



Moving Austin toward becoming a more multimodal city:

Mobility Code Prescription



CODENEXT
SHAPING THE AUSTIN WE IMAGINE

Transportation affects Austinites' daily lives in ways beyond being stuck in traffic. It can help or hinder issues of how and where development occurs, and affects affordability, safety, and health. A revised Land Development Code is an important tool for addressing many of the transportation challenges Austinites face.



WHAT IS A CODE PRESCRIPTION?

CodeNEXT is the process of aligning Austin’s land use standards and regulations (the Land Development Code, or LDC) with *Imagine Austin*, the city’s comprehensive plan. CodeNEXT progressed through several phases during 2013 and 2014:

- Listening and Understanding: “Listening to the Community Report” and “Community Character Manual.”
- Diagnosis: “Land Development Code Diagnosis.”

The City of Austin’s CodeNEXT team, which includes staff from multiple departments and consultants, is busy drafting and refining code elements. Virtually the entire LDC will be rewritten or revised, including chapters relating to requirements and procedures, zoning, subdivision, site plan, transportation, drainage, environment, and others. The draft code will be released for public review and comment in January 2017. After an extensive review and comment period, the draft code will be revised in accordance with the feedback received and delivered for City Council potential adoption. Once the code is adopted, the city will adopt a new Zoning Map to implement the zoning elements of the code.

During 2016 – while the CodeNEXT team is drafting and reviewing code – the project team will issue and organize community conversations and feedback on some of the most challenging and important topics that the code will address:

- Natural and Built Environment
- Household Affordability
- Mobility
- Fiscal Health

This is being accomplished through four “Code Prescription” papers. These Code Prescriptions represent a preview of the specific direction being taken in the new code as well as “conversation starters” to gather community feedback on whether these Prescriptions accurately reflect community values expressed in *Imagine Austin*. While the Code Prescription papers will not be revised based on feedback received, the feedback will be used to shape the new code. Feedback can be provided several ways, including:

- Through your participation in the work of the Council-appointed Code Advisory Group.
- By providing feedback directly at SpeakUp Austin.
- By joining a CodeWalk or a Reddit AMA (Ask Me Anything).

Additional information about all of these means to get involved can be found at the project website: www.austintexas.gov/codenext.





EXECUTIVE SUMMARY

When Austinites think of transportation, what do they think of? MetroRail? Maybe. Wide sidewalks and bike lanes? Also possible. Congested roadways? Almost certainly.

Transportation is about more than getting from Point A to Point B, and it affects our daily lives in a wider range of ways than frustrations from being stuck in traffic with everyone else. It is about moving people and goods, creating places, affordability, safety, environment, and health. This Code prescription examines the transportation challenges Austin faces and the opportunities to address them through the Land Development Code. While the Code will not be a panacea for Austinites' transportation woes, it is a key part of the solution, along with the Austin Strategic Mobility Plan and policies like Complete Streets and Vision Zero.

This paper examines how the Code can affect transportation to maximize *Imagine Austin's* goals for a more livable city. It looks at the following key issues:

1. Changing from an auto-centric city to a multimodal region

The Austin of today is different from the Austin of years past, and the Austin of the future will be a different city from today's. How do we change from an auto-oriented city to one that better supports walking, bicycling, and transit? Part of the answer is better coordinating transportation and land use planning so that streets match the types of development on either side of them and vice versa. Part of the answer is translating the areas *Imagine Austin* identifies for concentrating growth into code that supports density.

To get there, this paper prescribes:

- Planning for density along transit corridors
- Updating and integrating the City's transportation plan into *Imagine Austin* and the Land Development Code with the forthcoming Austin Strategic Mobility Plan
- Changing street design standards to create multimodal streets
- Addressing sidewalk connectivity and quality
- Working to integrate utilities into constrained right-of-ways





2. Mitigating the effects of congestion

Austin has some of the most congested roads in the country. This is due to a higher daytime population of people coming from outside the city to work, the prevalence of single-occupancy personal vehicle, and number of people traveling at the same times. Solving this through more or wider roads is a Sisyphean and expensive endeavor: more or wider roads can attract more drivers, resulting not in less congestion, but instead more miles of congested roads. More or wider roads also mean losing the homes, businesses, or open space where new roads would be constructed.

Along with more and attractive alternatives created in the first prescription above, implementing Transportation Demand Management strategies, such as transit passes, priced parking, carpooling, bike and car share, and others, can help us move more people with the infrastructure we already have.

3. Parking

Parking eats up land that could be used for open space, homes, or businesses, encourages more driving, which has environmental, safety, and health repercussions along with creating congestion, and can erode the character of communities. It is also not free—even though we usually don't pay for it directly—and is factored into the price of our housing and purchases. Yet as long as the majority of Austinites (and commuters into the city) drive, we will need places to store their cars.

The prescriptions for parking address regulatory changes in the LDC, coupled with Transportation Demand Management, to help reduce congestion, relieve the high cost of transportation, and balance the needs of various transportation options with creating good urban form.

4. Affordability

After housing, transportation is the next largest expense for most households, costing Austinites an average of over \$11,000 per year. This cost is high because car ownership and operation is expensive (fuel, maintenance, depreciation, insurance, et cetera), but often hard to avoid because Austin's relatively low density makes travel by other means difficult. Parking also drives up the cost of constructing buildings and reduces what can be built.

Addressing parking can help affordability, as can encouraging density

along corridors served by transit. In addition to the other strategies already discussed, this section looks at using density bonuses to create more housing along transit corridors, modifying single-family compatibility standards to allow density along corridors, and unbundling the cost of parking from the cost of housing.

5. Cost of growth

Austin is one of the fastest growing cities in the country—and for good reason. People are moving to Austin for the opportunities and lifestyle it affords, but in many ways our infrastructure is stuck in the past. Having growth help pay for growth is a way to allow Austin to grow and change without eroding the quality of life that attracted (and keeps) everyone here in the first place.

The City is developing impact fees and updating the transportation impact analysis (TIA) process for new development in coordination with CodeNEXT. TIAs can help direct growth to the areas *Imagine Austin* prioritizes for growth, while helping ensure growth is not a detriment to the existing fabric of the city.

6. Safety

One hundred and two Austinites died on Austin’s streets in 2015—102 people too many. We must do better to protect the lives of people while traveling, an effort that will require a multi-pronged approach of engineering and design, changes to land use patterns, education, enforcement, and evaluation.

Many of the prescriptions throughout this paper address safety, either directly or indirectly. By creating compact and connected development patterns, the Code can encourage alternatives to driving, which is a top predictor of crashes: cities with higher transit ridership and lower amounts of driving have fewer traffic deaths per capita. The Code can also build safety into design through mitigation and impact fees.





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INTRODUCTION

Transportation plays a central role in the daily lives of Austinites and has implications for how we travel, where and what we build, and where we live, work, shop, and play.

Much of Austin's built environment is designed around driving. Part of this is a function of when Austin grew up (and out): like many western and southwestern cities, much of Austin developed in the post-1950 era of peak automobile use. Most of Austin's streets are designed for moving motor vehicles, which means that land use patterns are also designed primarily for automobile use. Land uses are generally separated from one another (on the assumption that automobiles make most locations easy to access), significantly increasing trip distances and making other modes of transportation less effective. Buildings are often set back from the road, buffered by parking lots, which erodes the walking environment. These past

investments have had the effect of dispersing destinations, with people living farther away from their jobs, which has reinforced passenger vehicles as the dominant form of transportation. Future transportation projects should focus on moving people, goods, and services – not just vehicles.

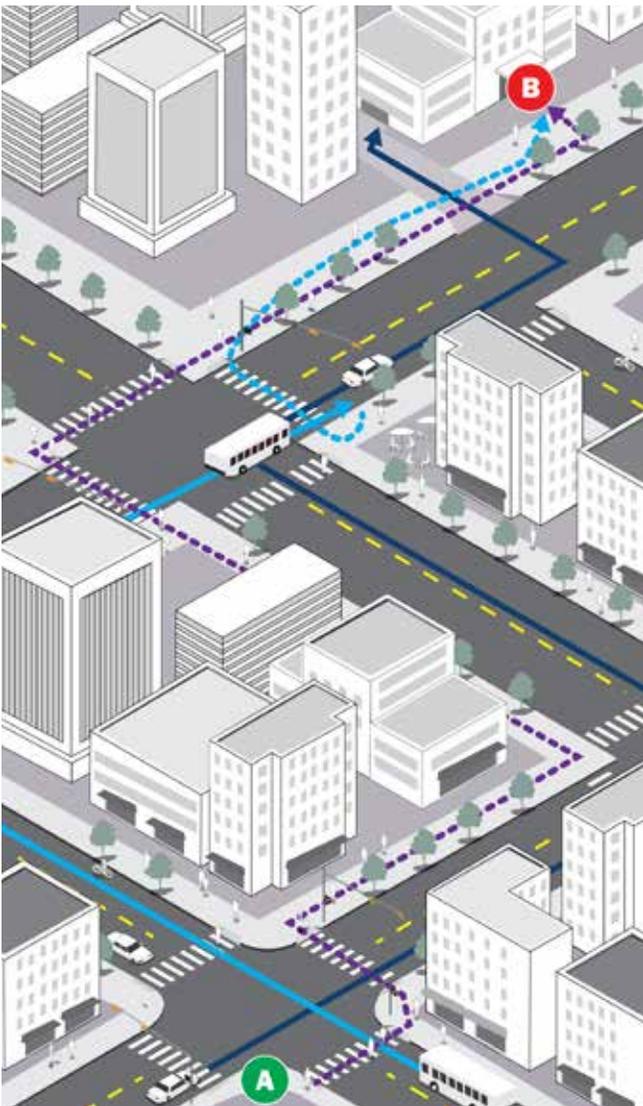
These dated designs encourage driving for most trips, making use of other travel modes challenging. Currently, approximately 83% of employed Austinites drive to work, and 17% use other modes including public transit and bicycling.¹ Shifting current drivers to other transportation modes, reducing the number of trips driven alone, and reducing trip lengths will significantly ease congestion on our existing roadways. None of this is to say that driving shouldn't be one of the mobility tools at Austinites' disposal—but it should not be the only one.





Mobility and *Imagine Austin*

Transportation is about more than getting from Point A to Point B. Its purpose is to move people and goods, facilitating social interactions and economic transactions. Those points—A and B—are places, as is the space in between them, defined by land use, urban design, businesses and homes, and, most importantly, the people who live and work there. How should transportation best serve the needs of Austin residents, businesses, and visitors, and further the goals of the *Imagine Austin Comprehensive Plan*?



The *Imagine Austin Comprehensive Plan* points out that sprawl is partly the result of past transportation decisions that prioritized highway growth (p. 44), but calls for the creation of corridors that both facilitate movement between places and are places themselves (p. 106). To achieve this, *Imagine Austin* identifies the importance of walking, bicycling, and transit. The infrastructure needs for walkability, bikeability, and transit are different from those needed for driving. Driving requires parking, while walking and biking require safety, comfort, accessible destinations, and appeal. These needs are often at odds with one another, making planning for future transportation investments challenging.

