# **Nonconforming Housing: Housing the Working Class**

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#### **INTRO**

As cities struggle to provide enough adequate housing for their residents, there is a need to develop new ideas and typologies that address the housing crisis directly. Growth in the Dallas-Fort Worth Metroplex [1] continues to provide challenges in addressing housing shortages [2], particularly for cost-burdened communities and those in danger of gentrification, displacement, or chronic homelessness [3]. This project focused on developing contextual infill housing typologies by analyzing the housing stock and context of a neighborhood in Fort Worth, TX. The central question driving the project was: How to design infill housing to increase density in existing single-family urban areas with an aging housing stock, a history of

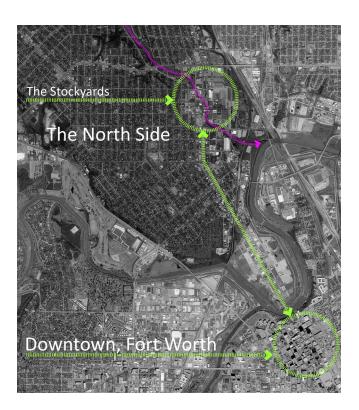


Figure 1. North Side Context image. By the author.

community marginalization, and inadequate zoning that deems many properties as nonconforming or unbuildable?

#### CONTEXT

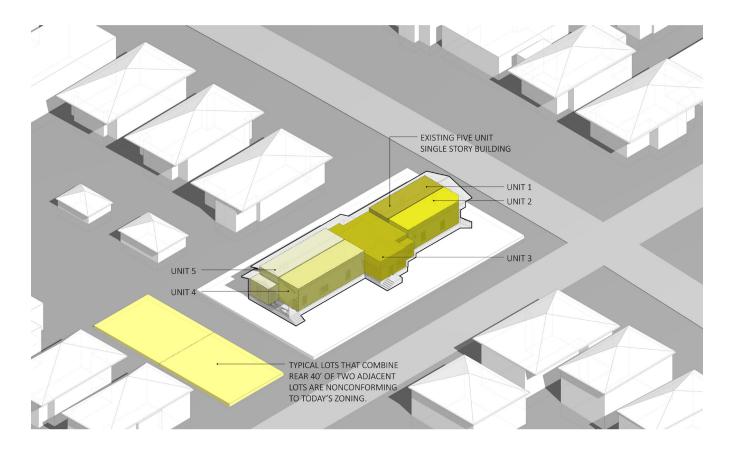
Historically, the North Side (figure 1) provided the workforce necessary for the Stockyards and the meatpackers of the Fort Worth Stockyards. The housing stock in the neighborhood reflects the historical segregation along racial lines within the city. The North Side primarily developed in the first half of the 20th century following the labor demands of the meatpacking industry. The neighborhood has various housing options, including working-class single-family and duplex housing, pockets of more upscale bungalows and craftsman houses, a few mansions, and some small-scale multifamily apartment buildings. As a predominantly Hispanic/Latine community, many of the blocks and lots exhibit components or elements of Latino Urbanism [4], such as "La yarda" which "foster strong social ties" in the shared (and simultaneously separated) space of the fenced in front yard [5].

## **ANALYSIS**

Understanding the neighborhood's housing stock is critical to developing appropriately scaled and appropriately priced housing to meet current and future demands while slowing down displacement and creating minimal disturbance to the neighborhood's urban fabric. The analysis is two-fold, conducted at the scale of individual lots and houses. This project argues that smaller scaled houses and lots were commonplace and can continue to be a viable solution for the current housing needs of the Dallas-Fort Worth region. The research identifies two nonconforming situations (figure 2):

- 1. Buildings that illegally house more than one or two units.
- 2. Properties that do not meet the minimum area requirements for single-family or duplex zoning.

Although most of the land is zoned for 5000 square-foot single-family lots, there is a sizeable number of duplex housing units that are either grandfathered in or operate as such informally or in clandestine [5].



