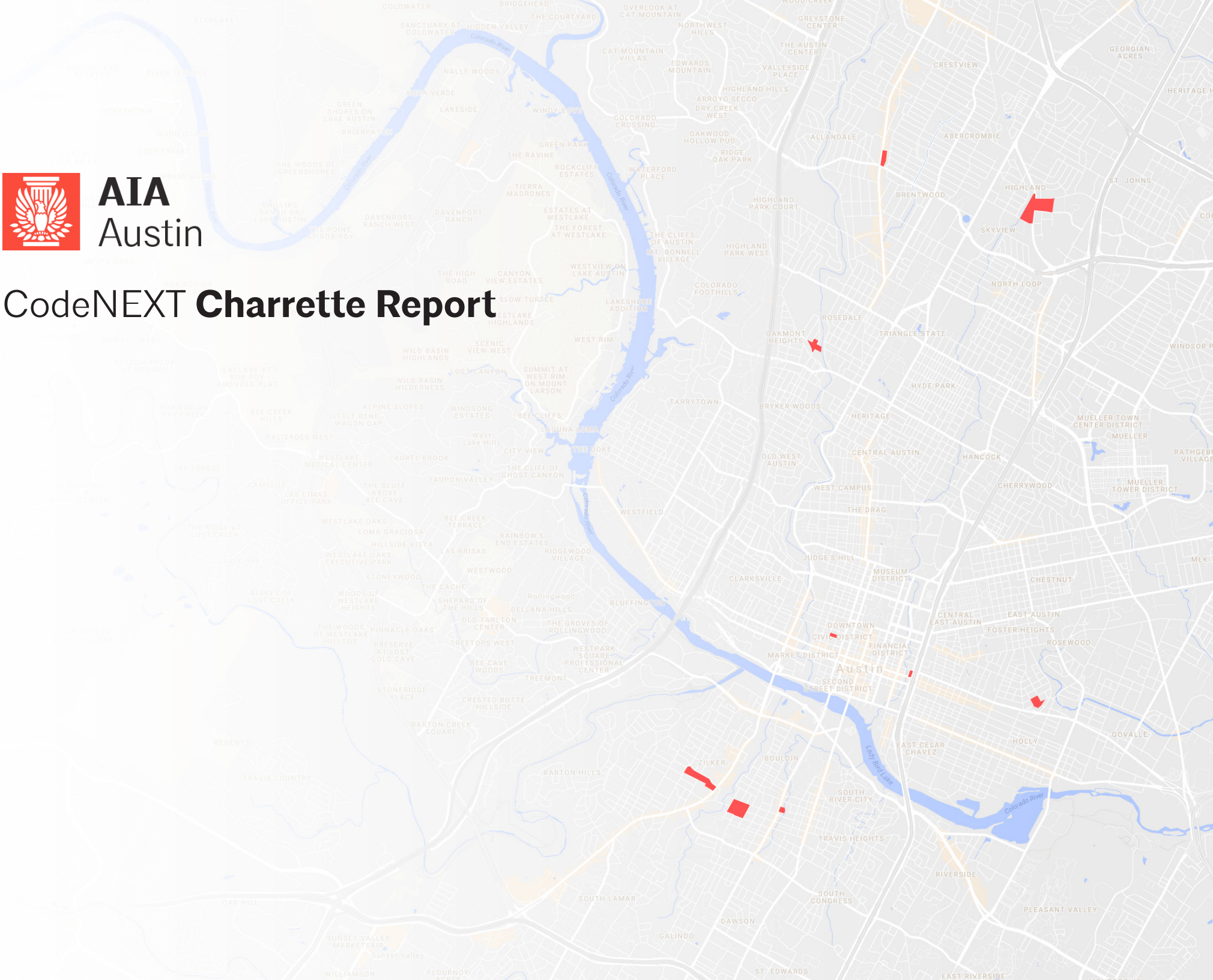




AIA
Austin

CodeNEXT Charrette Report



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Our deepest gratitude to all those who spent countless hours sharing their professional skills for this exercise.. Your expertise, experience, hard work, and thoughtful insights are the foundation of this document.

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AIA Austin CodeNEXT Charrette Report

Executive Summary

AIA Austin has been a vocal supporter of the Imagine Austin Comprehensive Plan, and its directive to rewrite the Land Development Code since its adoption in 2012. This guiding document envisions a compact and connected community that is vibrant, livable, and sustainably manages our environmental resources. As our members face the challenges and limitations of the current code every day, we are uniquely qualified to provide input into the rewrite process. To this end, AIA envisioned a design Charrette would allow us to better understand the look and feel of the draft code, visualize the outcomes, and study whether these outcomes are in alignment with the goals outlined in Imagine Austin. The initial key findings from the charrette were documented in a letter dated June 6, 2017, which was sent to Mayor Adler, City Council Members, Code Advisory Group Members, the Planning Commission, the Zoning and Platting Commission, and the City of Austin CodeNEXT staff. These key findings are listed as follows.

On Tuesday, May 9th 2017, AIA Austin facilitated an all-day CodeNEXT Charrette with local design and real estate professionals, after which a public reception immediately followed. This Charrette brought together over seventy of the city's leading architects, planners, landscape architects, civil engineers, developers, and real estate attorneys to test the draft Land Development Code and zoning map on real properties in a wide range of contexts. The participants were organized into seven distinct teams, each looking at a different representative area of the city. The teams were as follows:

Team 1: **Neighborhood Low-Density Residential**

Team 2: **Central Neighborhood Residential**

Team 3: **Neighborhood Edge Mixed-Use**

Team 4: **Corridor Transition Zone**

Team 5: **Activity Corridor**

Team 6: **Regional Center**

Team 7: **Downtown**

The most common results among the teams addressed mapping, prescriptive form-based standards, missing middle housing, parking requirements, and formatting of the draft code.

MAPPING

Charrette participants experienced confusion with the patchwork mapping of new zoning categories and the overall intent of the draft map; several test areas had transect and non-transect zoning along the same block, or across the street. This will create unpredictable and incompatible development patterns, and therefore we suggest that base zones should be re-calibrated to allow a more widespread implementation of transect zones. Further, as the fundamental mapping approach is to simply match the existing entitlements on the ground, it is unclear how we, as a city, are going to achieve the goal of being compact and connected. A framework for creating new small area plans also needs to be part of the CodeNEXT discussion; without these, we will never meet the goals outlined in Imagine Austin.

Initial Recommendations:

- Recalibrate transect zones to work throughout the urban core. Non-transect zones will be appropriate in more “drivable suburban” places outside of the urban core.
- Create a new, truly urban version of T6 that will allow for reasonable development downtown. If DC and CC remain downtown, revise language throughout the code that refers to non-transect zones as “drivable suburban”.
- Recommend to City Council to mandate revisions to all small area plans to align them with Imagine Austin

PRESCRIPTIVE FORM-BASE STANDARDS

The draft code seems to be preoccupied with building types and dimensional constraints to the point where Charrette participants were literally recreating “cookie cutter” footprints to place on parcels. This fundamental rigidity to the building types and lot dimensions is incompatible with Austin’s large variety of lot sizes & shapes, dramatic terrain, and cherished urban forest. Several teams encountered sites that “broke” the system by either requiring lot aggregation, producing an extremely uncompetitive project, or were otherwise challenged with undevelopable constraints. We are concerned that the restrictive nature of these form-based zones will disincentivize the exact same walkable urban infill development that Imagine Austin calls for. Property owners may opt to keep underutilized properties as-is rather than redevelop using overly restrictive regulations.

Initial Recommendations:

- Relax building form dimensions that do not affect the public realm. Detailed diagrams depicting allowable side and rear building envelopes do little for street life, but create unnecessary hardships for residents and designers.
- Eliminate minimum lot depths. This creates too many issues with Austin’s diversity of lot sizes, and does nothing to improve the public realm.
- Allow projects flexibility in meeting the dimensional requirements. If all the dimensional regulations are to remain, consider a system in which projects are compliant by meeting X% of the items, and give priority to the items that relate most to the public realm.
- Eliminate setbacks in downtown and the urban core, which reduce allowable height and FAR. Code changes should encourage increased density and allow more downtown sites to be developed to help meet the increased housing demand.

MISSING MIDDLE HOUSING

AIA Austin has been committed to seeing more Missing Middle housing, which represents a range of multi-unit or clustered housing types compatible in scale with single-family homes, built under the new code. The Charrette highlighted many barriers to realizing this vision. The primary obstacle is that Missing Middle building types are simply not allowed in enough transect or non-transect zones. While participants did see opportunities for new building types, the missing middle types (row-house, live/work, etc) that already exist in the draft code could adequately satisfy this need if they were permitted in more transect zones. Additional constraints that led to this result were the tight dimensional controls that precluded viable Missing Middle structures on a number of lots; as well as the need for a full site plan review for anything over two dwelling units. The site plan submittal waiver for “residential heavy” projects (3-9 units in a transect zone) appears to be entirely left to the discretion of the Development Services Director.

Initial Recommendations:

- Incorporate more Missing Middle building types into all T3, T4, and T5 zones. Allowing this type of development in more transects will naturally lead to more of it being built.

- Relax building form dimensions per previous recommendations. These housing types need maximum flexibility to be a viable option and respond sensitively to neighborhood contexts.
- Eliminate full site plan submittal requirements for residential projects of ten or fewer units. This expensive and time-consuming process may otherwise incentivize developers to just build large single-family homes that don't trigger this requirement.

PARKING REGULATIONS

The noticeable shift from two to one required parking space for residential units allowed considerable flexibility for Charrette teams to meet other form-based regulations. This change was widely praised as a step in the right direction, as was the relative loosening of requirements for several uses. Increased restaurant parking led to inviable projects for some Charrette teams. (We were pleased to learn after the Charrette that restaurant parking requirements in the current draft were in error and that they are being re-calibrated for the second draft.) Parking reductions also caused confusion in that the existing CBD exemption was nowhere to be found, and the overall reduction was capped at a mere 40%. Reinstating parking requirements downtown, and uniformly capping parking reductions at 40% citywide runs counter to the priority of a Compact and Connected Austin. The following recommendations generally promote a more market-based approach to parking; given that almost all downtown projects are still providing abundant parking, and several of the Charrette teams provided parking above minimum requirements:

Initial Recommendations:

- Eliminate minimum parking requirements downtown to match current policy. Projects are still providing ample parking to meet the market's needs, and there's no minimum requirement in place to dictate this pattern.
- Eliminate the parking reduction cap of 40%. This will allow flexibility and encourage a gradual mode shift in transit-rich neighborhoods.
- Reduce minimum parking requirements for all uses to at least match current code. No uses should be burdened with higher minimum parking requirements in the future.

FORMATTING OF THE CODE

The illustrative diagrams and graphic style was unanimously praised for being a significant improvement over the current code. Code users were (mostly) able to find what they needed quickly, and the transect tables were a welcome addition. The most obvious weak point of the transect zoning pages was the excessive use of notes and footnotes scattered at the bottom of pages. Most teams had to backtrack at some point to account for a stray footnote, which could have been avoided with better integration. We worry that starting out with so many footnotes does not create a simple, flexible zoning framework that can adapt throughout the years.

Initial Recommendations:

- Reduce the dependence on footnotes to convey important information. Whenever possible, integrate the notes into the tables or diagrams, or otherwise question whether the footnote is necessary.
- Provide direct links when a reference to another section is used in the digital version of the code.

It is important to note that several important draft code sections were not released at the time of the Charrette and therefore could not be tested. This includes the Affordable Housing Incentive Program (AHIP) and Functional Green, both of which could have dramatic effects on the built environment and will need close examination upon release.

AIA Austin is dedicated to help improving the draft to create the best code for its members, and the city and looks forward to supporting the implementation of a future draft of CodeNEXT that has considered the items above, in addition to the more detailed recommendations in the full report.

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Introduction

In response to demand from AIA Austin membership to explain how the new draft code will affect future land use patterns, development standards, and processes, on Tuesday, May 9, 2017, AIA Austin facilitated an all-day Charrette at St. Edward's University. The charrette participants consisted of over 70 professionals; including the city's leading architects, planners, landscape architects, civil engineers, developers, and land use attorneys. The purpose of the charrette was to better understand the look and feel of the draft code, visualize the outcomes, and examine whether these outcomes are in alignment with the city's goals outlined in the adopted Imagine Austin Comprehensive Plan. Immediately following the charrette was a public reception where citizens were able view the work produced, listen to presentations by charrette participants, and ask questions.

GOALS

As regular users of the Land Development Code, AIA Austin members are excited at the opportunity to have a better code to work with and support the CodeNEXT initiative to create a clearer, more predictable, and consistent code, as outlined in Imagine Austin. As such, it is the goal of AIA Austin to get a new code adopted. From the beginning of this process AIA Austin envisioned a collaborative process for all design professionals to provide input into the code rewrite process. The Charrette became the most effective means to accomplish this by testing the draft text & map with real-world case studies and to recognize if they meet the goals of Imagine Austin. Its focus was to explore the newly proposed form-based transect zones, as these differ greatly from the use-based zones under which Austin has historically operated under. The Charrette would allow us to visualize how these new zones could shape Austin, while providing a means to deliver comprehensive feedback to city staff, and the consultant team, to improve the current draft code. To this end, this report will be furnished to Mayor Adler, City Council, City of Austin CodeNEXT Staff, and the Land Use Commissions. Additionally, it will be posted on the AIA Austin website.

PROCESS

The AIA Austin CodeNEXT Charrette was created, organized, and funded by AIA Austin. There were no sponsors for the event and no registration fees were collected from participants. In keeping with this autonomy, this report has also been solely assembled by AIA Austin. All recommendations contained in this report are those of AIA Austin and are not intended to represent any other individual or organization, unless expressly stated otherwise by that organization.

The AIA Austin CodeNEXT Charrette Planning Committee selected the Charrette participants based on their expertise in the field, their knowledge of the existing Land Development Code, and their involvement in the CodeNEXT process. While many of the participants consisted of AIA Austin Member architects and planners, it was agreed early on that a holistic study of the draft code could not be conducted without the expertise of all the professionals who use the code on a regular basis. This meant inviting professionals from outside of AIA Austin to participate. The selected participants were placed on one of seven Teams, each examining a different density and zoning type within the code (a comprehensive list of the participants can be found in Appendix B). Participants were deliberately assigned to Charrette teams based on their specific areas of practice and expertise. Each Team was led by a member of AIA Austin.

The Test Areas were selected by the members of each Team based on the criteria assigned by the Planning Committee. Teams met prior to the day of the charrette to review objectives and to select test areas and testing criteria. This preparation proved to be valuable

Out of respect for the participants' time, and the work being conducted at this fast-paced event, the Charrette was closed to the public. Though, immediately following the Charrette, the work rooms were opened for a public reception. During this time, each team made short presentations, and answered questions, as groups viewed the work product. Based on comments received, this opportunity to see the raw results was greatly appreciated.

TEST AREAS

Each of the seven Charrette Teams studied different Test Areas throughout Austin. These Test Areas were chosen for their location, proposed zoning, existing site constraints, and density development patterns. This diversity of test areas allowed the teams to examine an assortment of the draft code sections. The Test Areas were chosen solely for the hypothetical purpose of testing the draft code. AIA Austin is not recommending that any of these properties be redeveloped. The Test Areas for each Team were as follows:

Team 1: **Neighborhood Low-Density Residential**

Test Area: 39th Street & Jefferson Street

Team 2: **Central Neighborhood Residential**

Test Area: South 5th Street & West Mary Street

Team 3: **Neighborhood Edge Mixed-Use**

Test Area: Webberville Road & San Saba Street

Team 4: **Corridor Transition Zone**

Test Area: South Lamer Blvd & Collier Street

Team 5: **Activity Corridor**

Test Area: Burnet Road & Koenig

Test Area: South First Street & West Annie Street

Team 6: **Regional Center**

Test Area: Airport Blvd and Highland Mall Boulevard

Team 7: **Downtown**

Test Area: East 6th Street & I-35 Access Road

Test Area: West 8th Street & Nueces Street



Team 1: **Neighborhood Low-Density Residential**

Team 1 tested a residential neighborhood that was “transitional” in form, neither completely walkable nor entirely car-dependent, as defined in the 2014 Community Character Manual. These areas do not have mixed uses, but provide easy walking or biking trips to retail nodes and commercial corridors for daily errands. The Imagine Austin Comprehensive Plan envisions infill development compatible in scale with the existing single-family neighborhood fabric.

TESTING CRITERIA

Criteria

- Mapping effectiveness of implementing Imagine Austin
- Comparison of zoning entitlements (proposed vs. existing)
- Impact of building types and form-based regulations
- Diversity of housing types
- Drainage, detention, and water quality
- Usability and formatting of the code
- Parking requirements
- Need to subdivide or aggregate lots for viable projects

Assumptions

- To test a broader range of options, the team decided to start with a blank slate and assumed removal of existing buildings.
- Hypothetical shifting of lot lines
- Approximated locations and sizes of protected trees

TEST AREA: 39TH STREET & JEFFERSON STREET

Description

The team focused on several residential blocks in the Ridglea Neighborhood, which is situated between Shoal Creek, West 38th Street, Bull Creek Rd., and a future mixed-use community (The Grove). While the Test Area was comprised exclusively of single-family uses, there are dozens of neighborhood-serving restaurant, retail, and services a few blocks away on West 35th St. District-scale amenities include Seton Hospital and Central Market, both within a short bike ride. Future jobs and amenities are sure to emerge in The Grove, which will include an 18.6 acre public park immediately to the north of Ridglea.

The specific Test Area did not encompass the entire neighborhood, but focused on a diverse group of 19 properties generally around the intersection of West 39th St. and Jefferson St. (Figure 1.1) Sub-sites were clustered in four distinct patterns: six lots on a prototypical cul-de-sac, six lots on a rectangular grid, six irregular shaped lots, and one large triangular lot with 100% street frontage. All existing lots were larger than a minimum SF-3 lot (5,750sf), albeit a variety of shapes and frontage conditions, which gave the team built-in iterative features. All existing properties are currently zoned SF-3 and the proposed zoning is a mix of T3N.DS, T3N.IS, and LMDR. (Figure 1.2) Proposed zoning on the adjacent properties is mostly some variation of T3N with the notable exception of T5U.SS-O zoned on a commercial property to the south of lots on Emilie Ln. These low-intensity LMDR and T3N.IS properties will trigger additional setbacks and height stepbacks on this site that is currently home to a four-story clinic. The residential lots back up to 180ft of continuous surface parking.



Figure 1.1: Site Aerial

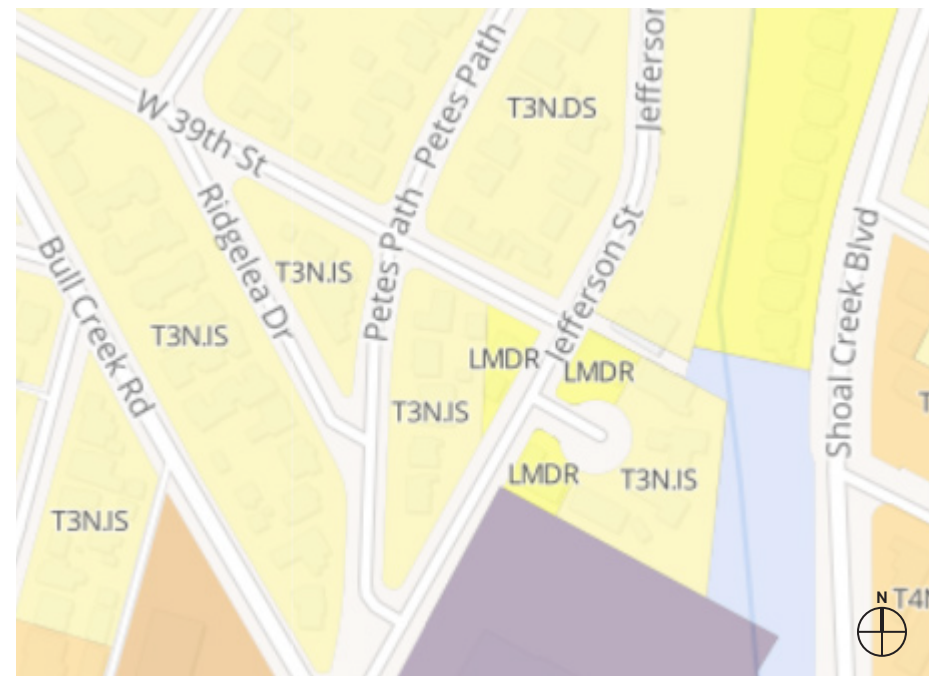


Figure 1.2: Proposed Zoning

Findings

The team approached the Test Area by investigating proposed setbacks on the diverse lot arrangements, observing the permutations, and looking for viable opportunities to add gentle density compatible in scale with the existing neighborhood fabric. Hypothetical scenarios were tested by reducing lot widths of several larger T3N.DS properties as a means to examine overall flexibility of the proposed code. There was also a concerted effort to look for opportunities in the cul-de-sac properties, traditionally regarded as difficult to develop efficiently, but otherwise large enough to accommodate an extra unit or two.



Figure 1.3: Overall Site Plan

In the transect-zoned properties, the team tested as many building types as were feasible within the given parameters. Iterations included Small House, Duplex: Side-by-Side, Duplex: Stacked, and a Cottage Corner arrangement. Accessory Dwelling Units (ADUs) were employed as often as possible. (Figure 1.3) Cottage Court building types weren't utilized due to building height and lot restrictions that made larger ADUs more viable. As a comparison to existing SF-3 zoning, the proposed transect regulations generally allowed a greater yield in terms of buildable area, but it came with strings attached. Where the existing code regulates total yield by a simple floor-to-area ratio (FAR), the proposed code deploys a series of highly prescriptive form-based regulations. A typical Austin lot (50ft x 120ft), with no encumbrances, could theoretically yield three units and a significant increase in FAR. However, if there are any combination of undesirably located protected trees, easements, floodplains, erosion hazard zones, steep slopes, etc. then the potential buildable area is reduced..

The rigidity of the form-based regulations preclude designers' ability to design sensibly around a site's context, favoring an "use it or lose it" approach that prioritizes control over the built form. Any buildable area lost due to a heritage tree, for example, would not be credited back to a project somewhere else on the site outside of the predetermined envelopes. The prescribed footprint shape prevents a single-story home larger than 1,688sf on a standard 50ft lot, which could be undesirable for an aging population. Additional envelope restrictions included an allowable height of two stories for primary buildings in lieu of the three that many current projects are achieving with an occupied attic, and a combined minimum side setback of 15ft that effectively precludes development of any existing 25ft wide lots. The team determined that regulating building heights as a measurement to the eave or parapet will favor traditional gabled or hipped roofs as a byproduct, due to the bonus height gained under the roof pitch. Architecture that attempts to use parapets will, when compared to a similar project with a traditional roof line, be disproportionately impacted. Minimum and maximum front and side setbacks place buildings, on average, ten feet closer to the street, but the narrow 10ft zone established for the primary building facade will likely need variances to work around obstructions, such as mature, protected trees which have been the result of decades of 25ft front setbacks.

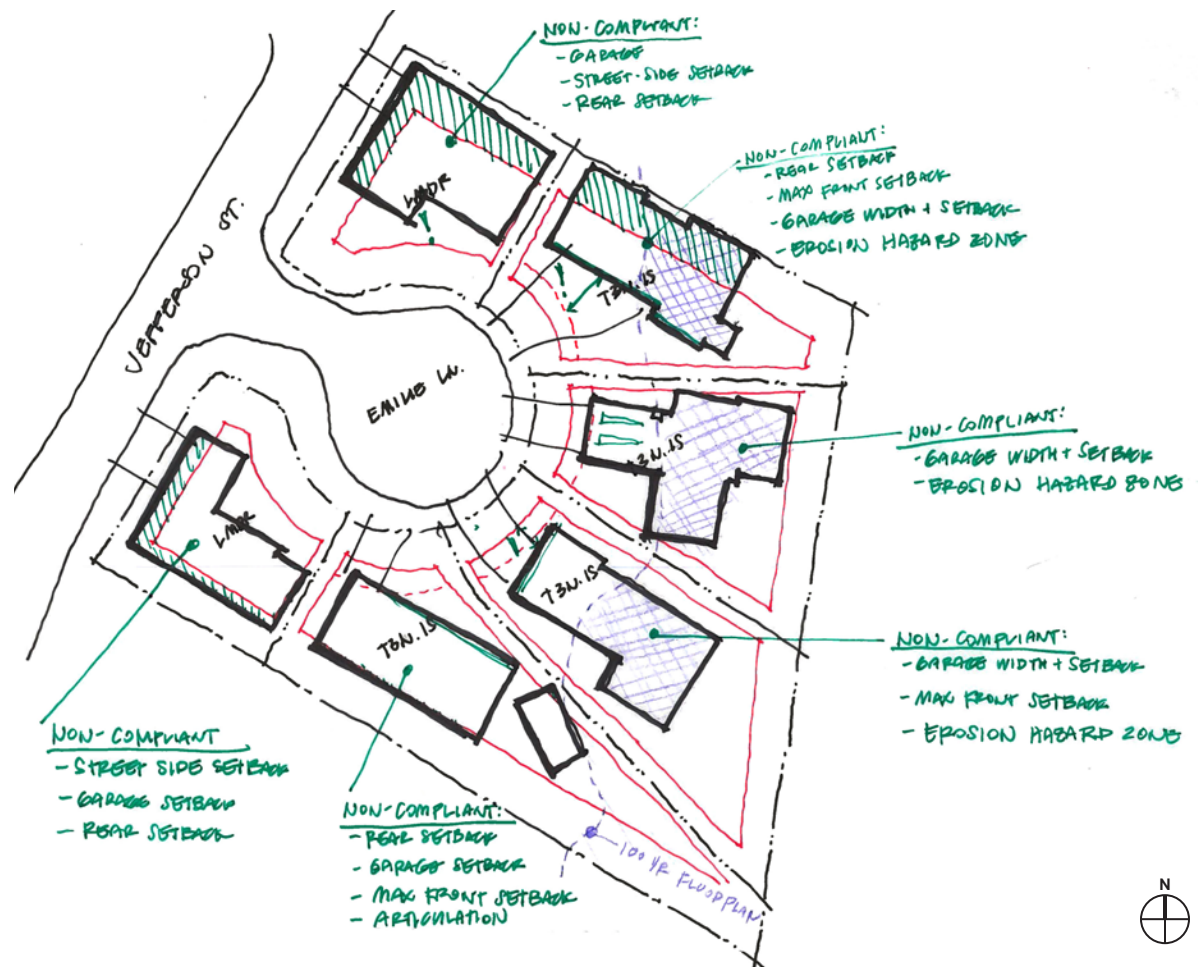


Figure 1.4: Existing Non Compliance

The team appreciated the opportunity to develop projects with only one parking space per unit. The lowered minimum parking requirements, combined with shared driveway provisions, freed up impervious cover for more productive uses and allowed greater flexibility. The parking placement regulations, however, were impossible to accommodate on many of the triangular, wedge, or trapezoidal lots with short street frontages. It was unclear how internal or detached garages were interpreted with respect to the footprint regulations, and the rear parking was difficult to accommodate on narrow lots. Alley-accessed projects will benefit greatly under the proposed regulations, as compared to projects that must otherwise use impervious cover with a driveway to the back of the lot.

