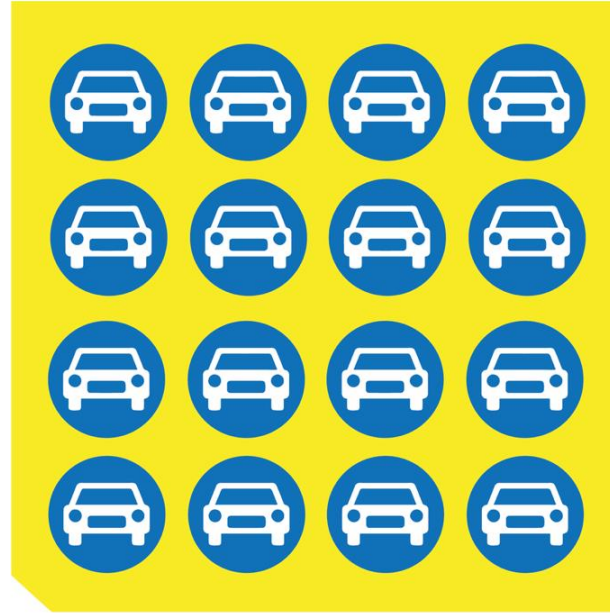
Life with electric cars.



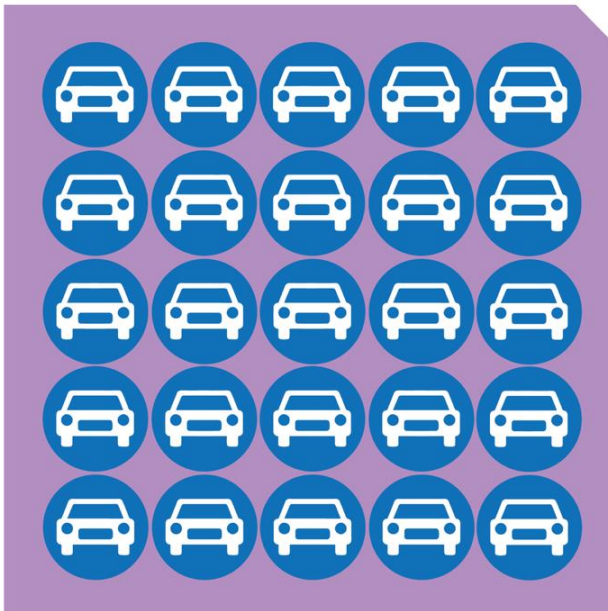
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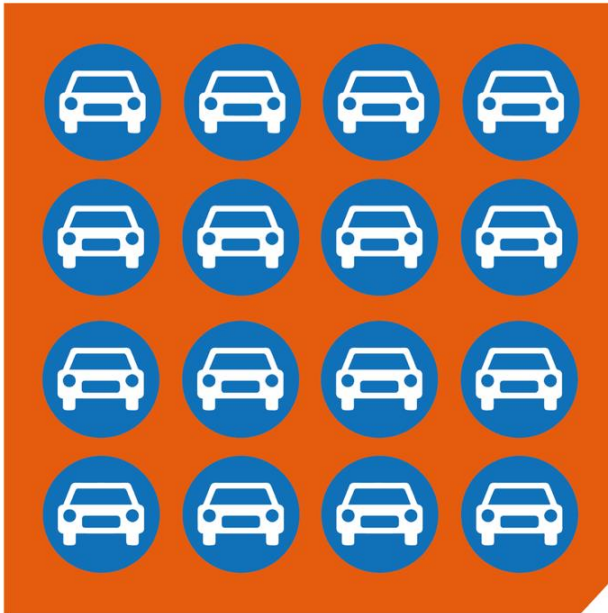
Life with electric cars.



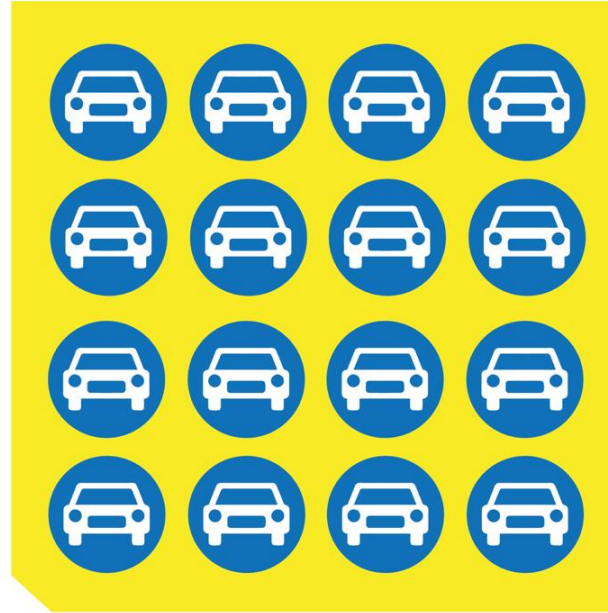
Life with autonomous cars.



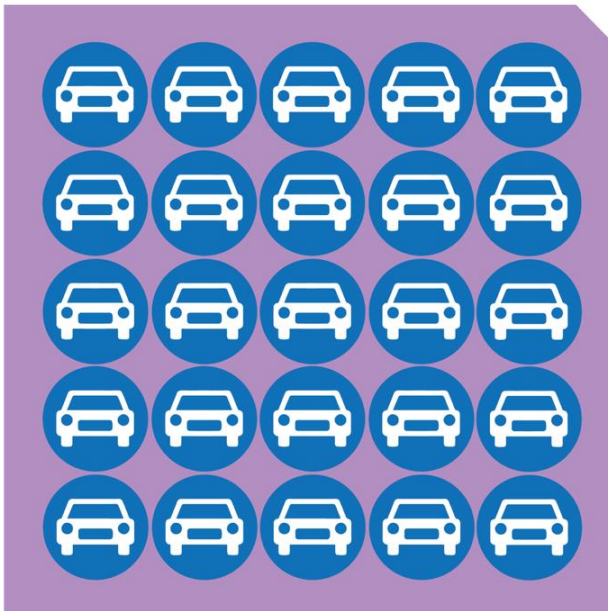
Life with cars.



Life with electric cars.



Life with autonomous cars.



Life in a modern city.



AV Initiatives in US Cities



Opportunities and Risks in Tempe



- **Traffic Safety**
- **Emergency Response**
- **Cybersecurity**
- **Liability and Public Safety**

Opportunities and Risks in Tempe



- Traffic Safety
- Emergency Response
- Cybersecurity
- Liability and Public Safety



- **AV Governance**
- **Data Governance and Sharing**
- **Public transportation**

Opportunities and Risks in Tempe



- Traffic Safety
- Emergency Response
- Cybersecurity
- Liability and Public Safety



- AV Governance
- Data Governance and Sharing
- Public transportation



- **Revenue Impact**
- **Infrastructure Needs**
- **Labor Market Impact**

Opportunities and Risks in Tempe



- Traffic Safety
- Emergency Response
- Cybersecurity
- Liability and Public Safety
- **Accessibility**
- **Equity**
- **20-minute neighborhood**
- **Congestion**
- **Public Perception**



- AV Governance
- Data Governance and Sharing
- Public transportation



- Revenue Impact
- Infrastructure Needs
- Labor Market Impact

Opportunities and Risks in Tempe



- Traffic Safety
- Emergency Response
- Cybersecurity
- Liability and Public Safety



- AV Governance
- Data Governance and Sharing
- Public transportation



- Revenue Impact
- Infrastructure Needs
- Labor Market Impact

- Accessibility
- Equity
- 20-minute neighborhood
- Congestion
- Public Perception



- **Emissions and Climate Impact**
- **Compact Urban Development**



Recommendations: Partnerships



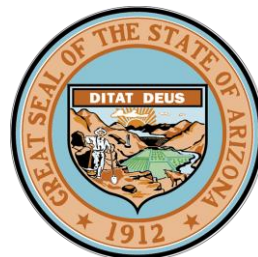
Recommendations: Partnerships



Recommendations: Partnerships



Recommendations: Partnerships



Recommendations: Smart Mobility Playbook

- **Equity and access**
- **Public safety**
- **Infrastructure, zoning, and land use**
- **Data governance and sharing**
- **Learning**

Recommendations: Pilot projects

- **Support and enhance public transportation**
- **Reduce single occupancy vehicles**
- **Equity and access**
- **Community engagement**



Next Steps

- **Supplemental Budget Request to Create Smart Mobility Playbook**
- **Support partnerships and pilot projects**
- **Continue progress and investments in transportation**
- **Advocate for smart mobility at regional and state-levels**
- **Continue to follow NLC recommendations**

Thank you. Questions?

Thaddeus Miller

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Acknowledgements

TISC members; FIS 480 students; Dr. Lauren Keeler; Public and expert participants in Future of Transportation forums; Transportation and Sustainability Commissions.



