

# *Inspiring Ideas for Austin: Why and How can we develop our growing city in harmony with Nature?*

City of Austin

Land Development Code Advisory Group

Mar. 21, 2016

Eleanor McKinney, PLA, ASLA

Chair, ASLA-CTX CodeNEXT Committee

# American Society of Landscape Architects (ASLA)

**Our mission is to lead the stewardship, planning,  
and design of our built and natural environments.**

**Key Nationwide Issues:**

**Green Infrastructure**

**Sustainable Sites (SITES)**

**Health Benefits of Nature**

[www.asla.org](http://www.asla.org)



# ***Imagine Austin Comprehensive Plan 2012 – Key Priority Programs***

- 1. Compacted and Connected**
- 2. Sustainable Water**
- 3. Workforce and Education**
- 4. Green Infrastructure**
- 5. Creative Economy**
- 6. Household Affordability**
- 7. Healthy Austin**
- 8. Revise the Land Development Code**



# *Imagine Austin's Promise for Green Infrastructure*

**Integrate green infrastructure elements such as the urban forest, gardens, green buildings, stormwater treatment, and infiltration facilities and green streets into the urban design of the city through “green” development practices and regulations. LUT P34**



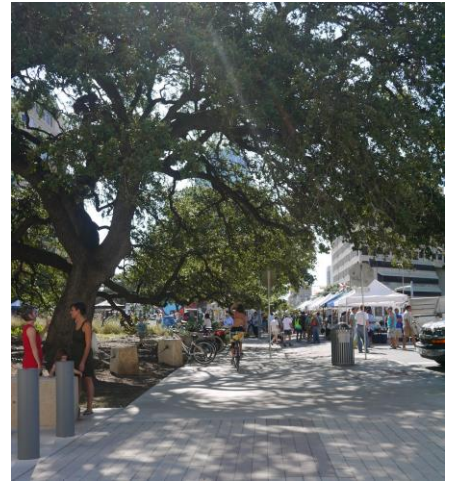
# *Imagine Austin's Promise for Sustainable Water*

**Plan for and adapt to increased drought, severe weather and other potential impacts of climate change on the water supply. CFS P5**

**Expand efforts to diversify water sources, including through reuse, conservation, and efficiency measures for long-term planning. CFS P4**

# ASLA Central Texas Vision

The Imagine Austin goals of Compact and Connected and Integrate Nature and City are strongly connected to the creation of places that are vibrant, healthy, and meaningful.