The most notable increase in entitlements was the ability to add an ADU to a duplex, resulting in three units on a standard residential lot, which is one more than allowed currently. Similar to parking, however, this positive change was balanced by a more onerous 20ft rear setback (unless alley access is present). Full site plan submittal requirements for a three-unit residential project would likely preclude this configuration from proliferating despite its inherent form that could be identical to, if not less intense than, a large single-family home. Without the addition of an ADU to create viable three-unit projects, the T3 transect appears to be a more prescriptive version of LMDR with higher allowable FAR, which could result in larger houses and no actual increased density in terms of dwelling units per acre.

The LMDR (non-transect) lots in the cul-de-sac yielded mixed results. The inherent flexibility in site planning regulations allowed creative solutions to the oddly shaped parcels, but a proposed height restriction of one story beyond 80ft of the front of the lot could reduce overall buildable area. The relaxed front setbacks allowed houses to embrace the street, but, with new height restrictions, would be lacking substantial changes from the status quo. The team could not locate FAR exemptions for parking garages as is currently allowed in Subchapter F, but the site could experience a relative increase in yield if the FAR definition reverts back to the code, which is silent on unconditioned spaces.

Overall prescriptiveness of the draft code can be highlighted by the six existing lots on Emilie Ln., the cul-de-sac with oddly-shaped parcels. All six homes would be non-compliant to varying degrees under the proposed regulations, mostly due to garage widths and setback violations. (Figure 1.4) Non-compliance is certain to be found on standard lots as well, which could, unless a modest increase in non-compliance is allowed for remodels and additions, encourage demolition of older housing stock. The proposed code does not provide enough flexibility to work for these non-standard lot shapes without requiring a variance or discretionary approval.

A brief cost analysis was used to compare the transect and non-transect zone's ability to deliver residential units at lower price points. The analysis assumed a consistent construction cost of \$200 per square foot, and consistent land cost of \$450,000 for all iterations, except for a proportionate increase for a larger lot required to build cottage courts. The analysis did not speculate on private market sales prices. Results show parity between transect and non-transect zones for single-family homes, ADUs, and duplexes. The transect zone's ability to produce a duplex and ADU on the same lot, and the cottage building types' smaller prescribed building sizes, both resulted in lower per-unit costs compared to the most dense non-transect arrangement. In general, the team found the transect zone's ability to distribute land costs over more units, and the requirement to build smaller units in the cottage building types, allow for a lower cost per unit.

RECOMMENDATIONS

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
23-4D-2100/2110 T3 Neighborhood Deep/ Intermediate Setback (T3N.DS/IS)	D. Building Types	<ul style="list-style-type: none"> • Eliminate or significantly reduce the prescriptive footprint requirements (columns D through H). If requirements remain, allow projects to recapture buildable area lost to site constraints. These form-based regulations should focus on improving the public realm and not designing rear wings. • Eliminate minimum lot depth. This does not properly respond to the wide variety of lot sizes and shapes in Austin, and lot depth does not affect the public realm. • Allow Duplex: Front-to-Back in both transects. This is a critical building type to take advantage of narrower lots.
	E. Building Placement	<ul style="list-style-type: none"> • Remove the maximum Front and Side St. setbacks to allow projects to design sensitively around site constraints. • Reduce side setbacks to match current code (5ft min.). • Reduce rear setback for ADUs to at least match the current code (10ft min.).
	F. Height	<ul style="list-style-type: none"> • Increase allowable height of Primary Buildings to 2-1/2 stories and 35ft to at least match current code. • Increase allowable height of Cottage Types to two stories. • Increase allowable height for parapets relative to eaves. The land development code should not favor any type of architecture.

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
	I. Parking	<ul style="list-style-type: none"> • Clarify at what point the footnote does not apply, i.e if a garage is 50ft behind the front facade, does it still need to be no more than one-third the width of the front facade? At what point can the parking occupy the full area shown in the diagram? • Allow an exception to the footnote for oddly shaped lots that prevent a driveway from extending behind the house. • Clarify how attached parking structures are interpreted, and whether they are allowed within the prescribed building footprint.
23-4D-3090 Low-Medium Density Residential (LMDR)	Development Standards (Table A)	<ul style="list-style-type: none"> • Remove building height reduction beyond 80ft of front property line. • Resolve discrepancy between allowable building heights in LMDR (23ft/35ft) and T3N.DS/IS (22ft/32ft). • Revise "Building Size" regulations to be the less restrictive of 2,300sf or 0.4 FAR. • Clarify if duplexes and ADUs are allowed in this zone.
23-6B-2 Submittal Waivers	23-6B-2020 Residential Heavy Site Plan	<ul style="list-style-type: none"> • Codify a full exemption or a significantly streamlined, by-right site plan process for residential heavy projects of ten or fewer units.



Team 2: **Central Neighborhood Residential**

Team 2 tested a central residential neighborhood that is primarily “urban” in form. A strong street grid acts as a framework to support a walkable community with mixed uses, where most daily errands can be accomplished without a car. The Imagine Austin Comprehensive Plan envisions infill development to occur which is compatible in scale with the existing single-family neighborhood fabric.

TESTING CRITERIA

Criteria

- How does the draft code address transitions between scales? Uses?
- How does the draft code interact with real estate economics of this site?
- How does the draft code address urban forestry, open space, and impervious cover?
- How does the draft code address household affordability/accessibility and housing choice?
- What are the options for infill development? Are these options appropriate for this site?
- How do the draft code building allowances compare to current FAR requirements?
- How does the draft code make use of proximity and accessibility to daily needs as part of a sustainably affordable system?
- Imagine Austin Growth Concept Map: How does the draft code help achieve the key goals in the growth concept map?
- How does the draft code promote compact and connected, both existing and anticipated?
- Does the draft code help initiative increased proximity and accessibility?
- How does the draft code address placement of utilities? How does this affect building potential?
- Mapping effectiveness of implementing Imagine Austin
- Comparison of zoning entitlements (proposed vs. existing)
- Drainage, detention, and water quality
- Usability and formatting of the code
- Parking requirements
- Need to subdivide or aggregate lots for viable projects

Assumptions

- Historic structures to remain untouched.
- Non-existence of existing inaccessible, unimproved alley on the southwest block.
- Lots to be combined as needed to test scenarios not otherwise possible.
- Existing 25ft platted lots considered as "existing lots" under the footnote exception for minimum lot size requirements.
- Parking allowed directly off the alley.
- Approximated locations and sizes of protected trees.

TEST AREA: SOUTH 5TH STREET & WEST MARY STREET

Description

The Test Area encompasses the four blocks adjacent to the South 5th Street and West Mary Street intersection. These four blocks represent an opportunity to test single-family housing, missing middle housing, existing historic structures, the Twin Oaks Branch Public Library, a handful of commercial and personal services, and a local restaurant. The area surrounding these four blocks includes Becker Elementary School and Ricky Guerrero Park. The Cap Metro 5 line operates on South 5th Street, and the western half of the site is within a quarter mile of South Lamar Boulevard. Even closer is West Bouldin Creek, which offers a potential connection to the hike and bike trail system. The context and character is that of a well-established neighborhood with mature tree canopies, many of which are heritage live oaks.

Each of the four blocks was originally platted with an alley. Currently, two of the four alleys are fully improved, one is part of the open space surrounding the library, and the other is inaccessible from either end of the block, presumably unimproved. The two eastern blocks are generously sized at approximately 420ft x 320ft. The two western blocks are more moderately sized at 320ft x 300ft. In all four blocks there is only one lot that is smaller than the current minimum single-family lot size of 5,750sf. Notably, there are existing 25ft lots platted on the two western blocks, but all current ownership parcels have at least two of these original lots.

The majority of existing property is currently zoned SF-3, with a few MF-3 properties fronting Mary Street east of South 5th Street. The properties surrounding the intersection are various commercial and mixed-use zones, including GS, CS, LR, and LO. The proposed zoning map replaces all SF-3 with T3N.IS and MF-3 with T4N.IS. All of the properties with commercial and mixed-use zones are proposed to be T3MS. The Test Area included two properties with an open sub-zone and two with historic designations.



Figure 2.1: Site Aerial

The Twin Oaks Public Branch Library was maintained in its existing form, however the Team reduced the number of surface parking spaces to the minimum required in an effort to make more efficient use of the large property. This exercise included investigating the Live/Work product on the existing 25ft plat lines, and the potential for public day care services. Similarly, the historic structure zoned as T3MS was maintained as-is, but various use options for that space were explored, including a small restaurant. On other T3MS properties, the Live/Work building form was implemented only where a lot size approaching the minimum required was possible. The Main Street building form proved to be a more efficient use of the lot, but maximum building envelopes were never realized due to off-street parking requirements, even after accounting for all reductions.

Viewed in the aggregate, the properties zoned with T3N produced slightly decreased building cover, parking requirements, and impervious cover while more than tripling FAR, which was not a regulated metric in the draft code. The result is more than double the amount of dwelling units allowed by the current code, averaging a little more than half the size of dwelling units currently allowed by the code, and an approximate 125% increase in residential density in terms of dwelling units per acre. This lower-intensity neighborhood saw, overall, similar residential uses, less-massive building forms than currently allowed, and increased housing options and availability.

The T3MS properties produced similar, if not decreased, opportunities mostly due to site constraints and parking requirements. The parking demand for restaurant use increased as compared to the current code, making the existing restaurant uses on the site infeasible. Live/Work was also infeasible due to building form restrictions that would allow less development than the lower intensity T3N zones. However, because the Main Street transect allows residential uses mixed-in, there was a general gain in residential availability on these properties.

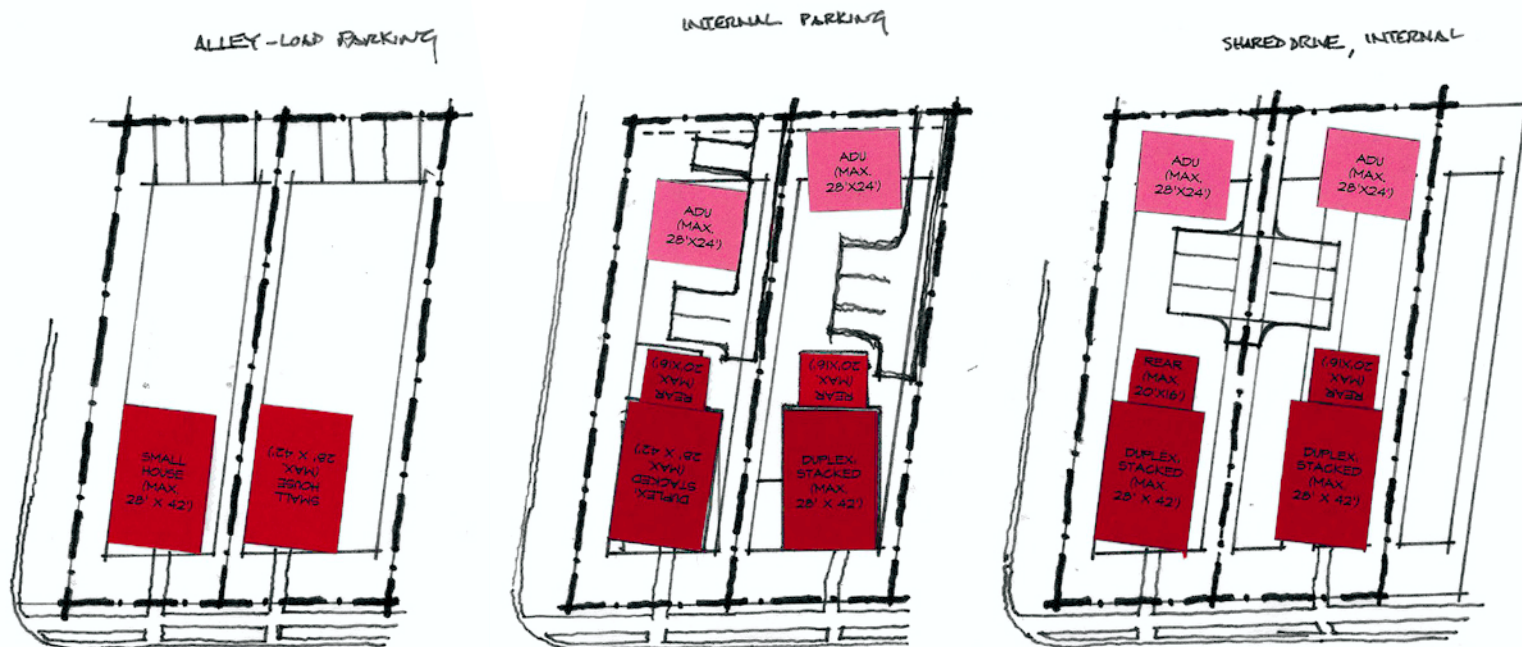


Figure 2.3: Block Studies

Successes on this Test Area occurred most often when there was an improved alley, which was conducive to efficient parking access and thus free-up impervious cover for more productive uses. The success was also owed, in part, to the relatively generous lot sizes. It is reasonable to assume that smaller lot sizes, approaching the minimum requirements may not have seen as much success. By contrast, the T3MS building types, especially Live/Work, were most efficient when the properties were approaching the minimum lot size requirements.

The failures on the site occurred where the prescriptive building form and placement requirements of the draft code did not allow for flexibility and sensitive solutions to existing structures, existing parking access, and existing protected trees. The rigidity of the code was especially felt in the T3N.IS transect zone. This scale and scope of development, which is generally home to more owner-occupied residential units, may have growing families with a need for an additional bedroom suite or an accessory dwelling unit. If this modest addition would require them to also redevelop their parking access and partially improve an alley, the viability of their project may be precluded. A scenario in which a family cannot meet their needs on their own property does not support housing options and availability. Similarly, limited building form options and parking requirements rendered some of the T3MS properties unable to maintain their current uses. This is especially true for restaurants. Restaurants within a neighborhood setting are often vibrant centers of the community due to their ability to blend into the neighborhood fabric, which is made possible by avoiding vast surface parking lots.

For the scale and scope of development in a central residential neighborhood setting, the draft code should be more sensitive to the fact that these sites are not greenfields, are rarely redeveloped, and almost never at the same time. Options and flexibility are key for private residential owners to make the most out of their property. The same options and flexibility should be extended to small business owners of T3MS zoned properties. More and various building forms, opportunities for shared parking, and taking advantage of proximity to public transit would better support these small-scale businesses. The draft code has the ability to build-in mechanisms for more sensitive solutions to existing conditions.

Average	Current Allowable		CodeNEXT Proposed		Delta	
Lot Size (SF)	7837.91		7837.91		N/A	
Zoning	SF-3		T3N.IS		Similar	
Building Form(s)	McMansion		Small House		Less massive	
Use(s)	Single Family		Residential		Similar	
Building Cover	3080.76	39%	2128.92	27%	(951.84)	-12%
Stories	2.95		1.85		(1.10)	-37%
Liveable SF	3080.76		3807.24		726.48	24%
Floor-to-Area Ratio	0.39		1.77		1.38	349%
# of Parking Spaces	2.05		2.40		0.35	17%
Impervious Cover	3527.06	45%	3200.14	41%	(326.92)	-4%
# of Units	1.05		2.37		1.33	126%
Density (Units/Acre)	5.93		13.35		7.42	125%
Avg. SF of Units	2958.94		1672.51		(1286.43)	-43%

Figure 2.4: Average changes between what is currently allowable and what the CodeNEXT draft proposes.

RECOMMENDATIONS

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
23-3C Urban Forest Protection and Replenishment	23-3C-1010 Intent	<ul style="list-style-type: none"> Consider moving this vague and confusing language to the appendices or eliminating it altogether.
Intent Statements	23-4D-2010 Intent	<ul style="list-style-type: none"> Consider moving all intent statements to the appendices. They do not help users understand the content and generally “muddy the waters”.
23-4D-2110 T3 Neighborhood Intermediate Setback (T3N.IS)	D. Building Types	<ul style="list-style-type: none"> Eliminate or significantly reduce the prescriptive footprint requirements (columns D through H). If requirements remain, allow projects to recapture buildable area lost to site constraints. These form-based regulations should focus narrowly on improving the public realm and not designing rear wings. Allow exceptions to the form-based requirements for existing homes undergoing an addition or remodel. If an additional bedroom is added to the rear of a house that does not comply with the prescribed “wing” dimensions, this type of modest increase in non-compliance should be allowed to occur without a variance. Eliminate minimum lot depth. This does not properly respond to the wide variety of lot sizes and shapes in Austin. Allow strategic exceptions to form-based regulations for proposed developments of existing 25ft lots. Proposed side setbacks and parking essentially preclude any infill development of these lots. Revise footnote (1) to clarify intent of this provision. Does this apply to platted lot lines or ownership parcels? The vague language of “lots existing” is a carryover from the current code, which previously led to confusion as it relates to disaggregation. Add codified tolerances for minimum lot widths for lots existing at time of code adoption, e.g. a lot surveyed at 49.9ft. Alternatively, add a footnote exception that states minimum lot width of 45ft for lots existing at time of code adoption.

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
	E. Building Placement	<ul style="list-style-type: none"> • Remove the maximum Front and Side St. setbacks to allow projects to design sensitively around site constraints. • Reduce side setbacks to match current code (5ft minimum). • Reduce rear setback for ADUs to at least match the current code (10ft minimum).
	F. Height	<ul style="list-style-type: none"> • Increase allowable height of Primary Buildings to 2-1/2 stories and 35ft to at least match current code, which would allow a finished “attic”. • Increase allowable height for parapets relative to eaves. The land development code should not favor any type of architecture over another. • Remove minimum ground floor elevations. In many cases, this will introduce conflict with the visitability ordinance. • Remove minimum floor-to-ceiling requirements on all floors. This zone is not planning for future retail conversion, and the market is naturally delivering projects with at least 8-9ft.
	H. Frontages	<ul style="list-style-type: none"> • Correct the references to Private Frontage Type standards. Code sections are inaccurate or do not exist. • Add an exception to the front or side street Pedestrian Access requirements for ADUs, or other units accessed from an alley.

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
	I. Parking	<ul style="list-style-type: none"> • Add language clarifying that parking requirements are for “on-site” (or “off-street”). • Clarify at what point the footnote does not apply, i.e. if a garage is 50ft behind the front facade, does it still need to be no more than one-third the width of the front facade? At what point can the parking occupy the full area shown in the diagram? • Allow an exception to the parking placement setback for existing homes undergoing an addition or remodel. Consider neighborhoods that have wide houses and are currently utilizing street parking, and cannot accommodate a driveway to the rear of the lot. • Remove the alley-accessed parking requirement when the alley is unimproved. Any requirement to improve the alley, especially for a mid-block lot, is an unreasonable burden for a small residential project. Additional cost incurrences could involve moving fence lines for neighboring properties. • Clarify how attached parking structures are interpreted, and whether they are allowed within the prescribed building footprint.
23-4D-21 ## T3 Main Street (T3MS)	D. Building Types	<ul style="list-style-type: none"> • Increase allowable building depth for Live/Work building types. Considering the allowable 18ft wide lots and a typical lot depth of 100ft, a 36ft building depth does not allow enough buildable area.
23-6B-2 Submittal Waivers	23-6B-2020 Residential Heavy Site Plan	<ul style="list-style-type: none"> • Codify a full exemption or a significantly streamlined and by-right site plan process for residential heavy projects of ten or fewer units.



Team 3: **Neighborhood Edge Mixed-Use**

Team 3 tested an area of several mixed-use parcels located in Central East Austin along Webberville Road. The Imagine Austin Comprehensive Plan encourages Mixed-Use areas with “attractive streetscapes, pockets of greenery and trees, and public spaces.” This area is an important low-rise mixed-use area that serves as a buffer between an Activity Corridor (7th Street) and the single-family Blackshear Neighborhood.

TESTING CRITERIA

Most of the lots in this area are too small and/or too irregularly-shaped to develop many of the allowable building types. Therefore, the team's testing assumed the aggregation of several lots to permit the desired building type. They also looked at district-wide shared infrastructure. The following items were addressed:

Criteria

- Lots size and shape- Irregular, need to aggregate
- Local Context-Neighborhood Character
- Shared Parking
- Tree Regulations
- Water Quality/Detention
- Building Types
- Setbacks
- Density Bonus (Assumptions since full draft text has not been released)
- Design Standards
- Functional Green (Assumptions since full draft text has not been released)
- Tree Preservation
- Pervious Pavement in surface parking
- Rain Water Harvesting at mixed use buildings
- Green Walls
- Planter Beds
- Rain Garden in Pocket Park

Assumptions

- Recent redevelopment to remain
- Lots can be combined
- Shared off-site parking is allowed
- Residential use is allowed in T4MS zoning

TEST AREA: WEBBERVILLE ROAD & SAN SABA STREET

The Team studied the area around Webberville Road, between San Saba Street and Swenson Avenue. Webberville Road is unique as it straddles Council Districts 1 and 3. A portion of these lots also lies within the Capitol View Corridor. Both sides of Webberville Road were examined to better understand how the proposed code will transform this area. Overall, the sites chosen were small and tight, located on 2 lane collector roads, and surrounded by residential but near a Core Transit Corridor and on the edge of the Plaza Saltillo TOD. The team noted that the area is currently functioning as a distinct district with a mix of uses including: restaurant, office, religious, multifamily, and single family. Today, this district includes one dedicated children's playground and one vacant lot currently being used as a pocket park. The structures vary from older, small wood frame homes to new contemporary housing stock. Several demographics are represented in this area, from long time owners to new owners and renters. The area is in transition, with new infill development replacing existing structures. To better study this district the team divided it into four areas (Figure 3.1).



Figure 3.1: Webberville Road Testing Area

With combined lots, and shared infrastructure, T4N.IS and T4MS zoning worked well for these sites. Their location, and alley access, meant that the site development constraints of T4 were not much of a problem. All the sites had alley access which was essential to the solutions by removing the need for long driveways within these small lots. The 45% impervious cover maximum of the T4N.IS zone means that adding a driveway and parking will significantly reduce the building size. It was apparent, however, that small sites without alley access will have serious limitations trying to develop under T4 zoning.

Under the proposed zoning, parking is still the primary limitation in development of these sites as the entire exercise was driven by parking requirements. Onsite parking for small lots, while either to meet the Code or to meet market-demand, prevents maximizing the permitted entitlements on these sites. The parking demand for retail or restaurant, for instance, forced the first floor to be office use, which is not as pedestrian friendly. Parking requirements prevented maximum development under T4MS so the solutions featured shared district parking.



Figure 3.2: Overall Testing Area Redevelopment

The team quickly discovered that T4MS does not function well with irregular shaped or small lots, due to the prescriptive lot and building dimension limitations. These are a major impediment for irregular, narrow or shallow lots. *Figures 3.2 & 3.3* show the overall redevelopment solution with aggregated lots. Lot & building dimensions are too inflexible and the triangular lots do not comply with minimum lot dimensions of 40' x 100'. This is because only widths and depths are provided and no area allowance.

The site constraints of lot size, heritage trees, and parking availability meant that lots could not be “maxed out” and consequently there were no opportunities for density bonuses. The Density Bonus tool, however, would have been of little to no value since parking prevented maximums from being achieved. The potential yield for the entire district would only be somewhere between 57-71 units. In addition, the team assumed the fee-in-lieu for water detention as the sites were too small to contain storm water on-site economically. It was acknowledged, however, that this fee could be cost-prohibitive for many small infill projects and could discourage development.

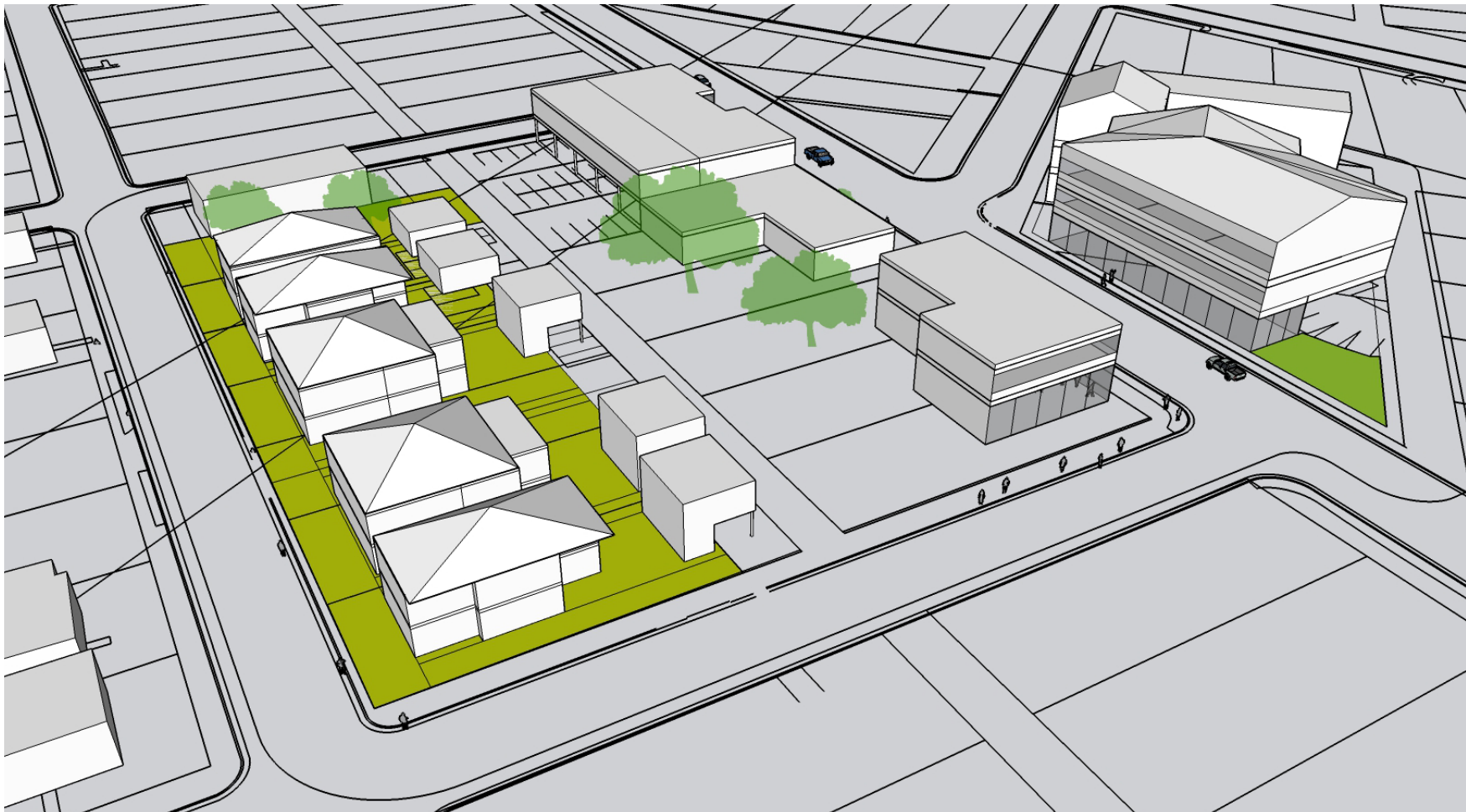


Figure 3.3: Overall Testing Area Redevelopment

Test Site 3A

Description

The Residential block along south side of East 8th Street, proposed as T4N.IS, except for one lot remaining as GO-MU-CO. The E. 8th Street residential block is made up of many individual 45 x 130 ft lots. As individual lots, they are only suitable for either 1 single-family home with an ADU or 1 Stacked Duplex with an ADU so to test some of the other building types, the team assumed some aggregation of lots.