Urban Core Master Plan, Transportation Overlay District (TOD) and Affordable Housing Strategy

Project Briefing

February, 2019

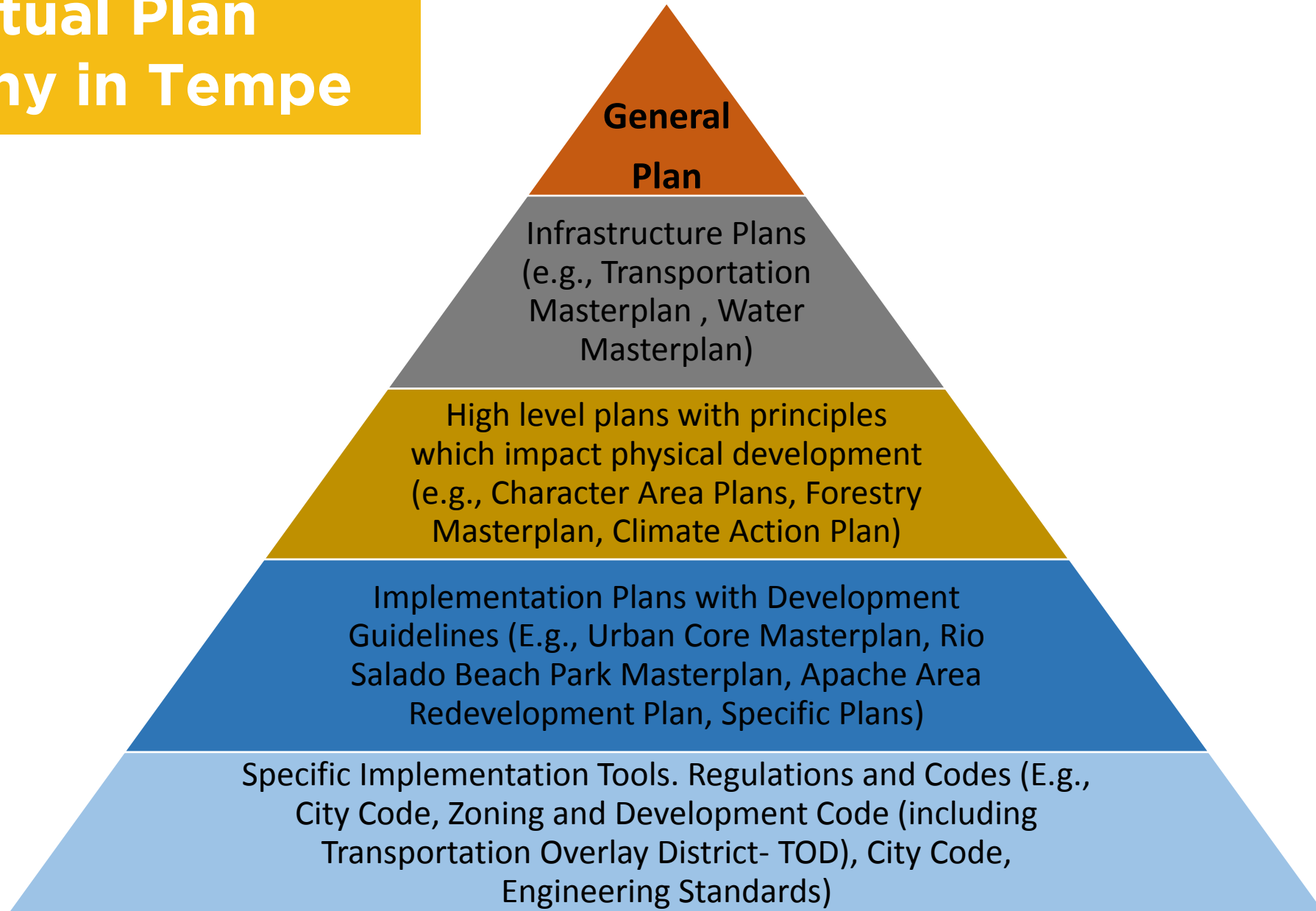


Contents



- Urban Core: 6.15 Sq. Miles area (202, 101, Rail Rd. line, Hardy)
- Transportation Overlay District (TOD) Update
- Urban Core Master Plan (UCMP), Heights and Design Guidelines
- Intro to Affordable Housing Strategy (AHS)
- Providing Incentives for
 - Historic Preservation,
 - Affordable Housing and
 - Sustainability

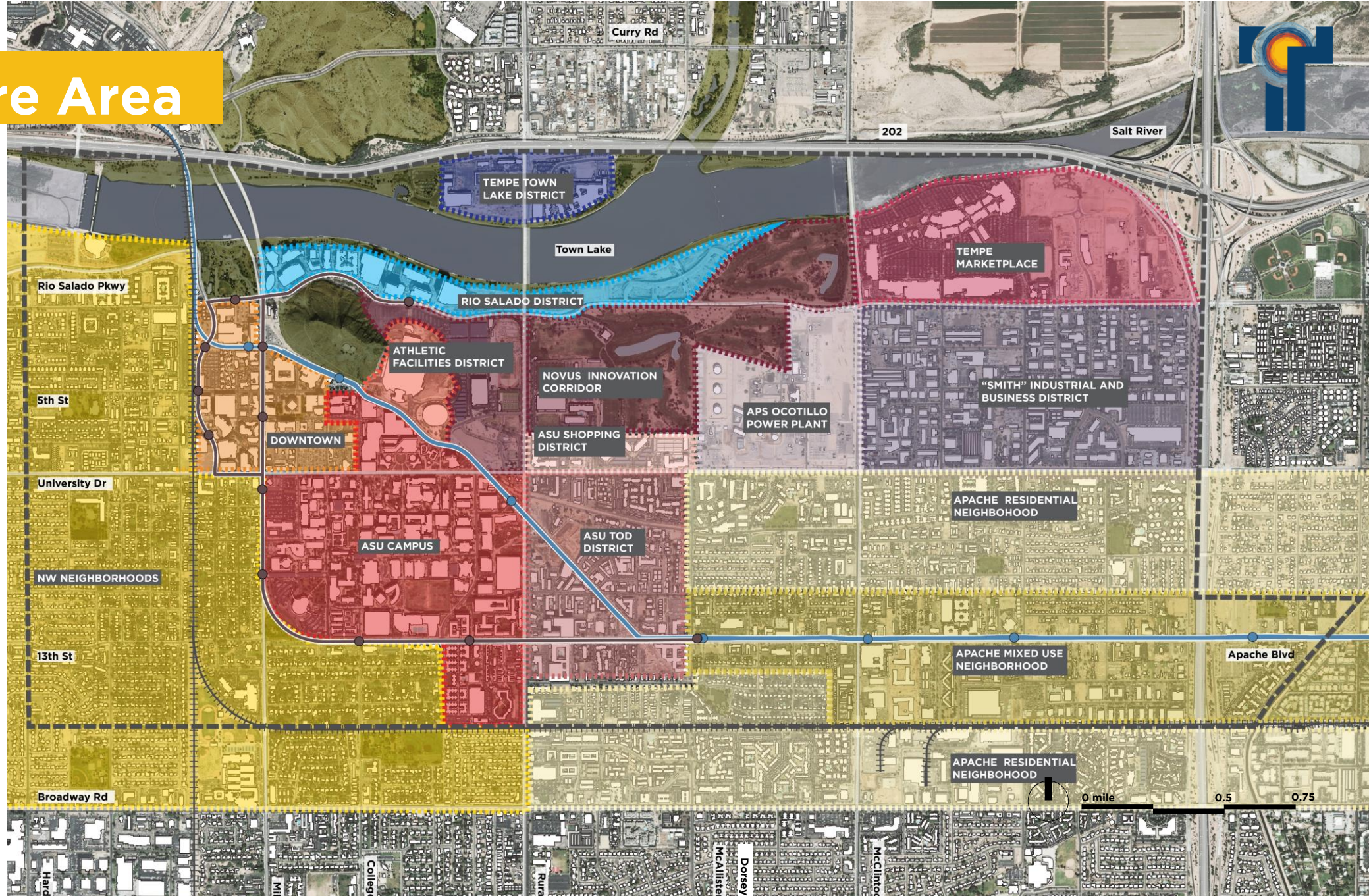
Conceptual Plan Hierarchy in Tempe



Urban Core Area



- NW Neighborhoods
- Downtown
- ASU Athletics
- ASU Campus
- Novus Innovation Corridor
- ASU Shopping District
- ASU TOD District
- Tempe Market Place
- APS Ocotillo Power Plant
- Smith Industrial Area
- Rio Salado District
- Tempe Town Lake District
- Apache Corridor
- Apache Mixed Used Neighborhood
- UCMP Project
- Street Car (Construction)
- Light Rail Line
- Union Pacific Railroad
- Open Spaces, Parks and Reserves





Project Components and Goals

Urban Core Area Master Plan

- Unified plan for future growth (heights)
- Sensitive response to neighborhoods, historic properties
- Design guidelines for improved urban design

Transportation Overlay District

- An updated TOD - Combined for Light Rail and Streetcar
- Pedestrian-friendly
- Preservation-friendly