The City has traditionally focused on high cost infrastructure solutions (“supply side”) to combat the growing congestion problems. These solutions, which add new roadways and expand existing highways, may not always fall in line with the goals of *Imagine Austin*. “Demand side” solutions provide the opportunity to incentivize the use of other travel options (while discouraging driving alone for all trips), thus freeing up roadway capacity. Transportation demand management (TDM) achieves the equivalent of adding capacity to a roadway without the high infrastructure costs. The existing code provides minimal support for TDM strategies to reduce the traffic impact from new developments or from large employers.

Maximize multiple City goals

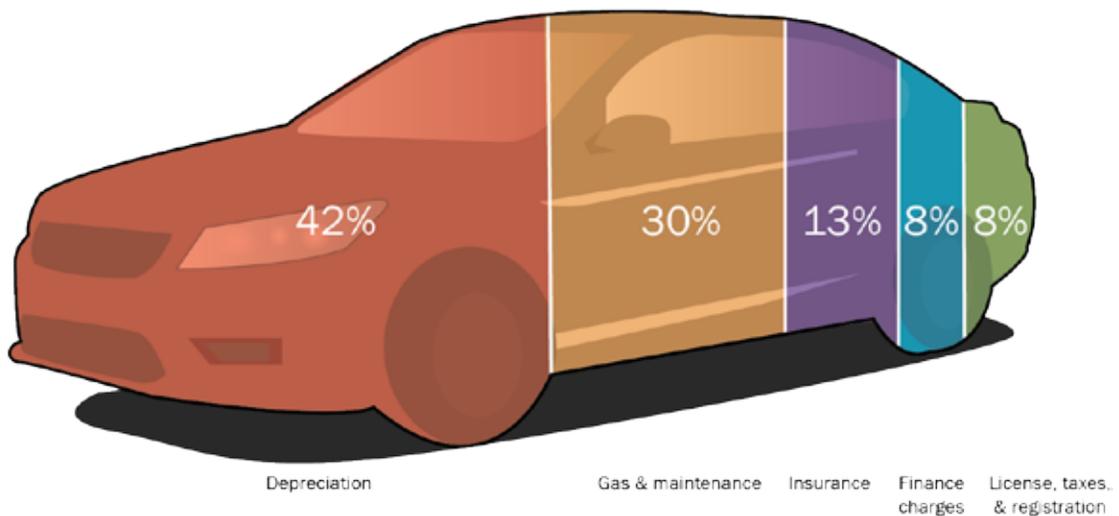
The language used to describe transportation speaks to its importance to the functioning of cities. Descriptions are rife with language likening transportation systems to the human body—circulation, arterials—and yet we sometimes forget that like the blood pumping through our own bodies, transportation systems do not exist for their own sake, but to support the vital organs of the city: its residences, businesses, parks, museums, restaurants, and all of the places people live, work, and recreate.

MOBILITY AND AFFORDABILITY

How people travel directly affects Affordability: after housing, transportation is typically the second greatest expense for households. Austin’s land use patterns and transportation system make driving the predominant choice for most travel, yet car ownership is estimated to cost over \$10,000 annually², straining low and middle income budgets.



Average Annual Cost of Vehicle Ownership in Austin: \$11,983



Note: Total greater than 100% due to rounding.
 Cost of owning in Austin from CNT H+T Fact Sheet for Austin. <http://htaindex.cnt.org/fact-sheets/>. Vehicle cost breakdown from <http://newsroom.aaa.com/2015/04/annual-cost-operate-vehicle-falls-8698-finds-aaa-archive/>



STREETS AS PLACES

Streets are our largest public spaces, occupying greater land area than any other publicly-owned land use, but are not usually designed or utilized in that way. Streets can and should be designed for people, while still providing mobility. This can also help during extreme weather events or other emergencies. Most streets are designed to convey storm water to prevent local flooding, for example. They are also designed for use by emergency services and public utilities (e.g., solid waste disposal).

The City Council-adopted Complete Streets Policy identifies streets as places for people, not just for moving (and storing cars). The Austin Strategic Mobility Plan, which is being developed in tandem with CodeNEXT, will look at strategies, projects, and proposed policy to redefine the street network to meet the vision of *Imagine Austin* and the goals of the Complete Streets Policy. A main focus of the Austin Strategic Mobility Plan will be a shift from planning our streets based solely on functional classification, measured by the character of traffic service a road is intended to provide, by adding land use context to the transportation planning process.



STREETS AS ECONOMIC GENERATORS

Our streets are critical to the strength of the local economy. In addition to providing access to local businesses, they can also help generate additional business activity by the way they are designed. In the past, we have looked at streets primarily as a way to provide access to businesses by car and ensuring nearby parking for those cars so that it doesn't spill over into residential areas. But people, not cars, are the ones spending the money at local businesses. Research shows that more wealth is generated on streets that cater to people, rather than cars alone.³ This is demonstrated on some of our best-designed streets—2nd Street and other Great Streets projects—as well as some of our streets that are transitioning to robust, people-centered places. Streets such as South Congress or Burnet, increasingly lined with vibrant local businesses, attract people outside of their cars, encouraging them to walk and linger, with great benefit to the businesses located there. Many roads in residential neighborhoods in older parts of the city were built with narrower streets and with homes near retail and schools. The roads in such neighborhoods continue in the 21st century to provide people walking with easy mobility and access, especially when compared to many modern vehicle-oriented, more homogeneous neighborhood streets.

ENVIRONMENTAL AND HEALTH CONSIDERATIONS

Large numbers of people use single occupant vehicles (SOVs) as their primary mode of transportation, and SOVs account for the majority of greenhouse gas emissions related to transportation. In 2010, transportation accounted for 35% of community-wide greenhouse gas emissions, or 5.4 million metric tons of CO₂ equivalents.⁴

Creating more compact and connected land use patterns can reduce our reliance on driving, making other forms of transportation more attractive and viable and reducing the distances for trips made by driving. Reducing the amount of travel by motor vehicle can reduce greenhouse gas emissions and improve air quality, and promoting more trips by walking and bicycling can integrate incidental exercise into Austinites' daily lives, improving health outcomes.

Key definitions

Austin Strategic Mobility Plan: The Austin Strategic Mobility Plan is a long-range plan that pulls multiple mobility programs and plans into one comprehensive vision and applies an integrated approach to planning for all modes of our transportation system. It

- Identifies strategies in the form of programs and projects to shape our future transportation network;
- Includes network and program planning that will be done through a safety lens and will consider all modes; and
- Includes maps and tables of the existing and future street network.

Low-impact development (LID): LID is a planning and engineering approach to managing stormwater runoff through conservation and natural features.

Traffic impact analysis (TIA): TIAs project traffic expected from a proposed development and evaluate the impact of proposed development on the roadways in the immediate proximity of the proposed development. They also identify any potential traffic operational problems or concerns and recommend appropriate actions to address such problems or concerns.

Transportation network company (TNC): TNCs are companies that use proprietary online platforms to connect passengers with drivers using their personal vehicles.





Residential Parking Program (RPP): Residential Parking Program creates “resident-only” parking along designated streets in an effort to mitigate adverse and chronic levels of commuter or non-resident parking along street segments with adjacent residential properties. RPP areas are established by a request process and provide residents with on-street parking permits.

Green infrastructure: Green infrastructure refers to strategically planned and managed networks of natural lands, parks, working landscapes, other open spaces that conserve ecosystems and functions, and provide associated benefits to human populations.

Transportation Demand Management (TDM): TDM is an umbrella term for strategies that result in more efficient use of transportation resources by reducing or redistributing (in space and time) the demand for single-occupant vehicle travel.

Single-occupant vehicle (SOV): SOV refers to a privately operated vehicle whose only occupant is the driver.



Prescriptions

The following Prescriptions address how revisions to the Land Development Code can implement the goals of *Imagine Austin*. The Prescriptions tackle pressing issues, including:

- The transformation of an auto centric city to a multi-modal region;
- Mitigating the effects of congestion;
- Parking;
- Affordability;
- Cost of growth; and
- Safety.

For each of these topic areas, this paper discusses where we are as a City today, where we want to be in the future, and the Code changes that can get us to that future.





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AUTO CENTRIC CITY TO A MULTI-MODAL REGION

Where are we now?

Imagine Austin speaks of creating a “compact and connected” Austin. Where are we now with respect to that vision? Our auto-oriented patterns have led to the Austin we know today. Many existing code elements perpetuate this auto-orientation, resulting in challenges for making walking, bicycling, and riding transit attractive options.

LAND USE AND TRANSPORTATION PLANNING

Transportation and land use are thoroughly intertwined, but have not always been well coordinated. Transportation infrastructure influences where people live and how they travel, while land use patterns affect the demand and viability of different transportation options. Over the past 60 years, investments in high-speed roads have helped people travel farther and faster, helping decentralize the city, while separation of uses and high parking requirements have made

driving the most rational way to travel. This has been to the detriment of other modes of travel and has resulted in the high number of collisions, long commutes, congestion, and affordability concerns in Austin.

The mismatch of transportation and land use is apparent on many of Austin’s commercial corridors. Over time, roads like Burnet and Lamar, which were designed for higher speed vehicle movement, have evolved to become vibrant corridors lined with businesses and homes. Yet despite the additional residents and restaurant patrons, these corridors have not been redesigned for better walking, biking, or transit, and improvements triggered by redevelopment are often for only the site that has redeveloped and are not connected to the rest of the network.





TRANSIT

Most transit users begin and end their trip by walking. A poor quality streetscape or the perception of danger discourages transit use. Beyond driving away (quite literally) choice riders, this affects our most vulnerable community's ability to meet basic needs such as access to jobs, school, healthy food, or doctor appointments. Many sidewalk improvements—filling in gaps or widening for instance—rely largely on redevelopment, which triggers Code requirements. Yet along many of Austin's major corridors, limited redevelopment opportunities exist (due in part to parking and residential compatibility requirements), resulting in remodels instead. Remodels do not trigger a site plan review and as a result are not required to make streetscape improvements up to code. Inconsistent infill redevelopment patterns create spotty streetscapes, which in turn makes transit a less attractive option.