Findings

For the 8th Street residential lots, the team examined many of the allowable building types: Cottage Court, Side-by-Side Duplex, Stacked Duplex, Medium Multiplex, and ADUs. This allowed the team to see which types yielded the most units on the same amount of land.

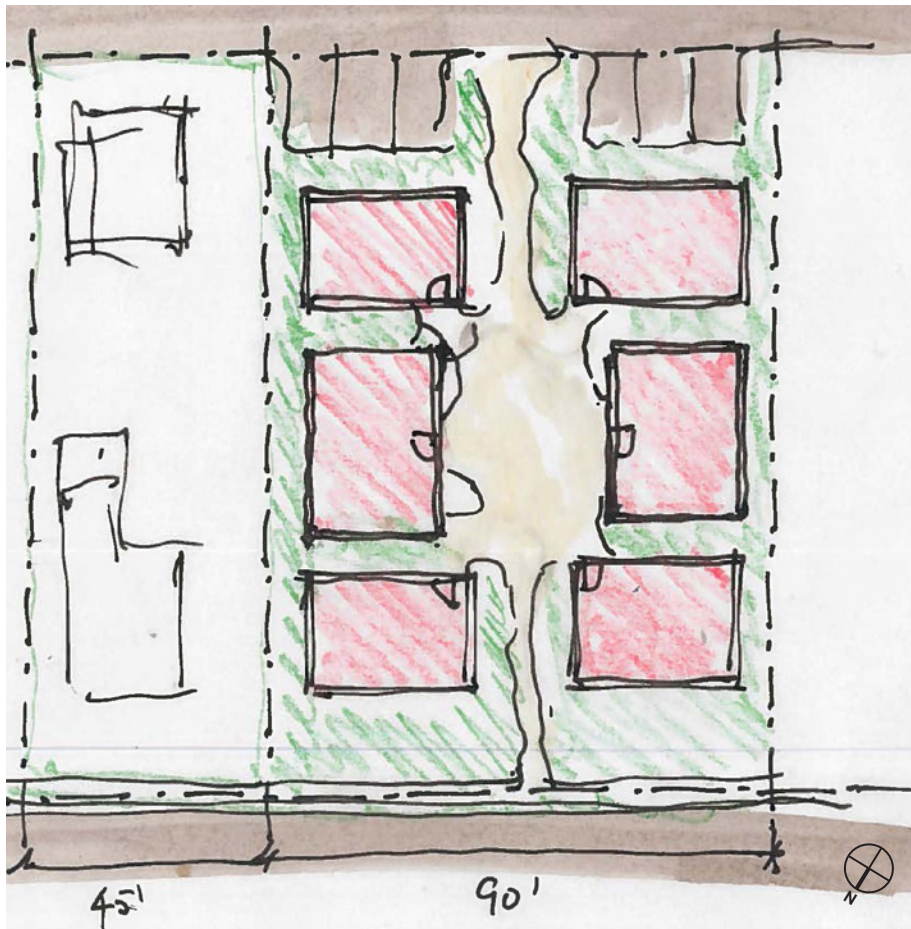


Figure 3.4A : Cottage Court Building Type - 8th Street

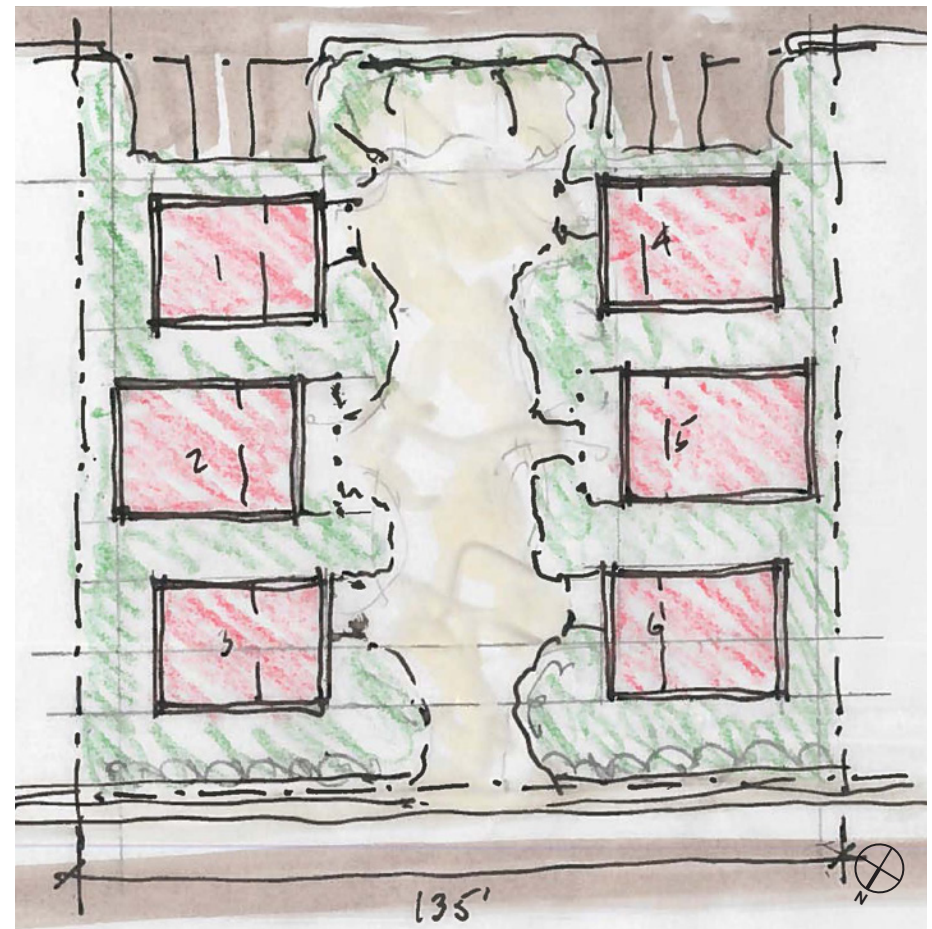


Figure 3.4B : Cottage Court Building Type - 8th Street

Since the existing lots are only 45-feet wide, for the Cottage Court scheme the team needed to consolidate lots. *Figure 3.4A* shows how they could get six 1,200 SF units on two combined lots, plus another three units on the adjacent 45-foot lot, totaling nine units.

This is compared to only six units total on the scheme which aggregated all three lots into one (*Figure 3.4B*). The conclusion is that the Cottage Court development standards make this form non-competitive, compared to other permitted building types, because of the



Figure 3.5A: Side by Side Duplex + ADU on 8th Street



Figure 3.5B: Stacked Duplex + ADU on 8th Street

low potential yield and the ability to only build 1-1/2 stories high. The unit, lot, and building dimension requirements means it will most likely only be used when a lot is exactly 100 feet wide. Any wider or narrower will mean that the other building types, such as Duplex and Multiplex with ADUs, will be more attractive options.

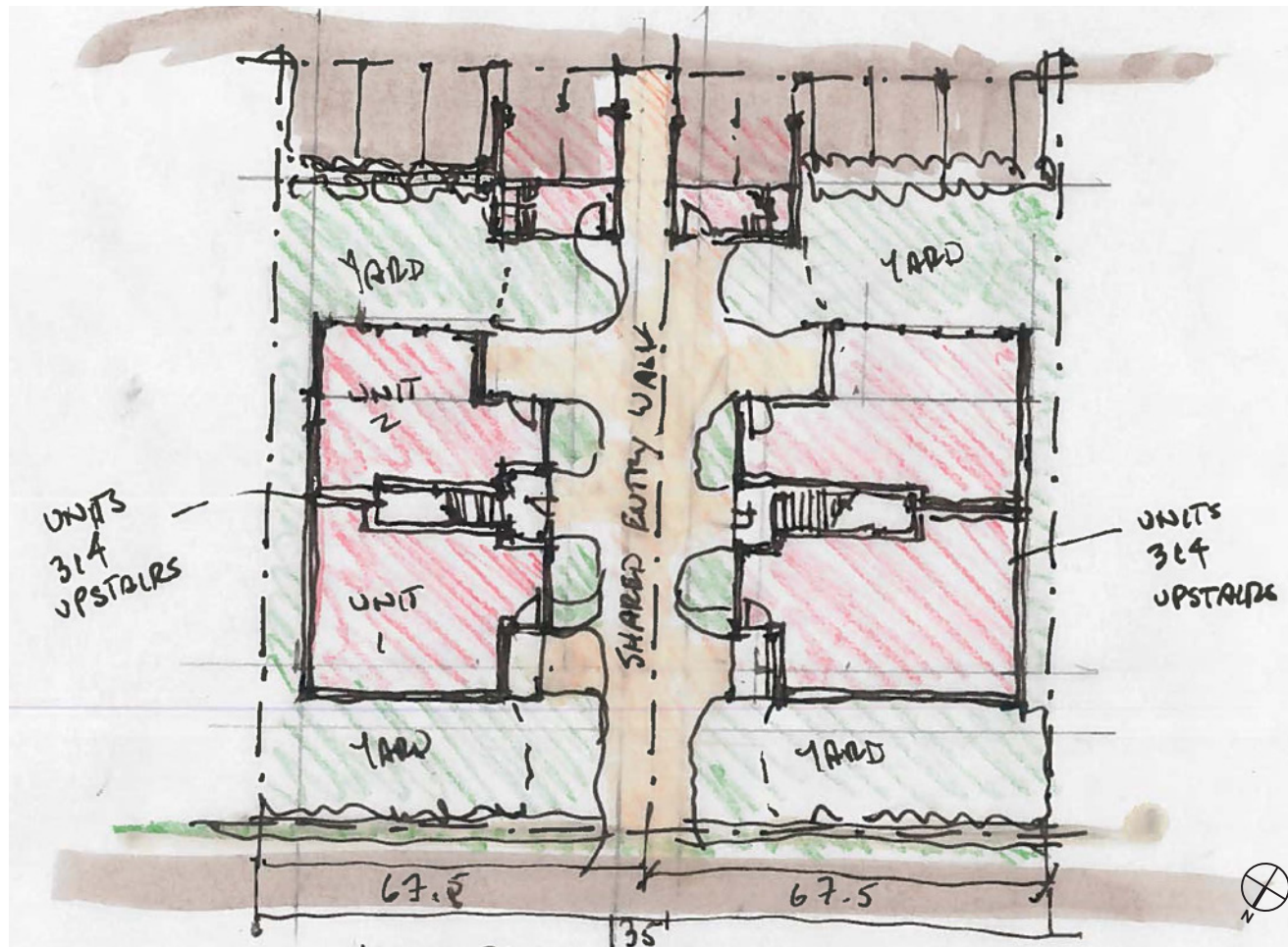


Figure 3.6: Medium Multiplex + ADU Scheme on 8th Street

The Side-by-Side Duplex plus an ADU scheme produced similar results. By splitting the allowable front width to provide for both units (24' each) and assuming the rear width dimension E (8'-0") is an error, the code allowed six units on these lots (Figure 3.5A) whereas the Stacked Duplex plus an ADU produced nine units on the three combined lots (Figure 3.5B). Both schemes required placing parking under the second floor ADUs to achieve the required one space per unit. While the results were like those of the Cottage Court homes, the Duplex design allows for greater density and is not dependent upon aggregating lots to achieve it.

Using the Medium Multiplex building type with an ADU, the team could produce ten units on three lots replatted as two (Figure 3.6). This scheme produced the most density, but the improvements on these lots require replatting lots to maximize the entitlements and once again, the alley was essential in the solution. This means the proposed code does not create the best tools for achieving this density. The added step of aggregating or replatting should not be necessary to meet these goals.

Test Site 3B

Description

The Main street block along north side of Webberville Road, proposed as T4MS zoning. The Webberville block is also made up of mostly individual lots, except for an existing restaurant site that's using 3 lots. This commercial site has an existing parking lot and two existing Heritage Trees. The team assumed these lots would be aggregated like the commercial site across Swenson to the northeast. It was also assumed the existing parking lot and trees would remain.

Findings

For this area, the team created a mixed-use of retail, restaurant, office, and residential. Even after taking the maximum 40% parking reductions on for all, the team could not park the required number of spaces onsite and opted for offsite parking (Figure 3.7). The high requirement for restaurant parking was a key factor. The two-story structures are placed on the street with parking in the rear and alley access.

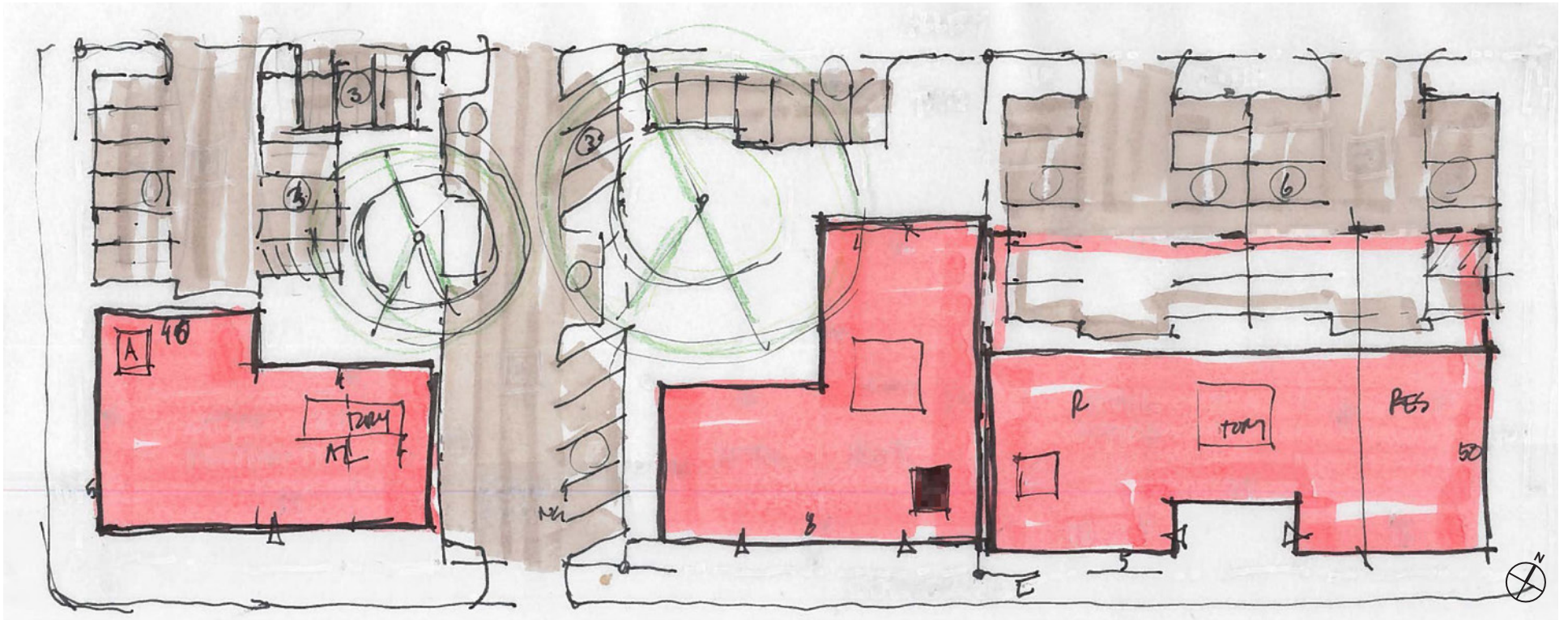


Figure 3.7: Mainstreet Webberville Road Redevelopment

Test Site 3C

Description

The irregular, triangular shaped block to the east of Coronado Street along Webberville Road with a proposed T4MS zoning. The irregular shaped block has some existing recent development which was assumed would remain. It was also assumed the small triangular lots could be developed with community or district improvements (i.e. shared parking and park space respectively).

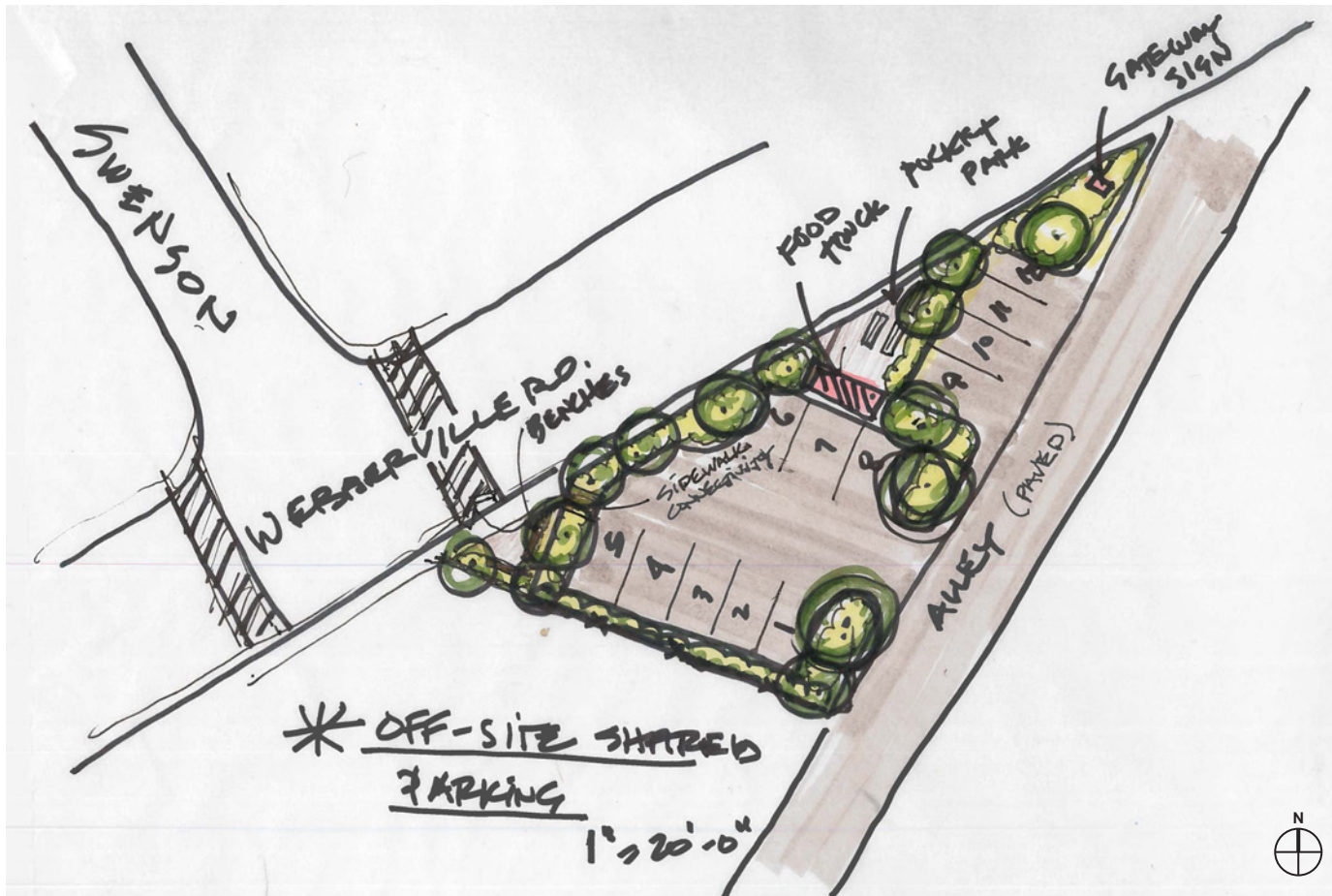


Figure 3.8: Webberville Road & Swenson Street Redevelopment

Findings

Given the triangular shape of the lot, and the form constraints of the draft code, it was determined the lot at the end of Swenson could best serve this district as a shared off-site parking area and/or pocket park (Figure 3.8). It simply is not a developable piece of land under the draft code's prescriptive width & depth requirements.

Test Site 3D

Description

The irregular, trapezoidal shaped block to the west of Coronado Street along Webberville Road with a proposed zoning of T4MS. Just as with the adjacent triangular block, it was assumed new development in this area would remain.

Findings

A new three-story structure was placed along Webberville and Coronado Street. The first floor allows for retail, restaurant, and office use, with residential use in the two upper levels (Figure 3.9). The upper floors also cover the surface parking below. The size, and shape constraints, of this lot made it difficult to develop under the draft code.

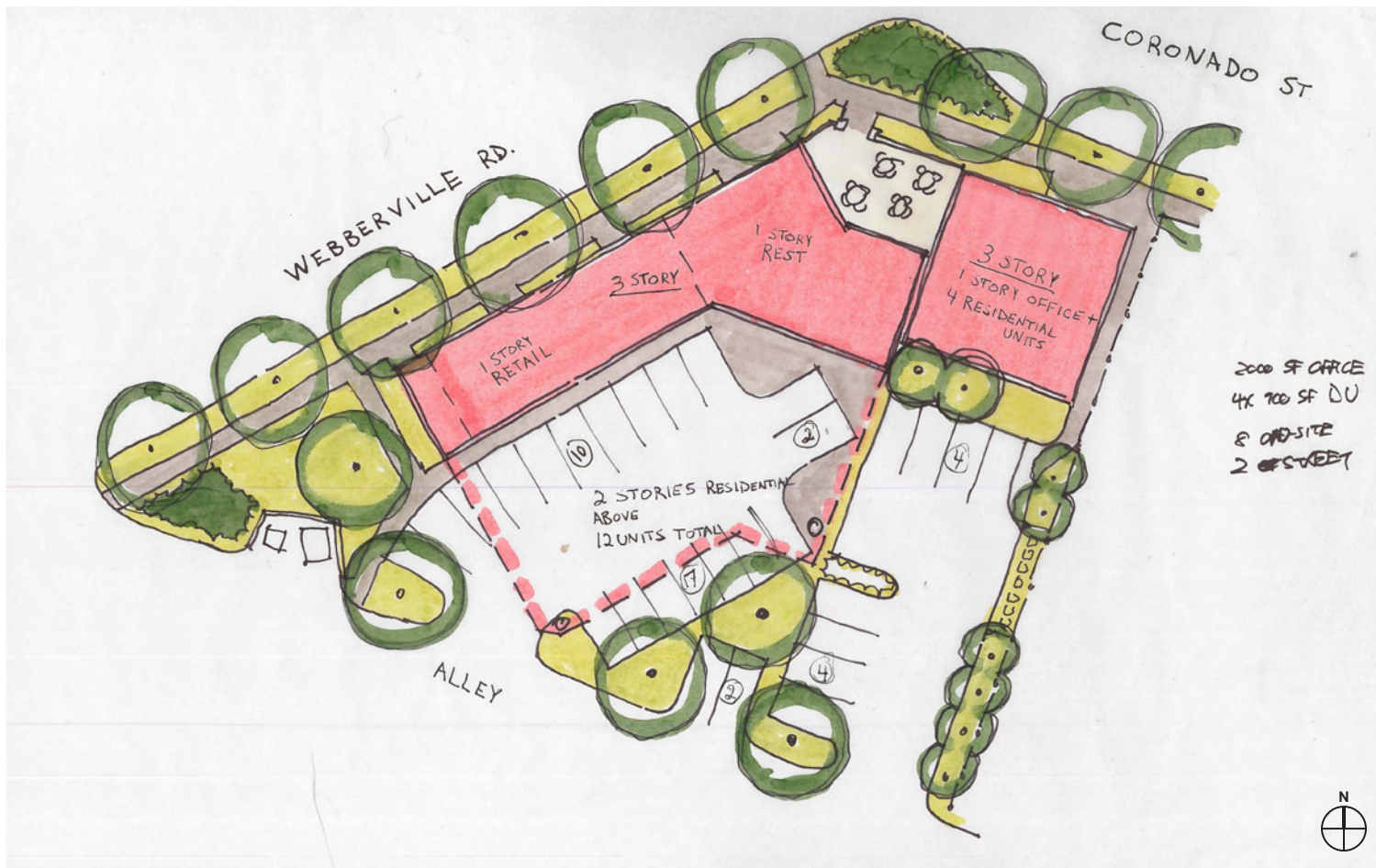


Figure 3.9: Webberville Road at Coronado Street Redevelopment

RECOMMENDATIONS

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
23-4D-2140: T4 Main Street	D. Building Types	<ul style="list-style-type: none"> Residential building forms of all types should be allowed in T4MS to provide greater flexibility on deeper lots and irregular lots. The multi-unit forms do not allow more building mass or impervious cover than the single unit mass, and will provide more and smaller (thus more affordable) units. Small sites without alley access will find it difficult to accommodate the prescribed footprints. Recommend allowing flexibly with footprint so these properties can still be developed.
	E. Building Placement	<ul style="list-style-type: none"> For T4MS zones suggest eliminating 5'-0" ADU rear setback for lots with alley access for parking.
	F. Height	<ul style="list-style-type: none"> Requiring a residential floor to be 18" minimum off the top of curb is difficult to achieve with just 5'-10' setback. Recommend lowering this minimum height for accessibility.

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
	I. Parking	<ul style="list-style-type: none"> • Parking requirements prevented maximum development under T4MS. Encourage and allow shared parking by relaxing standards to allow off-site parking and sharing of parking spaces between two compatible uses. • Clarify if structured parking is allowable in T4MS. • Clarify if parking access drive widths apply when acceding from an alley. Having the option to park off the alley is a good thing, but allowances to access parking from the street would be beneficial as well. Some sites could have constraints at alleys, such as protected trees. • Recommend adjusting parking requirements to be more context sensitive. Consider parking requirements based on street typology, instead of one-size-fits-all approach. Restaurant parking requirements, for example, could be calibrated so transit corridors and neighborhood collector streets are not treated the same. The solutions featured shared parking in a central district location. • Under T4MS, recommend eliminating parking 35' setback. This is too restrictive on smaller lots. The setback prevents adding parking spaces on some of the triangular sites that had already maxed out their building footprint.
	N. Use Types	<ul style="list-style-type: none"> • Residential use should be allowed and encouraged in T4MS zoning. There should be no distinction between T4MS and T4MS-O, or map substantially more T4MS-O and be more strategic as to where the commercial first floor is absolutely required.
23-4E-3060: Off-street Motor Vehicle Parking Adjustments	B. Parking Adjustments Requiring Planning Director Approval	<ul style="list-style-type: none"> • Shared off-site parking should be allowable by-right and not always and only subject to director approval

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
23-4D-2120: T4 Neighborhood Intermediate Setback	D. Building Types	<ul style="list-style-type: none"> • It does not appear that Cottage Courts will ever be used as currently written. Suggest allowing stacking or consider the stacked units as attached ADUs. Further, reduce Cottage Court's minimum lot depth requirements (120' deep lots vs 125') and increase allowable unit limitation. • Small sites without alley access will find it difficult to accommodate the prescribed footprints. Recommend allowing flexibly with footprint so these properties can still be developed. • For T4N.IS, the 8-foot maximum rear width on Side-by-Side Duplex is pointless. Recommend increasing to 28', which is more in keeping with T3 & T4 Side-by-Side dimensions.
	E. Building Placement	<ul style="list-style-type: none"> • For T4N.IS zones eliminate 5'-0" ADU rear setback for lots with alley access for parking.
	F. Height	<ul style="list-style-type: none"> • Requiring a residential floor to be 18" minimum off the top of curb is difficult to achieve with just 5'-10' setback. Recommend lowering this minimum height for accessibility.
23-3E-1: Citywide Affordable Housing Density Bonus Program		<ul style="list-style-type: none"> • Allow density bonus for undeveloped park or plaza lots. Density bonus was of little or no value because parking requirements would not allow entitlements to be maxed out. Recommend allowing density bonuses as an incentive for developers willing to take market risk for providing reduced parking in areas outside of neighborhoods. Density Bonus should be allowed in T4MS zones.