Affordable Housing Strategy

- Analysis of current situation
- Six recommendations to implement
- Priority actions for the City

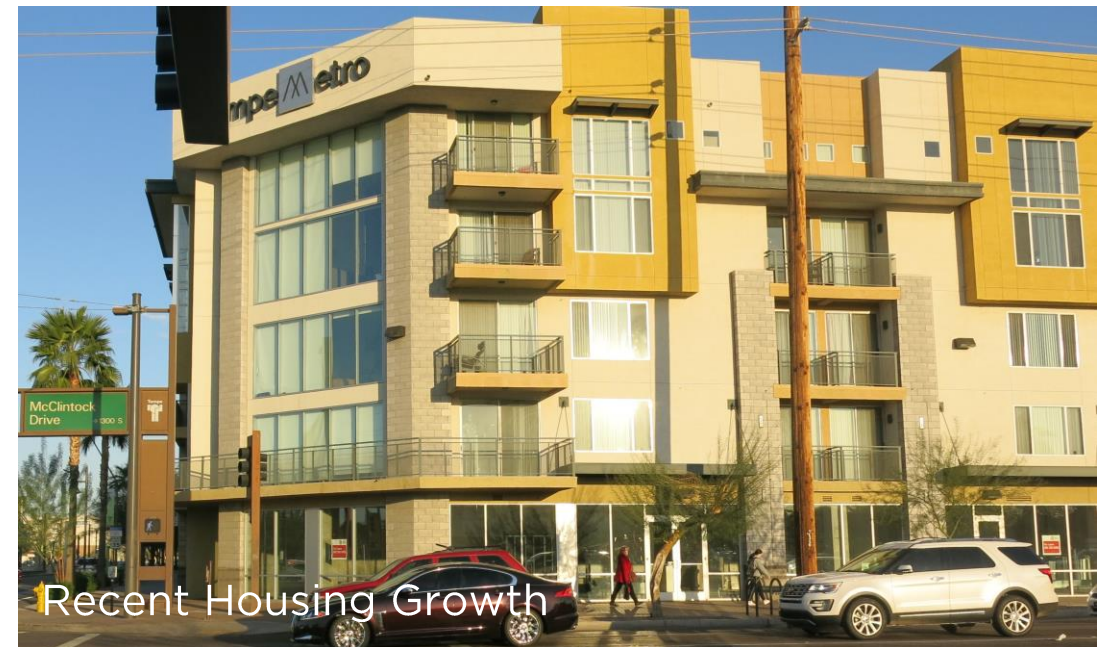


A 21st Century Livable City

- 1** A key regional economic and recreation center for residents and workers.
- 2** Well managed city with hubs and connections.
- 3** A pedestrian oriented environment, and attractive and sustainable urban design.
- 4** Urban Core projections to 2040:
 - 14,300 new dwelling units
 - 16,600 new jobs
 - 2.1 - 3.5 million sqft new office
 - 1.3 million sqft new retail
 - 2,200 new hotel rooms



Recent Economic Growth



Recent Housing Growth



Growth Locations

- Downtown can grow across business, retail and residential realms
- Focus on Urban Core corridors as a location for future growth
- Preserve and enhance existing & historic neighborhoods
- A strong live, learn, work play environment, including schools, is important to attracting businesses and their workers to Tempe.

Connectivity and Public Realm (Public Spaces, Sidewalks and Building Frontage)

- High quality streets, walking routes and public spaces are needed
- North-south connections through the Urban Core, including existing places and future developments should be reviewed
- Intersections need to work for pedestrians



Public Consultation Themes

New Development Character

- Development heights appropriate to context – neighborhoods, access
- Height transitions to neighborhoods & Historic resources
- Use “stair-stepping” where possible, and require it when desirable (e.g., along Mill avenue)
- Create a high quality and comfortable pedestrian realm

Parking














- Reduce parking demand over time
- Reduce parking, parking below grade and within blocks

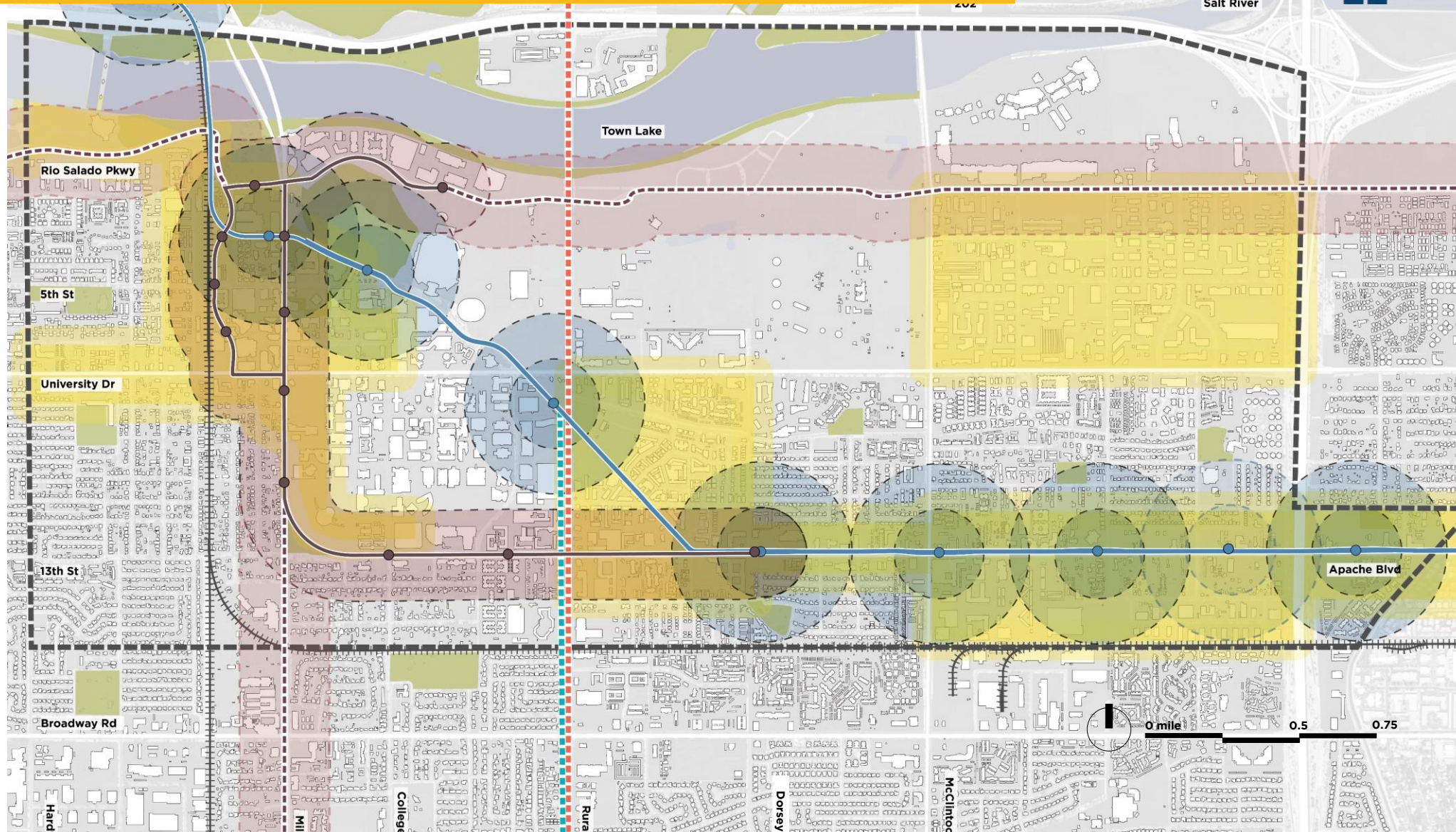
Sustainability

- Low Impact Design (LID) of streets and alleys – materials, drainage, lighting
- Use sustainable building practices
- Sustainability Bonus for development

Areas with Potential to See Change by 2040



-  Light Rail TOD Focus Area
-  Future Light Rail TOD Focus Area
-  Streetcar TOD Focus Area
-  Future Streetcar TOD Focus Area
-  Street Car (Construction)
-  Future Street Car
-  Light Rail Line
-  Future Premium Bus Route
-  Proposed High Capacity Transit
-  Areas with potential to see change by 2040
-  Union Pacific Railroad
-  UCMP Project
-  Open Spaces, Parks and Reserves





Development Goals

- Distribute projected growth in the most suitable locations
- Urban design guidelines to get the most attractive buildings and surroundings
- Plan and design to include sustainability principles. Incentivize sustainable elements.
- Create pedestrian environment – public realm, and within private development
- Provide transitions between new development and existing/historic neighborhoods
- Assess transportation impacts of development, and minimize vehicular trips

UCMP Geographical Areas:

- Downtown
- Terrace St. Corridor
- Apache Blvd. West
- Apache Blvd. Central
- Apache Blvd. east
- Smith Innovation Hub