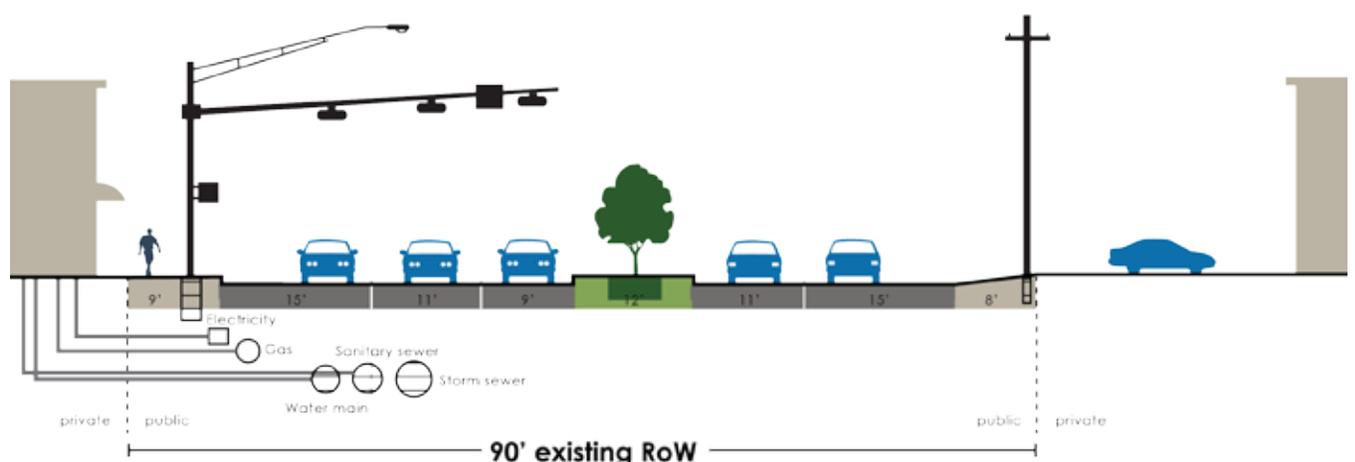
High-quality transit relies on four critical factors: adequate density, a well-connected road and

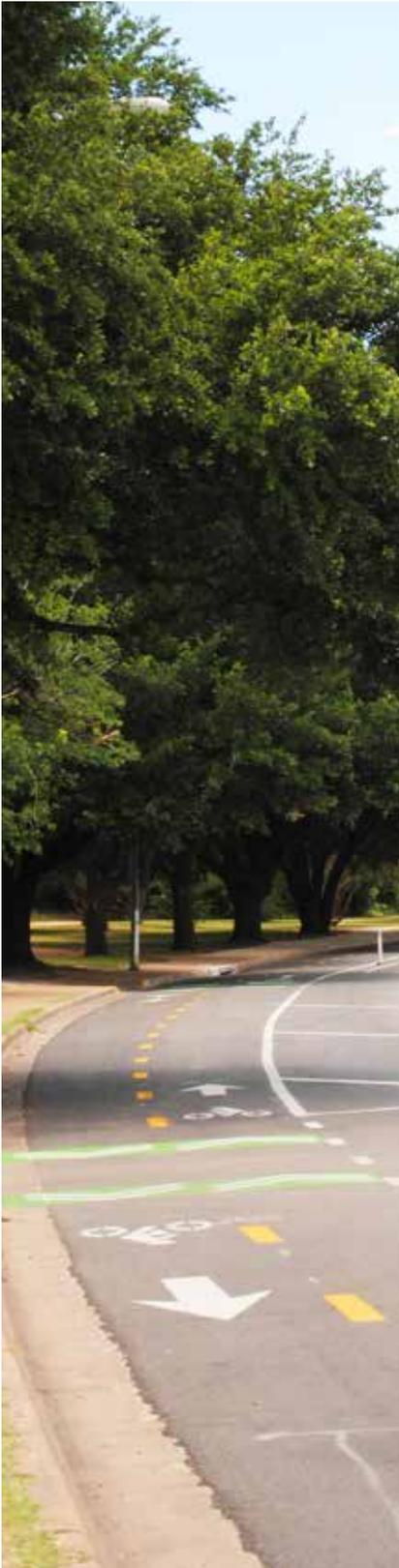
sidewalk network, destinations that are located along a linear path, and contiguous development. Today, the pace of Austin's urban core development lags far behind new development in suburban and exurban (residential development beyond the suburbs) areas, and density trails behind both its peer cities and other major cities in Texas.⁵ Disconnected roadways make providing transit routes that are simple, straight, and cost-efficient challenging. The prevalence of large gaps in development and lack of directness between destinations only exacerbates the situation. At an average operating cost of \$100 per hour,⁶ operating transit in areas that are not built to support it results in few passengers moved per dollar spent on service. Like any business, transit will be most successful when it's located where there are more potential customers, when its customers can easily access stops or stations, and when the cost of providing transit is not too high compared to the number of customers it serves. The Land Development Code can play a critical role in making this possible.

UTILITIES

Overhead and underground utilities, including water, wastewater, electrical, and drainage infrastructure, share the public realm and right-of-way with transportation facilities. Because development patterns have historically been auto-centric, the original placement of utilities did not anticipate the increased interest in multi-modal mobility improvements, urban building placement and street trees, or the reduction of front surface parking that we are now seeing in the evolution of urban corridors. As such, existing utility placement and regulations can serve as a barrier to the improvement of mobility infrastructure, quality of the built environment, and environmental features, particularly where existing right-of-way is constrained. Constrained right-of-ways not only pose a challenge for accommodating people using different modes of transportation, but can also make it more difficult for utilities to meet safety clearances, ensure system reliability, and minimize impact to the community during maintenance activities.

Currently, this type of conflict between development and utility standards results in city and private developer staff and consultants spending time working out an alternative compliance to design criteria, standards, and specifications during the subdivision or site plan review process. This results in increased costs for both the city and developer as well as project delays. In some cases, it also results in situations where utilities are “crammed” into developments as an afterthought, either marring the architectural design or creating physical conditions that increase costs to the utilities due to challenging or extended installation or maintenance costs, which ultimately negatively impact residents and customers of the City.





Where do we want to be?

COORDINATED LAND USE AND TRANSPORTATION PLANNING: TRANSPORTATION PLAN NEEDS TO MATCH THE COMPREHENSIVE PLAN

Streets serve multiple roles. They are the “bones” of the city, providing an armature around which development occurs. They are also the arteries, facilitating travel between destinations. But like their metaphorical relationship to the human body, they—like bones or arteries—exist to sustain the organism as a whole. Land use and transportation must be considered together. Especially in urban areas, the main purpose of the street is often to facilitate social interactions and economic transactions, not move cars quickly. On city streets, the aphorism that the faster a credit card moves past a business, the less likely it is to make a purchase is an important consideration. The street is a public space that should be designed for people, not exclusively as conduits for cars. Streets should serve as our collective living room, allowing us to interact with neighbors, watch the activity of the city, or play. They are also places for trees and plants, both for aesthetic and environmental purposes. By designing streets with the appropriate land uses, the street becomes a destination and an experience, creating a complete community.

The City’s existing transportation plan is over twenty years old, created well before *Imagine Austin* and before many of the issues we face today. Austin is now a very different city and our vision requires a different approach to transportation and land use. There is a need to update and take an integrated approach to the plan, considering all modes and overlapping system plans to reflect the “compact and connected” Austin envisioned in *Imagine Austin*. In the current plan, the roadway table defines functional classifications and does not consider land use context. The Austin Transportation Department is currently leading an update to the City’s Transportation Plan which will promote complete street design and include features such as traffic calming elements, wide sidewalks, and pedestrian, bicycle, and transit access throughout Austin, and considering the safety needs of people of all ages and abilities.

TRANSIT-SUPPORTIVE LAND USE PATTERNS

Land use and transportation planning are critical to successful transit. *Imagine Austin* identifies the need for coordinating planning to provide a range of uses and housing types to achieve necessary densities for successful transit. The *Imagine Austin* Growth Concept Map provides a 30,000-foot view of how land uses should interface with transit, which is being further developed through CodeNEXT.

National best practices, local preferences, and public input were used to develop the current Transit-Oriented Development (TOD) zoning for four Red Line stations (Crestview, MLK, Saltillo, and Downtown). The City’s TOD zoning approach should be integrated within the CodeNEXT process and expanded to all 49 stations along the existing Red Line and MetroRapid high-capacity transit routes. Also, CodeNEXT should specify a process for future amendments that enable TOD zoning for future high-capacity routes, such as MetroRail or MetroRapid extensions.



UTILITIES

Getting to a state where development is more “compact and connected” and multi-modal will require new approaches to regulations addressing the interface between utility infrastructure, multi-modal mobility infrastructure, building placement, and urban design in the public realm. In some cases, innovative methods in designing, constructing, and maintaining water, wastewater, electrical, and drainage infrastructure will need to be incorporated into utility placement standards, design criteria, specifications, general standards, and operations and maintenance functions. In others, urban design and mobility standards and details will need alternative options or conflict resolution methods for working around existing utilities or safety clearances where relocation or changes in operation and maintenance functions are cost-prohibitive. Certainly, as the space for infrastructure decreases and more infrastructure is located under sidewalks and roads, such methods will need to be created and deployed in order to minimize the increase of time and money to repair and replace infrastructure in more confined spaces while still ensuring utility system safety and reliability.



GREEN STREETS

Climate scientists are projecting that Central Texas will experience longer and hotter droughts interspersed with heavier precipitation.⁷ How we design, build, and manage our streets and public spaces will play a major role in making our communities more resilient to extreme events.⁸ Green Streets are a key tool within Complete Streets.⁹

Green infrastructure can help protect environmentally sensitive areas and integrate nature into the city, as well as helping to mitigate

climate changes. A Green Street is a public street that is context-sensitive and that incorporates landscape features, engineered stormwater controls, and sustainability principles and practices to enhance walking and biking, mitigate the Urban Heat Island effect, improve water and air quality, and conserve ecological resources.¹⁰ Incorporating Green Street elements into road design can reduce the sensitivity of our most vulnerable communities to weather events, increasing their adaptive capacity while decreasing long-term cost of maintenance for the City.¹¹

In particular, trees can serve many roles in addressing psychological, physical, and biological stressors in and near our street infrastructure. A growing body of research suggests trees can serve many purposes in an urban environment. They can provide a sense of calm to people in the urban environment and serve as physical barriers between the roadway and sidewalks to help reduce speed and provide safe space between cars and pedestrians. Additionally, trees in and near the roadway provide shading for pedestrians and assist in absorbing and filtering water during storms.

Common elements of a Green Street include: healthy street trees and functional, drought-tolerant landscapes; Green Stormwater Infrastructure (GSI), such as rain gardens and bio-swales; Low Impact Development (LID) techniques that reduce impervious cover (e.g. porous pavement); and materials and construction techniques that minimize lifecycle costs, greenhouse gas emissions, and waste byproducts.¹²

As our climate becomes drier, wetter, and hotter, Green Streets can help communities improve their resiliency to climate change. By increasing the capacity of drainage systems to handle large storms, increasing the resilience of water supply systems in times of drought, and mitigating the urban heat island effect, communities can protect themselves from potential harm.