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
23-6B-2020: Residential Heavy Site Plan		<ul style="list-style-type: none"> Section states that site plan submittal requirements may be waived for 3-9 units. Maybe the drainage and water quality requirements should be less than a full-blown site plan. This might apply to T4N.IS aggregated lots for the Cottage Court condition. The Environmental Commission supports environmental and drainage review standards be evaluated for the 3-9 units. Site plans strongly disincentivize more affordable multi-unit building types. Suggest allowing less restrictive site plan requirements for these types in T4N.IS zones. The code needs more flexibility to account for the irregular size lots in the test area. There was quite a bit of “wasted land” because of the irregular size of some of the lots. It would be nice to allow for some setback variance based on the amount of potential developable land. T4N.IS and T4MS worked in this area because it had alleys, without these the amount of usable land would be decreased drastically. Consider district-wide infrastructure requirements to ease the burden on irregular lots.
23-3B-1: Parkland Dedication	23-3B-1020: Dedication of Land	<ul style="list-style-type: none"> Encourage off-site parkland dedication within the district to promote community use.



Team 4: **Corridor Transition Zone**

The Corridor Transition Zone is defined as the area where the form-based transect zones transition from larger building forms on the corridor into smaller building forms in the neighborhood; essentially acting as a compatibility tool while also allowing a diversity of housing choices. It is also in this area that the Land Development Code Diagnosis recommended Missing Middle building types be utilized with a context sensitive approach.

TESTING CRITERIA

The team's goal was to examine the transition from the corridor to the neighborhood as well as looking for increased options for Missing Middle Housing near the corridor. Additionally, they looked for options for small businesses off the corridor. The team also studied existing conditions as compared to what could be built under the proposed code. When applying the proposed code, they tested this area somewhat ignoring what buildings currently exists on the ground today and tested the ease of designing around existing site features/ constraints. Items they analyzed were:

Criteria

- Administrative Procedures
- Building Placement
- Building Types
- Design Site Lines tool
- Mapping
- Parking Requirements
- Prescriptive Forms
- Protected Trees
- Setbacks
- Site Issues
- Tree Regulations
- Zoning

Assumptions

- A garage is allowed to be located under a second floor ADU
- Will preference higher number of units over larger units to maximize developer income potential
- Internal circulation routes allowed
- Utilize fire lane to access parking lot
- To test a broader range of options, the team decided to remove some existing buildings.

TEST AREA: SOUTH LAMER BLVD & COLLIER STREET

To test a transition zone Team 4 decided to look at South Lamar, which is identified as a Core Transit Corridor in Imagine Austin. The team selected the southwest corner of South Lamar Boulevard at Collier Street and extending 3 blocks deep into the neighborhood fabric with a variety of zonings (Figure 4.1).

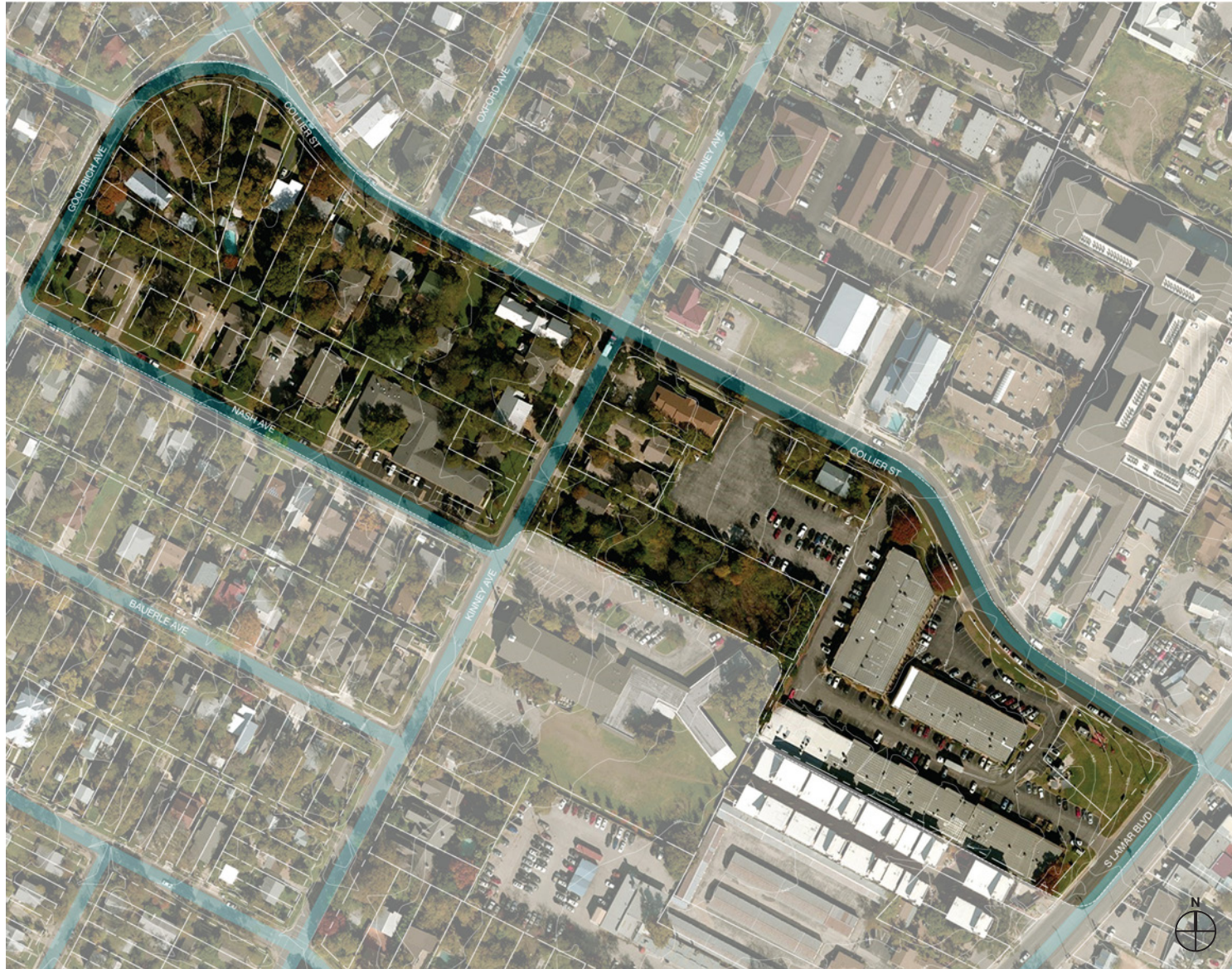


Figure 4.1: Test Area Aerial

For this exercise, the team divided the area into 7 distinct “Groups” of lots, based on lot proximity and similarities in their zoning (Figure 4.2). Therefore, the findings shared below will be labeled Test Site 4A through Test Site 4G for clarity.

Test Site 4A

Description

Test Site 4A is comprised of five parcels currently zoned SF-3 at the corner of Nash Avenue and Goodrich Avenue, consisting of front to back duplexes, separated by a carport and served by shared driveways for a total of 10 dwelling units. The proposed draft zoning for these is LMDR.

Findings

The LMDR zoning on these lots does not provide many options. Perhaps the purpose of mapping LMDR zoning was to restrict the use. Additionally, the water line in Nash Avenue is only 2”, so the utility is limited to small houses. Without moving the existing lot lines the team could not fit more than is already there. LMDR has a smaller rear yard setback than T3 where T3 touches LMDR.

Test Site 4B

Description

Test Site 4B is three parcels currently zoned MF-3 located at 1614, 1618, and 1700 Nash Avenue. These lots were recently redeveloped from a small apartment complex (across all 3 parcels) to 3 large (~2500sf) single family homes with front facing garages. Total living area equals 7,500sf. The proposed zoning for these lots are T4N.DS.

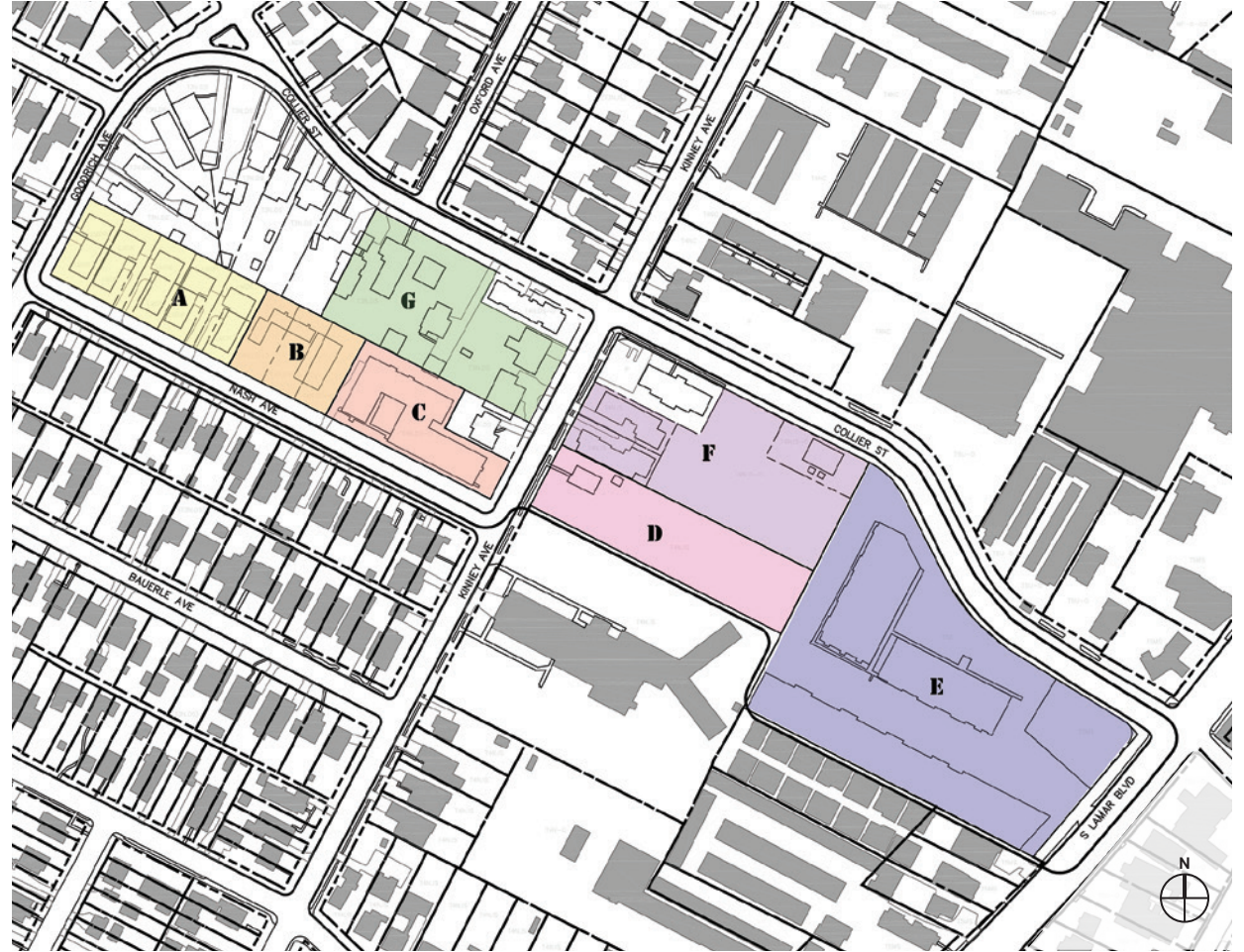


Figure 4.2: Test Area Sites

Findings

One parcel could only be redeveloped with one stacked duplex because of impervious cover limits. The two remaining parcels, if redeveloped at the same time, could share a driveway and provide two small ADUs above parking (see Figure 4.3). The team assumed the garage could go under the ADU so ADU size is limited in living area to 672 sf. This scheme fit a total of eight dwelling units totaling 8,064 square feet total (1,008 sf avg. per unit) on the three lots producing a potential FAR of 0.40. This is not much more living area than is currently contained in the existing single-family homes. The ADUs had to be much smaller than currently allowed by code.

Under certain lot configurations, the proposed zoning will produce less unit counts, but larger units, than what is existing today. Further, the test sites only worked when driveway and parking was shared. The other lot doesn't work for an ADU because it can't fit a driveway in and still meet the impervious cover limit of 45% (23-4D-3090). The T4 zoning appears to provide the same development entitlements for these lots. T3 and T4 does not necessarily increase density, which does not meet imagine Austin goals.

Lastly, an unintended consequence of treating all square footage the same (carport vs. garage vs. house) is that covered parking will not be provided and there will be more non-enclosed parking. In summary, stacked duplexes with ADUs worked where parking and driveway could be shared, but does not work where parking and driveway isn't shared.

Test Site 4C

Description

Test Site 4C is made up of one large parcel (0.6296 acres) currently zoned MF-3 at the corner of Nash Avenue and Kinney Avenue home of the Barton Hills Assisted Living facility housing up to 33 residents. The existing building wraps around a courtyard containing a protected tree. It has a proposed zoning of T4N.DS.

Findings

For this site, the team chose to provide a higher number of units, as opposed to larger units, to maximize developer income potential to better reflect a real-world scenario. Parking worked well with the new requirement of one parking space per dwelling unit. Though, there is not an allowable building type that would accommodate the existing assisted living facility.

Additionally, a group home of 7 -15 residents would require a conditional use permit and the existing thirty-three resident facility would not be a permitted use on this parcel under the draft code; making it a non-conforming structure. For the solution, the team used the Design Site Line tool to create two design sites. On the smaller corner parcel, a Medium Multi-plex was used with the maximum allowable four units. The larger lot only has 60 feet of frontage on Nash Avenue and a centrally located tree which forced the cottages to be four feet narrower per unit (20'x32') than allowable to fit on the site. Additionally, the site would only accommodate four Cottage Court homes instead of the allowable six (see Figure 4.4). The team could not make the required 65% building frontage work and did not believe this should apply to the courtyard size and shape. The cottages share a parking lot with the Multi-plex (unclear if allowable). Only six parking spaces were required, but the team managed to get eight, including one ADA space (must comply with Fair Housing Act if over 4 units).

With this scheme, Site C ended up with 10 total dwelling units. If each household is a couple that would be 20 people living on a site that currently houses 33 elderly residents. By requiring parking to be in the rear much of the impervious cover was expended for a drive, which reduced the amount of building that could be built, thereby reducing density on these large sites. This reduction in density does not align with Imagine Austin. In the end, it is difficult to make Cottage Court homes work on a 160-foot lot width, so there is concern it will be very problematic to make it workable on the 100-foot lot width outlined in the draft code.

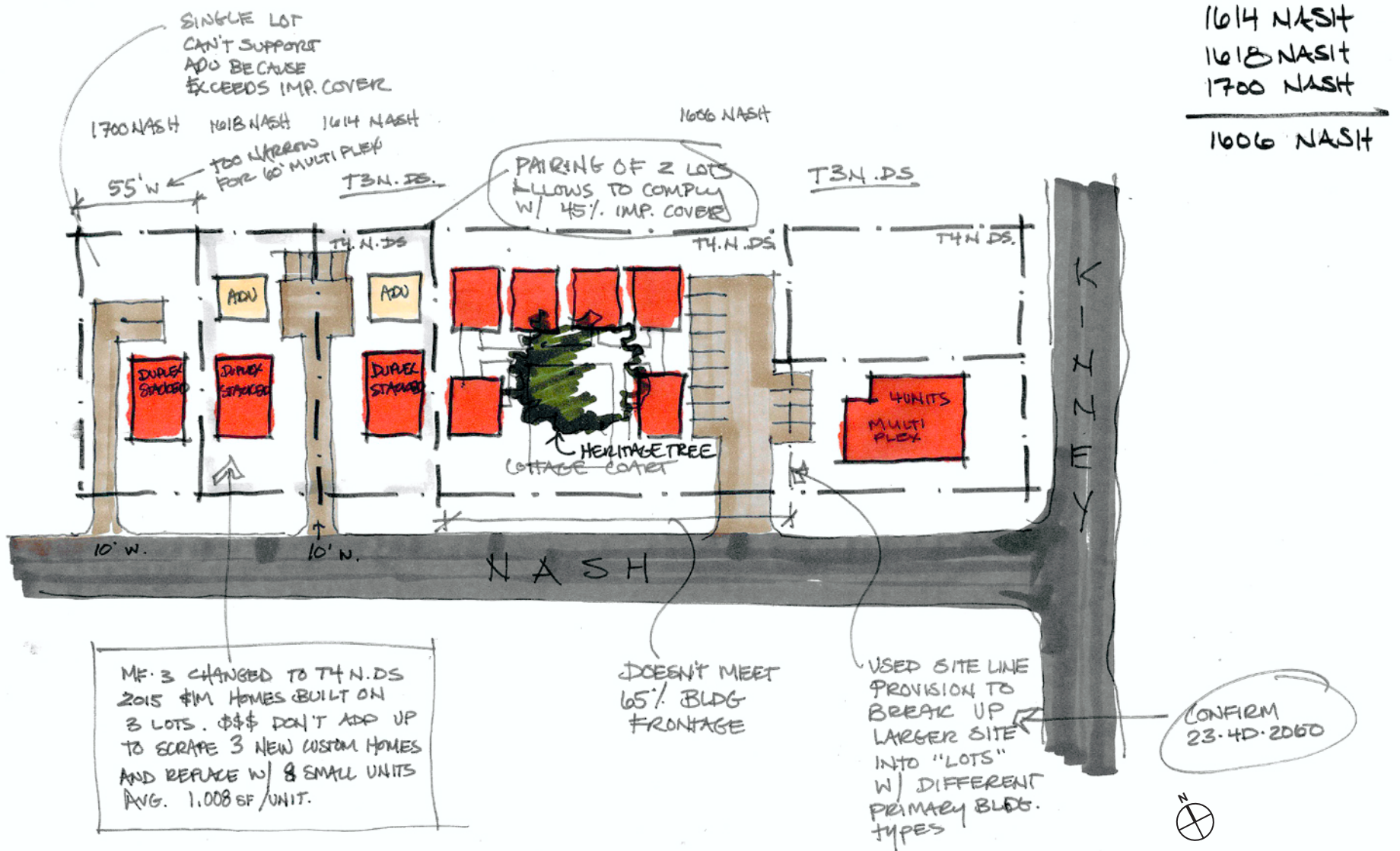


Figure 4.3: Test Sites 4B&4C Redevelopment Plan

Test Site 4D

Description

Test Site 4D consists of one large parcel (0.99 acres), 414 feet deep located at 1711 Kinney Avenue. It is currently zoned SF-3 and contains a 864 SF single-family residence. It is heavily treed and has a large church, with a great deal of surface parking, located directly to the south. It is proposed to be zoned T4N.IS.

Findings

On Test Site 4D, the team utilized a new drive and the Design Site Lines tool to create three design sites. The resulting layout placed a Multi-plex Medium on the street facing design-site and used eight Cottage Court buildings sprinkled among the trees on the two rear design-sites. Only four, of the allowable six, Cottage Courts buildings could fit on each design site and they were slightly smaller than the maximum footprint allowed (see Figure 4.5). The design includes a shared surface parking lot off the new drive between the two clusters of Cottage Courts. From a site design perspective, it would be preferable to place the parking into two smaller lots behind the buildings and create a common court in the center, however the proposed impervious cover constraints forced combined parking.

Ultimately, this scheme produced twelve dwelling units at 1,105 square feet each for a total of 8,840 square feet on a one-acre site; yielding a potential FAR of only 0.20. On this large lot, the draft code forced the use of small buildings. Cottage Court building types seem to be one of the few that allow for flexibility to design around trees, but the minimum courtyard dimensions are a barrier to that flexibility.

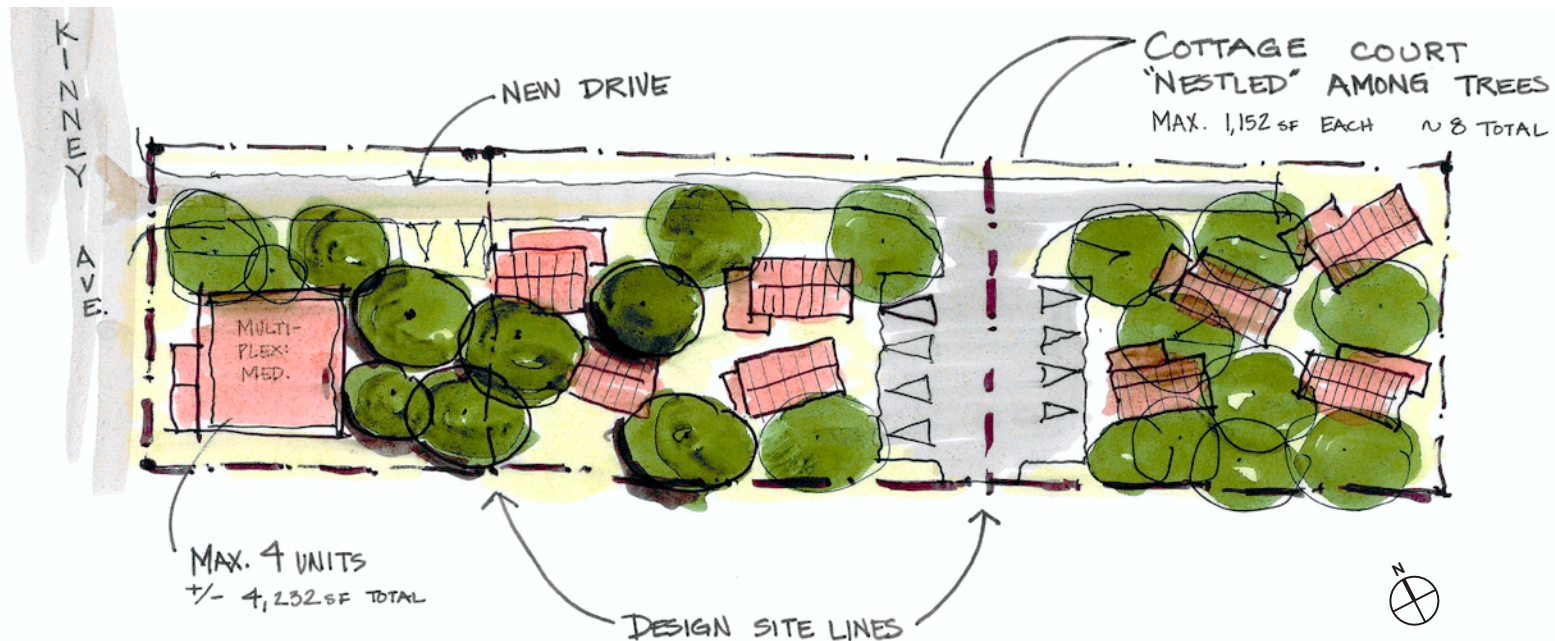


Figure 4.4: Site 4D Redevelopment Plan

Test Site 4E

Description

Test Site 4E is a very large parcel on the corner of S. Lamar at Collier Street of approximately 3.68 acres. It is currently zoned CS-V and is an ideal location for vertical mixed use as it is directly on a core transit corridor. The parcel is deeper along Collier and an odd shape and is currently used as a strip center with a large surface parking lot. The adjacent property, immediately to the south, built residential units up to the property line. This area is proposed as T5U zoning.

Findings

The shape of the Test Site 4E lot makes it difficult to fit the allowable prescribed building forms. Mid-Rise seems to be the building form which will allow the most density (876 units max allowable). The code would allow the size of the lot to be maxed out with a zero-lot line, but fire code prevents this for most residential uses with windows on the lot line façade.



Figure 4.5: Site 4E Redevelopment Plan

There is a small corner of this area zoned T5MS. This scheme absorbed this corner lot into larger lot to make property developable as is too small to fit allowable building forms. The site wants two buildings, but the team didn't want to utilize the Design Site Lines tool to accomplish this because it is unclear if a shared parking garage is permitted across design sites. Additionally, compatibility was invoked due to the adjacent parcel being mapped T4N.IS. Rather than design a structure with required step-backs the team chose to move the building footprint 50-feet away from the property line and go straight up. A fire lane was also created along the south property line to avoid conflicts with the residences to the south, which were built along the shared property line. Acting as an alley, this lane also provides access to the parking garage. The arrangement created a six-story building with 5,000 square feet of restaurant space, 20,900 square feet of retail on the ground floor, and 280 apartments on the upper floors (see Figure 4.6).

The apartment unit mix provided was 92 two-bedrooms and 188 one-bedrooms. The open space requirements of 100 square feet per dwelling unit produced 28,000 square feet of Common Open space. The garage provided approximately 107 surplus parking spaces utilizing the 20% reduction. It was assumed that stormwater would be dealt with below the structured parking. It was unclear if the building linkage across the drive to the parking garage is allowed. Lastly, there is currently not a crosswalk near this location. For this site to function properly as a corridor site, a signal crosswalk should be installed at this intersection to allow pedestrians safe crossing of South Lamar.

Test Site 4F

Description

Site 4F is located on the north of Site D and West of Site E on the corner of Collier Street and Kinney Avenue. It is approximately 80,000 SF and mostly aggregated with the Site 4E property. Much of this area is currently zoned LO (limited office), but made up primarily of surface parking. It would be a good candidate for a multi-building office park. Most of this area is zoned T4N.IS-O with a small portion of T4N.IS.

Findings

Nearly all the commercial uses allowed for this property under the current LO zoning are prohibited under the T4N.IS zoning, but several are conditional uses under the Open sub-zone. Only a small daycare (7 children max.) would be allowed in the T4N.IS zoning. In addition, the existing lot has been made nonconforming under T4N.IS because of the dimension requirements. The Design Site Lines tool was utilized to create smaller parcels thereby allowing for more buildings. Two Stacked Duplexes with a shared drive and ADUs in the rear face Kinney Avenue. A new internal street breaks up the site and provide frontages for two Multi-plex Medium buildings, with rear ADUs, and a small day care with a rear ADU art studio (see Figure 4.7). The fire lane from Site E is used access the parking for the Multi-Plex buildings. A total of sixteen dwelling units (1,000 square feet each).

The major problem with this site is it is within a 1/4-mile of a major transit corridor and the draft code appears to be creating less density potential than what is existing today. Partially, this is a result of the lot sizes, but it is also missing a form between the "block" form and the "medium house" form, which limits the ability to maximize development and housing density potential. The Multiplex housing type works best in this design exercise because there is no other viable medium-sized structure. Transitioning from large footprint buildings to those that fit well within the context of the existing neighborhood is very abrupt. Additionally, opportunities for small, neighborhood-oriented service businesses are lacking, even one block off the corridor. The team concluded that a 3 story live-work product would be a better fit.