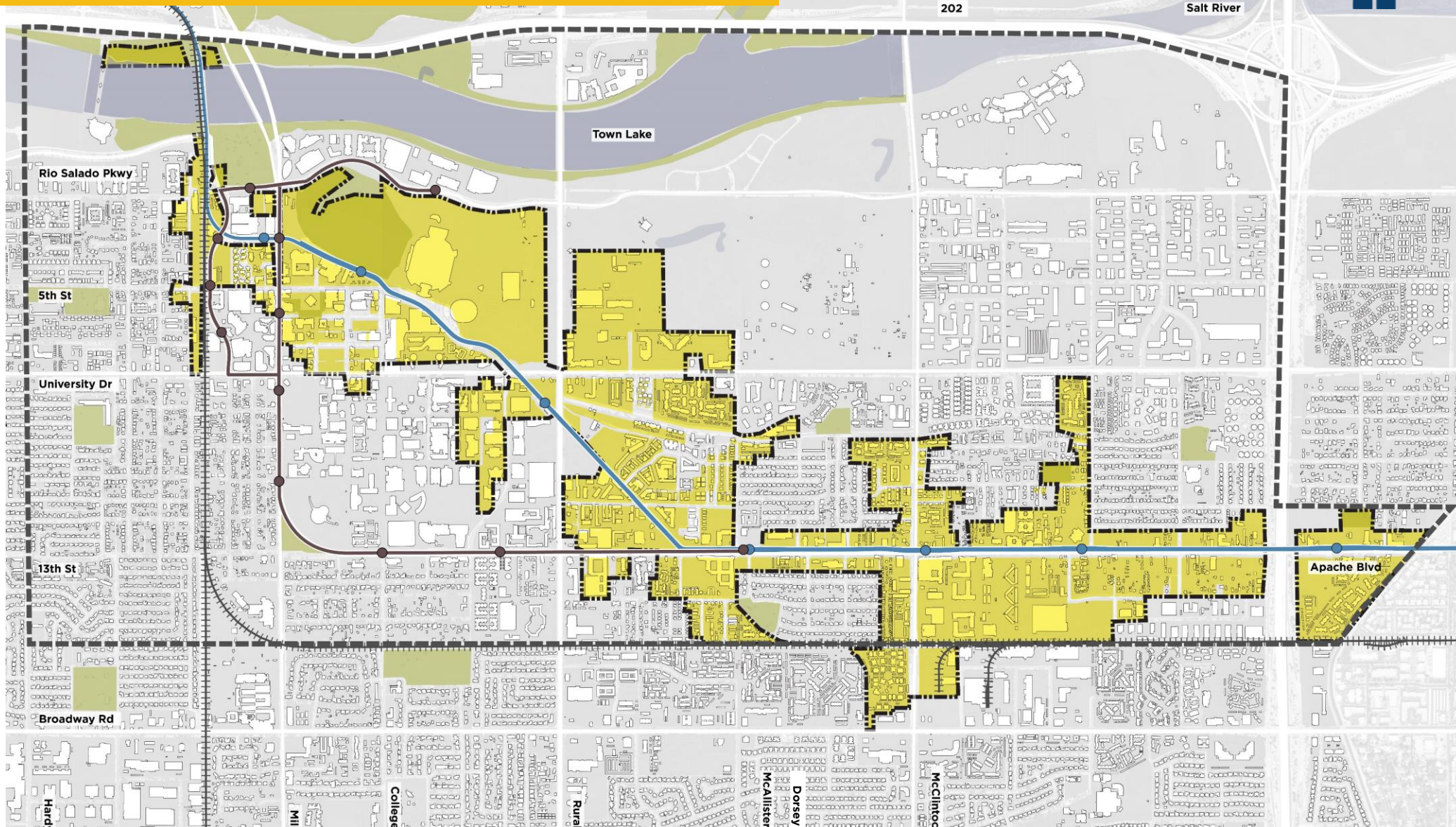
Transportation Overlay District (TOD)



Role of the Transportation Overlay District

- Shaping the Urban Core
- Advancing the “Hub” structure of Tempe
- Linking growth to infrastructure
- Promoting Historic Preservation
- Enhancing viability of retail, office and workspace locations
- Development: Design, Transition, Connection, Frontage

Existing Transportation Overlay District

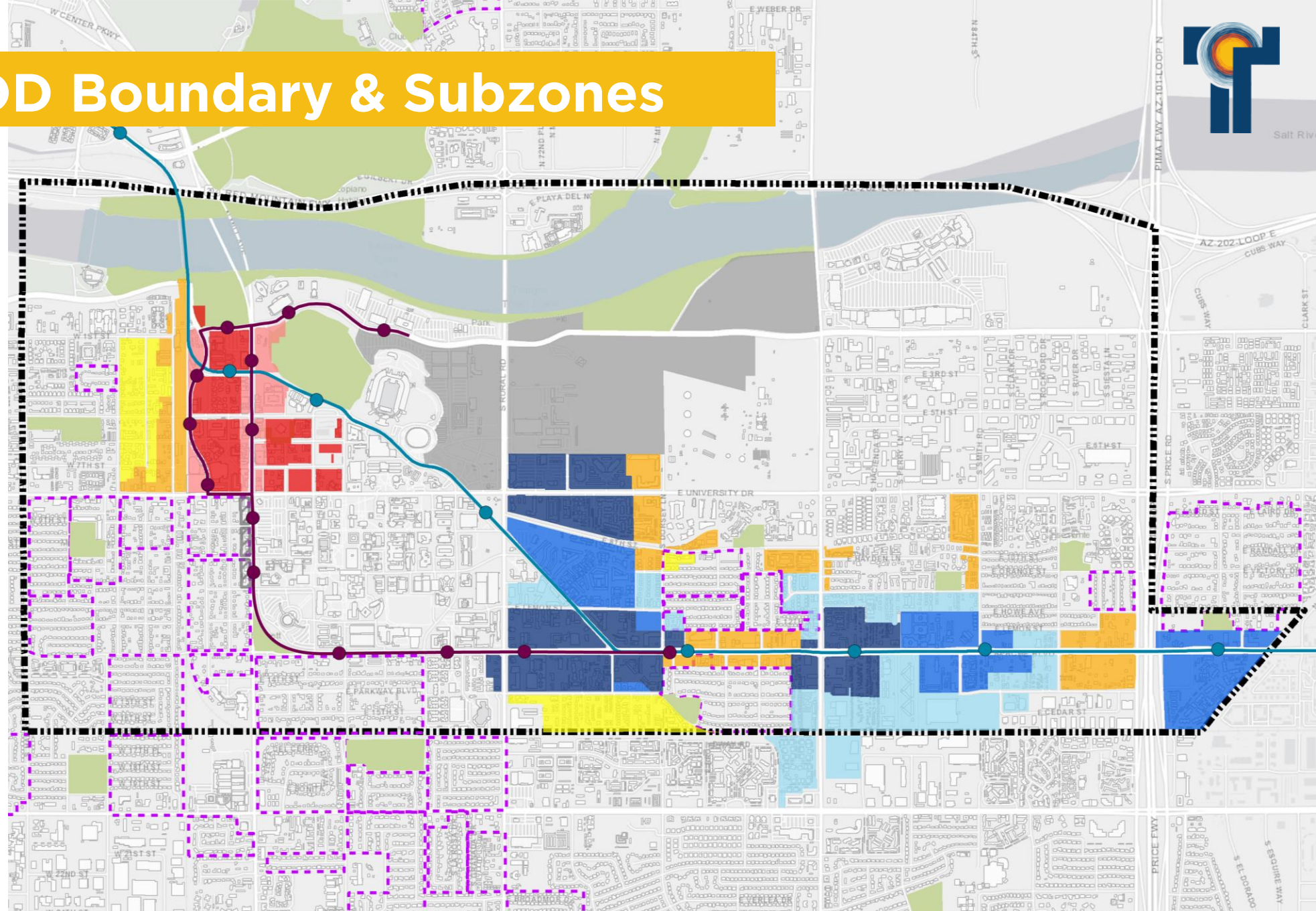


-  Transportation Overlay District
-  UCMP Project
-  Street Car (Construction)
-  Light Rail Line
-  Union Pacific Railroad
-  Open Spaces, Parks and Reserves

Proposed TOD Boundary & Subzones



- TOD Sub-Zone 1
- TOD Sub-Zone 2
- TOD Sub-Zone 3
- TOD Sub-Zone 4
- TOD Sub-Zone 5
- TOD Sub-Zone 6
- TOD Sub-Zone 7
- TOD Sub-Zone 8
- NOVUS Innovation Corridor
- UCMP Project
- Street Car Line
- Light Rail Line
- Open Spaces, Parks and Reserves
- Historic Subdivisions & Cultural Resource Areas





Proposed TOD District Sub Areas

TOD Sub-Zone 1: The highest intensity Sub-Zone intended to reinforce and enhance the areas in the downtown. Mid-rise buildings and point towers are appropriate here with active pedestrian street facades and a diversity of uses supported by active ground floor frontages.