# Interrelated Topics and Imagine Austin

Water Conservation  
and Management

Urban Heat Island Effects  
& Microclimate Modification

Green Compatibility

Green Infill Regulation

Open Space

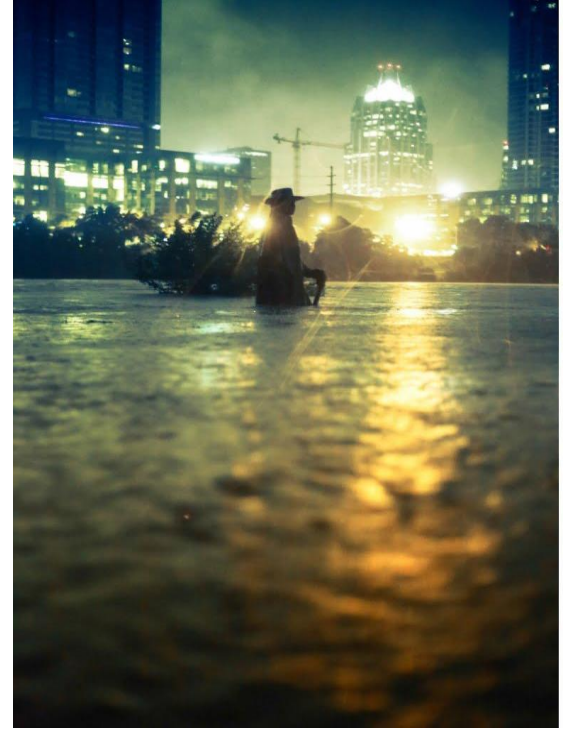
Urban Agriculture





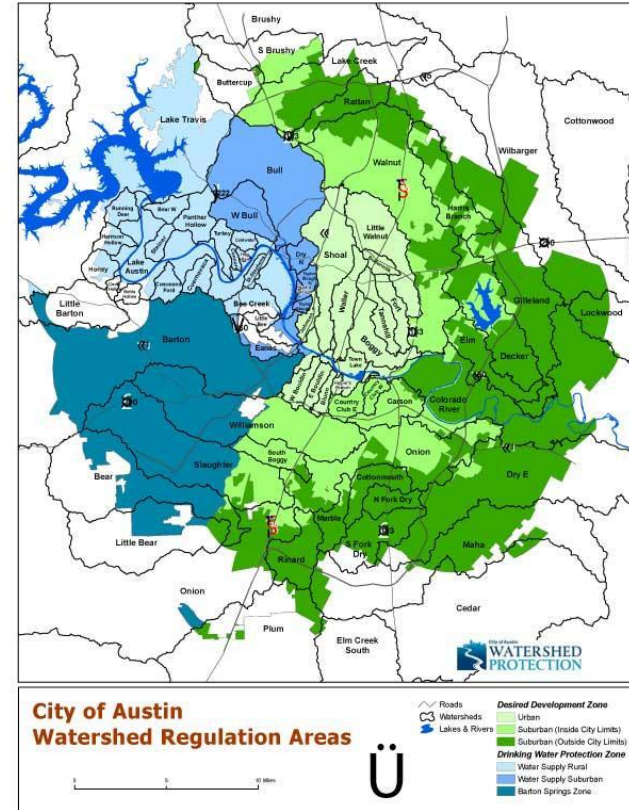
# Water Conservation and Management

Issue: Impervious Cover, Leads to Run-off and Flooding



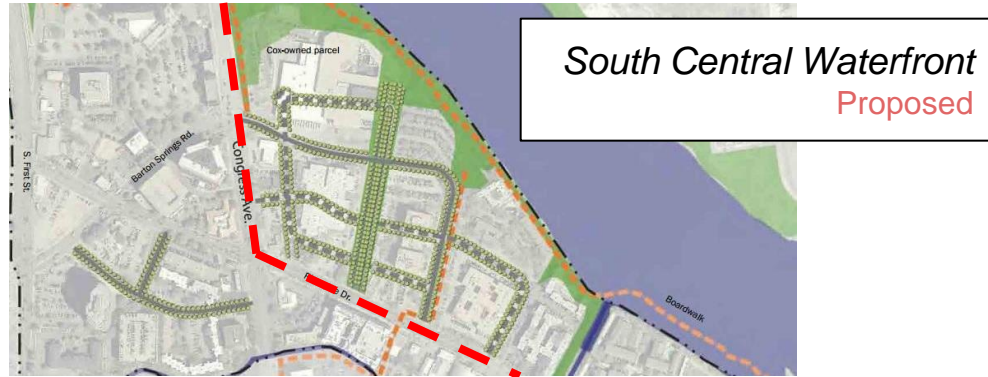
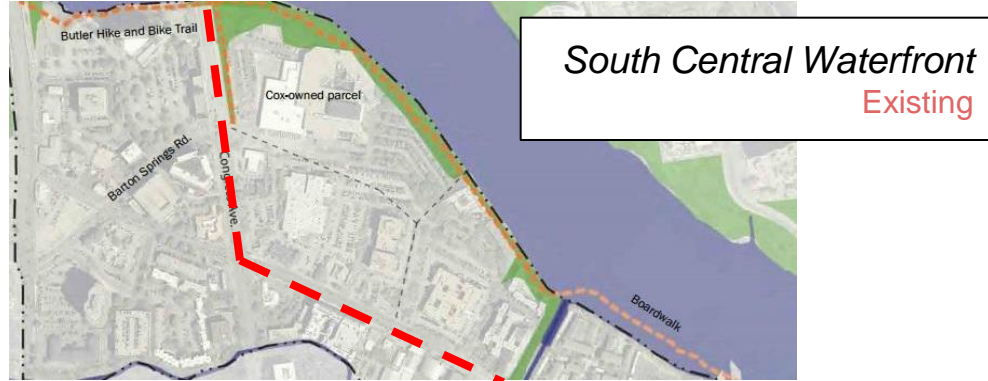
# Water Conservation and Management

Recommendation: Establish watershed-scale requirements for green infrastructure that include minimum amounts of pervious vegetated cover to retain storm water on-site and prevent flooding.



# Water Conservation and Management

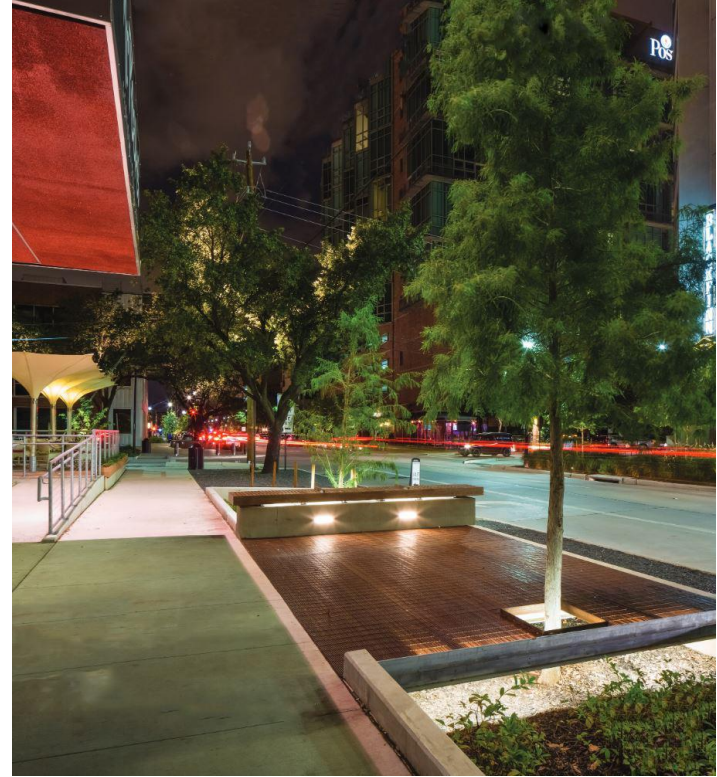
Recommendation: Incentivize the absolute reductions in existing impervious cover in re-development with a performance-based approach that gives credit for increasing stormwater retention and groundwater recharge.





# Water Conservation and Management

Recommendation: Incorporate stormwater collection and green infrastructure bio-swales as part of the 'Complete Streets' effort to treat stormwater runoff before it enters creeks and lakes.



# Water Conservation and Management

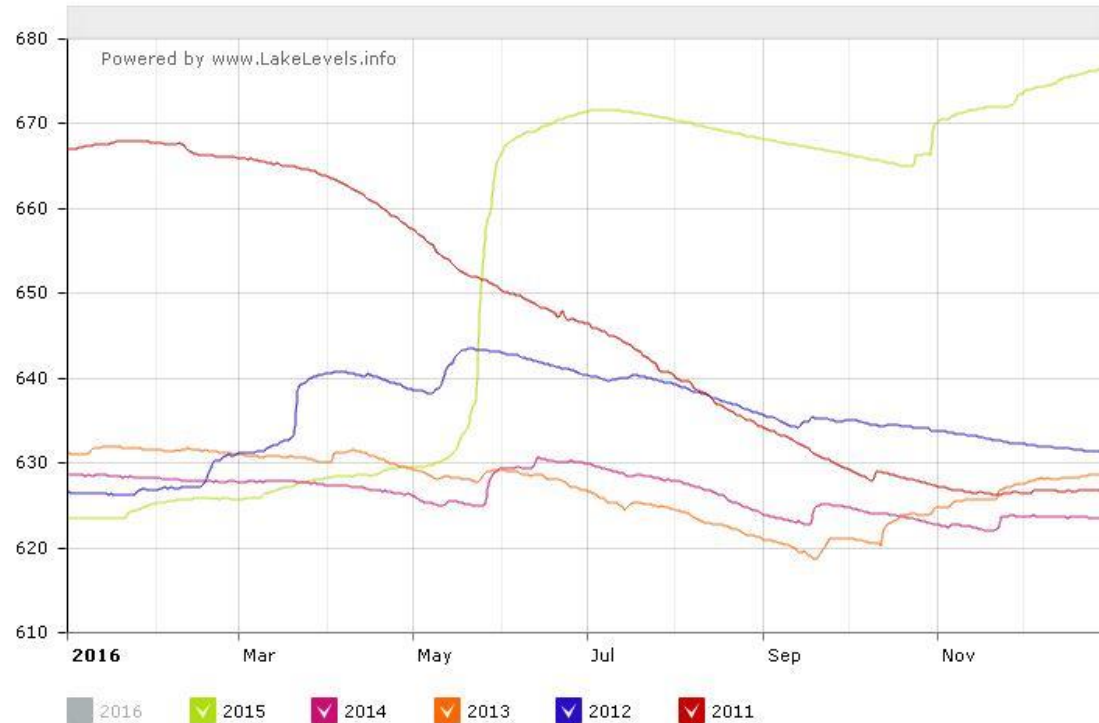
Recommendation: Incorporate on-site stormwater management through drainage swales and rain gardens.