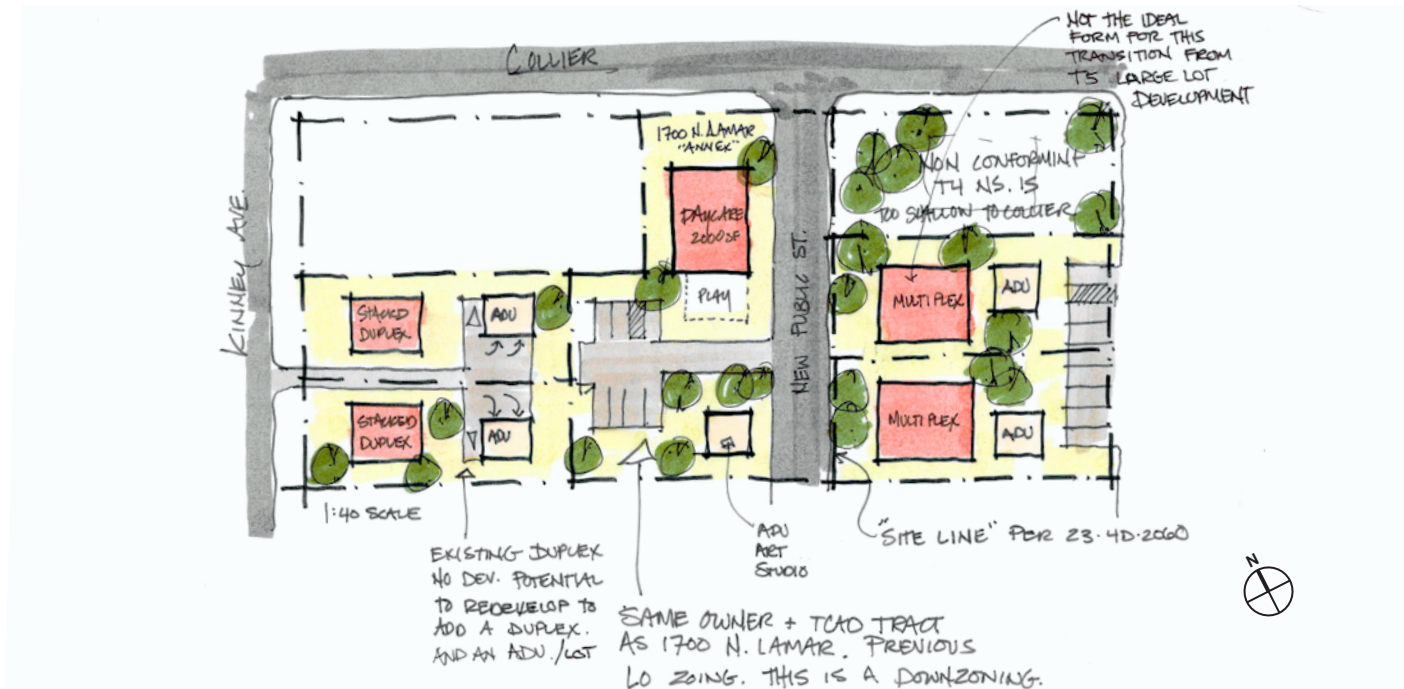


Figure 4.6: Site 4F Redevelopment Plan

Test Site 4G

Description

Test Site 4G is comprised of two parcels facing Kinney Avenue and four parcels facing Collier Street in the 1600 block. The Collier Street parcels are all 178 feet deep and currently zoned SF-3. They have mostly single-family homes; some with ADUs. The proposed zoning for this area is T3N.DS.

Findings

Without alley access, Test Site 4G utilize shared driveways to provide access to all the buildings. Unfortunately, this would require either a single owner for the lots, a condo regime, or a shared access easement. These sites would not work well for creating density without the shared drives. Using the shared drives, two-story Small House buildings (2,016 square feet each) were placed on Collier Street in front of 672 square foot ADUs sitting above garages. On the parcels facing Kinney Avenue, 1,536 square foot Side-by-Side Duplexes sit in front of ADUs above parking (see Figure 4.8).



Figure 4.7: Site 4G Redevelopment Plan

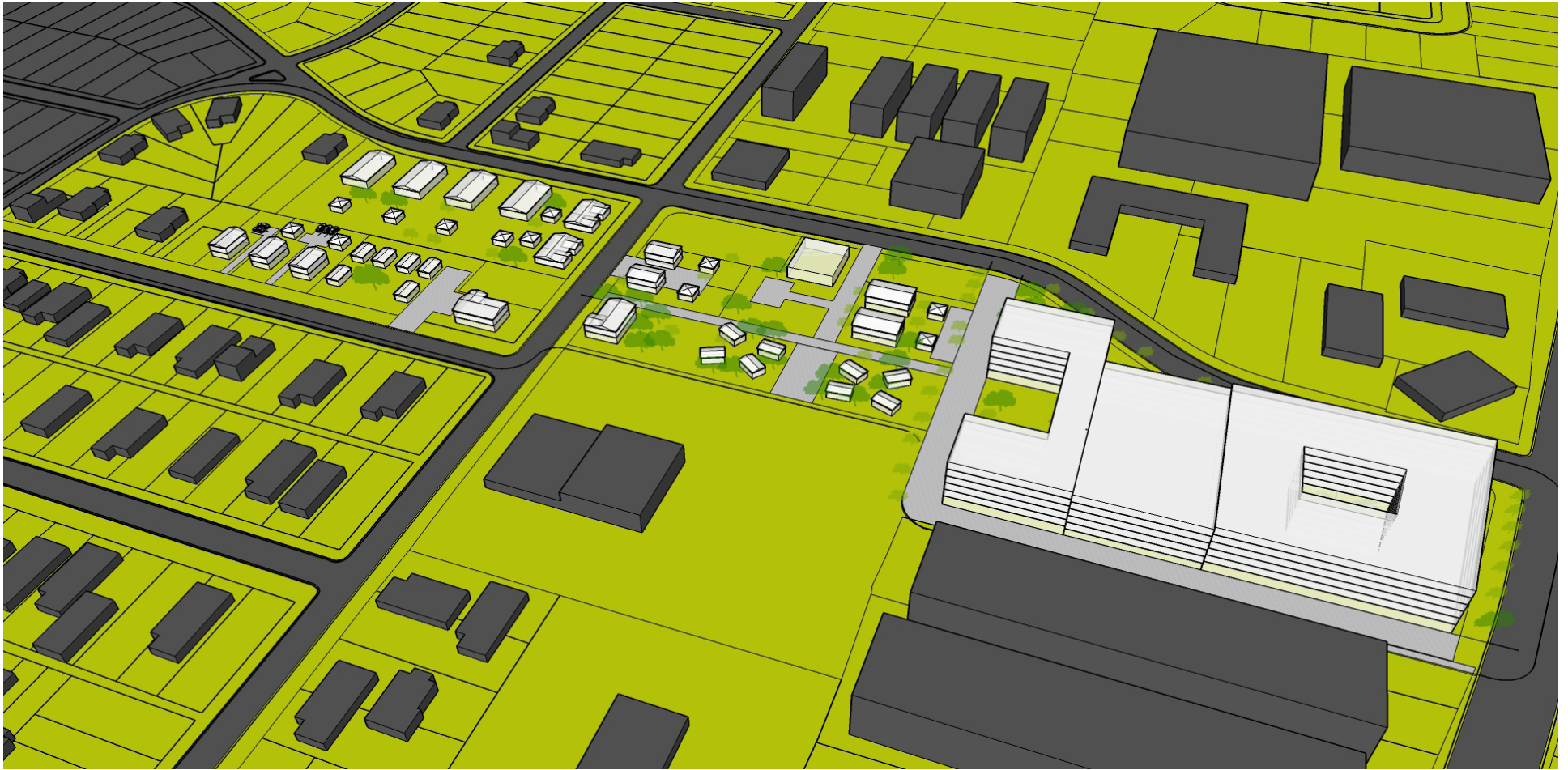


Figure 4.8: All Test Sites Redevelopment Sketch

RECOMMENDATIONS

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
23-4D-2170: T5 Urban	D: Building Types	<ul style="list-style-type: none"> Missing middle between T5 and T3 is still missing (Figure 4.8). This is partially because the draft code does not appear to be calibrated well to Austin’s varying lot sizes.
	I: Parking	<ul style="list-style-type: none"> Clarify how larger buildings in T5U can share structured parking
23-4D-2180: T5 Main Street	D: Building Types	<ul style="list-style-type: none"> T5MS on small lots is difficult to develop. Consider alternatives
23-4D-21: T4 Neighborhood Deep Setback	D: Building Types	<ul style="list-style-type: none"> Recommend less restrictive footprint size and location of ADUs. ADU’s are typically located far from the street and thus represent a “stealth” type of dwelling unit with little or no visual impact from the public view. By limiting the building envelope to 24 feet x 28 feet regardless of existing conditions, ADUs will likely become a one-size fits all approach in which home builders will build to the maximum available size and configuration every time. The Cottage Court graphic in T4N.DS conflicts with the table. The buildings are shown rotated with the wide dimension towards the street but the table says the narrow dimensions should face the street. The graphic is confusing because it shows the saddleback as a rear footprint, but the table lists it as a side footprint. The existing lot widths in Site B are 55 feet each. This limits the building types to only Small House Forms. If they had five feet more lot widths, the Medium House Forms could be utilized. This is a missed opportunity. The transects should be calibrated to the existing lot widths in the city to allow Medium House Forms in T4N.DS.
	E: Building Placement	<ul style="list-style-type: none"> T4N.DS zoning has increased the rear yard setback by ten feet as compared to MF-3, which has resulted in a considerably smaller buildable area. Recommend recalibrating this requirement so entitlements are not lost. Current MF-3 zoning allows maximum of seventeen multifamily units in block form. but when using the Cottage Courts building type the team was only able to fit six units. This reduction in potential density is not supported.

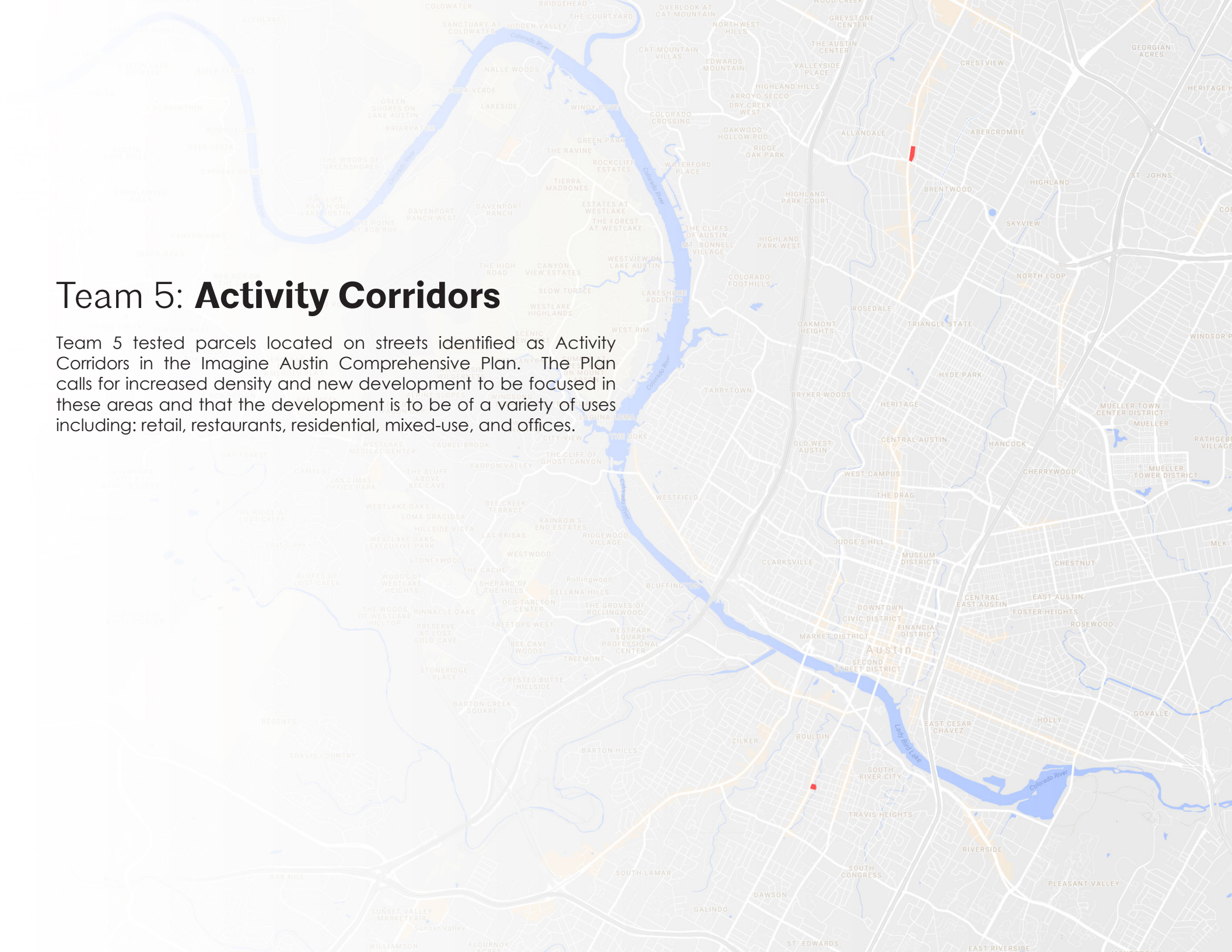
<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
	I: Parking	<ul style="list-style-type: none"> • Fire apparatus will not be able to access drives less 24 feet so that would force developer to make a "street" that is 20-25 feet wide, since driveways can't be that wide. Recommend the driveway requirements be recalibrated for larger commercial lots to account for Fire Dept.
23-2M-1030: General terms and Phrases		<ul style="list-style-type: none"> • The definition of "buildings" needs more clarity. Does building mass include habitable space and parking together? Is a parking garage a building?
23-4D-2060: Building Types Overview	C: Primary Building Type	<ul style="list-style-type: none"> • Design Site Lines appears to be a powerful tool that would allow more density and diversity of uses on a single lot. However, there is more clarity needed on its requirements and how it can be utilized with narrow, very deep parcels. For example, must each "site" satisfy just the zoning requirements, or does it also have to meet minimum street frontage, water quality, etc.?
23-4E-3060: Off-Street Motor Vehicle Parking Adjustments	A: Simple Parking Adjustments	<ul style="list-style-type: none"> • Parking reductions for locations near core transit corridors are ineffective, especially in smaller redevelopments. Parking can't be eliminated until five spaces within quarter mile or ten spaces within half mile are needed(unless combined with another discount). Parking reductions near core transit corridors should be increased. Giving only a 20% reduction for a 1/4-mile radius to core transit corridor isn't enough. Core transit corridors should promote walking. • Parking reductions are in a separate section of the draft code. Would recommend placing these with parking requirements. • Tree preservation parking reduction should be allowed on top of the 40% maximum reduction. There should be just as much incentive to save worthy trees on parcels near corridors as in other location.
23-4D-2120: T4 Neighborhood Intermediate Setback	E: Building Placement	<ul style="list-style-type: none"> • Recommend reducing minimum rear set-backs. These are too large. The doubling of the rear SF-3 setback from 10 feet to 20 feet creates issues for the placement of ADUs and the required separation from the primary unit. Most ADUs will be on smaller lots in central neighborhoods and will likely be avoiding established tree root zones. Rather than assign 20-ft backyard setbacks to ADUs, focus regulations in the areas that are most public, such as at the front yard / streetscape.

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
23-2G-1040: Appeal of Decision on Nonconforming Status		<ul style="list-style-type: none"> • Creating non-conformance for existing houses would be a Board of Adjustment issue if the owners ever wanted to add something to the site. Has a simple procedure been established to address what to do when an owner has existing non-conforming structures which don't comply with new code? Will each case need to go before the BOA? Recommend finding another solution and capturing this in the code.
23-4D-21##: T4 Neighborhood Core		<ul style="list-style-type: none"> • Map T4NC in areas where transitional forms, small business, etc. make more sense. "O" would be more appropriate in this transition zone. Local "neighborhood services" businesses located within neighborhood transition zones keeps commercial rents reasonable for mom-and-pop businesses rather than forcing them all onto major transit corridors where rents are elevated.
General Building Placement		<ul style="list-style-type: none"> • The heritage tree made it difficult to comply with the building frontages code requirement. The code does not appear to allow for building placement flexibility when heritage trees are involved without going for an official hearing with the city. Building this flexibility directly into the code is highly recommended. • It is problematic that the maximum building form can't be rotated, which doesn't work with a Cottage Court building type oriented around the Court, not the street. This is overly prescriptive, and would make a weird grid-like court without enough variety and interest in the unit forms surrounding the court. Additionally, the draft code doesn't allow a skew, or angle, to form the building shape around trees. This will restrict development on many sites.

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
General Zoning		<ul style="list-style-type: none"> • T4 should allow more three-story and rowhouse options to be a more effective transition form between T5 and T3, otherwise T4NC should be mapped more prevalently in these areas. • Religious Freedom law says churches can be on an any lot zoning. However, T3 and T4 do not list churches as allowable uses. Further, a Minor Use Permit, is not allowed until T4.MS which would be problematic and controversial. • Transects generally allow for a few more, smaller dwelling units than does current SF-3 zoning but in limited types, and configurations. T3 zones don't allow for more livable area, therefore developers may still choose to only build large single-family homes on these parcels. These zones should be calibrated to encourage a variety of building types. • The Live Work building type, and use, should be permitted in more transect zones. • Missing middle buildings between T5 and T3 is still missing. The same results were found in T4 and T3 zones. In fact, more density was achieved in some T3 zones. More density and diversity should be built into the building types in T4 zones. • Increase the building height, and building types, in all T4 transects.

Team 5: Activity Corridors

Team 5 tested parcels located on streets identified as Activity Corridors in the Imagine Austin Comprehensive Plan. The Plan calls for increased density and new development to be focused in these areas and that the development is to be of a variety of uses including: retail, restaurants, residential, mixed-use, and offices.



TESTING CRITERIA

As the current and proposed zoning for these two test areas are the same, the testing criteria was also the same, allowing the team to compare and see what outcomes the site constraints would yield. The following criteria were examined during this exercise:

Criteria

- Block length and connectivity
- Building Types
- Compatibility
- Cost of redevelopment and how it affects small businesses
- Density Bonus
- Drainage, on-site detention, and water quality
- Entitlements – have they changed
- General usability and format of the code
- Impervious cover, building coverage
- Neighborhood character
- Open Space requirements
- Parking Requirements
- Permitted Uses
- Prescriptive form regulations
- Subdivide or combine lots for viable projects
- Tree Regulations
- Zoning Regulations – do they meet goals of Imagine Austin

Assumptions

- Residential use is allowable in T4MS
- Site infrastructure could be shared across Design Sites
- To test a broader range of options the team decided to start with a blank slate and assumed removal of the existing buildings
- Structure parking is allowed
- Onsite detention provided
- Onsite parking provided
- Residential units at 1,000SF
- Parkland Dedication fee-in-lieu
- No Density Bonus

The Corridor team looked at two Test Areas that were thought to be good candidates for near future redevelopment as they contain older building stock, which do not currently utilize the properties' maximum entitlements. Both test areas are currently zoned CS-MU-V-CO-NP and both have a proposed zoning of T4MS under the new draft code. Furthermore, these areas both back up to single-family neighborhoods and fall under current compatibility regulations. However, they have very different site conditions.

TEST AREA: BURNET ROAD & KOENIG

Description

The Burnet Road at Koenig Lane test area (*Figure 5.1*) is currently home to Northwest Center, a prototypical 1950's era single-story strip mall fronted with parking. Most of this site is paved, and is near 100% impervious cover as it exists today. It's a very wide, and shallow, commercial lot surrounded on three sides by public streets and an existing paved alley in the rear. Across the alley, the neighboring single-family lots have proposed T4N.1S & T4N.IS-O zoning. AISD's Lamar Middle School is located directly across Burnet Road. Burnet Road has five lanes of traffic in front of this site with a ROW of approximately 125'-0".

Findings

On the Burnet Road site, the proposed zoning will only allow one 125-foot-wide Main Street Building on a site that's 750 feet wide. Additionally, the prescriptive footprint of a Main Street Building is only 12,500 SF. This would only produce 10% building coverage on this 120,000 SF site. It is not economically feasible to redevelop under these parameters so other options were explored. One solution could be to subdivide the property into several smaller lots, where it would allow multiple Main Street Buildings, but this option also proves costly as it would require that all the required infrastructure be provided for each site individually, thereby duplicating site work and expenses.



Figure 5.1: Burnet Road Testing Area

Alternatively, the team found a new tool in the draft code called Design Site Lines. Section 23-4D-2060 states that "More than one building type is allowed on a parcel if the submitted building permit application includes a site plan with proposed design site lines that meet all the requirements of this Division." The team interpreted this to mean that the existing site could be broken up into several smaller sites, without legally subdividing, if each imaginary site met the development requirements on its own. Using this tool, a Main Street building was placed on each of these sites, each 125-foot-wide or less, to create three larger building volumes (see Figure 5.2).



Figure 5.2: Burnet Road Redevelopment Sketch

The Design Site Lines tool as written, however, is vague and all the requirements could not be determined. There is no definition for this tool, only an ambiguous diagram. Consequently, it could not be determined if off-street parking or water quality and detention must be accounted for on each design site or if they could be consolidated onto one of the design sites and shared. The former was deemed cost-prohibitive, just as legally subdividing, and the latter was assumed for the purposes of this exercise. The new requirement for redevelopment projects to provide on-site water quality and detention proved to be a significant change as well. It was determined that underground detention would not be economically feasible on this project and therefore surface detention ponds were used.

T4MS zoning requires the parking be behind the building and accessed from the alley. This proved to be problematic, as it meant that the existing 15'-6" wide alley would be serving two-way traffic. It also created a condition where the alley is narrower than the required driveway. To make it work the team assumed one-way traffic flow in the alley, but it was also determined that the alley would not be sufficient for Austin Fire Department's Fire apparatus to maneuver. Consequently, the team decided to create two 24' wide breaks between the building faces to allow for fire truck access from Burnet Road (see Figure 5.3). This also allowed the team to work around the new 600-foot max block length by using a 24-foot break between the buildings(Section 23-4C-1050). These breaks used up a lot of real estate so the team used grass pavers to try to let this space serve double-duty as a green amenity.

The model in Figure 5.3 shows the red commercial spaces on the ground floor with the two yellow levels of residential above. The blue volume is structured parking. While is evident that structured parking is not allowed to be inside a Main Street building it was unclear if structured parking is an allowable building type in T4MS zoning. With the high parking requirement, the team determined that there was simply not enough space for surface parking so a parking garage was used. The team assumed the full 40% parking reductions found in Section 23-4E-3060, but with the high restaurant parking requirements, the total spaces were still calculated at 194.

It was noted that T4MS zoning does not permit residential use. This was puzzling to the team as the General Intent for T4MS clearly indicates residential use. Therefore, the team proceeded as if the current permitted use language is in error. The mixed-use three story structure that was developed assumes ground floor retail and restaurant, with residential on the upper two floors. Unfortunately, the Affordable Housing Incentive Plan (AHIP) code sections were not released at the time of the Charrette, and therefore could not be tested. However, it was discovered that this site was not included in the new proposed density bonus zone even though many of the surrounding neighboring parcels are within the AHIP zone.

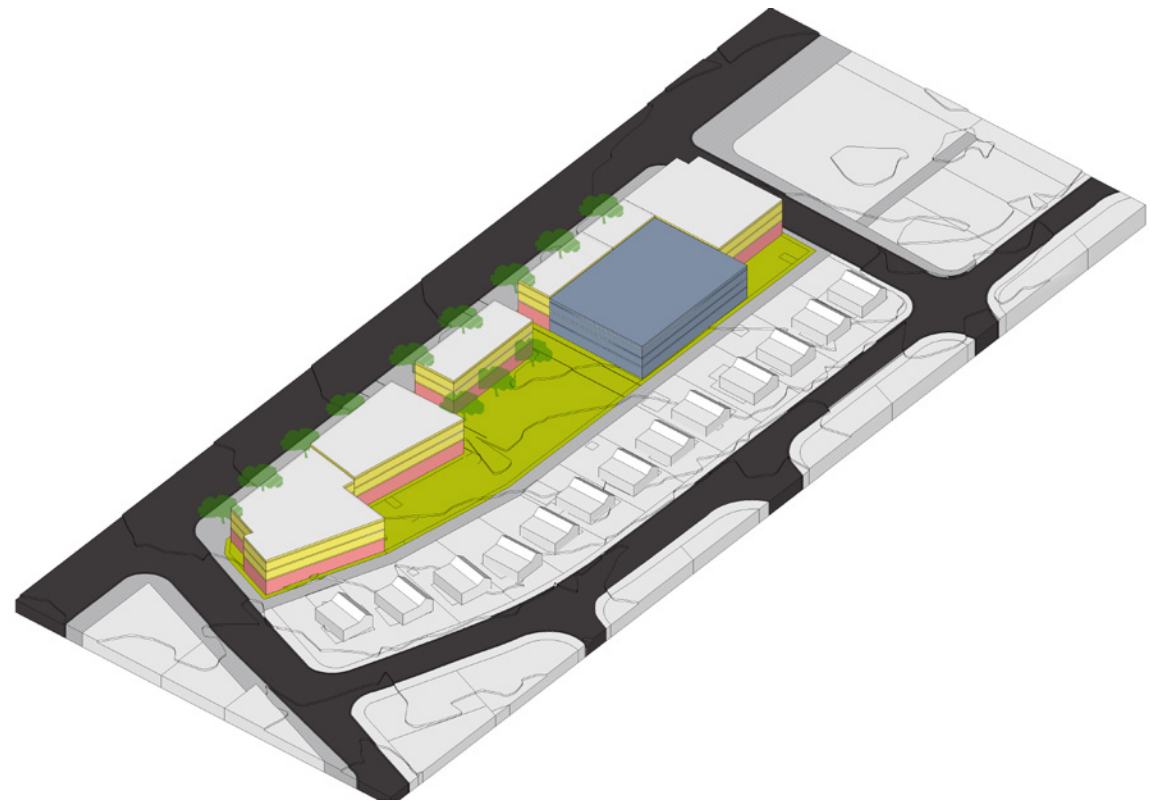


Figure 5.3: Burnet Road Redevelopment Sketch

Comparisons of what could be built under current and proposed zoning is informative. The current base zoning allows for more height, but once compatibility standards are applied a building could only achieve the same three stories that the proposed T4MS zoning allows, so there is no change. Similarly, when compatibility is applied to the current alley setback it produces similar conditions to what would be allowed under the proposed zoning. The Building Coverage and Impervious Cover are both reduced under the new transect zoning (see Figure 5.4), however it is unlikely that these maximums could ever be achieved today under current compatibility. In fact, both zonings appear to yield similar building masses on this site (see figures 5.5 & 5.6). Assuming a parking structure on both scenarios yielded a 13% reduction under the proposed zoning. The current zoning scheme has more Restaurant Use which could be good for the viability of the development, but it was difficult to get Restaurant Use into the proposed zoning scheme due to the new parking requirements.