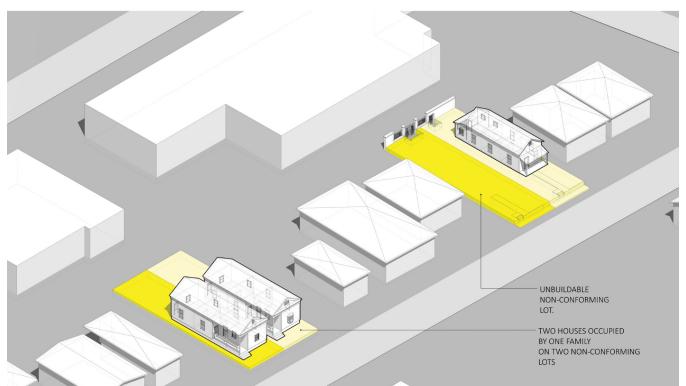


Figure 2. Existing Housing Units and nonconforming lots. Drawing by Jorge Herrera and author.

The neighborhood, primarily a working-class immigrant community, has many non-traditional housing and living arrangements, such as multi-generational, non-nuclear, and shared housing arrangements. Buildings with multiple front doors are common in the neighborhood, with some buildings having five or more tenants, each with an independent front door (figure 2).

Analysis of the parcels reveals that about one hundred years ago, 5,000 SF lots were subdivided to create 2,500 SF lots from a single property. Splitting the lots allowed for the construction of multiple houses, typically shotgun houses, on a single lot. On many blocks, two adjacent lots (a corner lot and the adjacent interior lot) were divided to combine the rear 40 feet to make a new 4,000 SF lot. Several shotgun homes still stand on those lots while others were demolished, leaving empty nonconforming areas ranging from 2,000 -4,000 SF because zoning requires a minimum of 5,000 square feet for single-family lots.

At the building scale, we documented, through drawing and models, ten existing homes within the study area that range in size, style, and location to create a catalog identifying key architectural elements commonly found in the neighborhood that define the character of the built environment (figure 10).

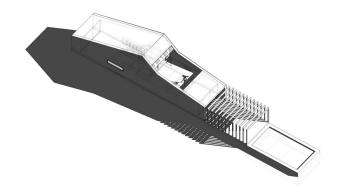


Figure 3. Barn House, shotgun typology. By the author.

We discovered that scale/size, porches, and parking conditions define the historic housing stock's character and the neighborhood's overall cohesiveness.

#### HOUSE PROTOTYPES AND BUILT WORK

We developed or adapted housing prototypes to address the common characteristics of the existing housing stock and to define contemporary infill options within the historical context

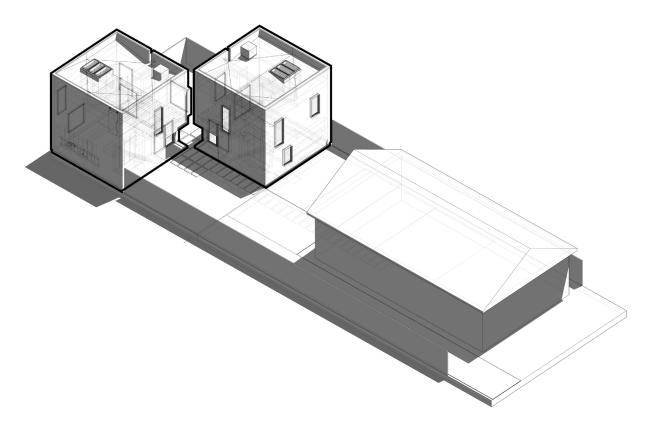


Figure 4. Cube House Prototype ADU.

with a focus on increasing density through accessory dwelling units or infill houses on nonconforming lots (figures 3-4). The homes range from 800 SF to 1,500 SF, while porches range from 30 SF to 100 SF (figures 3 and 5). Parking, as in most places developed before automobile prominence, presents the most challenges and relies on driveways next to or behind the houses.