# Water Conservation and Management

Issue: On-going droughts impact the consistency of our water supply.



# Water Conservation and Management

Recommendation: Require on-site water reuse strategies that involve rainwater, graywater, reclaimed water, stormwater, air conditioning condensate, and all other appropriate sources.



# Water Conservation and Management

Recommendation: Incentivize efficient irrigation through the use of smart controllers, computer tracking programs, soil moisture sensors, drip irrigation, and mulch.





# Water Conservation and Management

Recommendation: Use native and adapted plant material. Limit lawn areas. Zone plant groupings by water requirements. Design irrigation systems to match these zones.



# Urban Heat Island Effects

Issue: Increasing summer temperatures and consecutive dry days

## Toward a Climate-Resilient Austin: May 1, 2014) Report to Council

Category	Current	Projected*
Avg. annual temps		+ 9 to 10°
Summer avg. high temp.	94°	98 - 103°
No. summer days over 100°F	13	35 - 80
No. summer days over 110°F	0 (rare)	1 - 20
Annual avg. precipitation	32"	32-33"
No. days/year > 2" rainfall	2	3
Max. 5 day rainfall	6"	8"
Max. consecutive dry days (no precip.)	52	70 - 75

\* Projected by end of this century (2071-2100).

Source: [http://www.austintexas.gov/sites/default/files/files/Sustainability/Climate/Toward\\_a\\_Climate\\_Resilient\\_Austin.pdf](http://www.austintexas.gov/sites/default/files/files/Sustainability/Climate/Toward_a_Climate_Resilient_Austin.pdf)

# Urban Heat Island Effects and Microclimate Modification

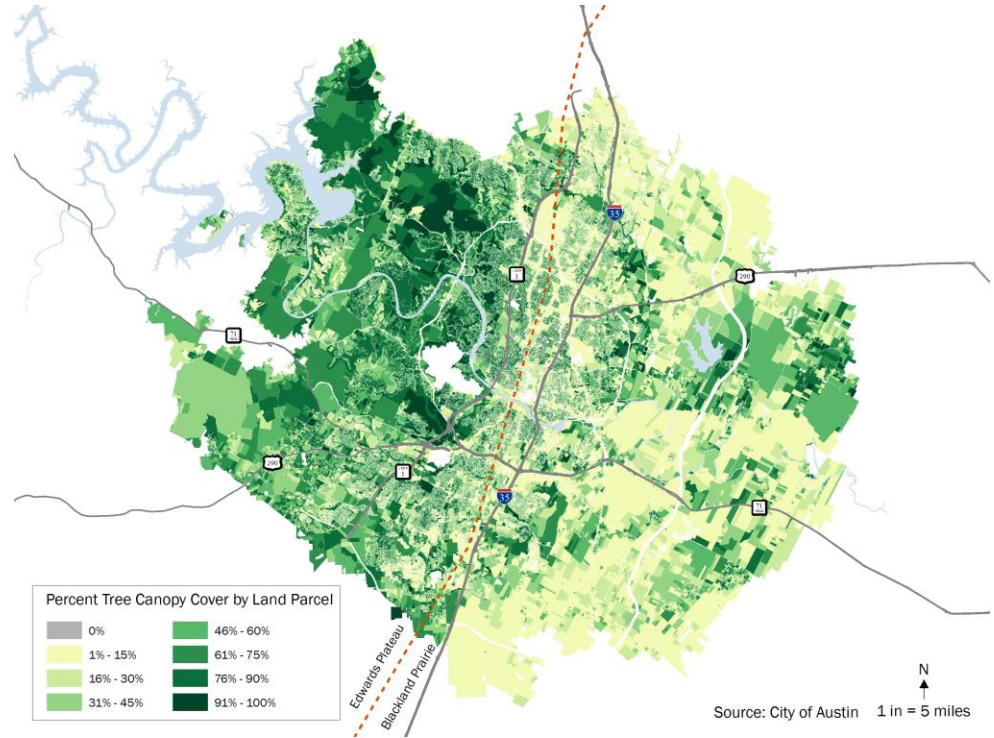
Recommendation: Target incentives to preserve and install trees and pervious vegetated cover to mitigate the urban heat island.





# Urban Heat Island Effects and Microclimate Modification

Recommendation: Include the goal of 40% Tree Canopy Cover in the intent language of the new code. Extend the commercial tree protection ordinances into the new proposed 'transition zones' between commercial and single family.