		CURRENT	CODENEXT
Setbacks	Max. Bldg. Coverage	95%	70%
	Max. Impervious Cover	95%	80%
	Max FAR	2:1	n/a
	Max Height	60' (minus compatibility) (4-5 stories)	45' eave/55' overall (3 stories)
	Front	10'	5' min/10' max
	Side Street	10'	5' min/10' max
	Interior Side	0'	0'
	Rear	0'	30'/5' with alley

Figure 5.4: Base Zoning Comparison

CURRENT

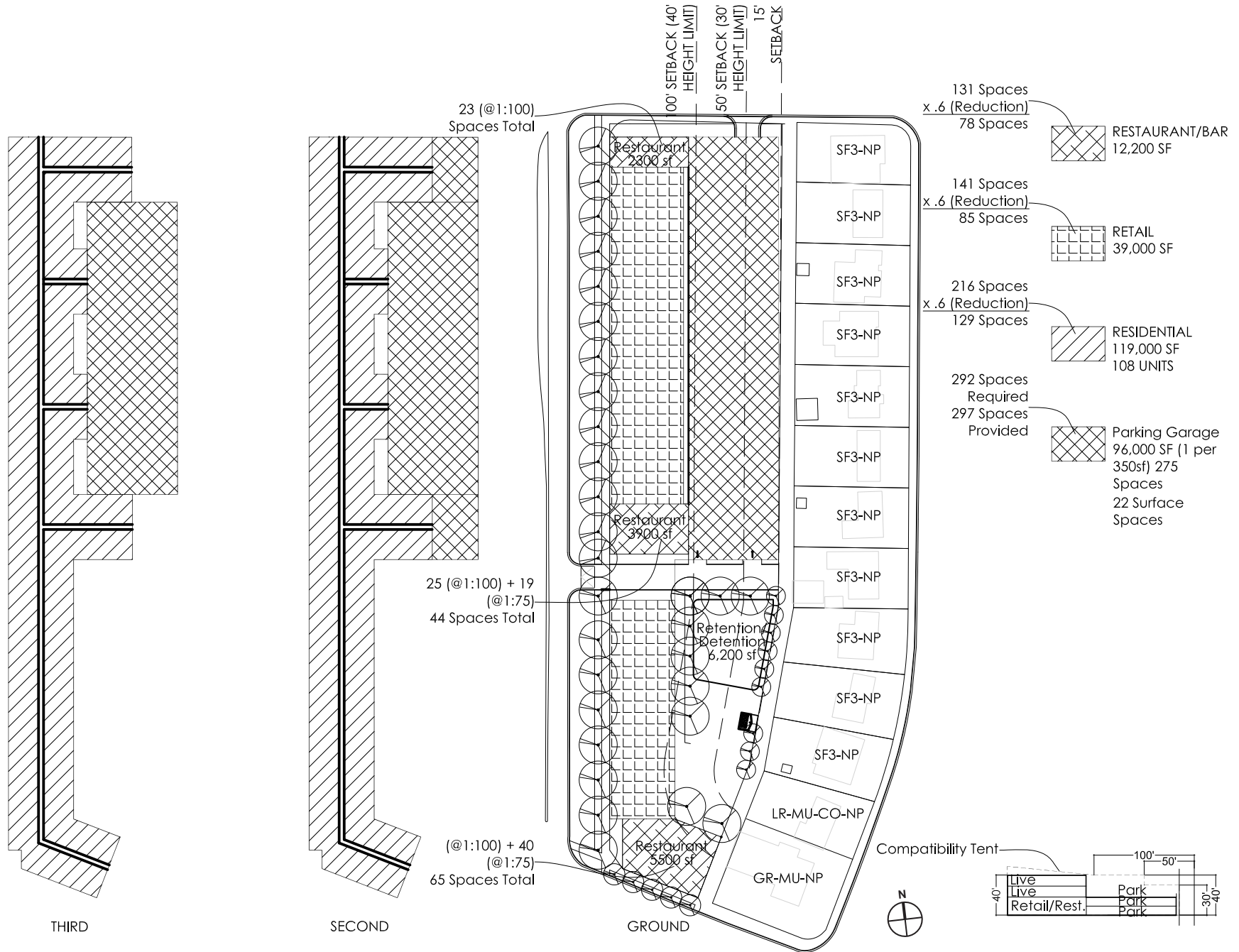


Figure 5.5: Current Zoning Massing

PROPOSED

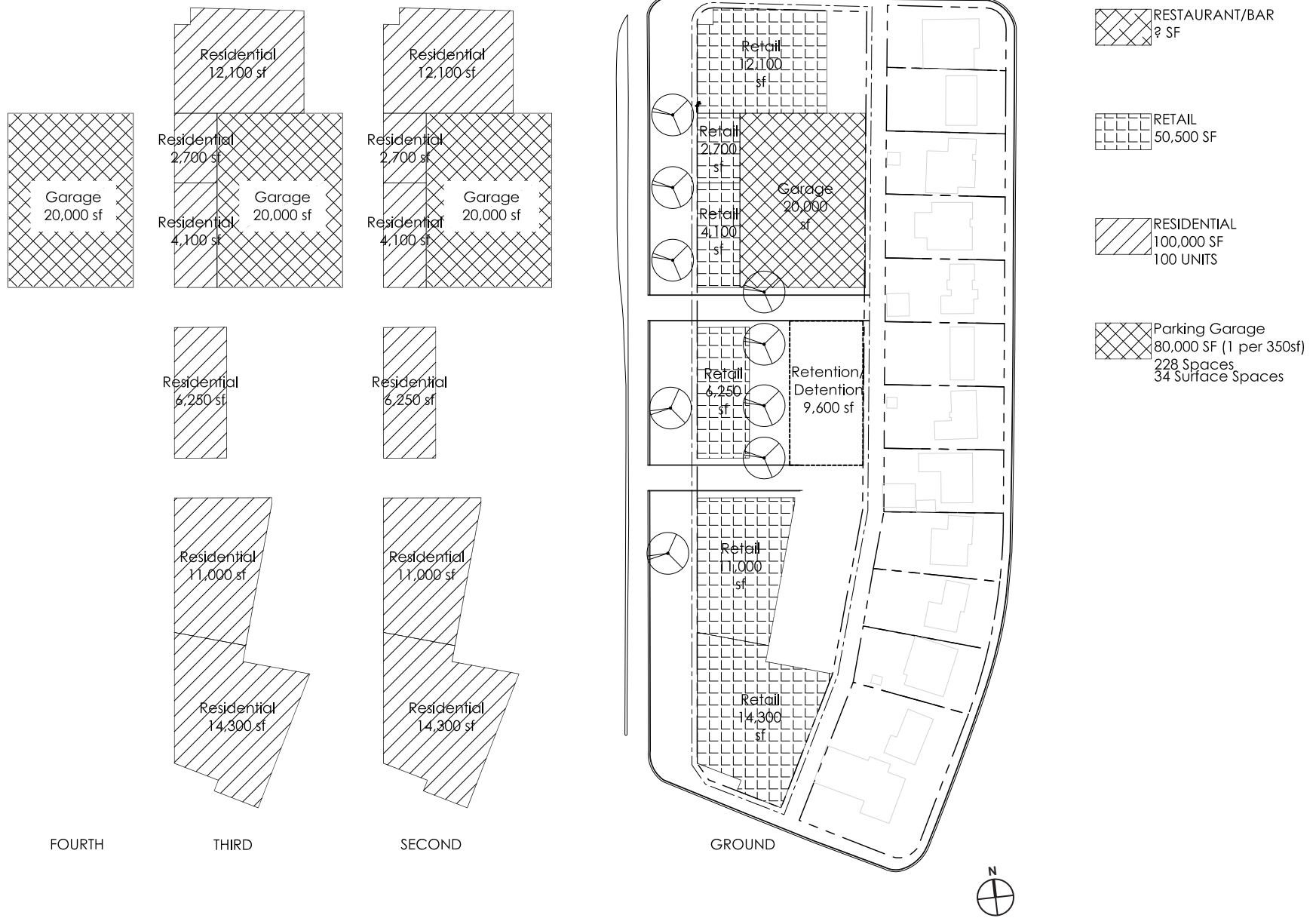


Figure 5.6: Proposed Zoning Massing

The redevelopment produced under the proposed zoning is described in the matrix below (Figure 5.7). For the purposes of this exercise residential units were averaged to be 1,000 SF.

ACREAGE			
Total Acres	2.75		
Res units/acre	36.3		
BUILDING(S) SQ FT			
	Residential	Retail	Restaurant
# of units	100		
# of bedrooms	150		
Sq Ft	100,000	42,000	8,000
TOTAL	150,000		
PARKING REQUIREMENTS			
	Residential	Retail	Restaurant
Parking Ratios	1 per unit		
	100	79	135
SUBTOTAL	314		
40% reduction -125			
TOTAL 189			
PARKING PROVIDED			
	Garage	Surface	
	150	44	
TOTAL	194		
PROJECT COST			
Land Value (TCAD)	\$9,190,000		
Site/Building (\$200/SF)	\$30,000,000		
Total	\$39,190,000		

Figure 5.7: Burnet Road Matrix

TEST AREA: SOUTH FIRST STREET & WEST ANNIE STREET

Description

Alternatively, the South First Street test area near West Annie Street (Figure 05.8) consists of long, narrow lots that include the vacant 1960's structure that was once Jovita's Restaurant as well as part of the 1980's building that is now home to Fresca's. The proposed zoning for the adjacent lots on either side are T4N.IS-O and the lots across South First Street are T4MS. The single family residential lots directly to the east are zoned T4N.SS & T4.IS-O. Other than shape and size, the major difference from the Burnet Road test area is the site constraints. Bouldin Creek runs through the rear of the lots and a large grove of heritage trees cover the entire back half of the lots. South First Street has four lanes of traffic at this location with an approximate ROW of 67'-0", or around half of that found on Burnet Road.

Findings

Just like the Burnet Road site, the South First area's proposed zoning only allows one Main Street building and one ADU. Whereas the Burnet area was one large lot that used the Design Site Lines tool to break up the property, the narrow 50 foot lots on the South First test area meant lots needed to be aggregated to make the development feasible. The northern three lots were aggregated to make one and the southern two lots were aggregated to make one. As there is no alley behind these lots the team had to break up the Main Street Building to allow for vehicular access to a rear parking lot (see Figure 5.9). The green blocks show the new buildings with the blue detention pond in the rear near the trees. This development is considerably smaller than the Burnet Road project, especially the retail and restaurant uses, so the resulting parking count was less, allowing for a surface lot to be tucked under the second floor of the buildings (see Figure 5.10). Just as before, the team assumed the full 40% parking reduction on this test area to make the development workable. The first floor has retail and restaurants use with with two levels of residential use above.



(Figure 5.8: South First Street Testing Area)



Figure 5.9: South First Redevelopment Sketch

The existing creek, and heritage trees, meant that a large portion of these lots could not be developed at all. Even though the proposed zoning reduces the allowable building coverage and impervious cover, as compared to the current zoning, these site constraints meant the development could not get close to these maximums anyway. The South First Street lots differ from the Burnet Road site in that they are very deep. All of them are over 200 feet deep, with the longer ones being over 260 feet deep. This means that under the existing base zoning, and current compatibility standards, a good portion of this test area could be built out at 4 stories, however the proposed zoning limits development to only 3 stories. This site does have an existing Conditional Overlay, however no height or use restrictions were found in this overlay to warrant the apparent reduction in density. This decrease conflicts with the intent of Activity Corridors and the goals of Imagine Austin.

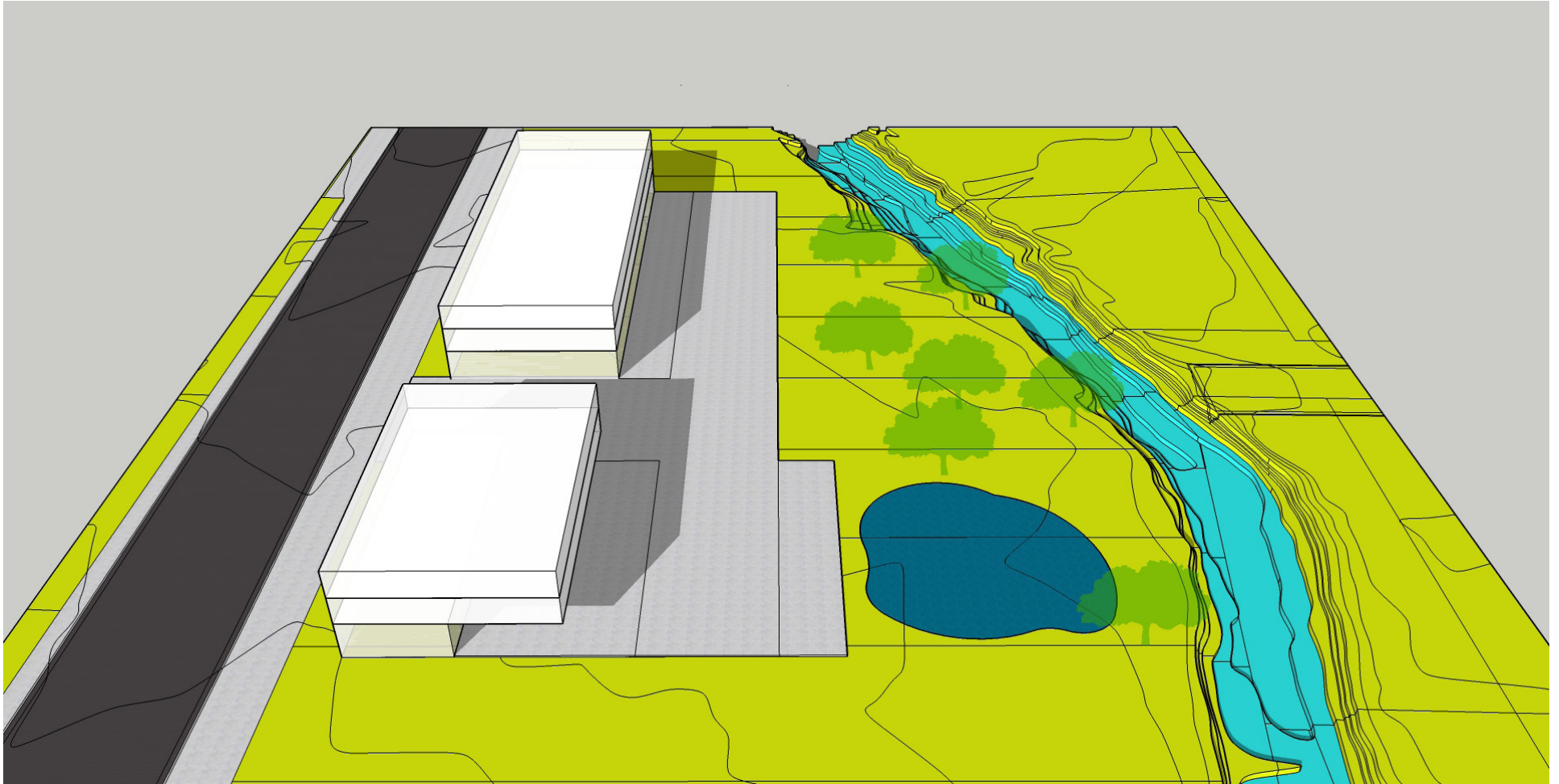


Figure 5.10: South First Redevelopment Model

As with the Burnet Road site, the team assumed Residential Use should be an allowable use and developed a similar mix-use development with retail and restaurant on the ground floor and residential above (Figure 5.11).

ACREAGE			
Total Acres	1.23		
Res units/acre	22.8		
BUILDING(S) SQ FT			
	Residential	Retail/Office	Restaurant
# of units	28		
# of bedrooms	28		
Sq Ft	28,000	6,900	1,350
TOTAL	36,250		
PARKING REQUIREMENTS			
	Residential	Retail	Restaurant
Parking Ratios	1 per unit		
	28	9	14
SUBTOTAL	51		
40% reduction -20			
TOTAL	31		
PARKING PROVIDED			
	Garage	Surface	
	0	31	
TOTAL	31		
PROJECT COST			
Land (TCAD)			\$4,157,000
Site/Building (\$200 /SF)			\$7,250,000
Total			\$11,407,000

Figure 5.11: South First Street Road Matrix

RECOMMENDATIONS

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
23-4D-2140: T4 Main Street	D: Building Types	<ul style="list-style-type: none"> • T4MS zoning restricts building types to Main Street buildings and ADUs. Consider allowing for other building types like Live/Work and Rowhouses to create mixed-uses on the Activity Corridors as prescribed in Imagine Austin. • The maximum footprint dimensions for a Main Street Building are too prescriptive. Not all sites are rectangular, and not all buildings should be boxes. This inflexibility penalizes irregular shaped lots that can not accommodate the prescribed rectangular footprint. These lots will not be able to build as much as rectangular lots. Furthermore, even typical rectangular lots with site constraints, such as protected trees, would be penalized under these forms. A better practice would be to rely on area-based metrics, such as impervious cover, FAR, etc. Alternatively, if a site constraint prevents developing in one area of a property, then that building area should be allowed to be placed somewhere else on site.
	I: Parking	<ul style="list-style-type: none"> • Proposed site requirements place a high burden on restaurants. The use of a threshold for restaurants smaller than 2,500 SF is applauded, but the high parking requirements (1 per 50 SF) for large restaurants has too much influence on the site design. It will be difficult to achieve the compact and connected city described in Imagine Austin if automobiles continue to be prioritized over the people. Alternatively, parking requirements for restaurants could be market driven.
	N: Use Types	<ul style="list-style-type: none"> • Consider consolidating T4MS zoning. All uses in T4MS-O should be allowed in T4MS. Residential use should be permitted in both. Imagine Austin not only calls for a variety of uses on corridors, but specifically lists residential.

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
23-4D-2060: Building Types Overview	C: Primary Building Type	<ul style="list-style-type: none"> Given the prescriptive restrictions in the T4MS zoning district, the Design Site Lines tool proved to be crucial in this exercise. Without this tool, it would be very difficult to redevelop the Burnet Road site. This tool, however, needs much more clarification. "Design Site" is not specifically tied to the definition of a "lot." It is assumed they should be the same, but the proposed code is unclear. It is also unclear what site development requirements fall under this regulation or if buildings can straddle the site lines or needs a fire separation. It is strongly suggest that these "sites" be allowed to share infrastructure (i.e. WQ, detention, parking, etc.). Without shared use, it could be economically infeasible to develop similar sites, given the prescriptive form-based restrictions. Should these "sites" ever request to legally subdivide the individual site requirement could be enforced at that time.
23-3E-1: Citywide Affordable Housing Density Bonus Program		<ul style="list-style-type: none"> Add T4MS zoning to the proposed Density Bonus area. T4MS has been mapped on these two Activity Corridors and not directing affordable housing to these Corridors would be directly at odds with the goals of Imagine Austin. The option for density bonuses along the corridors is greatly needed. Burnet Road is one of Austin's major corridors, with bus transit lines, including the MetroRapid line, making it a great candidate for affordable housing.
23-4C-2160: Family-Friendly Play Area	A: Description	<ul style="list-style-type: none"> Family Friendly Play Area needs more definition. It is unclear how it is to be developed and how it satisfies open space requirements.
Mapping		<ul style="list-style-type: none"> The proposed zoning at the South First lots should be re-examined as the allowable density appears to have been reduced under the draft code. This does not fulfill the goals of Imagine Austin

Team 6: Regional Center

Team 6 focused on property identified within Regional Centers in the Imagine Austin Comprehensive Plan, which are envisioned to be the most urban places in the region. Regional Centers will have the greatest density of households and jobs, the tallest buildings, and a mix of uses that will establish them as destinations in Central Texas.



TESTING CRITERIA

The current and proposed zoning categories were similar for both sites, therefore the testing categories were also similar. The unusual constraints of Test Site A, combined with adjacency to single-family homes, allowed for an useful comparison to the more typical proportions of Test Site B. Testing criteria included:

Criteria

- Mapping effectiveness of implementing Imagine Austin
- Comparison of zoning entitlements (proposed vs. existing)
- Impact of building types and form-based regulations
- Block length and connectivity
- Compatibility
- Drainage, detention, and water quality
- Impervious cover, building cover, and open space requirements
- Parking requirements
- Permitted uses
- Need to subdivide or aggregate lots for viable projects

Assumptions

- To test a broader range of options, the team decided to start with a blank slate and assumed removal of existing buildings.
- Pad sites on Test Site B to remain for individual redevelopment.
- Development of mixed-use projects; residential above commercial uses.
- Current market demand for off-street parking.
- On-site detention with conventional ponds.
- No new street crossings over the rail right-of-way.
- Residential uses are allowed in T4MS.
- Structured parking is allowed.
- Residential units = 1,000SF.
- Properties are within Parkland Deficient Areas

TEST AREA: AIRPORT BOULEVARD & HIGHLAND MALL BOULEVARD

This team studied land within the Highland Mall Regional Center. The Test Sites were across the street from the boundaries of the Highland Mall Master Plan, an 81-acre adaptive re-use effort led by RedLeaf Properties and Austin Community College (ACC), and the team attempted to reference and coordinate with the fully built out vision of the master plan. The Airport Boulevard corridor, between I-35 and Lamar Boulevard, has also been the subject of a city-led corridor planning effort that included form-based coding, but was shelved to await CodeNEXT. While the team did not reference this corridor plan during the Charrette, it does provide insight into the community's recent vision for the area.

Test Site 6A

Description

Test Site 6A (Figure 6.1) is a 8.6 acre triangular shaped property bound by the MetroRail Red Line and Airport Boulevard to the north and east, Waller Creek and single-family homes to the north and west, and Denson Drive to the south. This site is currently zoned CS-MU-V-CO-NP and the proposed zoning is T4MS. The current use is a Texas DPS facility; one single-story structure and a surface parking lot occupy approximately 70% of the site. The site has an odd shape due to physical constraints, which results in street frontage only on Denson Drive, the shortest side of the triangular property, and little opportunity to make future connections. A MetroRail station is located on the eastern edge of the property where Highland Mall Boulevard intersects Airport Boulevard. However, the MetroRail station platform is located on the other side of the tracks and not accessible to this property. Proposed zoning on adjacent properties includes T5.MS across Airport Boulevard, T4N.IS in the residential neighborhood to the west, and "legacy" zoning of CS-MU-V-CO to the south.



Figure 6.1: Test Site 6A Aerial

Findings

Both Test Sites presented opportunities to employ the Design Sites tool, which is intended to provide the flexibility needed to design large transect sites that can support multiple Primary Building Types. While the Charrette team appreciated the intended flexibility, the tool, as written, is missing important details that led to confusion; the tool has minimal instruction and one simplified diagram that depicts a small residential project. There is no direction for designing large or deep sites that need internal circulation routes to access the full site and give buildings proper street frontage. The tool allows use of Design Sites if the submitted design site lines (imaginary property lines) meet the requirements of the Division, i.e. Division 23-4D-2 Transect Zones. This Division includes regulation of off-street parking and impervious cover, both of which proved problematic for the team's proposals.

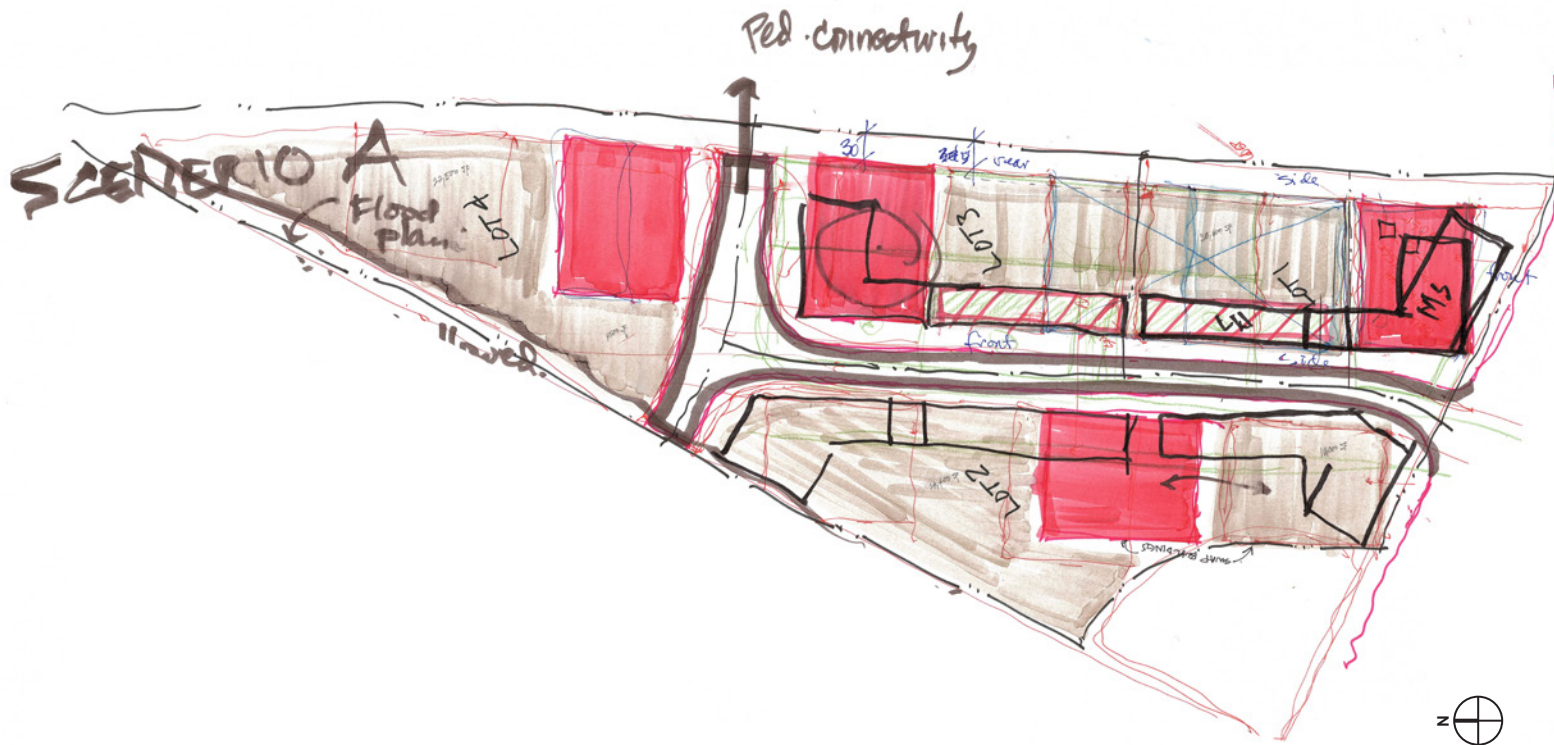


Figure 6.2: Test Site 6A Site Plan 1

The first attempt to develop Test Site 6A was done under the most strict and literal interpretation of the code, which resulted in Design Sites that attempted to provide parking and adhere to impervious cover limits for each individual imaginary property. (Figure 6.2) Lack of detail in the building types and transect regulations led to confusion of whether structured parking was allowed, therefore this first pass included all surface parking as an illustrative exercise. The result was many small sites with inefficient buildings, dominated by surface parking lots trying to fit within the site lines and generally producing an underutilized site.