TOD Sub-Zone 2: This high intensity Sub-Zone with mostly mid-rise buildings and a mix of uses that reinforces and enhances the areas in downtown and vicinity provides a vibrant, compact, enhanced pedestrian urban environment focused around transit stops and pedestrian routes on Mill Avenue.

TOD Sub-Zone 3: This Sub-Zone is intended to promote a compact and enhanced pedestrian urban environment through the development of building types that reflect the need for intensity of development at transit stations and the intersections of major connecting streets such as arterial-arterial intersections or arterial-collector intersections.

TOD Sub-Zone 4: This Sub-Zone promotes the development of a compact and enhanced pedestrian urban environment with building types reflecting appropriately scaled development within approximately 1/8-mile of nearby transit stations.

TOD Sub-Zone 5: This Sub-Zone allows for building types within approximately 1/4-mile of nearby transit stations that are appropriate for moderate-intensity neighborhood contexts.

TOD Sub-Zone 6: This Sub-Zone allows for low- to moderate-intensity and small- to medium-size building types.

TOD Sub-Zone 7: This Sub-Zone is intended to reinforce and preserve established neighborhoods located close to pedestrian enhanced urban areas.

TOD Sub-Zone 8: This Sub-Zone is intended to reinforce and preserve established neighborhoods located close to pedestrian enhanced urban areas.

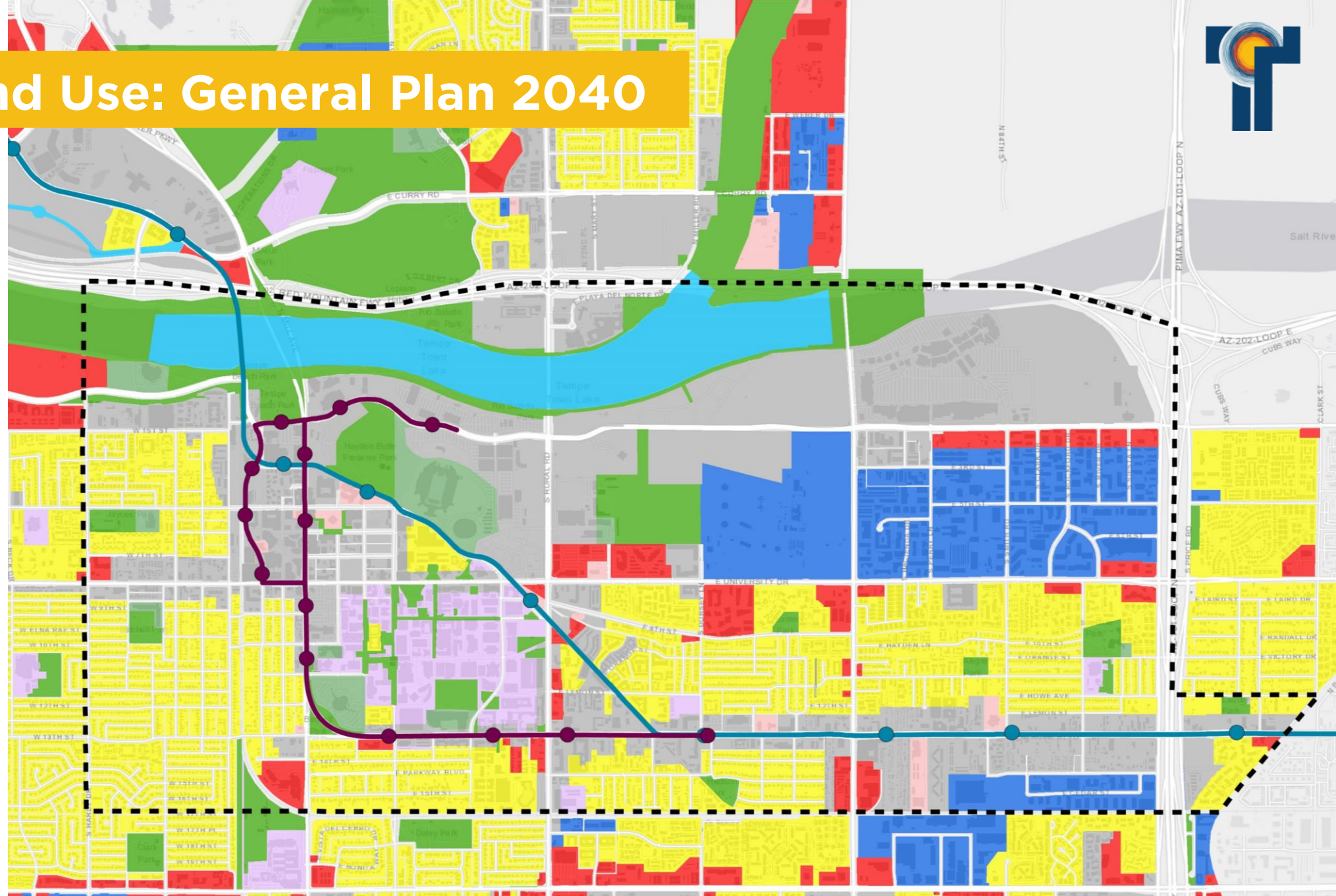


Urban Core Masterplan



Projected Land Use: General Plan 2040

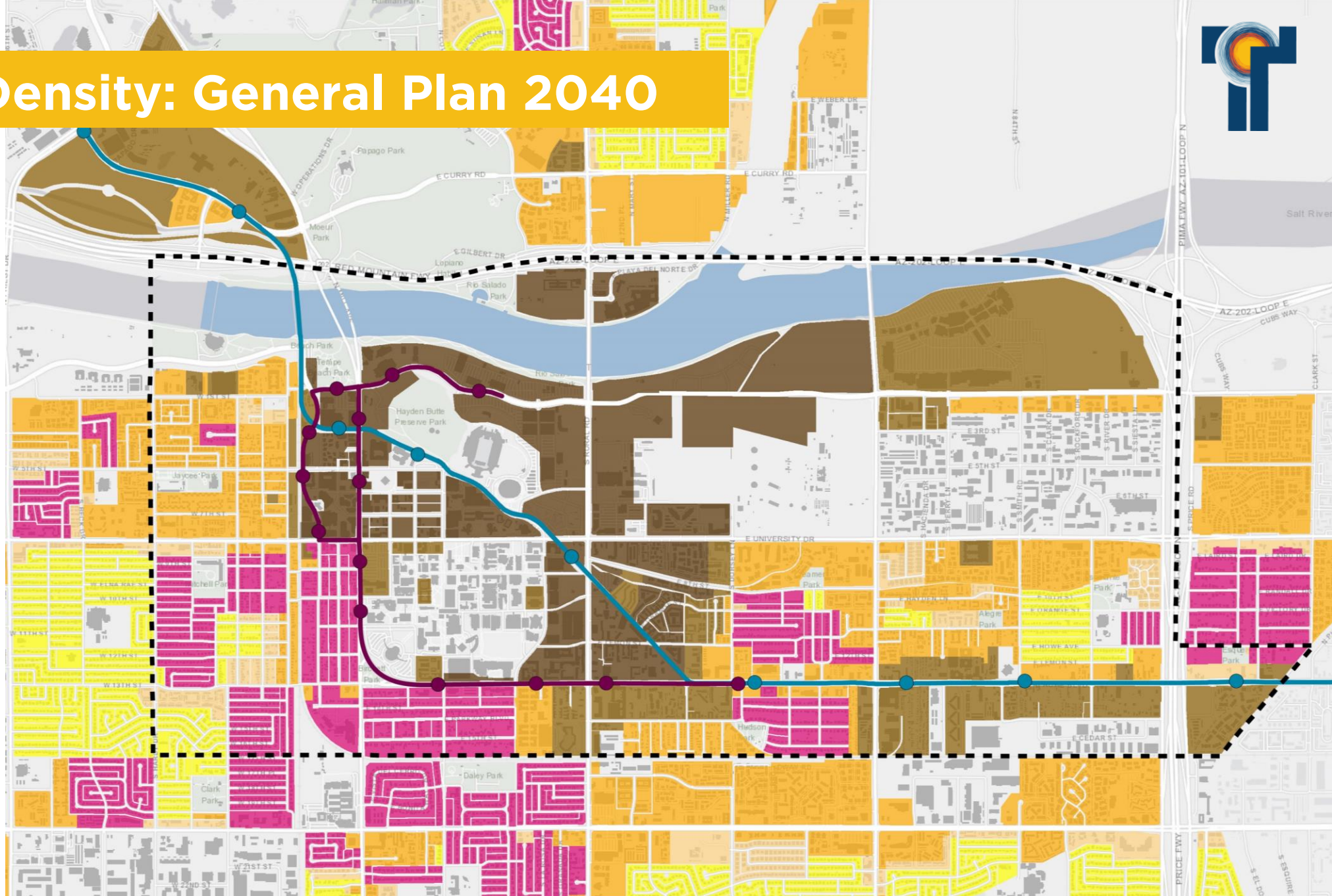
- CIVIC
- COMMERCIAL
- EDUCATIONAL
- INDUSTRIAL
- MIXED USE
- PUBLIC OPEN SPACE
- PUBLIC RECREATIONAL/CULTURAL
- RESIDENTIAL
- WATER
- Streetcar Stop
- Streetcar_Route
- Light Rail Station
- Light Rail
- Urban Core