# Green Compatibility

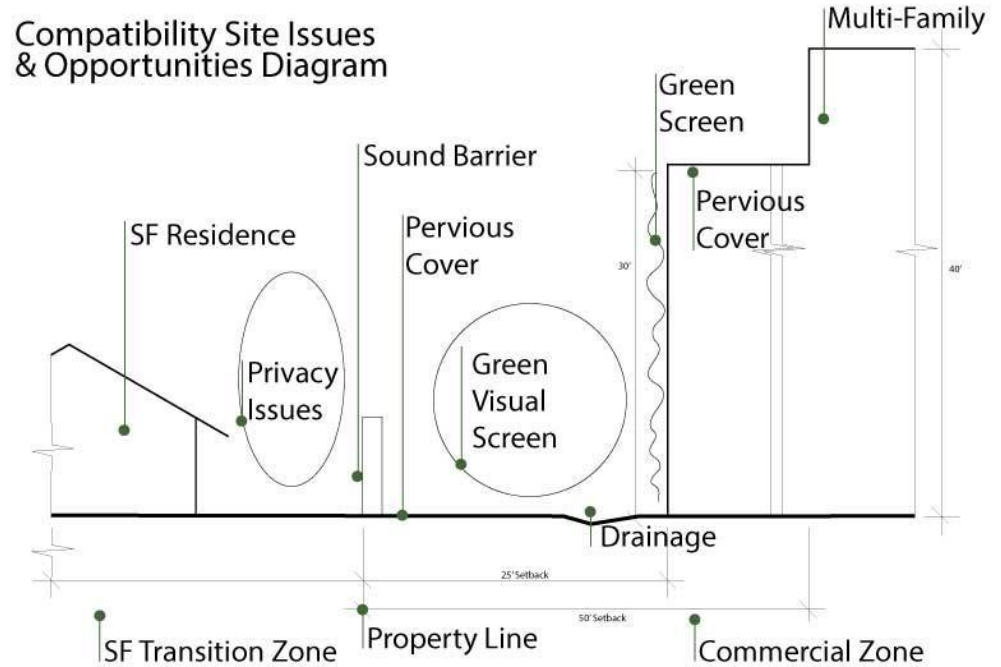
Issue: Commercial and Multifamily Zoning adjacent to Single Family Zoning creates concerns of privacy, noise, and visual impacts.





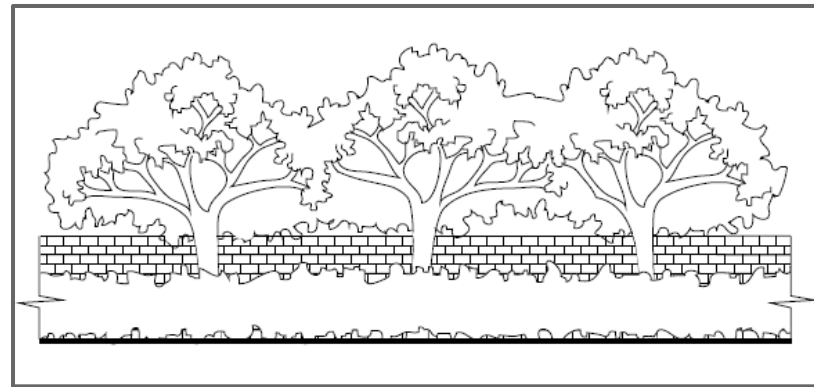
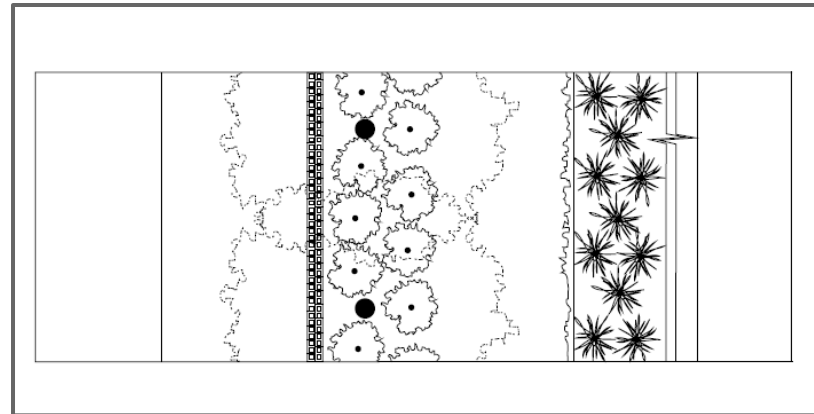
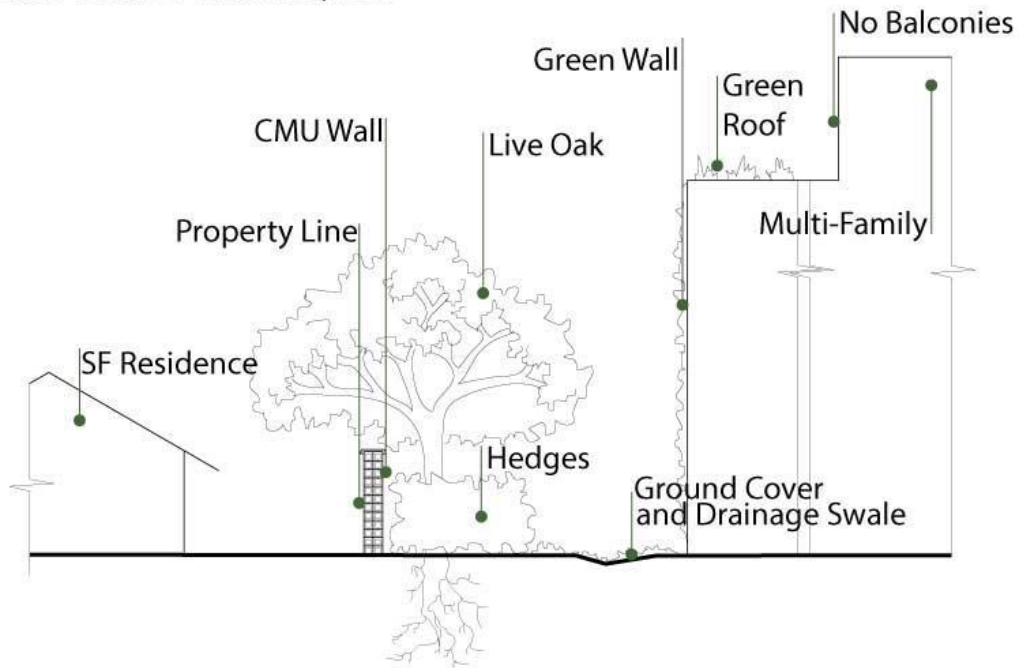
# Green Compatibility

Recommendation: Employ green infrastructure in Compatibility setbacks to mitigate impacts.