Photo by Michael Knox

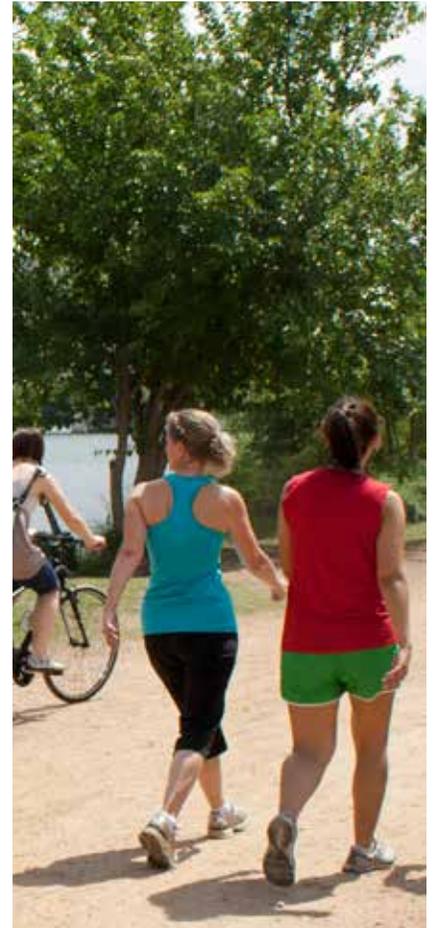
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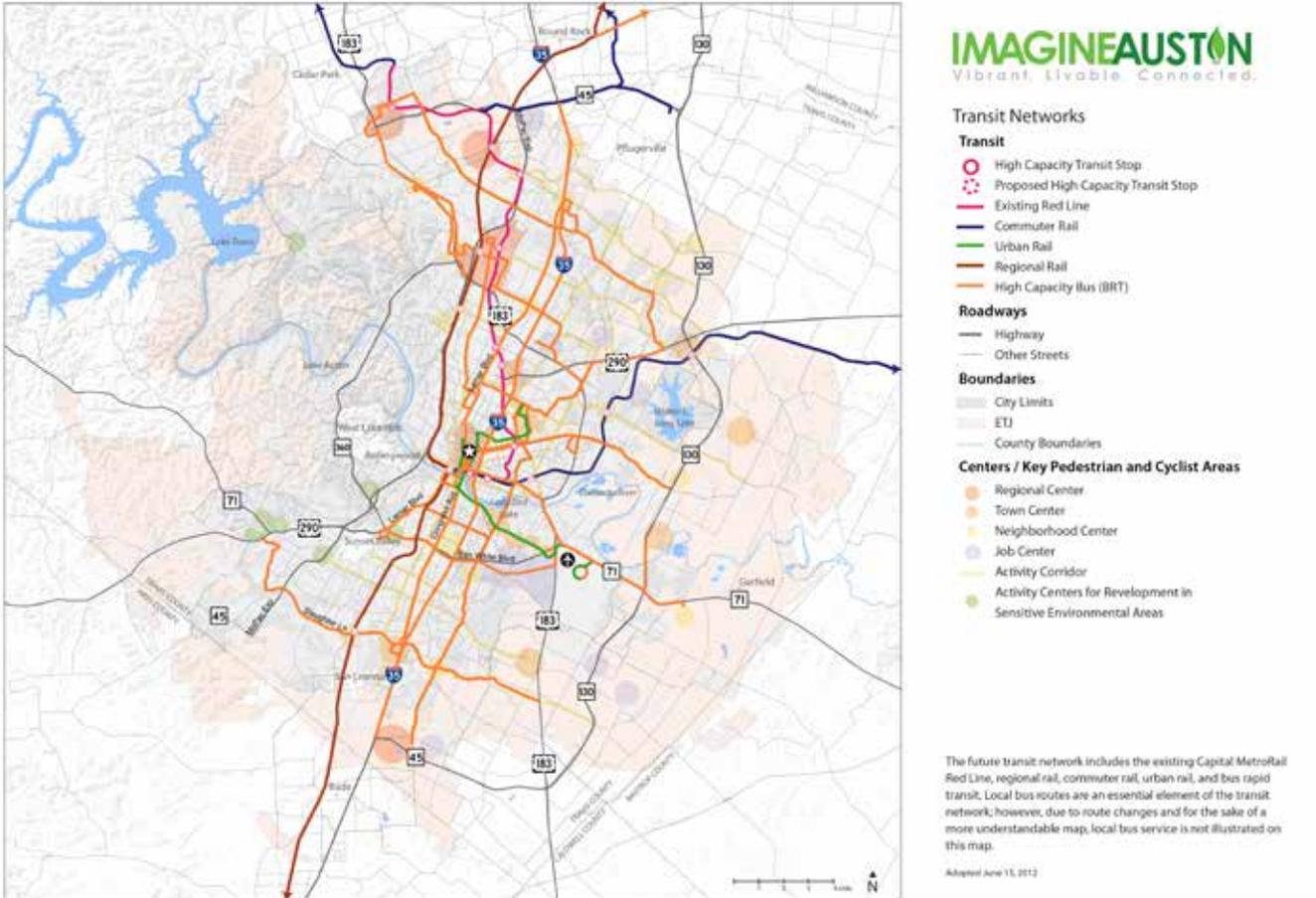
Just as context should inform the types of development patterns and building forms, so should it determine what our streets look like and how they function. A high-speed road is appropriate in a low-density, limited-access context, but not in an urban one. To become a multimodal region, we need to direct density to appropriate areas and design our streets for people.

1. Plan for density along transit corridors

CodeNEXT will address density along transit corridors in two main ways. First, the Code will include transect zones with the medium- to high-level densities necessary to support transit. Second, these zones will need to be applied within station areas of high-capacity transit corridors.

Adequate residential and employment densities within walking distance (1/4 mi) of transit are critical to its success. TOD standards should primarily focus on pedestrian, bike, and transit access, while auto access should be secondary. The higher intensity T5 and T4 zones should include multifamily and mixed use developments, while T3 zones should provide “missing middle” housing diversity and a more nuanced compatibility between higher intensity centers and corridors and adjacent single-family neighborhoods. Ultimately, these TOD form-based zoning standards should provide more





Major transit and activity corridors as shown in the Imagine Austin Transit Networks Map should be zoned for densities to support transit and provide additional housing. A residential density of 16 persons/acre or an employment density of 8 employees/acre is considered the minimum density needed to support transit, as defined by Capital Metro’s Service Guidelines & Standards.



affordable housing options, offer better opportunities to walk, bike, and use transit, and create a “car light” environment. Development applications should address public transit stop or station location and access from the development. This can be implemented via the new Traffic Impact Analysis (TIA) or TDM code requirements.

These densities and design standards will need to be applied within 1/8-mile to 1/4-mile of existing and planned transit stations during the mapping of the code.

The new code should address regulations related to remodels. Commercial remodels do not trigger public realm improvements and enhancements such as stormwater retention and treatment. The code should create a remodeling threshold for providing public benefit improvements, such as streetscape enhancements and water quality improvements.

2. Austin Strategic Mobility Plan

The Austin Transportation Department is currently updating the City transportation plan, called the Austin Strategic Mobility Plan (ASMP). The ASMP will cover a 10+ year timeframe and will update and define our City transportation needs moving forward instead of looking backward. By pulling multiple mobility programs and plans into one integrated approach to planning for all modes, the ASMP will provide a comprehensive vision of the strategies, programs, projects, and metrics needed to create a safe and efficient 21st century transportation network. In addition, the ASMP will update the current Roadway Table, which defines the existing and future conditions of our streets and will establish new right-of-way requirements. The purpose of the Roadway Table update is to guide transportation improvements obtained through the development review process and through the City's capital improvement program. The updated table will be referenced in the code.

3. Street design

Street design standards, including connectivity, will be updated in the new Code to reflect best practices in multi-modal design. It should also support strategically completing the street network by requiring connectivity of existing street stubs and assuring street connectivity is included in new subdivision design and infill projects.





Right of way requirements should consider space needed to incorporate green streets elements, and green streets elements should be included in typical cross-sections. Currently, variances to street design and street connectivity are granted inconsistently. The new Code should strengthen variance requirements.

Corridor Mobility Reports, the Bicycle Master Plan, the Sidewalk Master Plan, and the Urban Trail Master Plan recommendations should be implemented at the time of development. Changes to the curb line should be required at time of development, along with realignment of streetscape elements including trees, sidewalks, and building faces. This will result in construction all at once rather than a second-stage CIP project and deferred benefit. This is planned to be partially addressed in a mitigation ordinance subject to the limits of rough proportionality.

New developments on Core Transit Corridors are currently required to build streetscape elements including trees, sidewalks, and to bring the building face to the street. The alignments of these elements must reflect the future multimodal needs for the street. Additionally, changes to the curb line for implementation of the Corridor Mobility Reports or Bicycle Master Plan is not currently required at the time of development.

Waivers and variances allow for opt-out of sidewalk construction, leading to disconnected sidewalks throughout the City. Fees in-lieu of sidewalk construction is also overused, further contributing to disconnected sidewalks.

4. Sidewalk connectivity and quality

Changes to the land development code will eliminate the loopholes leading to sidewalk gaps, including:

- Either removing waivers or making them more restrictive to obtain.
- Eliminating the fiscal security exemption for sidewalks in subdivisions.
- Adding specific requirements to reconstruct noncompliant sidewalks.
- Eliminating language allowing developers to only build sidewalks on one side of a corner lot.

The Code will minimize driveway cuts by requiring shared access to parking. This makes walking safer and more pleasant, which facilitates easier travel when walking, pushing a stroller, or navigating in a wheelchair or with a visual or mobility impairment.

The Code currently requires that new development or redevelopment provide access off of minor streets when possible. This provides benefits for both safety and traffic flow, but these benefits are not realized when parcels are instead remodeled. To improve walkability, safety, and congestion, the Code should address how these benefits can be attained in the absence of full redevelopment. The Code will address connectivity improvements triggered by remodels.

5. Utilities

The potential conflicts between existing City utility placement standards (and other criteria) and proposed new multi-modal street cross-sections should be addressed for smooth implementation of future private development and public CIP infrastructure investments and maintenance. Context-sensitive solutions are needed to facilitate

the mobility and place-making goals of new desired street cross-sections and building placement standards, while maintaining the public safety and reliability of utility systems. The City will be undertaking a CodeNEXT, street typologies, and utility assignments/standards alignment process to identify potential conflicts between new proposed standards and existing utility standards (and other criteria) and find context-sensitive solutions to address them. While the scope of CodeNEXT is only to re-write the land development code, draft code and existing utility code regulations and criteria manuals must be amended as needed to incorporate these solutions to further the goals of:

- *Imagine Austin*, Austin’s Urban Forestry Plan and the Strategic Mobility Plan,
- Great Streets, Downtown Corridor, Riverside Corridor, and other similar efforts and
- the associated street network table.





MITIGATING THE EFFECTS OF CONGESTION



Where are we now?