The team's second iteration for Test Site 6A followed a series of assumptions in order to produce viable buildings and places that follow the spirit of Imagine Austin. (Figure 6.3) The assumptions primarily centered around sharing certain requirements for Design Sites across the larger site, including parking and impervious cover. Structured parking was utilized for a more efficient use of land, and on-site detention was included as a realistic alternative to the Regional Storm-water Management Program. On-site detention occupied a large section of the southwest corner of the property, including over half of the street frontage on Denson Drive, due to the draft code's lack of grandfathering existing impervious cover. The built form maximized allowable height with three-story structures (45ft eave/55ft overall), which is shorter than allowed under the current zoning (60ft). However, when accounting for current compatibility regulations, the team concluded that existing zoning may only yield three stories. The team assumed residential uses were allowed in T4MS, and designed a series of Main Street building types with two floors of residential use above a ground floor commercial space. The Main Street buildings were fronted onto an internal circulation route, created within imaginary "right-of-way" in addition to the imaginary lot lines as a means for future platting and subdividing into individual parcels. Before settling on a central internal drive, the team tested whether a Main Street and sidewalk concept was more viable along Denson Drive or the railroad frontage. The central drive was chosen to complement the relatively shallow maximum building depths allowed in this transect, which did not necessarily represent the ideal site design strategy. The team struggled to understand whether the internal circulation route satisfied public street frontage for the buildings and maximum block lengths, and ultimately assumed that the unique site constraints would provide grounds for a variance to the block length and connectivity requirements. The ability to share parking and impervious cover for the overall site allowed the team more flexibility, but the maximum building footprints created "use it or lose it" decision points where the usable building area lost out to efficient parking layouts. Perhaps the biggest takeaway from this site was the required commercial uses on the ground floor of T4MS without the "open" sub-zone. The team felt that this development, capped at three stories and a calculated yield of 120 residential units, could not support the commercial uses deep into the site where an all-residential program would be more appropriate. Further, the team felt that a residential yield of 120 units was not adequate density for a Regional Center site. As the team did not assume on-site parkland dedication, any on-site parkland would have resulted in a loss of yield. At 120 units, the parkland dedication requirements are 3.16 acres.

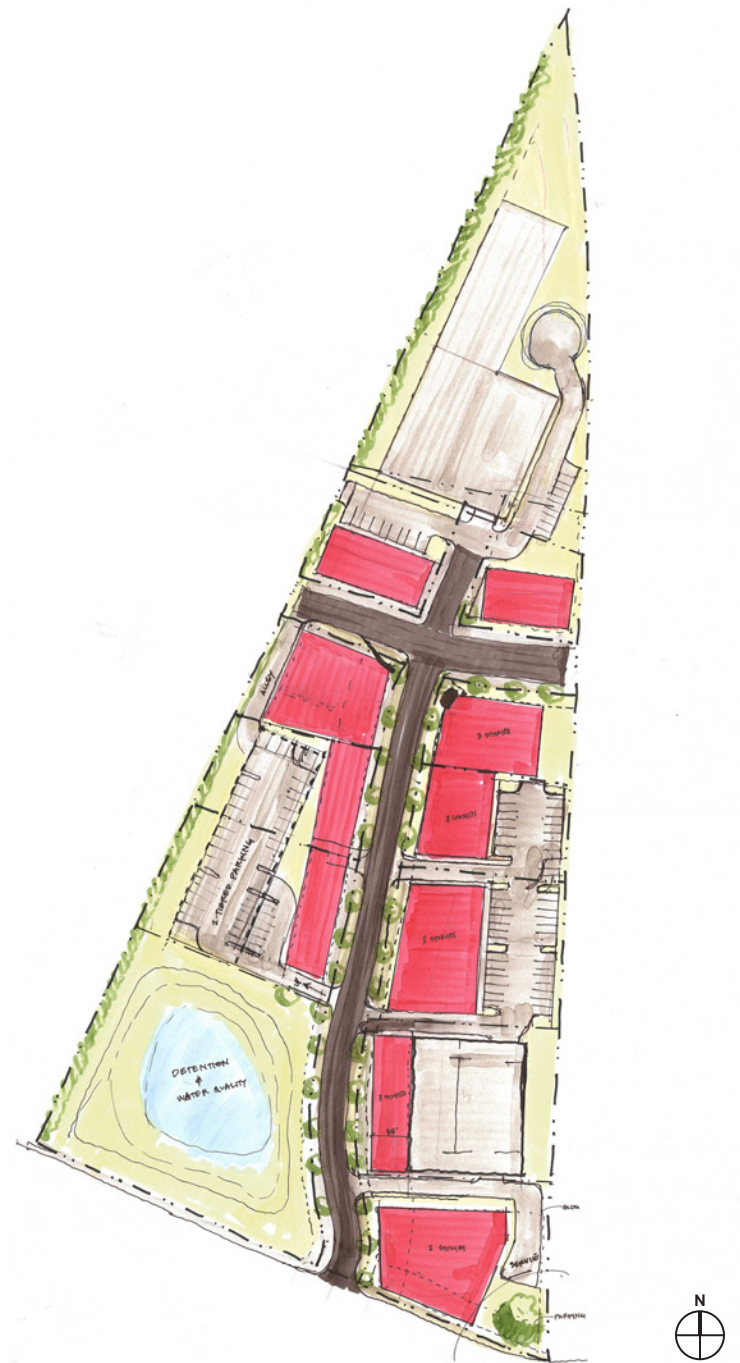


Figure 6.3: Test Site 6A Site Plan 2

Test Site 6B

Description

Test Site 6B (Figure 6.4) is a 10 acre rectangular tract across Airport Boulevard from Test Site 6A, and is bound by Airport Boulevard to the west, Huntland Drive to the north, Jonathan Drive to the east, and Highland Mall Boulevard to the south. Current zoning is CS-MU-V-NP and proposed zoning is T5.MS. Test Site 6B has four ownership parcels; it's comprised of three small commercial pad sites fronting Airport Boulevard and one large commercial property, with existing uses including a gas station, bank, fast food drive-through restaurant, and a workforce training facility. Existing buildings and surface parking lots combine to occupy nearly 100% of the site. The Highland Mall Master Plan envisions mid-rise residential and commercial buildings directly across Highland Mall Boulevard from this site, including a future public street intersecting mid-block. (Figure 6.5) The predominant physical character surrounding this site is of underutilized strip center retail or other auto-oriented commercial uses.

Findings

The mixed-use program was similar on Site 6B but, with T5.MS zoning, the scale was larger. (Figure 6.6) Allowable height was listed as 6-stories (75ft eave/85ft overall), but this included an unknown amount of bonus height with participation in the to-be-released AHIP, so the team assumed a 5-story base height limit without participation in the program. While scenarios of lot aggregation could be more realistic, the team decided to test the three existing pad sites along Airport Boulevard to determine whether the draft code enabled redevelopment on smaller sites. The key driver for the proposed schemes were on-site detention and water quality, common open space (100sf per residential unit), and off-street parking. The Design Sites tool allowed the team considerable flexibility, again assuming shared parking and impervious cover, and produced four mid-rise, mixed-use buildings surrounding a common courtyard.



Figure 6.4: Test Site 6B Aerial



Figure 6.5: Highland Mall Plan

The team introduced a new private drive to connect Huntland Drive and Highland Mall Boulevard at the existing intersection, which also satisfied block length regulations, but it was unclear whether this triggered parking setbacks similar to public street frontage. The assumption was made that a 700-space parking garage could front this private drive. On-site detention was a burden on the development in combination with dedicated common open space, which left the proposal for the site far short of the 90% allowable impervious cover. The team felt that the residential yield of 220-300 units was not adequate density for a Regional Center site. As the team did not assume on-site parkland dedication, and on-site parkland would have resulted in a loss of yield. At 300 units, the parkland dedication requirements are 7.90 acres of parkland, which exceeds the total site area of the main property.

The three pad sites on Test Site 6B yielded projects dominated by on-site detention and surface parking, with the restaurant in particular burdened by increased parking minimums compared to the current code. Creative solutions emerged for the middle pad site when the team considered subterranean detention and a compact structured parking solution, but the team ultimately concluded that these projects would not be viable in today's market. Lot aggregation would be a likely scenario, considering the shallow frontage on Airport Boulevard and the need for an efficient building and parking structure layout. The team felt that some development should occur incrementally, with existing building footprints and lot lines carrying forward. This minimizes the cost of new infrastructure and helps preserve some of the spaces and memories of community's history. The new code framework should encourage adaptive reuse and incremental improvement. Small sites may not be able to support full compliance with drainage and landscape goals while also pursuing urban character. This could lead to these existing pad sites on major arterials remaining as auto-oriented uses for a long time, unless the economics are very strong for pedestrian-oriented development.



Figure 6.6: Test Site 6B Site Plan

RECOMMENDATIONS

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
23-4C-1050 Block Size	Block Shape and Size (Table A)	<ul style="list-style-type: none"> Resolve conflicting block sizes in Section 23-9H-1040. Allow exceptions for maximum block length and perimeter when prioritizing connections at existing intersections.
23-4C-1070 Civic and Open Space	B. Civic and Open Space Amounts and Locations	<ul style="list-style-type: none"> Resolve conflicting open space requirements (10% baseline) with the varying open space requirements found in transect zones. Remove the Civic and Open Space requirements for small developments, approximately one acre or less. These requirements appear to be crafted primarily for large greenfield developments, but the scope applies to all "site plan submittals". Site plan requirements are triggered at three residential units, and providing even a small Family-Friendly Play Area would not be compatible in this context.
23-4D-2060 Building Types Overview	Design Site tool inflexibility	<ul style="list-style-type: none"> Expand use of diagrams and instructions on how to use this tool, especially with larger sites that need internal circulation routes. Clarify whether a "design right-of-way" is re-quired and how building frontages and setbacks work in relation to the internal drives. Allow exceptions to the individual Design Site's need to meet some requirements of the Division, including impervious cover, parking, and other regulations that would be better solved at the scale of the larger site; Design Sites should be able to share these compo-nents.
	Austin Building Types Overview (Table A)	<ul style="list-style-type: none"> Add parking garage to the list of Building Types, and regulate these structures per transect zone. Garages will continue to exist, and, to the extent the code regulates building types, there need to be form-based regulations for them. Clarify whether a parking garage is allowed to park on the roof, and whether garages are subject to the same maximum stories limits as other buildings.

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
23-4D-2140 T4 Main Street (T4MS)	B. Sub-Zone	<ul style="list-style-type: none"> • Allow residential uses on the ground floor throughout T4MS, not confined to the open sub-zone. A 3-story height limit creates a scale compatible with all-residential buildings, and allows developments flexibility in providing the right program for the right site. • Apply T4MS-O “open” zoning automatically to any large parcels over a certain size (ap-prox. 5 acres). This will allow flexibility in deep or oddly shaped lots that could not otherwise support commercial spaces throughout the site, but may be appropriate context for Missing Middle building types like Rowhouses.
	D. Building Types	<ul style="list-style-type: none"> • Allow more building types, including Live/Work buildings throughout T4MS, not confined to the open sub-zone; these buildings are compatible with a main street environment. • Increase maximum allowed units in Live/Work buildings to two, which will allow each resi-dential level to become a unit. • Increase maximum allowed Main Street building width to 135ft to coordinate with a stand-ard double-bay parking garage and the parking placement side setbacks on a corner lot. • Eliminate the requirement to design wide buildings as a series of smaller buildings. This undermines the local design professional’s ability to design sensible buildings. The regulation, as written, has no codification to explain how one can satisfy the intent.
	E. Building Placement	<ul style="list-style-type: none"> • Remove limitations on chamfered corners.
	F. Height	<ul style="list-style-type: none"> • Consolidate the measurements for building height limitations; the proposed language of stories, eave, parapet, and overall height cause redundancy and confusion. • Remove floor-to-ceiling requirements on upper floor(s). The market is naturally delivering 9ft ceilings, and this is not intended for retail-ready floors, so the requirement does not seem to solve a problem.

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
	I. Parking	<ul style="list-style-type: none"> Remove interior side setback for parking placement. Reduce minimum parking requirements for Restaurants and Bars to at least match the current code, if not further reduced.
	K. Required Open Space	<ul style="list-style-type: none"> Add footnote to allow the lesser of 100sf per unit or 5% of total lot area. Allow projects to offset required open space when providing on-site detention. The draft code does not make clear which is a priority, but, with both requirements in effect, infill and redevelopment will be disincentivized due to the burdensome dual requirements.
23-4D-2180 T5 Main Street (T5MS)	D. Building Types	<ul style="list-style-type: none"> Eliminate the footnote stipulating no floor can be larger than the floor below. This removes many creative architectural solutions, and is unnecessary due to other height, setback, and stepback requirements. Eliminate the requirement to design wide buildings as a series of smaller buildings. This undermines the local design professional's ability to design sensible buildings. The regulation, as written, has no codification to explain how one can satisfy the intent.
	F. Height	<ul style="list-style-type: none"> Eliminate the front and side street stepbacks. These regulations only affect shared parcel lines, thus should not apply when fronting public right-of-way. Remove floor-to-ceiling requirements on upper floor(s). The market is naturally delivering 9ft ceilings, and this is not intended for retail-ready floors, so the requirement does not seem to solve a problem.
	I. Parking	<ul style="list-style-type: none"> Reduce minimum parking requirements for Restaurants and Bars to at least match the current code, if not further reduced.
	J. Impervious Cover	<ul style="list-style-type: none"> Resolve error that currently allows higher building cover (95%) than impervious cover (90%).

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
	K. Required Open Space	<ul style="list-style-type: none"> • Allow projects to provide the lesser of 100sf per unit or 5% of total lot area instead of the greater as currently proposed. Successful open spaces should be measured primarily by how many people have access to them, not the size of the space. Open space gains efficiency and is generally more successful when it's well-used. • Allow projects to offset required open space when providing on-site detention. The draft code does not make clear which is a priority, but, with both requirements in effect, infill and redevelopment will be disincentivized due to the burdensome dual requirements.
23-10E-3010 Criteria For Approval Of Development Applications	A. Drainage requirements for approval	<ul style="list-style-type: none"> • Eliminate the requirement to design post-development peak flow rate to match the peak flow rate of undeveloped conditions. This requirement will have the effect of discouraging infill and redevelopment of underutilized properties in the urban core because of the impact to potential yield. The burden will be especially high on smaller, Missing Middle projects which require careful planning of compact urban sites, and typically do not have the luxury of dedicating large areas to detention ponds.

Team 7: **Downtown**

Team 7 focused on the most urban Regional Center identified in the Imagine Austin Comprehensive Plan. Austin's Central Business District (CBD) has the highest density of people and jobs, the tallest buildings, and functions as the cultural center of the region.



TESTING CRITERIA

For these two Test Areas, the draft map proposed non-transect zoning that was either identical or similar to existing zoning. The team established testing criteria that also included relevant standards in T6UC zoning, thus testing both non-transect and transect zoning types.

Criteria

- Mapping effectiveness of implementing Imagine Austin and the Downtown Austin Plan
- Comparison of transect vs. non-transect zoning
- Comparison of zoning entitlements (proposed vs. existing)
- Ground level pedestrian experience
- Efficacy of density bonus programs with new development regulations.
- Impact of building types and form-based regulations
- Parking requirements
- Usability and formatting of the code

Assumptions

- Historic structures to remain untouched.
- Demolition of all existing structures on East 6th Street & I-35 access road Test Area
- Non-existence of new high-rise on West 8th Street & Nueces Street Test Area
- Completion of Waller Creek Tunnel.
- Current market demand for off-street parking.
- Average downtown residential unit = 800 sf.
- Typical office floor-to-floor height = 14'-6".
- Typical residential floor-to-floor height = 10'-0".
- Ground level floor-to-floor height = 20'-0".
- Maximizing development yield.
- Existing downtown density bonus fee structures.

TEST AREA: EAST 6TH STREET & I-35 ACCESS ROAD

Description

The Downtown team focused on two sites within the CBD that had unique challenges to overcome. One is currently underutilized and primed for redevelopment; the other has been recently redeveloped and provides an important comparison of existing versus proposed built forms; both are partially encumbered by Capitol View Corridors (CVCs). The team felt that CVCs were an important aspect of the exercise because there are so few undeveloped, unencumbered parcels remaining in Downtown.

This Test Area (*Figure 7.1*) is a half-block, 0.82 acre group of properties bound by East 7th Street to the north, IH-35 Frontage Road to the east, and East 6th Street to the south, and an improved alley to the west. This site is currently zoned CBD and the proposed zoning is DC. There are six ownership parcels within Test Area; it's comprised of one quarter-block parcel and five smaller commercial sites. Existing uses include a gas station, surface parking, and single-story commercial buildings. Waller Creek cuts through the adjacent half-block to the west, and the floodplain currently covers the entire Test Area. The Waller Creek Tunnel, when completed, will remove the Test Area from the floodplain.



Figure 7.1: 6th St Aerial

The immediate context includes a mix of public buildings (Austin Municipal Court to the north) and cocktail lounges, with the 6th Street entertainment district to the west. Two CVCs affect the Test Area in order to preserve views of the Capitol's majestic dome; a corridor from South Pleasant Valley Road approximately two miles away, and a stunning view from the northbound main lanes on the upper deck of IH-35. The remaining portion of the site is approximately half of the total site area.

Findings

Prior to the release of the draft maps, the team assumed they would be selecting test areas mapped with T6 Urban Core (T6UC). Transect zones were understood to be appropriate for walkable urban environments, where form-based code shapes a public realm conducive to vibrant, urban places. When the maps were released, and the team discovered Downtown Core (DC) and Commercial Core (CC) zoning downtown, combined with a complete absence of T6 zones, there were mixed feelings of confusion and relief. The team familiarized themselves with T6UC in the weeks leading up to the Charrette and developed serious concerns about the prescriptive nature of the form-based regulations in a downtown that had grown organically over the last century. The general fear was that many of downtown's most cherished places, both historic and modern, would not be possible under the rigid regulations proposed in CodeNEXT; in a sense, T6UC was well written for a new "urban core" that sprang up in a greenfield on the outskirts of town. The DC and CC non-transect zones, by contrast, were near replicas of the simple development regulations found in today's CBD and DMU zoning categories. The team felt relief, in a sense, that the proposed non-transect zones would allow the flexibility found in today's code, and that downtown could continue to develop in the same patterns. There was, however, confusion that the city's most walkable and urban region was left out of the zoning framework that was meant to shape walkable urban environments. In an effort to consolidate zoning paradigms and harness the potential to positively shape the public realm, the team tested both sites under the proposed non-transect zoning and T6UC.

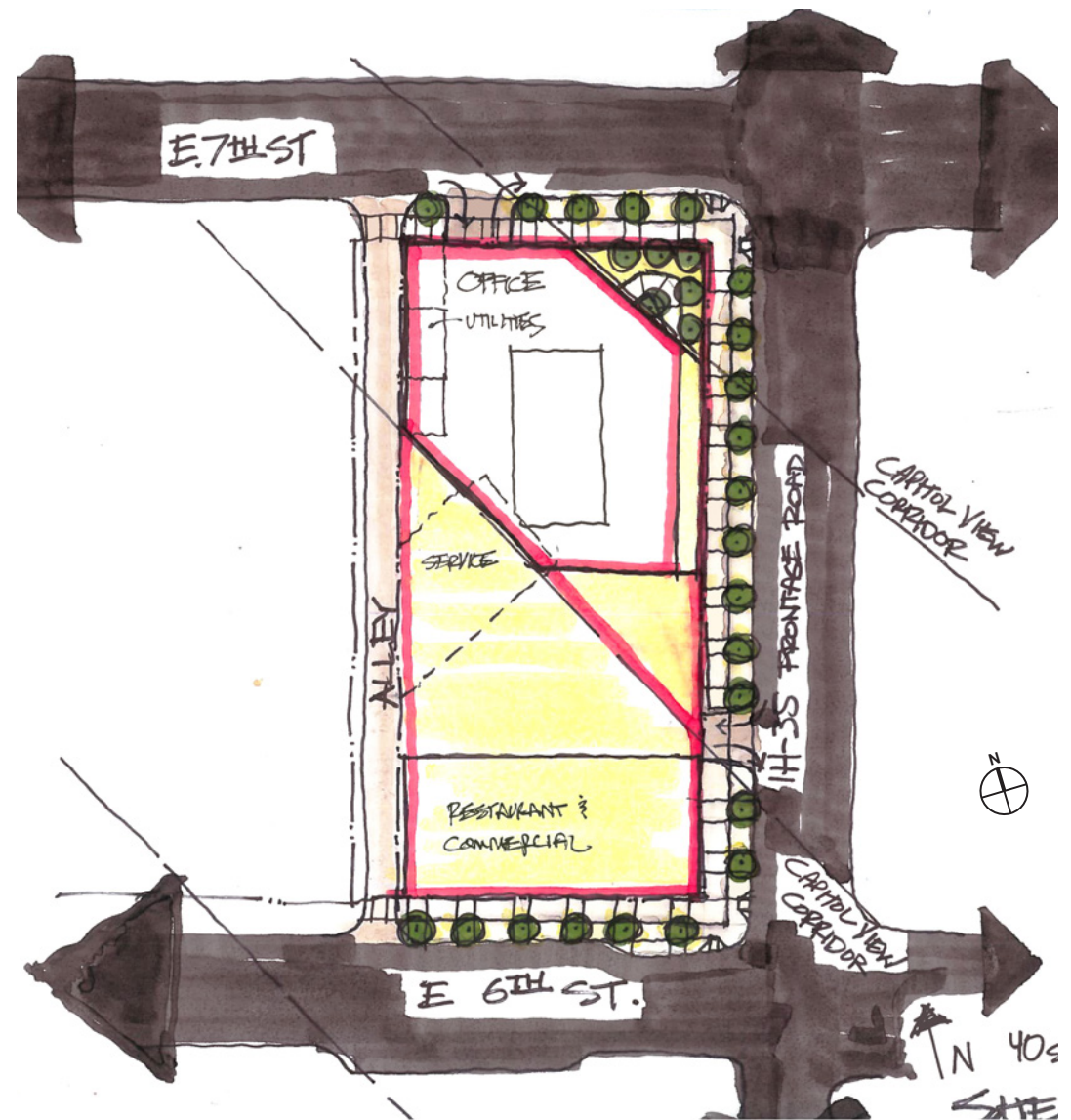


Figure 7.2: 6th Street Site Final



Figure 7.3: Massing Model

The re-introduction of minimum off-street parking requirements in downtown was a factor that heavily influenced both Test Areas, and the effects thereof are explained below. In the context of a code that is attempting to reduce the effects of auto-centric development patterns in our region, it was concerning to see the un-doing of one of the best policy tools to facilitate this shift.

The team approached the Test Area at East 6th Street and IH-35 Access Road with the initial assumptions that the Waller Creek Tunnel was completed, thus removing floodplain complications, and that all individual properties were aggregated to form a half-block redevelopment parcel. Two test scenarios were run on this parcel, with identical program elements under DC and T6UC zoning.

Due to a defacto 25ft height limit imposed by a CVC on the southern half of the test area, above-grade parking was not feasible. The higher construction costs of below-grade parking led the team to assume three to four levels would be reasonably supported by the current market. With the underground garage occupying the full site area, and assuming a reasonably efficient layout, the team derived somewhere between 80 to 100 parking spaces per level. The remainder of the exercise assumed 300 total parking spaces. Both test scenarios, non-transect and transect, envisioned retail or restaurant uses fronting 6th Street and a lobby entrance for an office tower on 7th Street (Figure 7.2). The team felt this program was the best fit with the character of each street and provided the best use of space under the CVC. The overall form began to take the shape of a mid-rise plinth with a faceted office tower rising between the CVCs, and a single-story restaurant-retail component fronting 6th Street (Figure 7.3).

Under DC non-transect zoning, the exercise was relatively straightforward. The new parking requirements established a ratio of one parking space per 500sf of office space which, with an assumed 300 parking spaces, yielded 150,000sf of office. Although the team determined this was a low parking ratio, there was agreement that the market may support this in the near future. The wedge between CVCs could support ten levels of office at approximately 15,000sf floor plates, and there were a series of adjustments to utilize space under the northeast CVC, including a roof terrace where the building is capped at approximately 100ft.

T6UC

TYPICAL DOWNTOWN
HALF BLOCK
EFFICIENT ABOVE-GRADE PARKING
(CURRENT ZONING)

REQUIRING T6UC
PARKING SETBACKS

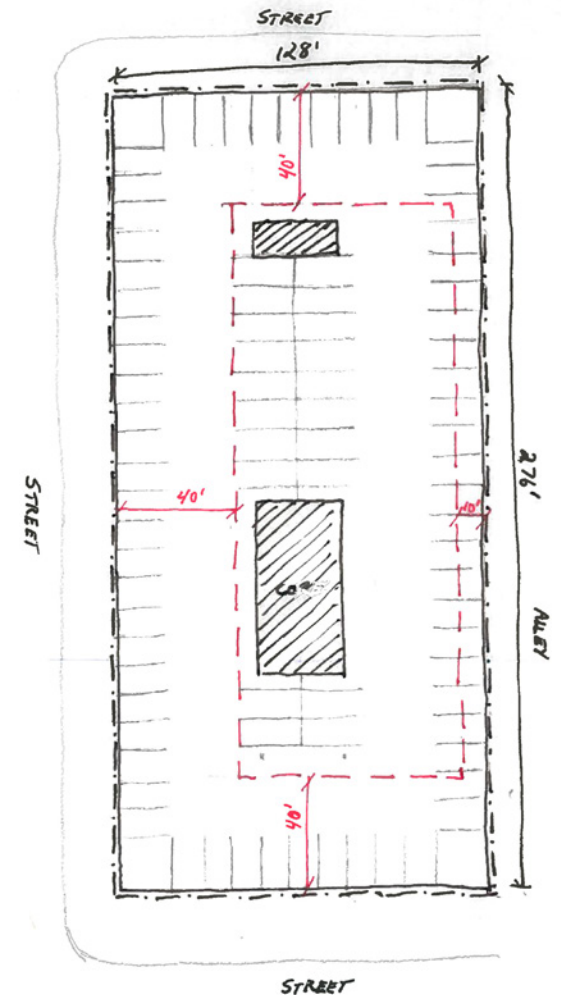


Figure 7.4: Half Block Parking Setbacks

The team, trying to understand the new downtown parking requirements, and realizing the retail component was not accounted for, searched for a codified version of “shared parking” for restaurant-retail and office uses. While the code does provide this option, the requirements are burdensome and the final judgment is at the discretion of the Planning Director. The restaurant-retail component would require an entire extra level of underground parking, unnecessarily adding to the cost of development for something that would be avoided today. The team observed that the final proposed development achieved a FAR of approximately 4:1 (far short of the allowable 8:1 FAR) and would not offer an opportunity to participate in a density bonus program. Existing CVCs and the new parking requirements limited the possibility to further develop this Test Area (*Figure 7.4*).

Testing the same program under hypothetical T6UC zoning allowed for an useful comparison. Notably, the minimum parking requirements are absent in T6UC, which allowed the team flexibility in determining appropriate parking ratios and the right mix of program. For expediency's sake, the team assumed the same parking ratios as the non-transect test scenario (1:500 for office; 1:350 for retail; one space per residential unit). With the program, parking, and orientation held constant, the team was able to easily distinguish where form-based regulations affected the outcome. An immediate point of confusion for the team was the definition of the various frontages (Front, Side Street, Side, and Rear), and how improved alleys were to be interpreted. In the context of downtown, especially the CBD, the team had difficulty assessing what was a “front” and a “side” street. The team tested half-block parcels, but a potential full-block development could easily be considered to have four front streets. An assumption was made that 7th Street and 6th Street were “front”, the IH-35 Frontage Road and alley were “side streets”, and that the half-block aggregated parcel had no “side” or “rear” lot lines.