# Green Compatibility

Compatibility Proposed Green Infrastructure/Landscape Buffer  
Sites Greater Than 20,000 <sup>SF</sup>



# Green Infill Regulation

Recommendation: CodeNEXT should be informed by “green” infill codes such as the Seattle Green Factor and Washington, D.C.’s Green Area Ratio to retain stormwater on-site.



SEATTLE/*green factor*



Pre-Settlement  
Conditions



Historical Urban  
Development



Urban Greening

# Seattle Green Factor - Built Form

## Green Streetscapes





# Seattle Green Factor - Built Form Green Roofs



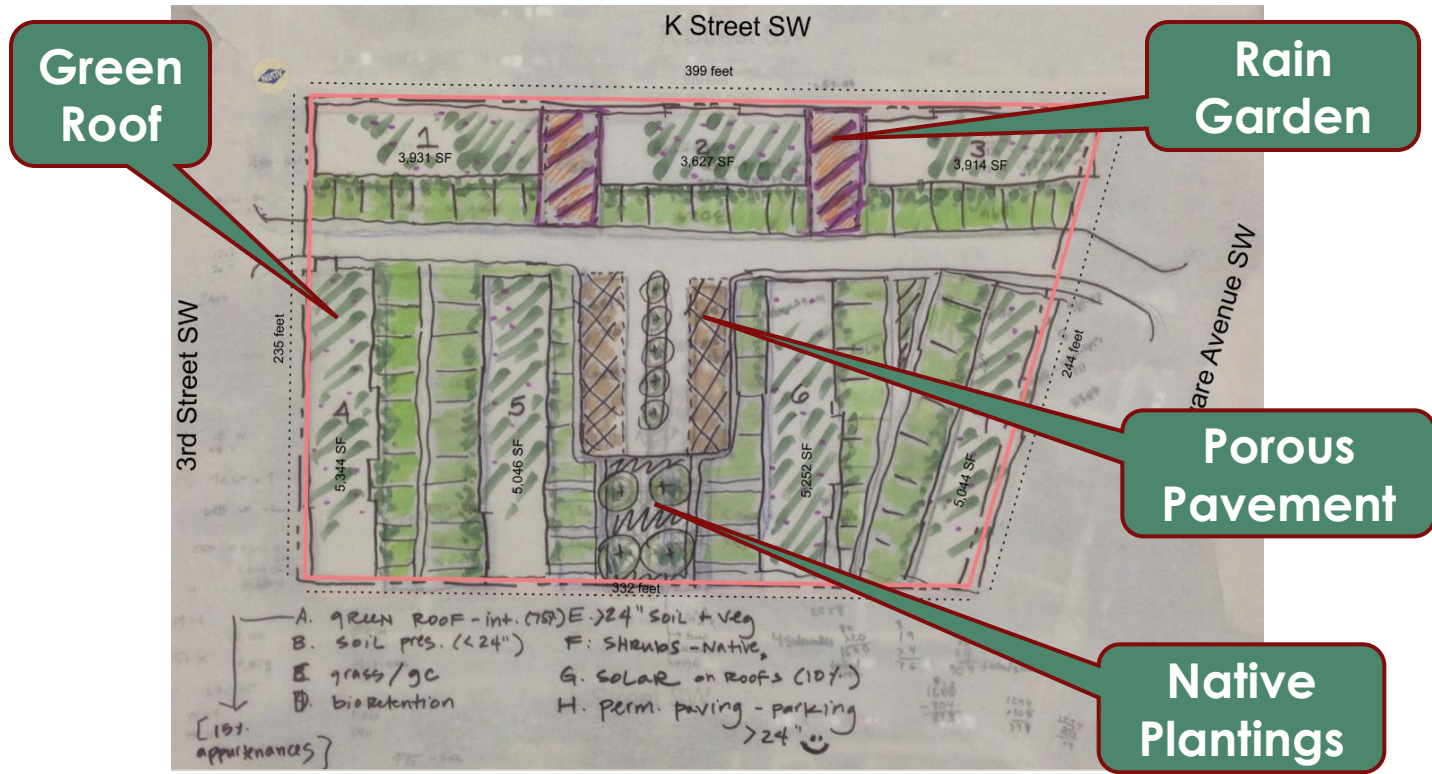
# Seattle Green Factor - Built Form

## Green Walks/Courts





# Green Area Ratio, Washington, D.C.



# Greening Austin

## Central Health 1111 E. Cesar Chavez Street

- **Conventional Pavement**
  - **Minimal Plantings**
  - **59 Parking Spaces**
  - **Low Green Score**
- 
- **2009 aerial**