Projected Density: General Plan 2040



- Cultural Resource Area
- Low Density (up to 3 du/ac)
- Low to Moderate Density (up to 9 du/ac)
- Medium Density (up to 15 du/ac)
- Medium to High Density (up to 25 du/ac)
- High Density (up to 65 du/ac)
- High Density Urban Core (more than 65 du/ac)
- Streetcar Stop
- Streetcar_Route
- Light Rail Station
- Light Rail
- Urban Core





Height Studies: 2006

legend
symbol

north
scale: 1"=400±

CITY OF TEMPE
ARIZONA

community
development
department

area	height
NEIGHBORHOOD BUFFER	50' max.
HERITAGE CORE	75' max. (15' stpbk. @50' height)
CIVIC/CULTURAL	75' max.
MILL AVENUE CORRIDOR	150' max. (15' stpbk. @50' height; 10' stpbk. @ 75' height)
URBAN- PARK TRANSITION	200' max. (20' stpbk. @75' height)
URBAN CENTER	300' max.
HAYDEN FERRY SOUTH SPECIAL STUDY AREA	See specific guidelines*
PARK/PRESERVE	

* "Hayden Ferry South Development Guidelines" were accepted by the Rio Salado Advisory Commission in March 2000, accepted by the Tempe City Council in August 2000 and amended by development agreement in April 2001.

Accepted 6 April 2006 (Central City Development Committee of the Whole)

CONCEPT STUDY DOWNTOWN BUILDING HEIGHTS



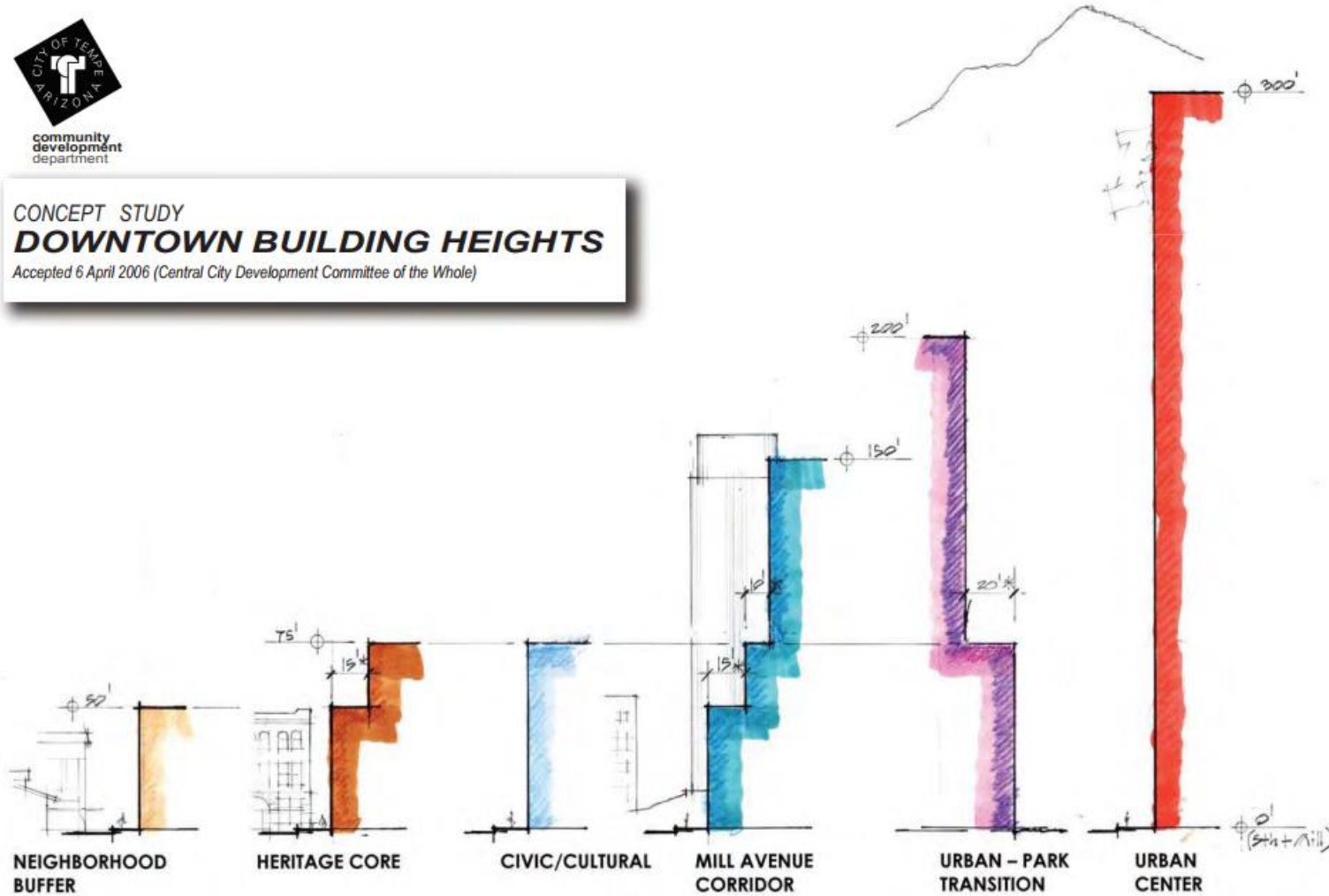
Height Studies: 2006



community
development
department

CONCEPT STUDY **DOWNTOWN BUILDING HEIGHTS**

Accepted 6 April 2006 (Central City Development Committee of the Whole)



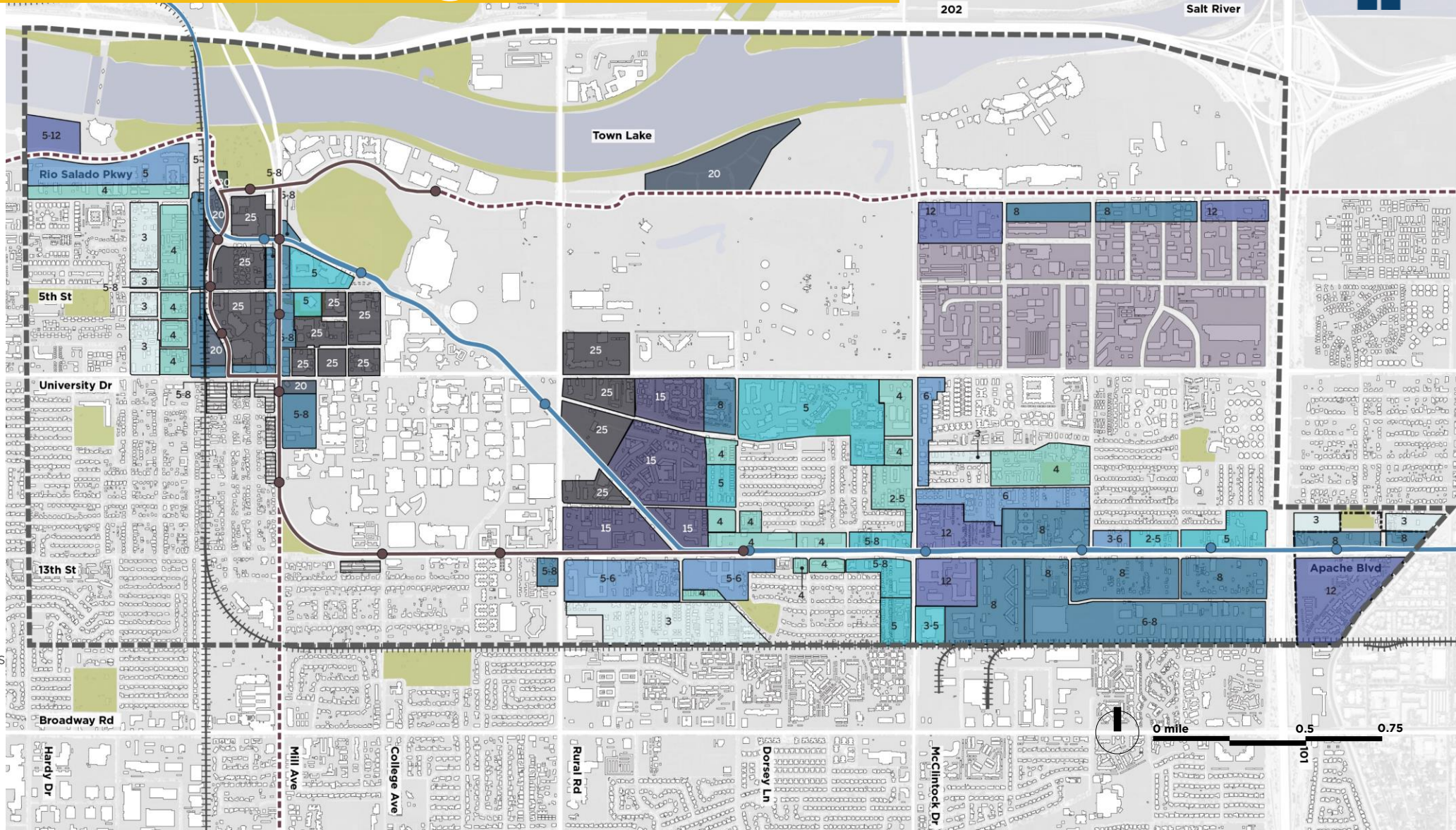
* STEPBACKS are calculated as an average from street and/or park frontages, and pertain to primary building mass (additional articulation, utilizing balconies, canopies, etc., is not only encouraged, but expected).