Travis County's daytime population increases by 18% with workers commuting in from surrounding counties, an increase of more than 100,000 people. This is a problem because 83% of commuters within Austin drive. Similarly, 90% of commuters entering Travis County from adjacent communities arrive by private motor vehicle. Almost half (46%) of working adults in Williamson County commute into Travis County to work.¹³ Subsequently, the Austin area experiences approximately 52 hours of delay per auto commuter a year. This results in Austin claiming 10 of the top 100 most congested roadways in Texas, with I-35 ranking #1 from US 290 E to Ben White Blvd.¹⁴

The City has traditionally focused on high cost infrastructure solutions to combat growing

congestion problems. The existing code provides minimal support for transportation demand management strategies to reduce the traffic impact from new developments or from large employers. Development approval processes and existing code enforcement are focused on infrastructure compliance (supply), and not transportation demand management compliance (demand). In addition to the high cost of infrastructure solutions, many of our most congested entry/exit points to the central city (where is the greatest single concentration of jobs) simply do not have the physical space to accommodate expensive and large-scale fixes. Therefore, other tools need to be used.

Where do we want to be?

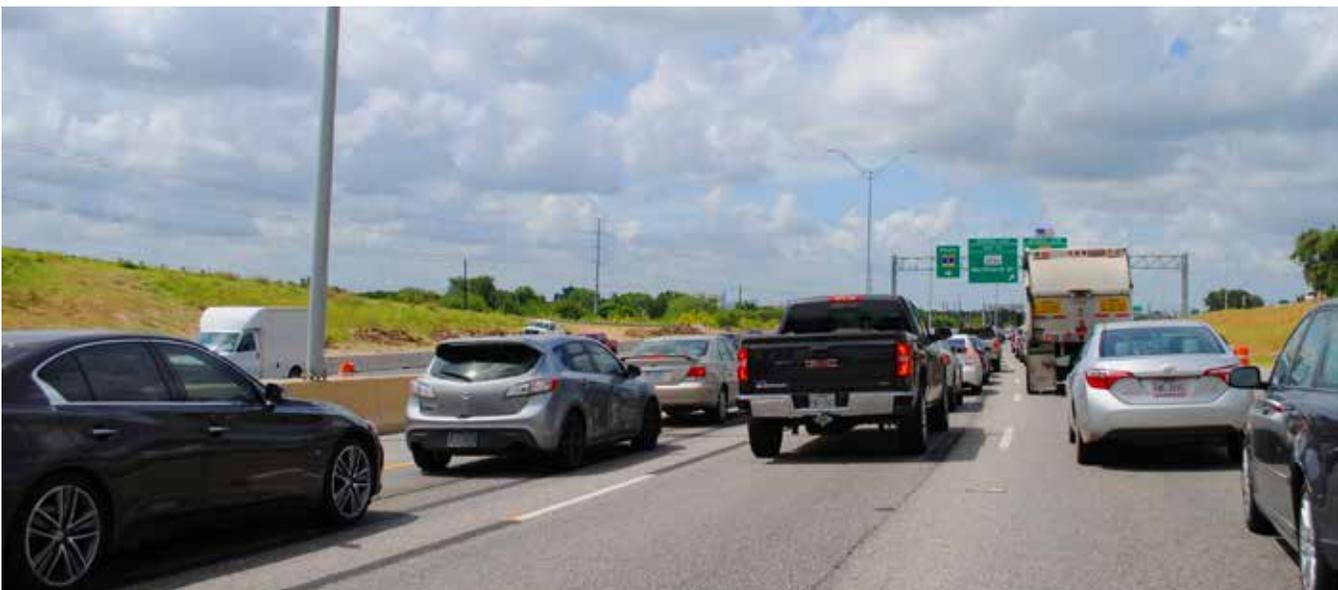
Imagine Austin directs the City to reduce traffic congestion, increase transit use, and encourage alternative transportation modes through practices such as Transportation Demand Management, which includes carpooling, flex time work schedules, and subsidizing transit costs for employees. The Comprehensive Plan, along with the Complete Streets and Vision Zero policies, call for safe, connected, multimodal streets. Transportation Review staff has worked to implement *Imagine Austin*, Complete Streets, and Vision Zero policies on the ground through their review of projects, but these policies are not codified, which creates unintended effects on the transportation network, eroding the intended outcomes of these policies. Similarly, site plan exemptions and other code regulations related to minor site plan changes sometimes have unintended effects on transportation.

Many of the new and updated code requirements discussed throughout this Prescription will encourage a balanced transportation system and supportive land uses to better manage congestion. By incorporating the Complete Streets, Vision Zero, and other policies from *Imagine Austin*

within our code, future development can provide safe, connected, multimodal streets with multiple options for travel.

We can expect that the strong job market in Austin will continue to attract workers from outside of the city, resulting in similar commuting patterns to what we see today. Code requirements that support all modes of transportation can help lower drive alone rates and increase rates of transit ridership, walking, and bicycling, easing congestion.

A shift in focus is needed to invest in demand-side solutions that are more cost-efficient and have the ability to work within the existing infrastructure constraints. Development approval process and future code enforcement should focus on transportation demand management (TDM) compliance (demand), and not just on infrastructure compliance (supply). Code variances may still be necessary in certain situations, but in general, variances should be updated to be granted in a more rigorous fashion that supports *Imagine Austin*.



Prescriptions

Addressing congestion will require tools that address the demand for driving and provide viable, attractive, and easy alternatives.

1. Transportation Demand Management

A TDM toolkit will be required based on certain thresholds and will be an incentive for parking reductions and/or reduction in impact fees in exchange for offering certain community benefits outlined in the toolkit.

The toolkit will be robust and provide flexibility for applicants to develop a mix of solutions tailored to their situation.

The TDM toolkit may include strategies such as:

- Have a transportation coordinator for the development,
- Join a transportation management association,
- Provide a guaranteed ride home for employees,
- Subsidize transit passes,
- Provide a parking cash-out for employees (offers cash equivalent to the cost of a parking space for employees who commute by modes other than driving),
- Unbundle parking costs from rent or unit purchase prices (allow renters or buyers to choose whether they would like to purchase or rent parking along with a unit),
- Provide real-time transportation data,
- Price parking on an hourly, daily, or variably priced basis,
- Provide carshare parking spaces and/or subsidize carshare membership,
- Provide bicycle amenities,
- Support bikeshare station installation and/or subsidize bikeshare membership,
- Allocate a percentage of units for affordable and/or workforce housing,
- Offer shuttle service to supplement transit, or
- Provide preferred parking for carpools, and facilitate ride matching among employees to assist in carpool formation.

The language in the code should provide for enforcement and monitoring. Consequences for non-compliance will be clear and enforced.

2. Variances

New code will carry over code requirements that are consistent with *Imagine Austin*, but will remove variance opportunities that are inconsistent. Variances will be limited and will be more difficult to obtain in order to strengthen the Code's ability to help manage traffic congestion attributed to growth, enhance safe connectivity, and ensure walkability. Additionally, regulations related to changes to site plans and site plan exemptions will be modified to assure changes to mobility are properly reviewed.





PARKING

Where are we now?

Although cars spend 95 percent of their lives parked,¹⁶ at any given time there are huge swathes of parking across the city that go unused: during the day, most driveways and garages are empty while people are at work, but at night, it is the store parking lots and office garages that appear abandoned. Austin's current approach to parking is out-of-date, contradicts *Imagine Austin* and other city policy objectives, and has led to an oversupply of parking in many areas. This overabundance of parking has real effects beyond being boring or ugly. Overparking disincentivizes use of transit and other active modes by reducing the density of destinations and increasing trip distances. It also increases the cost to build, a cost that is passed on—because parking generates no revenue itself—to tenants or added to the cost of goods and services.

The Code Diagnosis released by Opticos Design in May 2014 identified parking as a major impediment to achieving *Imagine Austin's* vision:

There are three primary issues related to Austin's off-street parking regulations, mostly found in Chapters 25-5 Site Plans and 25-6 Transportation:

1. High parking requirements are prohibiting compatible, small-scale infill development in appropriate places;
2. Large amounts of off-street parking are beginning to chip away at, and compromise the character of, the communities throughout the city; and
3. The regulations are encouraging the creation of auto-dependent density.

Parking requirements, along with residential compatibility requirements, are primary factors that limit the feasibility of redevelopment to achieve transit supportive density along transit corridors, particularly for constrained small parcels. (Floodplains and stormwater regulations are other limiting conditions.) A recent analysis by the Planning and Zoning Department looked at the likelihood of properties along Burnet Road redeveloping, finding that only 10% of the fronting properties would choose to redevelop, while the remaining 90% would only remodel. As a result, streetscape and water quality enhancements that are required when properties redevelop would





not occur. In turn, this means new mixed use and residential development is limited and the pedestrian environment remains poor, limiting the effectiveness of transit.

Parking requirements are currently calculated per use, without regard to context. For instance, in a shopping center with five tenants, parking requirements are calculated for each tenant separately, even if those tenants have different operating or peak hours. This can mean that much of the required parking goes unused much of the time. This also limits what a property owner can do with their property—if a use changes, so do the parking requirements.

Current traffic congestion and housing affordability concerns show that we need to update how we are regulating parking. The current code has parking minimums throughout the majority of the City; is based on use type; is not sensitive to context, such as proximity to transit; and is not well connected to actual demand or need. In many instances, developers go beyond the minimum requirement, further oversupplying parking. This is apparent in downtown, where despite there being no minimum parking requirement, the first few stories of many high rises are parking garages.

RPP AND PARKING MANAGEMENT

Until we realize a more multi-modal transportation network, parking demand will continue to be a challenge for redevelopment along our major corridors. Many corridors experience “spill-over” parking into residential areas, which prompted the creation of the Residential Permit Parking Program (RPP). RPP has grown exponentially since its inception in 1997 and overuse of RPP by residents has resulted in underutilized public streets and high vehicle idle times due to motorists circling trying to find parking spaces. Rather than the static RPP policy, the land development code should allow a context-sensitive approach that incorporates more administrative judgment to determine RPP or other parking management tools.

In late 2014, City Council adopted an ordinance establishing a Parking and Transportation Management District (PTMD) program, which uses priced parking in a defined area to promote parking turnover and reduce commuter delays. A portion of the revenue from this program is returned to the district to pay for improvements such as maintenance, signs, wayfinding, and sidewalk improvements. This program has demonstrated success in the West Campus area.

Where do we want to be?

Austin likely has substantially more parking now than it will ever need in the future. As autonomous vehicles become common, mobility services like transportation network companies (TNCs) gain traction, and demographic shifts reduce interest in personal auto ownership, parking demand will decline, as we are already seeing in many urban places. Not only does Austin no longer need to force developers to build more parking than the market would warrant, the city's traffic congestion and housing affordability concerns suggest its current parking approach is exactly the opposite of how it should be regulating parking.

Due to the City's congestion and housing affordability concerns, we should incorporate new parking standards and regulations that help reduce congestion, relieve the high cost of transportation, and balance the needs of various transportation options with creating good urban form.