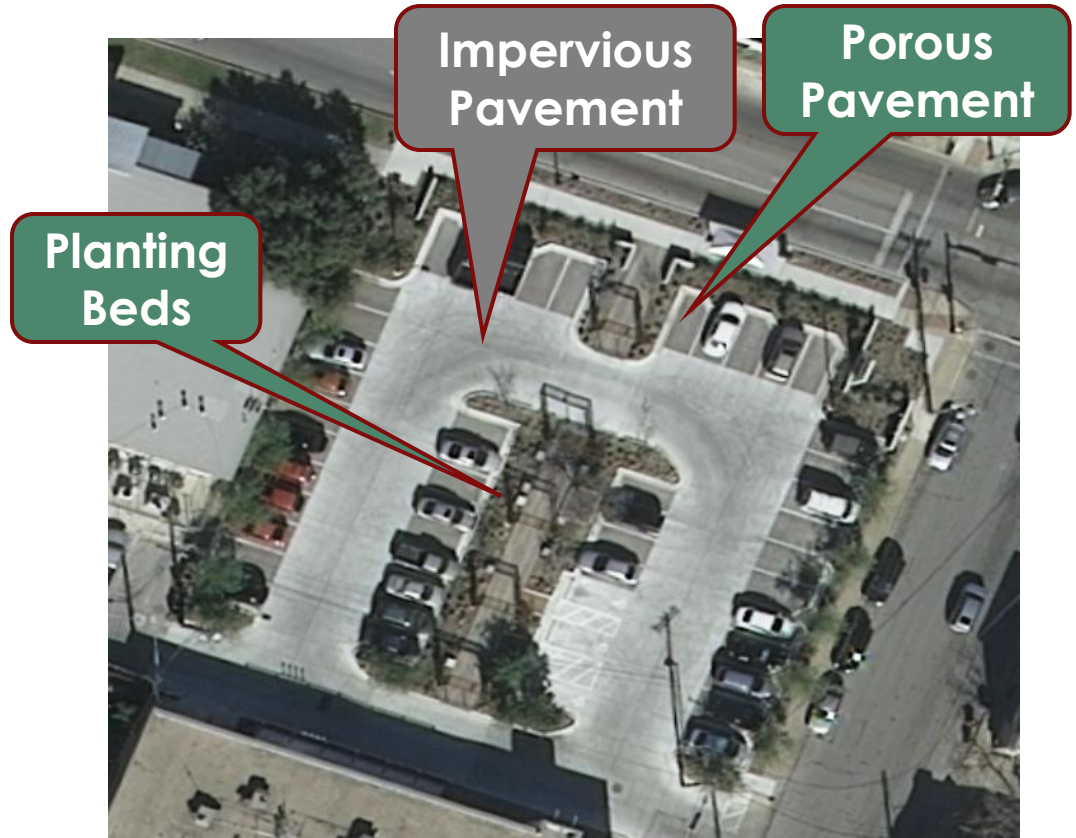




# Greening Austin

## Central Health 1111 E. Cesar Chavez Street

- Porous Pavement
  - Extensive Plantings
  - 49 Parking Spaces
  - 56% Green Score!
- 
- 2012 aerial