Proposed UCMP Plan Heights



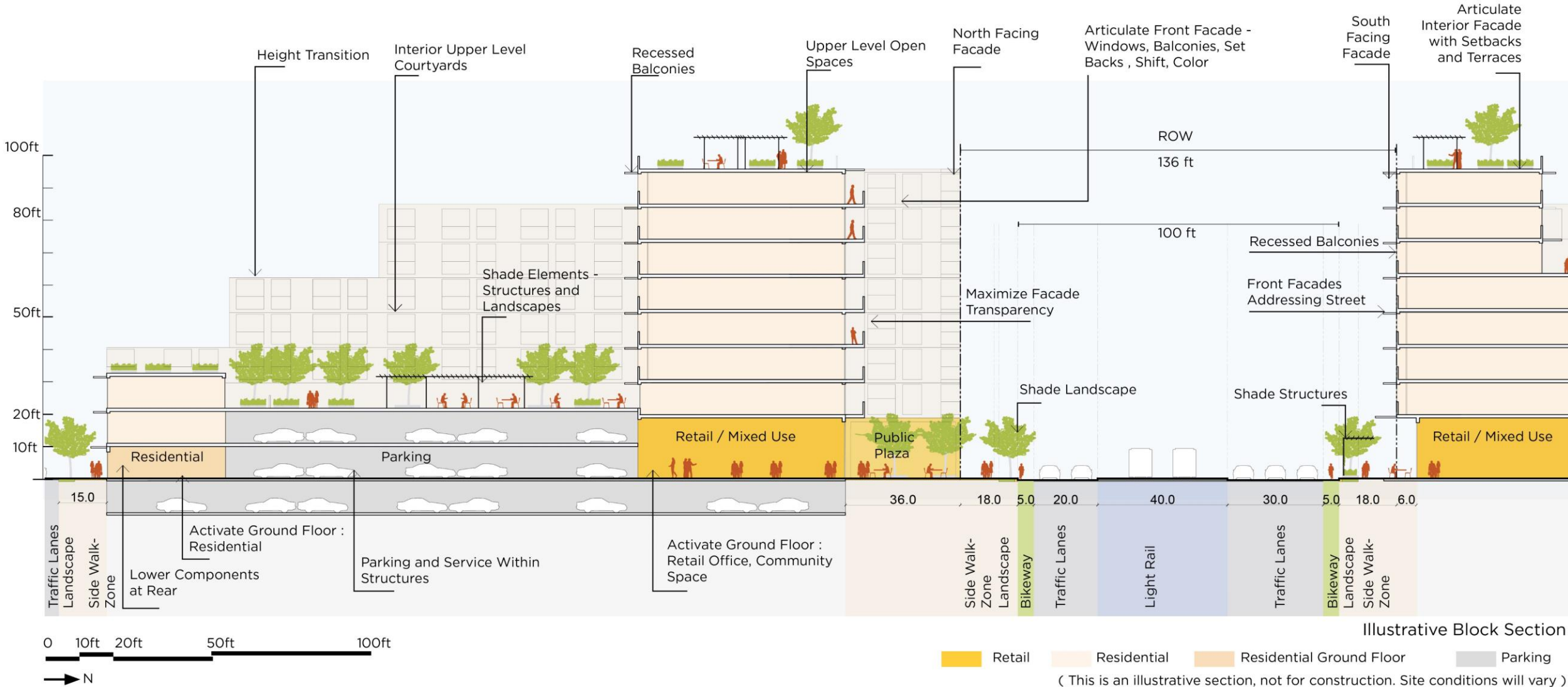
UCMP Sub Zones and Stories

- 3 stories
- 4 stories
- 5 stories
- 6 stories
- 8 stories
- 12 stories
- 15 stories
- 20 stories
- 25 stories
- Design Overlay
- Smith Innovation Hub w potential increased heights
- UCMP Area
- Street Car
- Light Rail Line
- Union Pacific Railroad
- Open Spaces, Parks and Reserves



Creating Compatibility: Transition Example 8 Stories

Apache – East of Smith





Affordable Housing Strategy

AHS Goal, Objectives, and Strategies

Affordable Housing Strategy Goal:

- “Provide quality housing that is affordable to households at all income levels, with specific focus on lower-income (or Cost-Burdened) households”
- Aligns with General Plan Housing Element

To achieve this Goal, AHS contains Objectives and Strategies to address existing and future needs:

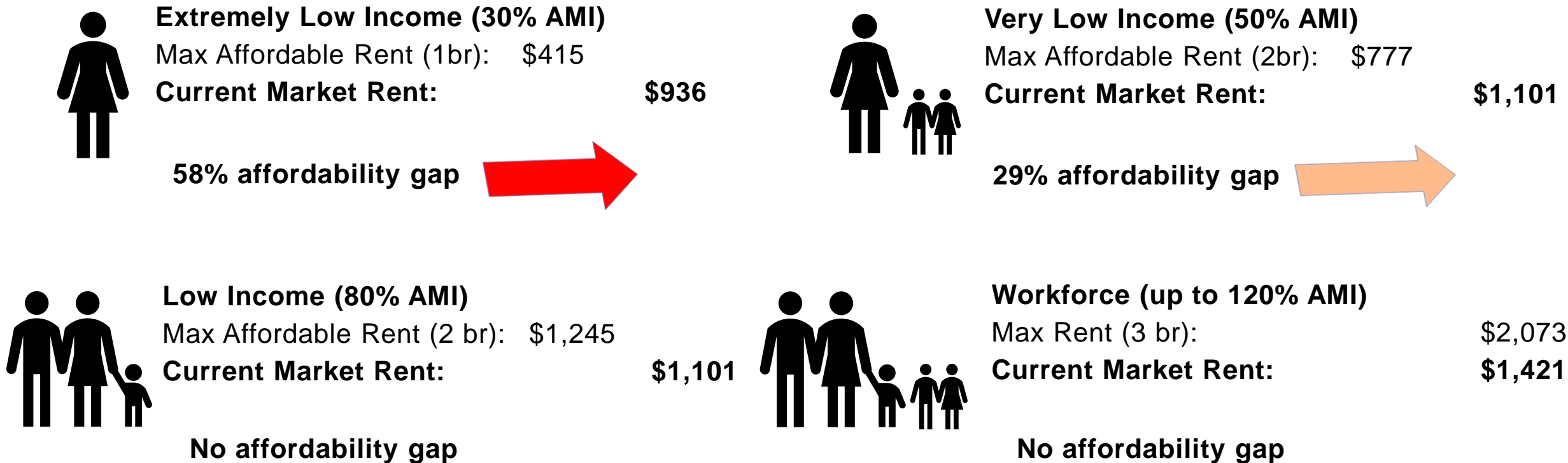
- Affordability for households from extremely low to moderate incomes
- Both rental and for-sale housing
- With and without subsidy
- Best practices from national case studies, in local context
- Proposed strategies are subject to final, full legal review in compliance with the state laws

Affordability in Tempe

Household Income and Affordable Rents

Housing Affordability is also based on Cost of Housing

- Maximum Affordable Rent by Family Type, compared to Market



Note: Current Market Rent figures are derived from CoStar for City of Tempe, Q3 2017. Maximum Affordable Rents assume no more than 30 percent of income applied towards housing costs.

Affordability in Tempe

Existing Conditions

Over 25,600 households in Tempe are “Cost Burdened,” paying more than 30% of income on housing – 36.8% of households, versus national rate of 33.1%

<u>Household Income Level (a)</u>	<u>Max Income (3-member HH) (b)</u>	<u>Income Category</u>	<u># Cost Burdened Households</u>
0 to 30% of AMI	\$20,780	Extremely Low	9,025
30% to 50% of AMI	\$31,100	Very Low	5,845
50% to 80% AMI	\$49,800	Low	6,100
80% to 120% AMI	\$62,200	Moderate	3,108
120% AMI and above		Above Moderate	1,567
Total			25,645

Notes:

(a) CHAS data reflect HUD-defined household income limits from 2010-14. HAMFI stands for HUD Area Median Family Income.