The 1,353 SF urban-infill house (figures 5-9) is part of a 6-unit development on two adjacent typical 50-ft-wide lots. The house sits between two units in the center of the lot. Access is provided by driving under the second floor of the other two units on the property. The house offers parking for two cars, one inside the garage and one next to the building. The house is a two-bedroom with two and one-half baths on three floors. The ground floor contains the entry and the second bedroom, which can be rented as a separate unit with a private entrance. The living and kitchen are on the second floor, and the master is on the third. The house has two porches and two large decks on the second and third floors.

This design incorporates the lessons from the analysis and research to propose an increased density within single-family neighborhoods. This project argues that informal densities are not a new solution but have existed in many communities for

generations and have provided affordable housing for many residents. An exclusionary zoning ordinance that prevents or forbids this type of small-scale density is detrimental to communities in danger of displacement and should be updated to recognize, accept, and encourage small-scale, sneaky density to provide some relief to the housing crisis.

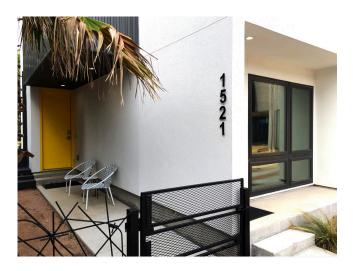


Figure 5. Infill House Entry. Photo by author.



Figure 6. Infill House. Photo by the author.

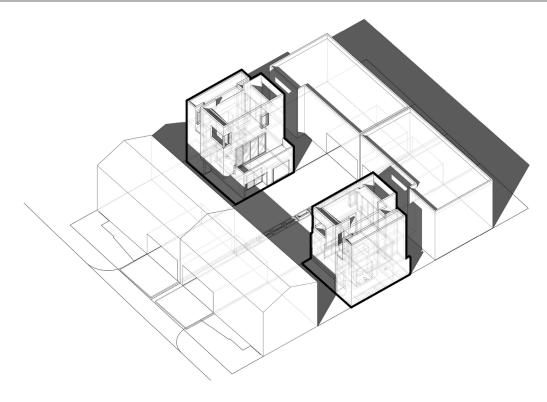


Figure 7. Infill House. Image by author.

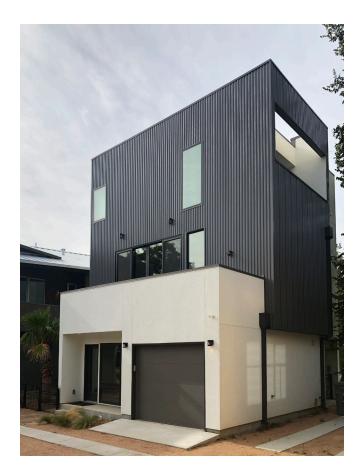


Figure 8. Infill House. Photo by author.

Figure 9. Infill House site plan on two adjacen lots. Image by author.

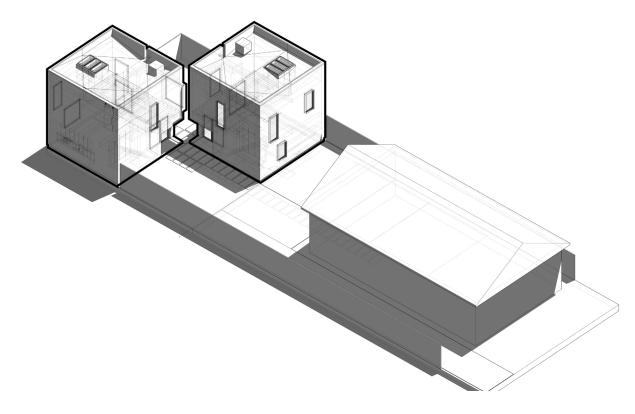


Figure 10. Existing Houses in Fort Worth, TX. Image by Jorge Herrera.

# **ENDNOTES**

- Hanna, Bill. (2019) 'Fort Worth's Booming Growth Refuses to Slow Down as City Becomes 13th Largest in U.S.' Fort Worth Star Telegram, 23 May
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