# Case Study: Burnet Rd. Small Commercial

## Site #3: Burnet Road

Small & Shallow Commercial  
Tracts (0.3 ac average)  
89% Impervious Cover



# Case Study: Burnet Rd. Redevelopment





# Case Study: Burnet Rd. Remodel



# Case Study: Burnet Rd. SF-3 Adjacency



# Case Study: SF-3 Adjacency w/ Green Wall





# Case Study: Burnet Rd. Remodel



# Case Study: Remodel w/ Green Elements



# Case Study: Burnet Rd. Apts. / SF-3



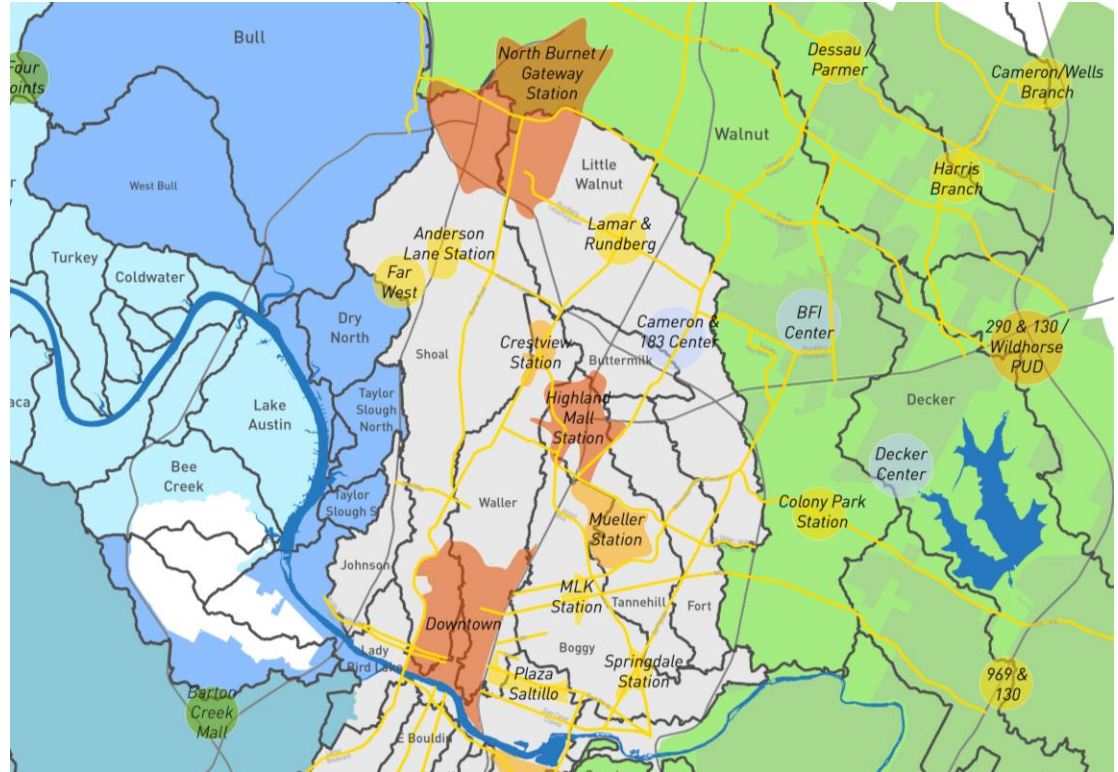


# Case Study: Apts. w/ Green Elements / SF-3



# Open Space – Public Parkland

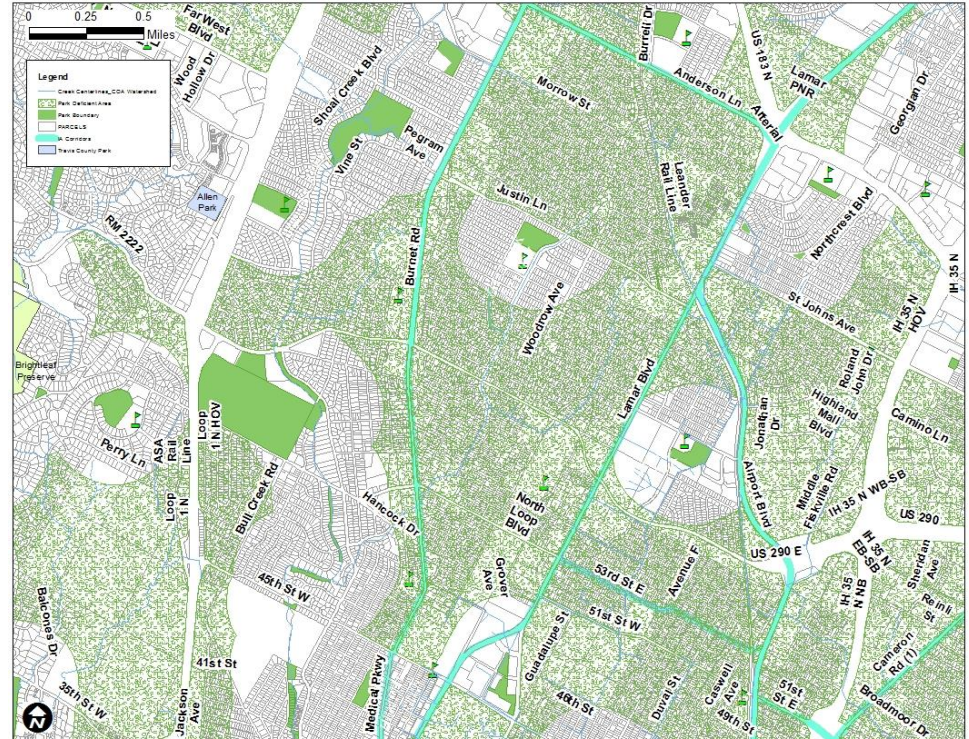
Recommendation:  
Prioritize parkland  
acquisitions within  
proposed higher density  
districts and corridors.





# Open Space – Park Deficient Areas in Urban Core

Recommendation:  
Require the presence of  
public open space within a  
 $\frac{1}{4}$  mile radius of all  
residences in the urban  
core.



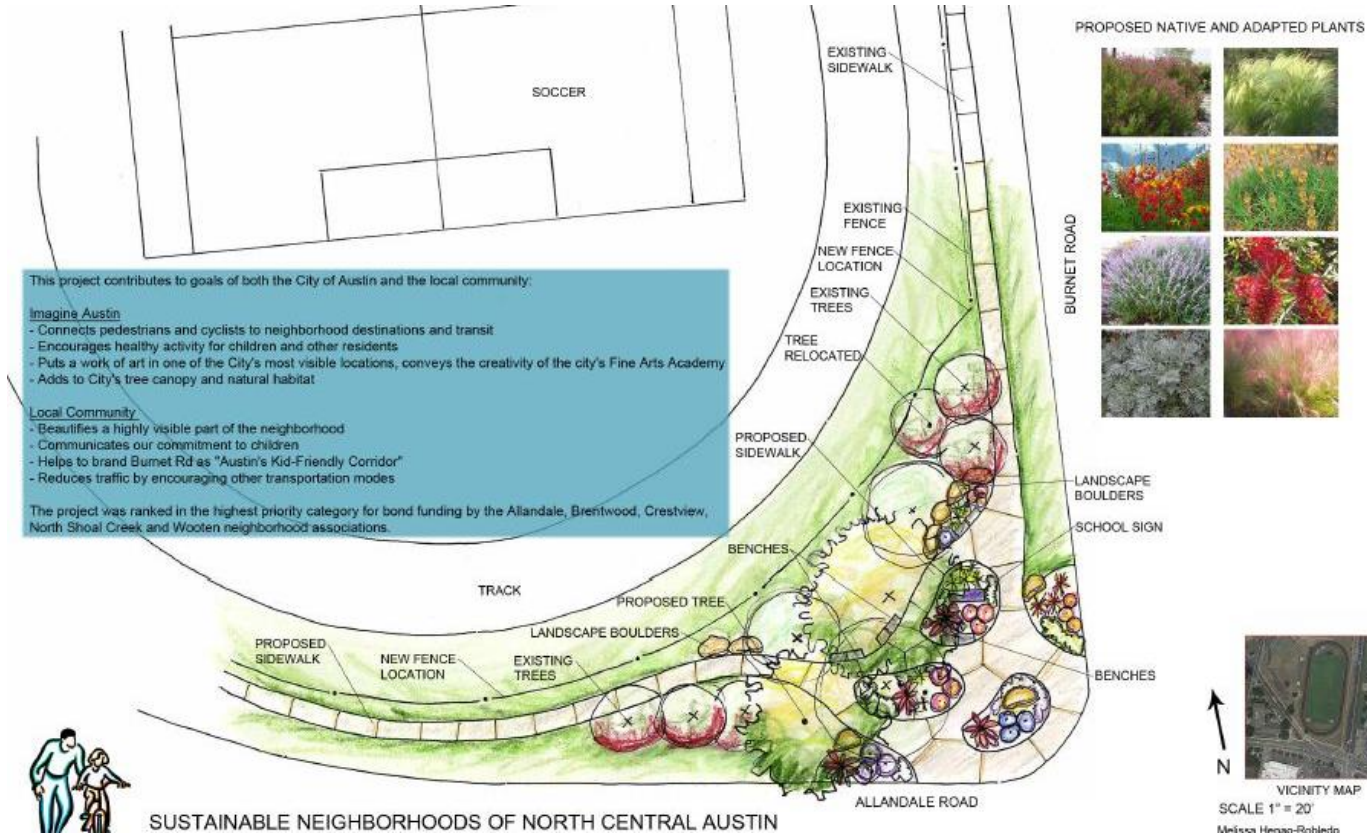


# Open Space – Pocket Park Opportunities

Recommendation: Acquire private land to convert to public open space such as neighborhood parks and pocket parks.



# Open Space – Pocket Park Opportunities



# Open Space – Private Commercial

## 5% of Site Area Required

Recommendation:  
Maintain the Commercial  
Private Open Space  
Ordinance requiring 5% of  
the Site Area for open  
space.





# Open Space – Residential Front Yards

## Limit Lawns/Preserve Trees





# Open Space – Residential Back Yards

## Install Rain Gardens



# Urban Agriculture

Recommendation: Incorporate provisions and guidelines in the new code that make urban farms, community gardens, and front and backyard gardens possible.