After the frontages were established, the team began assessing the impact of various building setbacks and height stepbacks. The proposed 5ft building setback on front and side streets was immediately dismissed, assumed to be an error, and was revised to allow zero lot line development more appropriate for downtowns. Likewise, building coverage was increased to 100%. The building stepbacks carved valuable space out of the upper floor plates that were already inefficient due to CVCs and the adjusted maximum floor plate size became infeasible. An unlimited building height and unregulated FAR could, in theory, allow a development to reclaim this lost floor area in the form of a taller building, but viability of office developments value efficient floor plates over building height. The stepbacks reduced the building footprint below a feasible minimum size for office uses, effectively eliminating an office project as an option for this site. An additional challenge in the T6UC test scenario included alley-accessed parking requirements, which would create inevitable congestion of alleyways that are too narrow to accommodate two-way traffic, which need alley frontage for back-of-house service spaces, and would ultimately be a non-starter for larger projects due to TIA impacts.

TEST AREA: WEST 8TH STREET & NUECES STREET

Description

This Teast Area (Figure 7.5) is also a half-block, 0.82 acre site bound by San Antonio Street to the east, West 8th Street to the south, Nueces Street to the west, and an improved alley to the north. The site is currently zoned DMU and the proposed zoning is a mix of CC60 and "legacy" DMU zoning. There are existing historic structures on one of the parcels, which has carried forward a DMU-H zoning category. The team assumed the historic structures would remain untouched. The remaining parcel was recently redeveloped as a high-rise multifamily building, which occupies the entire buildable site area and navigates approximately 40 feet of grade change from San Antonio Street to Nueces Street. This building was assumed to have never been built for the purposes of the Charrette, which allowed the team to run a counter-factual scenario in which CodeNEXT shaped the project and a comparison could be made between the two. Two CVCs also cut across this site; one clips the northwest corner of the larger parcel, and the other passes over one of the historic structures on the southeast corner.

Findings

The testing of West 8th Street and Nueces Street provided insight into the proposed code's impact on a recently developed high-rise that worked around a historic property on the southeast corner of the half-block. The existing building, with participation in the density bonus program, resulted in a 13-story tower on top of a nine-story plinth (22-stories overall), with 200 residential units and 277 parking spaces. The team understood there were some differences between the proposed CC and the existing DMU regulations, mostly in the form of reduced building coverage, the introduction of setbacks and parking requirements, and a reduction of allowable impervious cover. These new restrictions would undoubtedly reduce the yield of the project, however, the team concluded it would be useful to test this site with a hypothetical T6U zoning category.

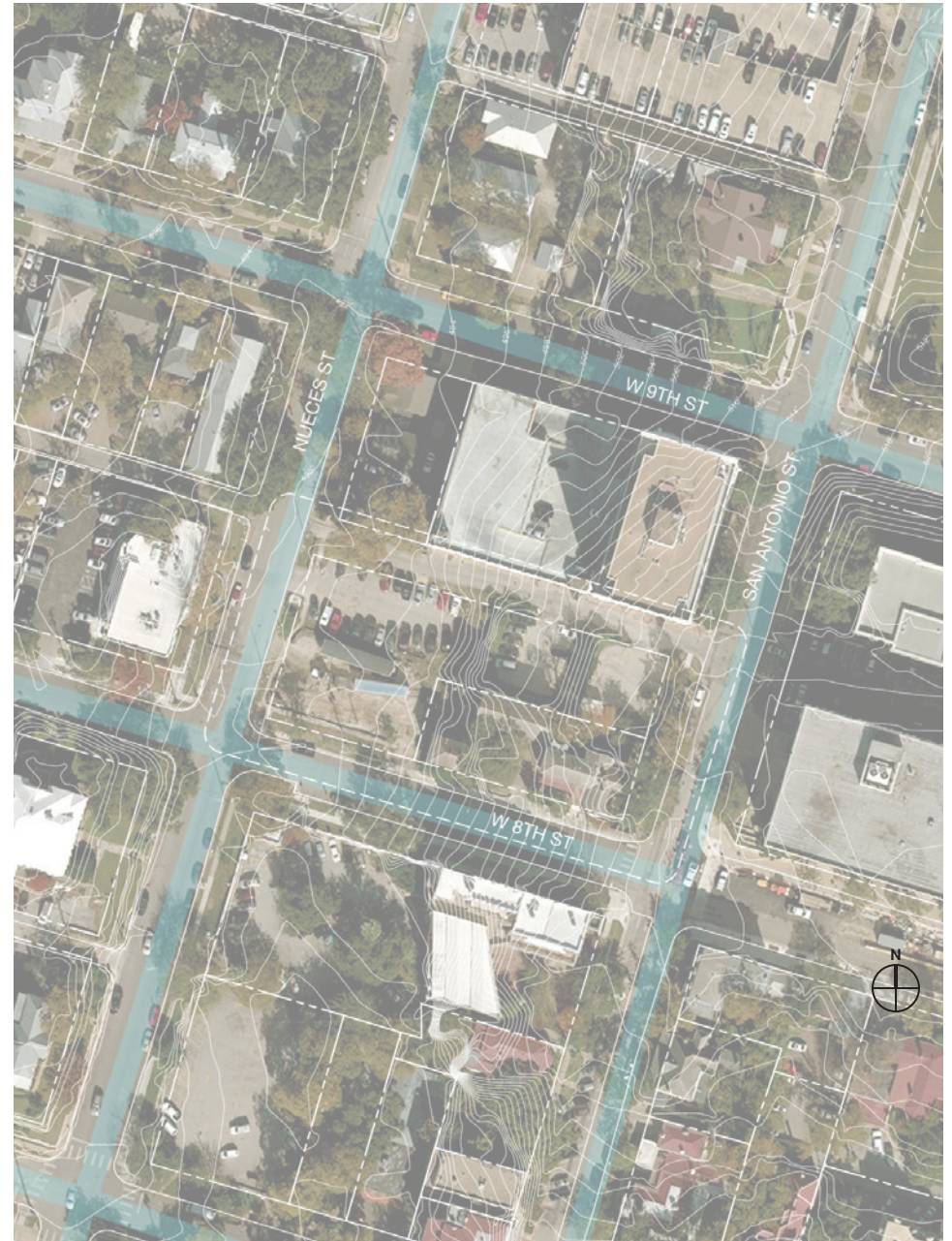


Figure 7.5: 8th St Aerial

Under T6U prescriptions, the allowable height appears to be increased to 180ft or 16 stories (as compared to 120ft with DMU), but this is conditioned on participation in the density bonus program. The transect pages did not clarify allowable height by-right, so a comparison of base entitlements was impossible. If height was limited to 16 stories with participation in the density bonus program, this hypothetical T6U zoning would lead to an immediate down-zoning by six stories compared to the recently completed high-rise. The team determined that the height reduction alone could be a project-killer, reducing overall yield from 200 units to 123 units. However, further obstacles were introduced in the form of building setbacks, building envelope stepbacks at the upper levels, and parking stepbacks, which combined to eliminate any efficient floor plates and force parking underground. After sketching the double stepbacks (Figure 7.6), the resulting narrow floor plates of the first tier, floors six through eight, produced 14 residential units (assuming 85% efficiency with circulation and service cores) (Figure 7.7). The second tier, floors nine through sixteen, produced a small and inefficient floor plate, unbuildable between the cores, that it was assumed to be inviable to go above the first stepback tier (Figure 7.8). The team ignored the proposed 5ft building setback and all parking placement setbacks, envisioning two levels below-ground and two levels of above-ground parking. After considering all favorable assumptions, the Test Area yielded a total of 117 residential units under T6U zoning, which includes participation in the density bonus program; this is a 59% reduction in unit count compared to the building on the ground today (Figure 7.9).

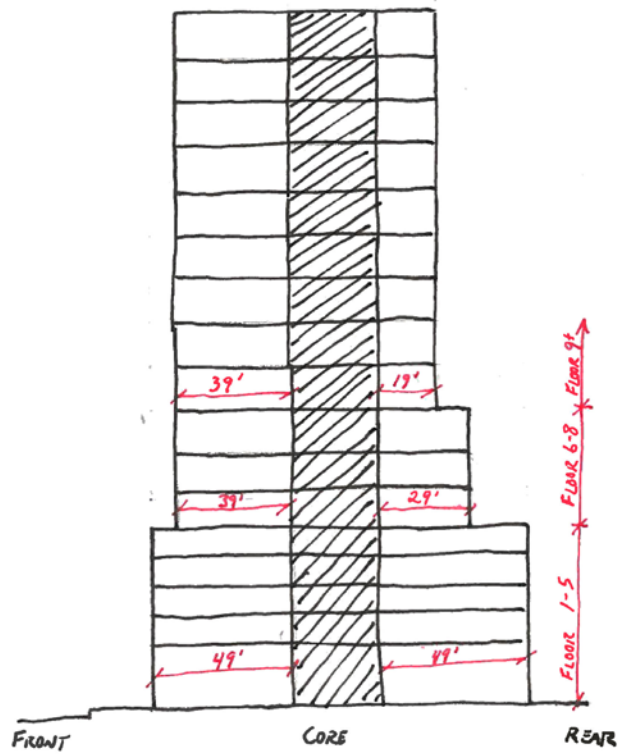


Figure 7.6: Inefficient Office Floor Plates

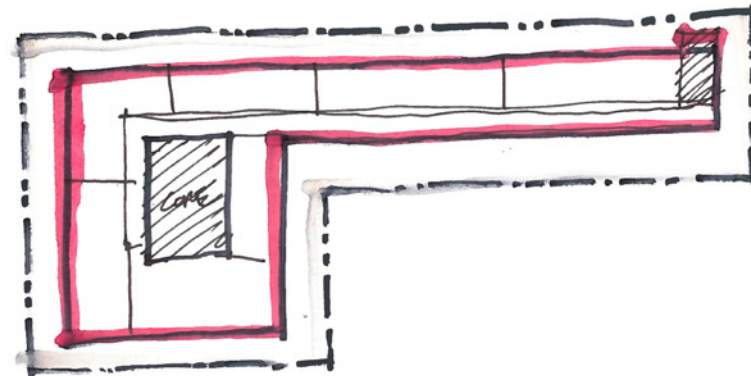


Figure 7.7: Tier 1 Floor Plates

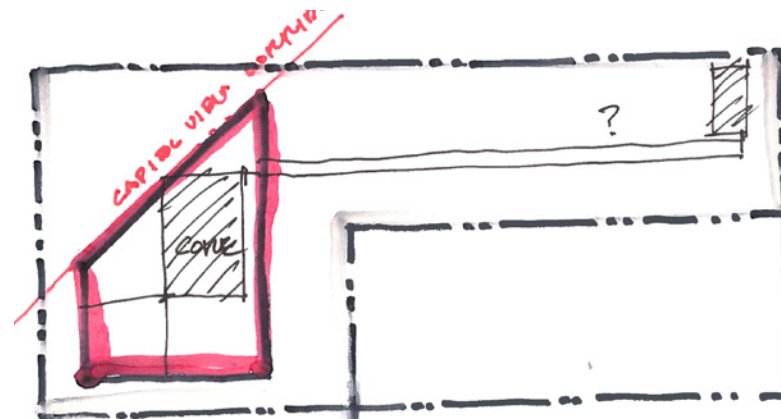


Figure 7.8: Tier 2 Unbuildable Floor Plates

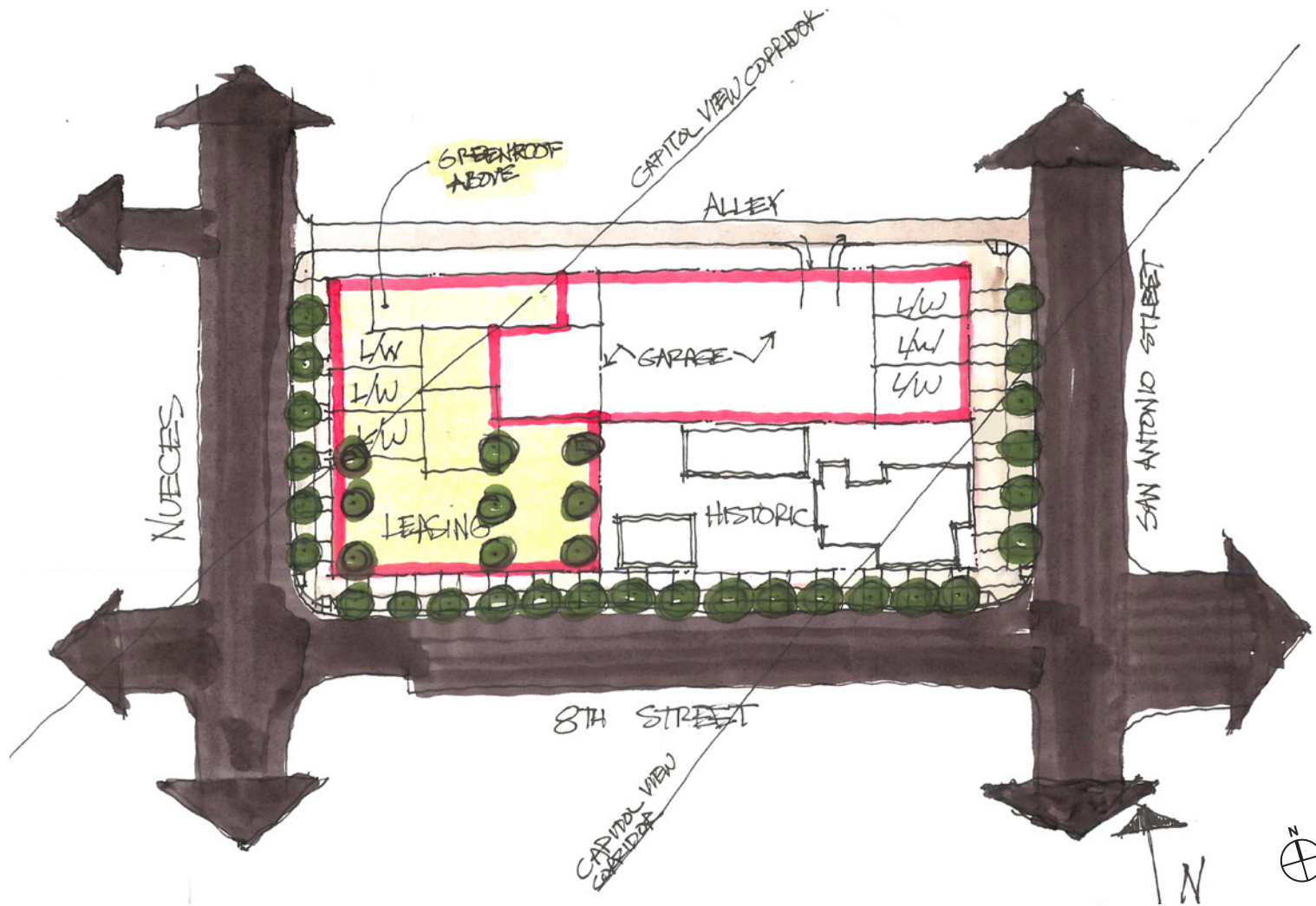


Figure 7.9: 8th Street Final

RECOMMENDATIONS

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
Zoning Map	Downtown Transect	<ul style="list-style-type: none"> • Create a transect zone that is appropriate to map throughout downtown Austin, with intermediate sub-zones to calibrate building heights and density bonus programs by sub-district. This transect could be modeled after the current T6UC if it includes significant revisions to remove the rigid, prescriptive requirements that burden smaller infill developments. A new, more intense T7 zone could be created to serve this purpose. The Downtown Transect could be cumulative, including many of the less intense building types from other transect zones to allow the widest possible range of infill projects, small and large, which would encourage a vibrant public realm. As a consequence, the CC and DC non-transect zones could be eliminated from the code.
23-4D-2190 T6 Urban (T6U)	D. Building Types	<ul style="list-style-type: none"> • Eliminate minimum lot widths and depths in downtown. Allowing small lot infill development would enhance the diversity and character of the district, and improve the pedestrian experience. • Eliminate the floor-plate reduction of 60% site area (or 30,000sf) above the eighth floor of High-Rise/Tower buildings. This disproportionately harms smaller sites, and incentivizes large, half-block developments. • Eliminate the requirement to design wide buildings as a series of smaller buildings. This undermines the local design professional's ability to design sensible buildings. The regulation, as written, has no codification to explain how one can satisfy the intent. • Eliminate the footnote stipulating no floor can be larger than the floor below. This removes many creative architectural solutions, and is unnecessary due to other height, setback, and stepback requirements.

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
	E. Building Placement	<ul style="list-style-type: none"> • Eliminate front and side street building setbacks. These are not feasible on a downtown site and are not consistent with current development patterns. • Refine definitions of Front, Side St., Side, and Rear lot lines. In particular, address how improved alleys and the ubiquitous “front streets” in downtown are interpreted in this context.
	F. Height	<ul style="list-style-type: none"> • Consolidate regulations of maximum building height into a simple overall height in feet. Regulating stories and feet is somewhat redundant, and, if not properly calibrated, will greatly incentivize residential developments over office space. • Allow unlimited height in T6 and any other transect zones for downtown. If building heights remain, clarify the maximum building height allowable without participating in the density bonus program. • Eliminate tiered building setbacks. The building code, CVCs, and various overlays will naturally regulate tower setbacks, and this requirement does not necessarily lead to superior architecture or urbanism. The setbacks incentivize lot aggregation and large development projects that do not promote a vibrant and walkable urban environment. • Establish tiered building setbacks at a specific height (if setbacks are to remain) instead of floor levels. Office and residential have different floor-to-floor heights, so the code should be clear about what setback height is desired. Setbacks should generally be addressed with district planning and only for specific contexts, like adjacency to historical buildings or districts. • Remove floor-to-ceiling requirements on upper floor(s). The market is naturally delivering 9ft ceilings, and this is not intended for retail-ready floors, so the requirement does not seem to solve a problem.
	G. Encroachments	<ul style="list-style-type: none"> • Clarify the definition of Architectural Features and whether balconies are included in this category.

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
	I. Parking	<ul style="list-style-type: none"> • Eliminate parking setbacks on upper levels. This essentially forces all parking underground, which adds immense cost to the development and is not consistent with current development patterns. To create viable above-ground parking structures, this regulation will incentivize large, full-block developments. • Increase maximum allowable driveway width to allow office and residential towers to provide three standard lanes. • Remove requirement to access parking exclusively from the alley. This will cause congestion and occupies valuable frontage better suited for utilities and back-of-house services.
	J. Impervious Cover	<ul style="list-style-type: none"> • Increase Building Cover from 95% to 100%. This is in conjunction with removing the 5ft building setbacks and aligning with current DMU regulations.
	N. Use Types	<ul style="list-style-type: none"> • Consider adding ground floor use regulations at a district level; refer to the Downtown Austin Plan. Consider using this same document as a regulating plan for curb cuts.
23-4D-2190 T6 Urban Core (T6UC)	A. General Intent	<ul style="list-style-type: none"> • Revise the illustrative graphic to comply with the subsequent form-based regulations.
	D. Building Types	<ul style="list-style-type: none"> • Eliminate minimum lot widths and depths in downtown. Allowing small lot infill development would enhance the diversity and character of the district, and improve the pedestrian experience. • Eliminate the floor-plate reduction of 60% site area (or 30,000sf) above the eighth floor of High-Rise/Tower buildings. This disproportionately harms smaller sites, and incentivizes large, half-block developments. • Eliminate the footnote stipulating no floor can be larger than the floor below. This removes many creative architectural solutions, and is unnecessary due to other height, setback, and stepback requirements.

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
	E. Building Placement	<ul style="list-style-type: none"> • Eliminate front and side street building setbacks. These are not feasible on a downtown site and are not consistent with current development patterns. • Refine definitions of Front, Side St., Side, and Rear lot lines. In particular, address how improved alleys and the ubiquitous “front streets” in downtown are interpreted in this context.
	F. Height	<ul style="list-style-type: none"> • Eliminate tiered building setbacks. The building code, CVCs, and various overlays will naturally regulate tower setbacks, and this requirement does not necessarily lead to superior architecture or urbanism. The setbacks incentivize lot aggregation and large development projects that do not promote a vibrant and walkable urban environment. • Establish tiered building setbacks at a specific height (if setbacks are to remain) instead of floor levels. Office and residential have different floor-to-floor heights, so the code should be clear about what setback height is desired. Setbacks should generally be addressed with district planning and only for specific contexts, like adjacency to historical buildings or districts. • Remove floor-to-ceiling requirements on upper floor(s). The market is naturally delivering 9ft ceilings, and this is not intended for retail-ready floors, so the requirement does not seem to solve a problem.
	G. Encroachments	<ul style="list-style-type: none"> • Clarify the definition of Architectural Features and whether balconies are included in this category.

<u>Code Section</u>	<u>Sub-section</u>	<u>Recommendations</u>
	I. Parking	<ul style="list-style-type: none"> • Eliminate parking setbacks on upper levels. This essentially forces all parking underground, which adds immense cost to the development and is not consistent with current development patterns. To create viable above-ground parking structures, this regulation will incentivize large, full-block developments. • Increase maximum allowable driveway width to allow office and residential towers to provide three standard lanes. • Remove requirement to access parking exclusively from the alley. This will cause congestion and occupies valuable frontage better suited for utilities and back-of-house services.
	J. Impervious Cover	<ul style="list-style-type: none"> • Increase Building Cover from 95% to 100%. This is in conjunction with removing the 5ft building setbacks and aligning with current CBD regulations.
	N. Use Types	<ul style="list-style-type: none"> • Consider adding ground floor use regulations at a district level; refer to the Downtown Austin Plan. Consider using this same document as a regulating plan for curb cuts.
23-4D-4050 General to All Commercial Non-Transect Zones	Parking Standards for Commercial Zones (Table A)	<ul style="list-style-type: none"> • Remove minimum off-street parking requirements for CC and DC zoning to carry forward current parking policy in downtown. The market is currently providing adequate parking without code-required minimums, and the market-based approach will allow flexibility as the transportation system improves over time.
23-4D-4100 Commercial Core (CC) Zone	Development Standards (Table A)	<ul style="list-style-type: none"> • Revise Lot Requirements to match current DMU regulations. • Revise Building Placement setbacks to match current DMU regulations.

Conclusion

While the format of the draft code was generally well received, many of the regulations, as shown by our findings, are still unclear. The complexities of the code made it difficult to fully realize the allowable development in all cases, while conflicting sections of the code created deal breaking scenarios for some test areas. It is our hope that the findings in this document will strengthen and improve the draft code to help it more effectively meet the goals of Imagine Austin. To this end, AIA Austin will continue to be a key stakeholder in shaping the draft code to align with these goals and ultimately support its adoption. We appreciate the opportunity to engage in the CodeNEXT process.

Appendices

APPENDIX A: CHARRETTE AGENDA

May 09, 2017

Charrette Goals

- Create a collaborative process for design professionals to provide input into the rewrite process
- Test the draft code & map with real-world case studies
- Determine if the draft code & map is in alignment with the goals of Imagine Austin
- Explore how the new form-based transects will shape our city
- Provide comprehensive feedback to city staff, and the consultants, in order to improve the code

Charrette Agenda

8:00 – 8:30am	Arrival/ Registration
8:30 – 9:00am	Light Breakfast/ Welcome/ Review of Goals
9:00 – 9:30am	Break into Teams / Facilitators Introduce Team Goals
9:30 – 12:00pm	Work Session 1
12:00 – 1:00pm	Lunch Break
1:00 – 4:30pm	Work Session 2
4:30 - 6:00pm	Teams Report Back to Participants
6:00 – 8:00pm	Public Reception

APPENDIX B: PARTICIPANT LIST

	TEAM 1	TEAM 2	TEAM 3	TEAM 4	TEAM 5
Test Subject	Neighborhood Low-Density Residential	Central Neighborhood Residential	Neighborhood Mixed Use	Corridor Transition Zone	Activity Corridor
Transect Zone(s)	T3NE.WL, T3.NE, T3N.DS, T3N.IS	T4N.DS, T4N.IS, T4N.SS, T4NC	T3MS, T4MS	T4N.SS, T4NC, T5N.SS, T5U.SS	T4MS, T5U, T5MS
Non-Transect Zone(s)	LDR, LMDR	LMDR, LMDR-SL, NC	MDR, MHDR, NC	MHDR, HDR, LC	HDR, VHDR, GC
Council District	10	9	1, 3	5	7, 9
Neighborhood	Rosedale	Bouldin Creek	Central East Austin	Zilker	Brentwood Bouldin Creek
Test Site(s)	39th & Jefferson	South 5th & Mary	Webberville & San Saba St	South Lamar & Collier	Burnet & Koenig South 1st & Annie
Facilitator	Blair McKay	Victoria Carpenter	Beau Frail	Stephi Motal	David Carroll
Recorder	Nicole Joslin	Diana Su	Carrie Waller	Kristina Olivent	Doug Becker
Architect	Stuart Sampley	Daniel Dunigan	Seth Goodman	Trey Hailey	Michael Hsu
Architect	Eric Rauser	Cindy Black	Bart Whatley	Steve Oliver	Scott Ginder
Architect	Philip Keil	Mark Odom	Ben Heimsath	Kit Johnson	Tommy Kosarek
Landscape Architect	-	Brendan Wittstruck	Ele McKinney	Ilse Frank	Peter duFrene
Civil Engineer	Case Giles	Stephanie Stanford	Thomas Duvall	Nhat Ho	Gabe Bruehl
Urban Designer/Planner	Keenan Smith	Greg Anderson	Kenley Reed	-	Matt Lewis
Developer/Builder	David Whitworth	Ross Wilson	-	-	Sunshine Mathon
Land Use Professional	Leah Bojo	Leah Bojo	Jeff Howard		-
Additional Professional	Scott Turner	Rick Black	Robert Deegan		
Additional Professional			Charlie Tames		
CAD/Modeling Assistant					Jeff Clarke
CAD/Modeling Assistant					Trey Farmer

APPENDIX B: PARTICIPANT LIST CONT.

	TEAM 6	TEAM7
Test Subject	Regional Center	Downtown Tower
Transect Zone(s)	T5MS, T6U	T6UC
Non-Transect Zone(s)	VHDR, RC, HC	CC, DC
Council District	4	9, 9, 1
Neighborhood	Highland	Downtown
Test Site(s)	Airport & Highland Mall	E 6th-7th & IH-35 W 8th & San Antonio
Facilitator	Tyler Stowell	Michele Van Hyfte
Recorder	Viviana Trevino	Shelby Blessing
Architect	Philip Southwick	Jim Stephenson
Architect	Betty Trent	Brett Rhode
Architect	Jeff Needles	Ryan Losch
Landscape Architect	-	Chris Jackson
Civil Engineer	Don Sansom	Chris Randazzo
Urban Designer/Planner	Ron Thrower	Jim Adams
Developer/Builder	Matt Whelan	Megan Wanek
Land Use Professional	Michele Rogerson Lynch	-
Additional Professional	Brian Roeder	Brad Maples
Additional Professional	Denny Kumm	
CAD/Modeling Assistant	Jose Guerrero	
CAD/Modeling Assistant		

TOTAL PARTICIPANTS: 71