Addressing traffic congestion will require exposing the true costs of driving, including environmental and safety costs, as well as the multiple fixed and marginal costs of vehicle ownership to shift mode choices, routes, and travel times. Free parking is essentially a subsidy for driving; removing that subsidy ensures that the cost of driving and parking is carried by users, not all of society.



Prescriptions

Addressing parking will require a multi-pronged approach of regulatory changes in the LDC coupled with transportation demand management strategies.

1. Context-sensitive requirements

Parking requirements will be updated to be sensitive to context. The amount of parking required by a land use depends to a degree on

what the land use is, but more importantly, on where that use is located. An office or a restaurant on the edge of the city will require more parking than one downtown that is served by transit and surrounded by residences within walking or bicycling distance. A residential development or business catering to senior citizens may have different parking need than one catering to younger people, just as a development catering to families with children may have different parking need than one catering to single people.

To better account for the role of context, the revised LDC will consolidate parking requirements for similar land uses and address parking within the transect chapter. In more intensive transect zones, parking minimums should be eliminated and maximums established instead. In the non-transect zones, parking requirements for use types will be simplified for ease of use.

Many parking tools reside in Chapter 12 of the current code. These tools need to be cross-referenced in the revised LDC so that developers and staff can be made aware of them and apply in advance for the tools that may facilitate parking management for a new mixed-use district or existing one undergoing redevelopment.

2. Minimum requirements

Minimum parking requirements should be eliminated in the more intensive transect zones (T4 through T6), and parking maximums established instead. Developers respond to market demands and will build adequate parking for new developments, so minimums are unnecessary. Providing beyond the current minimums, however, hurts walkability, urban form, and is detrimental to transit. Where the market demands more parking than the maximum, developers should work with the City to identify TDM strategies, such as car or bicycle share and transit enhancements, to meet that demand.

3. Smart, shared parking

Parking throughout the city is used at different times of day. Peak demand at an office is often different than the peak demand at a restaurant. Recognizing that these temporal differences mean a lot of unused parking at different times, the code will require in certain contexts that parking be shared between uses to maximize the utility of parking spaces. Parking requirements will be calculated with consideration to the mix of development types. Additionally, the code will also provide an easier mechanism for entering shared parking agreements.

To aid people in finding available parking, the code will encourage parking facilities to incorporate technology for real-time availability displays. The code will also anticipate increased use of TNCs and the needs of autonomous vehicles.

The Transportation Department is also undergoing a full RPP guideline review to address the growing program and to create more strict and more inclusive decision-making policies that will allow for a better overall approach to RPP. This includes building on the City Council-adopted Parking and Transportation Management District (PTMD) ordinance that has been employed in two districts, Mueller and East Austin, to date. Parking management decisions should be based on multiple aspects including zoning, land use, occupancy, parking availability, economic vitality, neighborhood quality of life, safety, and mobility.



4. TDM

The demand for parking is really indicative of a demand for travel, but results in the storage of vehicles at great expense. Changes to parking requirements in the LDC should be bolstered by a strong transportation demand management (TDM) program that works to reduce parking demand (see Congestion chapter for more detail on TDM). This could take the form of a baseline Transportation Demand Management requirement for new development, with an additional TDM menu for developers to choose from to address any additional anticipated demand.

A baseline TDM requirement should include unbundling parking from the cost of housing to allow residents to pay separately for parking. Alternatively, a “parking cash out” program would maintain free parking, but give tenants, customers, and employees the cash equivalent of a forgone parking space. As Professor Donald Shoup, widely considered the parking policy guru, notes, these parking costs were never free, but by including them in the cost for housing or groceries, they are largely invisible to users, as well as being inequitable to people who do not own or travel by personal motor vehicle. A baseline should also include bicycle parking facilities and bike or carshare memberships for developments over a certain size within bike/car share service areas.

5. Paid parking in higher intensity transect zones

Professor Shoup likens free parking to an all-you-can-eat buffet: since there is no additional cost to consuming more, people eat (or drive and park) more than they would if they had to pay for the marginal costs of using more. By requiring that parking be paid, the demand for parking can be reduced in the higher intensity transect zones, encouraging more transit use, walking, and bicycling. Because less parking is necessary,

more land can be used for public amenities and economically productive uses, making transit, walking, and bicycling more appealing. Parking requirements may also be met by counting available on-street parking when determining the amount of parking available at a site and implementation of strategies to reduce parking demand.

In addition to these Prescriptions, a survey of current development with the approved current parking requirement should be conducted to determine a percentage of on-street parking utilization in comparison to what is actually available. This will help to facilitate better parking management as well as a footprint for land development when approving new development and parking requirement.





LEFT
TURN
SIGNAL

Red River ST
2600

TRANSPORTATION AS A PART OF AFFORDABILITY

Where are we now?

Texas state law prevents the City from requiring affordable housing as a part of new development, so current City affordability programs operate as incentives for developers, often in the form of density bonuses. However, while the cost of housing is the largest expense for most households, it is followed by transportation expenses. Addressing these expenses can be part of the solution to improving affordability for Austinites.

Austin's relatively low density requires most Austinites to own cars to travel to school, work, shopping, and other trips. Even compared to other large Texas cities—Houston, Dallas, or San Antonio—Austin has a comparatively low density at about 2,600 people per square mile. Combined with its extraterritorial jurisdiction, Austin is larger than 600 square miles, or roughly half the size of Rhode Island. This formula of low density development and large geographic area makes getting around other than by automobile very difficult and expensive,

which also has implications for economic mobility. A person who cannot afford a car has a difficult time taking advantage of job opportunities when those opportunities are difficult, or impossible, to reach through public transit.

After housing, transportation is typically the second greatest expense for households. Housing experts recommend that housing and transportation costs combined should be less than 45 percent of a household's income; in Austin, the average is 48 percent, with residents in some areas spending considerably more.¹⁶ According to a recent study by Center for Neighborhood Technology, Austinites spend about \$11,983 per year on transportation costs, which is 44% higher than a typical household spends nationally. Such a high cost is particularly difficult for lower income households, who are often priced out of central locations and away from daily destinations and needs.

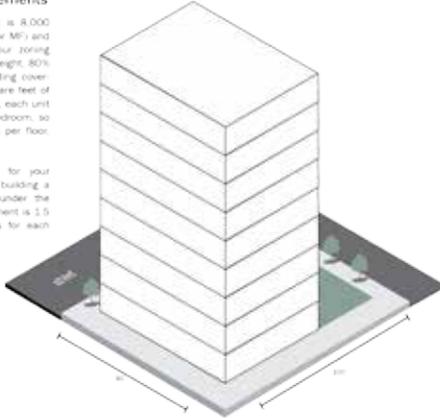


Parking requirements reduce housing units and increase costs

1 No parking requirements

Suppose you own a parcel that is 8,000 square feet (the minimum size for MF) and want to build an apartment. Your zoning allows MF-6, which allows 90 ft height, 80% impervious cover, and 70% building coverage. You can build on 5,600 square feet of the site. To keep the math simple, each unit will be a 500 square foot one-bedroom, so you end up with about 10 units per floor, totaling 80 units.

However, this doesn't account for your parking requirement: if you are building a multifamily residential building under the current LDC, the parking requirement is 2.5 spaces per unit, plus .5 spaces for each additional bedroom after the first.

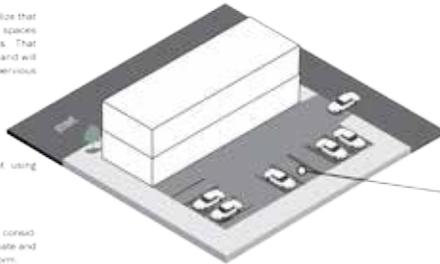


2 Surface parking

Once you factor in parking, you realize that you have to provide 120 parking spaces for 80 one-bedroom apartments. That won't fit on your remaining space and will put you over your allowable impervious cover.

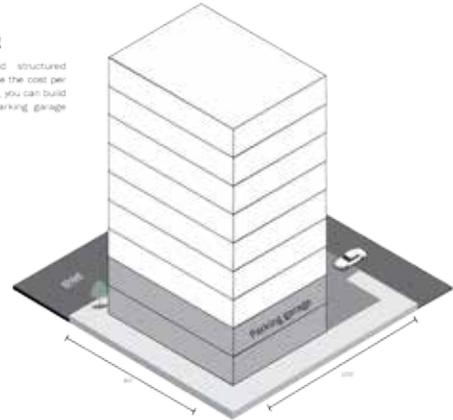
In order to park your apartment using surface parking, you calculate $6,400 = 500x + 243x$, where x is the number of units.

This puts you a 8 units for the site, considerably less than your original estimate and a considerably different building form.



3 Garage parking

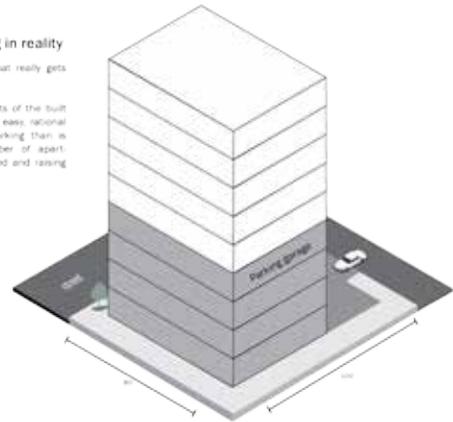
Alternatively, you can build structured parking, although this will raise the cost per unit. With a 5,600 sq ft footprint, you can build 67 units, with 2 levels of parking garage beneath.



4 Garage parking in reality

Of course, none of this is what really gets built.

Instead, because most aspects of the built environment make driving the easy, rational choice, you include more parking than is required, reducing the number of apartments you could have provided and raising rents on the ones you do build.



COST TO PROVIDE PARKING

Parking is an important, but often overlooked, factor for affordability. The cost of parking is not something most people think about, but whether parking at a house, an apartment, or the grocery store, parking is not free. That cost is factored into the cost of housing and products, raising both the price of rent and the cost of groceries. As Donald Shoup observes, this hides the true cost of parking, incentivizing more driving and contributing to congestion, while also being inequitable, particularly for people who do not drive.

In Austin, where the demand for housing outpaces the supply, this results in high rents and parking policies further reduce the supply of housing while increasing rent.

EQUITY + CLIMATE CHANGE

The Austin Community Health Assessment identifies that “transportation challenges disproportionately affected the elderly, disabled, and poor. For example, participants cited the limited availability of Capital Metro vehicles to transport the elderly and disabled. Residents living outside of Austin shared that they had to rely on a car because their community had no access to public transportation, highlighting the lack of a robust public transportation system that extends to outlying areas.”

During heat waves and other weather-related emergencies, portions of the population might not be able to independently reach cooling stations, healthy food, primary care, mental and behavioral health services, and emergency services. Lack of connectivity and access to services further isolates already at risk populations. Making sure vulnerable communities have safe streets (shade, sidewalks, etc.) to reach daily needs is an important step to increasing their resilience to extreme weather.