# Case Study: Design Activism 2009

## ‘What Is LANDscape?’

**How can we inspire new forms of urban greening / art without waiting for projects to come through the standard city channels?**



# Case Study: Park(ing) Day 2008

## ‘Locavore Lunch’





# Case Study: PlazaLife 2012

## A Day in the Life of Frost Bank Plaza





# Case Study: Congress Avenue 2013 – dwg. Royal Blue Grocery Parklet

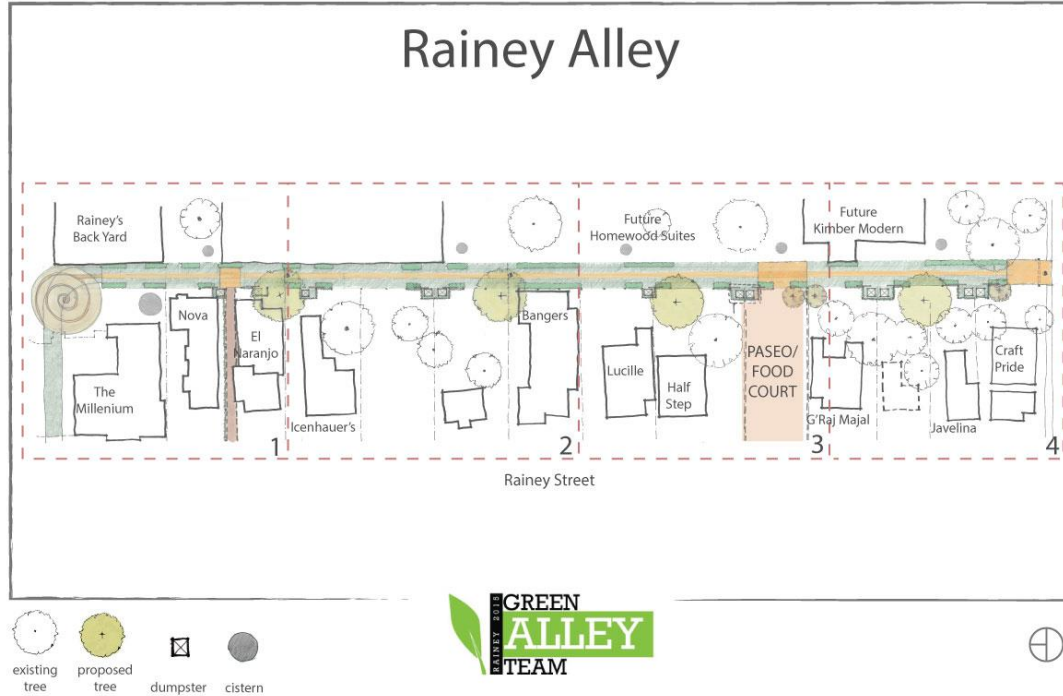


# Case Study: Fairy Alley 2014 - Suvi Aika



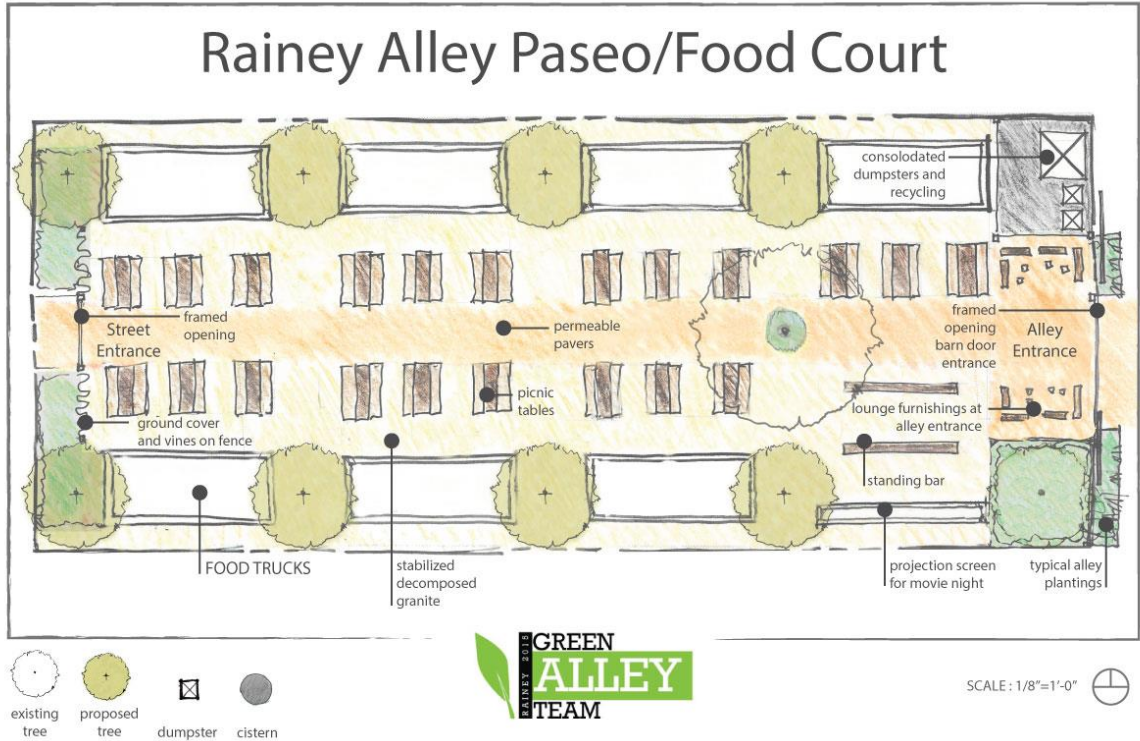


# Case Study: Rainey Alley 2015





# Case Study: Rainey Alley/Green Alley



## *Question:*

**In alignment with Mayor Adler's call for inclusion, innovation, and intentional improvisation, how can we promote, incentivize, or require more pocket parks, trees, and pervious elements in corridor redevelopment, remodels, alleys, and 'transition zones' in all parts of Austin?**

# Contact



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