(b) HUD Income Limits for 3 person household in Phoenix-Mesa-Scottsdale MSA, FY 2018

Sources: U.S. Department of Housing and Urban Development, 2010-2014 Comprehensive Housing Affordability Strategy (CHAS) data; BAE, 2017.

Affordability in Tempe

Projected Needs

Demand for affordable units will increase along with household growth through 2040, with demand for over 21,300 new units

<u>Income Category (a)</u>	<u>Percent</u>	<u>Housing Units Needed</u>
Extremely Low (below 30% AMI)	15.1%	3,228
Very Low (30 to 50% AMI)	10.7%	2,273
Low (50 to 80% AMI)	15.9%	3,389
Moderate (80 to 100% AMI)	9.2%	1,954
Above Moderate (100 to 120% AMI)	9.1%	1,933
Above 120% AMI	40.1%	8,548
	100.0%	21,324

Notes:

(a) Income categories derived from 2010-2014 Comprehensive Affordable Housing Strategy (CHAS); data is for the City of Tempe.

AHS Goal, Objectives, and Strategies

1. Increase Resources to Subsidize Affordable Units
2. Incentivize Inclusion of Affordable Units in Private Development
3. Encourage Development of a Variety of Housing Types
4. Be Proactive About Community Concerns, Displacement, Gentrification
5. Improve Quality and Maintain Inventory of Existing Affordable Housing

F. Affordable Housing Impact Statements (AHIS)

AHIS Policy Goals and Options


Policy tool to evaluate impacts of any proposed policy or project on affordable housing

- Elevates the visibility of affordability as an issue
- Ensures that affordability is considered in City actions
- Generates data to help track changes to housing inventory

Key elements of an AHIS policy

- **Projects** and/or **Policies** trigger a review
- Analysis of **Supply** and/or **Demand**
- **Quantitative** and/or **Qualitative** analysis
- **Informational** or **Binding**

City of Tempe
Community Development Department
31 E. 5th Street, Garden Level, Tempe, AZ 85281
Ph: (480) 350-4311, Fax: (480) 350-8677
Fax: (480) 350-8672, www.tempe.gov



AFFORDABLE HOUSING IMPACT STATEMENT (AHIS): PROJECT REVIEW

Project Name, Address and Brief Description

Project Contact Name:
Phone:
E-mail:

Table 1: Housing Supply Reduction – Existing Units to be Removed or Demolished by the Project

Please fill out the following information for each housing unit taken out of use by the Project. This includes any housing unit that may have already been demolished in advance of this Project filing. Include as many rows as needed.

	Number of Units	Number of Bedrooms per Unit	Current Rental Price (\$/mo.) or Sale Price (\$/Unit)	No. of Existing Voucher Holder Tenants?	Number of Income-Restricted Units	Income Level for Income Restricted Units (d)	Term of Deed Restriction (through mm/yy)
Single-Family Detached (a)							
Single-Family Attached (b)							
Multifamily (c)		Studio					
Multifamily (c)		One					
Multifamily (c)		Two					
Multifamily (c)		Three					
Multifamily (c)		Four+					

(a) Includes mobile homes
(b) Includes townhomes and duplexes
(c) Includes condominiums and apartments
(d) To be filled out only if any units are income-restricted.

Table 2: Housing Supply Addition – New Units in Completed Projects

Please fill out the following information for new housing units that will result from the Project.

	Number of Units	Number of Bedrooms per Unit	Current Rental Price (\$/mo.) or Sale Price (\$/Unit)	No. of Existing Voucher Holder Tenants?	Number of Income-Restricted Units	Income Level for Income Restricted Units (d)	Term of Deed Restriction (through mm/yy)
Single-Family Detached (a)							
Single-Family Attached (b)							
Multifamily (c)		Studio					
Multifamily (c)		One					
Multifamily (c)		Two					
Multifamily (c)		Three					
Multifamily (c)		Four+					

(a) Includes mobile homes
(b) Includes townhomes and duplexes
(c) Includes condominiums and apartments
(d) To be filled out only if any units are income-restricted.

Staff contacts for questions:
Robbie Aaron, Ph. 480 350 8096, E-mail: Robbie_Aaron@Tempe.Gov
LeVon Lamy, Ph. 480 858 2264, E-mail: LeVon_Lamy@Tempe.Gov

AHIS Forms implemented by Tempe in February 2019



Adoption Process and Timeline



Adoption Process and Timeline

- Preparation and release of final drafts to the public (TOD, UCMP, AHS)
- Final public outreach event
- Presentation to Boards and Commissions
- DRC for recommendation
- Council hearings and adoption
- Adoption by August 2019 (TBD)
- Affordable Housing Strategy might be processed in a separate track

An aerial photograph of a city street, showing buildings, trees, and parked cars. The image is overlaid with a blue-to-yellow gradient that transitions from the top to the bottom. The text "Thank you. Questions?" is centered in white.

Thank you. Questions?

From: Bern, Justin
Sent: Wednesday, January 16, 2019 4:36 PM
To: Kelly, Grace DelMonte; DeRosa, Marilyn; Kay, Braden
Cc: Tveit, Oddvar; Ford, Tara
Subject: FW: Air Quality

Hi Grace,

I am not sure what the policy or procedure is to capture relevant comments received after the conclusion of a commission meeting. If it is consistent with the bylaws, please add this comment (see email below) to those captured during the meeting, so Tempe's "formal" response includes this and any others that came in as part of the discussion.

Thank you,

Justin Bern
Environmental Programs Supervisor
Public Works – Water Utilities Division
City of Tempe
Office: 480-350-2860
Cell: 480-276-1268
Justin_Bern@Tempe.gov

From: Cliff Anderson <cliff.anderson@gmail.com>
Sent: Wednesday, January 16, 2019 4:28 PM
To: Bern, Justin <Justin_Bern@tempe.gov>
Cc: Tveit, Oddvar <oddvar_tveit@tempe.gov>; Gretchen Reinhardt <cbd.gretchen@gmail.com>; Kendon Jung <kendon.jung@gmail.com>
Subject: Air Quality

Justin Bern
Environmental Program Supervisor

Justin -

Thank you for your excellent presentation to the Sustainability Commission Monday. You were very thorough in covering the essential duties the City has with regard to air quality requirements. Though some of the commission's comments/questions were tough, my impression is that you're doing the job right (as defined). However, I see the issue as being about also doing the right job, that is, defining the job to include local health concerns that are not adequately addressed by County and State actions despite regulations (exceedances), or by existing County, State or Federal regulations (for example, locally high pollution not detected by County sensors).

Keep up the good work.

Sincerely,

Cliff Anderson
513 E Erie Dr, Tempe, AZ 85282

Co-Lead, Collaborating Research Action Team, Bridging Climate Change and Public Health
<https://www.maricopa.gov/4640/Climate-Change-and-Public-Health>

Director, Tempe Bicycle Action Group
www.biketempe.org

Member, Citizens' Climate Lobby
<https://citizensclimatelobby.org/>

Whereas the student population represent an untapped resource within the city, I would like to submit these thoughts.

Statistics

- The 23 schools in the Tempe Elementary School District consist of 14 elementary schools grades kindergarten through five, a developmental special needs school, four middle schools grades six through eight, a K-8 school, a K-8 traditional school, and a Montessori school.
- The student population of Tempe Elementary School District No. 3 contains approximately 12,000 students in the district.
- Source: <https://www.tempeschools.org/our-district/information-history>
- The Tempe Union High School District has 7 high schools with roughly 11,000 students (populations vary by school size). All include an Earth science program with some offering sustainability or environmental science as an elective science option and have community service oriented clubs. www.tempeunion.org

Excerpts from Mr. Andersen's letter..

2. Educate the public. Public awareness of the health issues associated with smoke from residential burning will drive change, just like it did for second-hand cigarette smoke. Public safety is why DUI laws got passed. For the small minority of people who burn, if some stopped and the rest burned less often and wisely, we could make a significant improvement in air quality.

a. Increase public awareness of the health risks of woodsmoke. Highlight those who are most vulnerable: children, the elderly, people with lung and heart disease and those who exercise outdoors.

b. Write an advisory for inclusion in the water bill news and in other city communication outlets, and air public service announcements on local TV.

c. Educate our residents about Tempe City Code Section 21-3 (b) (11) & (12) regarding smoke.

d. Create an air quality webpage on tempe.gov that addresses nuisance smoke.

e. Promote Maricopa County's efforts to reduce smoke pollution.

Suggestion:

Promote and Partner with AZDEQ Flag Program for Air Quality

How It Works

- The program provides participating facilities with educational materials and colored flags that notify communities about local air quality conditions and correspond with the Environmental Protection Agency's (EPA's) Air Quality Index (AQI).
- Flying flags in a visible spot, the facilities help alert people to that particular day's air quality, so they know when and how to modify their outdoor activities.
- [AZ DEQ Flag Program for Schools and Businesses](#)
- [Informational Video](#)

Perhaps with the help of the Chamber of Commerce, businesses might also be willing to fly the flags where appropriate.