Where do we want to be?

We need sustainable housing affordability for all income levels, particularly along corridors where we can provide access to high quality transit, bicycle, walking and other lower cost mobility options. Allowing higher densities of housing along *Imagine Austin* corridors can put more Austinites within walking distance of transit, making car ownership and/or frequent use less necessary.

LOCATION EFFICIENCY

Location efficient development can improve access to goods, services, and jobs, reducing dependence on driving. Since transportation is usually the second greatest expense for households after housing, reducing automobile dependence can help with overall affordability. This fits well with *Imagine Austin's* Growth Concept Map, which directs growth to centers and corridors—locations with density concentrated around transit.

As discussed in a previous section addressing how we move from an auto centric city to a multi-modal region, mapping higher intensity transect zones to transit corridors helps maintain established neighborhoods while providing much needed

additional housing units in the locations best suited to both accommodate the additional population and to flourish with more people. Higher residential densities around transit stations help support transit, reducing the number of people driving, and also supporting businesses.

PARKING

As discussed in the previous section on parking, unbundling parking from the cost of housing and allowing housing and parking to be paid for separately (as is done in the University Neighborhood Overlay, or UNO) or creating a requirement for parking cash-out, can aid in affordability. Currently, a parking space or garage costs tenants regardless of whether or not they use it. Especially for one- or no-car households—often lower income ranges—this means that their housing costs include parking that goes unused. Unbundling it or offering the cash equivalent provides households with more money to spend on other things.



Prescription

1. Density bonuses and cash-out programs

We can encourage affordable housing along transit corridors through means such as the Density Bonus program or the single family compatibility requirements modification that will achieve household affordability. Other programs, such as separating the cost of housing and parking or offering cash equivalents for unused parking spaces, can also contribute to increasing affordability. Moving away from an auto-oriented Land Development Code will allow for the development of a multi-modal network, which can lower the percent of income spent on transportation and thus improve citywide affordability.



Project highlight: This is the Foundation Communities Bluebonnet Studios project opening 2016. Bluebonnet Studios is located on South Lamar at Del Curto and will be home to 107 single adults, including low-wage workers, formerly homeless individuals, veterans, seniors, and individuals with disabilities. Parking is provided at 30% of typically required levels, which made the project financially viable on this irregular and constrained parcel. This was only possible under the existing code due to provisions that allowed parking reductions for congregate living uses that was later extended to micro-unit uses (which is part of the Bluebonnet Studios project). For larger housing units that would support affordable housing for families, this level of parking reduction is still not possible, even on a corridor with high quality transit.





COST OF GROWTH/MAINTENANCE

Where are we now?

TRAFFIC IMPACT ANALYSIS

The transportation impact analysis (TIA) process needs to be updated because it does not follow national best practice to account for needed transportation improvements from all scales of developments. Most development is not subject to any TIA because it does not generate enough vehicle traffic to meet the current minimum threshold for study. Consequently, the cumulative effects of development on the transportation network and the surrounding neighborhoods are not mitigated. The City is pursuing an ordinance amendment to authorize the ability to obtain

certain offsite improvements for smaller scale developments that do not trigger a TIA. This will serve as a bridge to a more effective and comprehensive mitigation strategy with a street impact fee program, which is described in the following Prescription section. Currently, the TIA is split between code and Transportation Criteria Manual. The trigger or requirement to conduct a TIA is in code, but the specifics on how to perform and/or scope a TIA are in the Transportation Criteria Manual.





Where do we want to be?

IMPACT FEES/MITIGATION

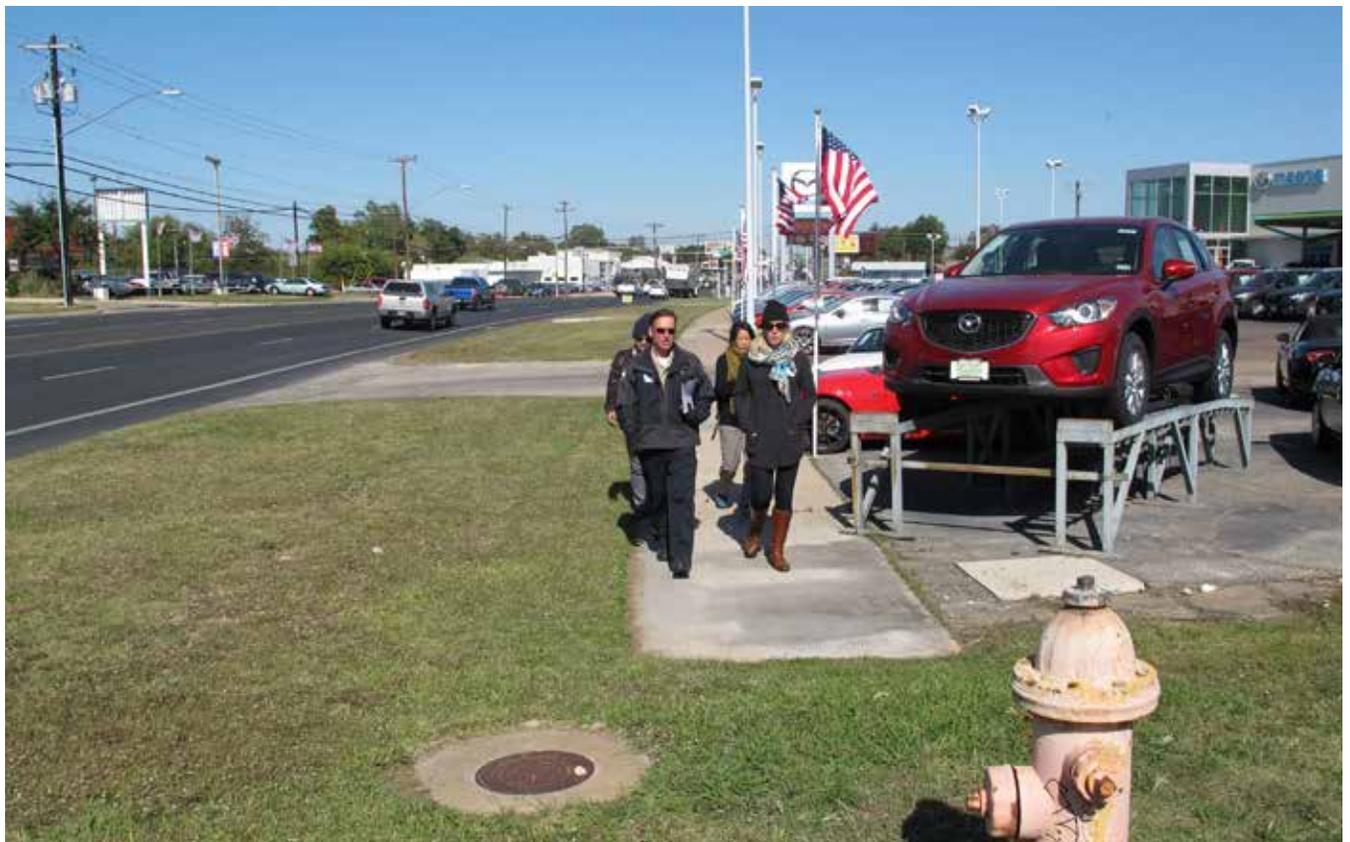
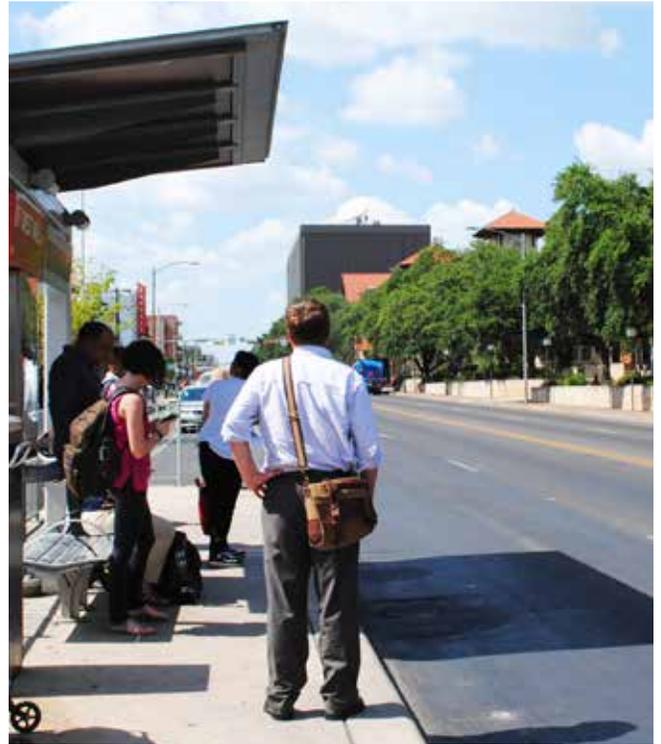
Transportation fees and other mitigation requirements should be fairly assessed, subject to state law on rough proportionality, such that new development mitigates its impact on the transportation network. The implementation of the near-term mitigation code amendments, street impact fee program, and update to our TIA methodology will be moving in the direction of growth paying for growth.

Prescription

1. Impact fees/Mitigation

The new TIA process will be clear, simple, predictable, multi-modal, and reflect best national practices. The scoping of the TIAs should be context-sensitive and evaluate access management, TDM, parking, and impacts to safety.

The City envisions implementing a street impact fee program to more effectively have growth pay for itself. Varying impact fee rates may be set by City Council and imposed for developments in different areas of the City, such as outside of activity centers and corridors, to encourage desired development patterns. Implementation of an impact fee ordinance will be a general code amendment and may fall outside of the LDC, but it will impact land use patterns. The City is procuring consultant services to develop a street impact fee program.





SAFETY

Where are we now?

Transportation should allow people—no matter how they travel—to safely reach their destinations, but this is not the current reality. In 2015, 102 Austinites died in collisions and many more were injured. Over the past decade, over 700 people have been killed in crashes, and for each person who is killed, eight more are seriously injured.

Vision Zero is an overarching effort to end traffic deaths and serious injuries by uniting and refining existing efforts, identifying new initiatives and tools, and evaluating progress toward the goal. In 2015, City Council adopted Vision Zero as a policy goal within *Imagine Austin*, and in May 2016, they adopted an Action Plan to work toward eliminating traffic deaths and serious injuries by 2025. The action plan outlines a multi-pronged approach addressing evaluation, enforcement, engineering, education, and policy changes, including building safety into the Land Development Code and the Transportation Criteria Manual.



Where do we want to be?

Development patterns play an important role in the safety of our streets. The less people drive, and the shorter their trips, the less likely it is that vehicle crashes will occur. Sprawling, auto-oriented, disconnected land use patterns continue to encourage driving to the detriment of walking, bicycling, and taking transit. Lower density, longer blocks, large parking lots and free or low cost parking, frequent driveways, and lack of street connectivity directly contribute to higher traffic injuries and deaths.

Compact and connected development patterns — featuring shorter blocks, connected streets, and mixed land uses — can reduce crash risk by making it viable and attractive for people to drive less. Shorter trip distances make walking, biking,

and transit viable options for more Austinites and reduce vehicle miles traveled. Compact, mixed-use urban form—e.g. fine-grained urban fabric with narrower streets, buildings close to the street, active facades and patios, few driveways, and wide sidewalks with street trees—can slow driving speeds. These elements work together to reduce the severity of injuries.

Network & Safety: During extreme events, an interconnected road system allows community members to quickly reach safer ground. Ensuring that subdivisions have more than one means of egress and that those roads lead to different arterials reduces the chance of congestion during an event (City of Austin Hazard Mitigation Plan Update, 2016).



Prescriptions

1. Build safety into design

We need to incorporate safety into design, in addition to continuing to retrofit less safe infrastructure. We need improved code regulations to require safety and mobility improvements through the development process by utilizing tools such as a mitigation ordinance, street impact fee, and improved TIA processes.

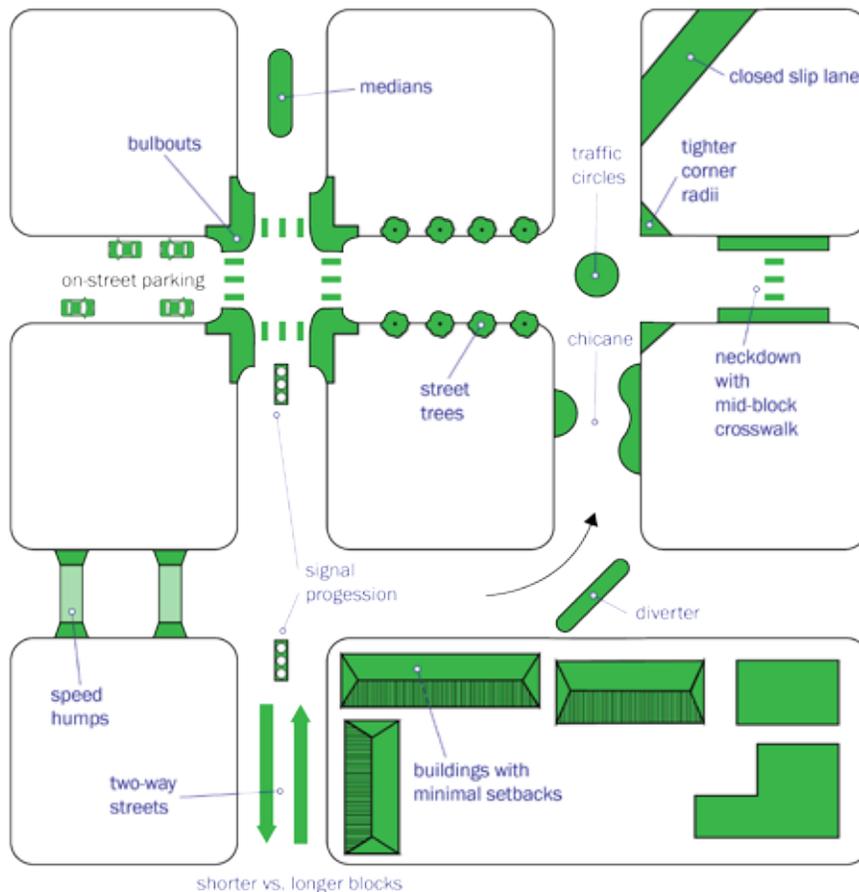
2. Code for walking, bicycling, and transit

Creating code that encourages a diverse mix of uses, better connectivity, and densities that support transit ridership can also promote transit, walking, and bicycling. Together with streets designed for slower speeds, these code changes net numerous benefits, including safety.

3. Incorporate safety into review

Outside of code, addressing mobility and safety at the time of development will be improved with addition of staff and enhanced processes and procedures that incorporate mobility and safety as a part of initial development review.

Slower streets are safer streets





CONCLUSION

Streets as places

Facilitating travel is only one of the roles streets play. Streets are also a vital public space, a place for meeting, recreating, lingering, people watching, walking, shopping, dining, and other activities. Consider some of the most famous streets in the world: the Champs Elysees, Broadway, Beale and Bourbon Streets, La Rambla, or Lombard Street. These streets are not famous because they move traffic; they're famous because they exist as people-centered places. This is true for Austin as well. Streets such as Congress Avenue, the Drag, or Burnet Road facilitate travel, but more importantly support businesses and activities, attracting people who in turn attract more people. In many ways, great streets are defined less by travel within the roadway and more by the activities taking place on either side of the road.

Code changes that improve multimodal options and address choice, safety, parking, and affordability will help realize Austinites' vision in *Imagine Austin*.

Mapping the code

Creating a revised Land Development Code is an important step toward realizing the vision of *Imagine Austin*. Implementing the code, however, will require mapping the transect zones to specific geographies, which will begin to affect development patterns and many of the transportation issues discussed in this Prescription. Incorporating these Prescriptions into the code and mapping the code will be where these ideas can become reality. The initial mapping of the code should be focused on the Centers and Corridors identified on *Imagine Austin's* Growth Concept Map. Mapping should also be aligned with Capital Metro high frequency service planning, which supports the planned densities in *Imagine Austin* centers and corridors with mobility options.

The *Imagine Austin* Growth Concept Map identifies where growth should be focused over the coming decades, concentrating much of the anticipated growth in activity centers and along corridors. The Growth Concept Map "defines how we plan to accommodate new residents, jobs, mixed-use areas, open space, and transportation infrastructure over the next 30 years."

Imagine Austin identifies general characteristics of the different types of centers and corridors and roughly depicts them on the Growth



CODENEXT: SHAPING THE AUSTIN WE IMAGINE

Concept Map, but mapping CodeNEXT will provide the actual boundaries of these centers and corridors. Mapping the code will give definition and depth to the lines and circles on the Growth Concept Map, providing the regulations necessary to achieve Austinites' vision captured in *Imagine Austin*, including:

- focusing new development in activity corridors and centers to make these areas accessible by walking, bicycling, transit, and car;
- promoting a compact and connected city;
- promoting infill and redevelopment as opposed to typical low density greenfield development; and
- providing convenient access to jobs and employment centers.

Mapping will test Austinites' resolve to implement *Imagine Austin* and address big issues such as affordability and transportation. It will necessarily change parts of Austin—for instance, creating greater residential densities in certain locations to aid Affordability and bolster transit ridership—and will encourage Austin to move beyond acknowledging the challenges that face the city to implementing changes to address those challenges.

At the same time, mapping must respect the character of the community. *Imagine Austin* directs us to “protect neighborhood character by directing growth to areas of change that include designated redevelopment areas, corridors, and infill sites” and to “recognize that different neighborhoods have different characteristics, and infill and new development should be sensitive to the predominant character of these communities.” (p. 118)

To achieve the balance of managing growth, staff will draw its mapping recommendations from a number of sources, with *Imagine Austin* charting the basic direction. While *Imagine Austin* unequivocally calls for focusing new development in Centers

and Corridors, it also calls for the protection and preservation of existing neighborhoods and the natural environment. The existing Euclidean (use-based) zoning is likely adequate for many neighborhood areas that are not likely to change much in the coming years, perhaps with some modifications to account for changes and updated city policies.



North Lamar Transect concept.

SMALL AREA PLANS: Austinites have developed numerous small area plans over the last couple decades, which provide a rich and refined source of information for staff’s mapping recommendations. These small area plans include:

- Neighborhood plans, most of which include Future Land Use Maps, (FLUMs);
- Transit-oriented development plans (TODs), such as Saltillo Plaza and North Burnet-Gateway;
- Corridor plans, such as East Riverside and Airport Boulevard; and
- Special area plans, such as the Downtown Austin Plan.

These plans and their FLUMs will provide strong guidance for staff’s mapping recommendations.

CURRENT ZONING: Much of the land area within Centers and Corridors has not been the subject of detailed small area planning. For these areas, staff will rely primarily on the current zoning, with any modifications informed by inconsistencies between land uses and zoning and or emerging development trends.

Quality of life

Rapid growth requires Austin to think differently about how land use and transportation influence one another. The Austin of today is not the college town of the 1960s, 1970s, or even the 2000s, and the Austin of 2030 will likely be very different than today’s Austin. The question of how we enhance the aspects of Austin we love while managing growth is central to *Imagine Austin* and CodeNEXT.



FOOTNOTES

1. US Census
2. Center for Neighborhood Technology, H+T Fact Sheet: Austin
3. E.g., Smart Growth America, <http://www.smartgrowthamerica.org/documents/cs/factsheets/cs-economic.pdf>; Victoria Transport Policy Institute, <http://www.vtpi.org/compstr.pdf>; NYC DOT, <http://www.nyc.gov/html/dot/downloads/pdf/2012-10-measuring-the-street.pdf> and <http://www.nyc.gov/html/dot/downloads/pdf/dot-economic-benefits-of-sustainable-streets.pdf>
4. Austin's Community Climate Plan and <http://coolclimate.berkeley.edu/>
5. *Governing*, <http://www.governing.com/blogs/by-the-numbers/most-densely-populated-cities-data-map.html>
6. Capital Metro
7. Climate Change Projections for the City of Austin, https://austintexas.gov/sites/default/files/files/Sustainability/atmos_research.pdf
8. Central Texas Extreme Weather and Climate Change Vulnerability Assessment of Regional Transportation Infrastructure, http://austintexas.gov/sites/default/files/files/Sustainability/Climate/CAMPO_Extreme_Weather_Vulnerability_Assessment_FINAL.pdf
9. *Green Streets: An Introduction*, https://austintexas.gov/sites/default/files/files/Transportation/Complete_Streets/GreenStreetsWeb092115.pdf and *Model Design Manual for Living Streets*, <http://www.modelstreetdesignmanual.com/index.html>
10. Green Streets, https://austintexas.gov/sites/default/files/files/Transportation/Complete_Streets/GreenStreetsWeb092115.pdf
11. Toward a Climate-Resilient Austin, https://austintexas.gov/sites/default/files/files/Sustainability/Climate/Toward_a_Climate_Resilient_Austin.pdf
12. Austin Community Climate Plan, http://www.austintexas.gov/sites/default/files/files/Sustainability/FINAL_-_OOS_AustinClimatePlan_061015.pdf
13. Texas A&M Transportation Institute, Urban Mobility Scorecard, <http://mobility.tamu.edu/ums/>
14. US Census, American Community Survey 2006-2010
15. Texas A&M Transportation Institute, Urban Mobility Scorecard, <http://mobility.tamu.edu/ums/>
16. Donald Shoup, *The High Cost of Free Parking*
17. Center for Neighborhood Technology



CODENEXT

SHAPING THE AUSTIN WE IMAGINE

Mobility Code Prescription

July 2016