

# Innovative Solutions for Inclusive Housing: The Extended Family Home as a Model for Change

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## INTRODUCTION

North American single-family zoning, born out of an idealization of the nuclear family, inadvertently precludes the fostering of sustainable densities and inclusivity in housing. Diasporic communities have housing needs unmet by the present framework, not least because these homes, with their rigid life prescriptions, neither accommodate the diverse family structures nor align with sustainable development goals. Contemporary zoning, designed primarily for uninuclear families, fall short of addressing various diaspora's cultural, economic, and ecological requisites.<sup>1</sup> This project suggests an evolution—by advocating for the “Extended Family Home” typology, envisioning neighborhoods of sustainable density without sacrificing their existing character.

## METHODOLOGY

Rooted in the writings of Pierre Bourdieu, Aldo van Eyck, and the architectural endeavors of Hassan Fathy and Kisho Kurokawa, this exploration is anchored in the deep understanding of indigenous architectures and spatial practices.<sup>2</sup> A compendium of 90 contemporary housing projects across seven global regions, contextualized within Regional Modernism, forms the bedrock of this research.<sup>3</sup>

Central to this exploration are three intervention sites: Bayonne, NJ, Skokie IL, and Sterling Heights, MI. Each site, chosen for its distinct West Asian Diaspora, single-family housing typology, and existing zoning requirements, serves as a microcosm reflecting the broader housing needs of the diaspora. Through ethnographic and zoning code examinations, bespoke changes are proposed to facilitate these communities' distinctive needs.

## BAYONNE BOX ADDITION

Nestled within the “Detached Residential District”, the Bayonne house proposes an addition, utilizing structurally insulated panels due to the site's narrow lot. This configuration supports a dual family structure—facilitating occupation in the upper

and lower levels or front and back, across shared spaces. This flexibility in being able to occupy with 2 nuclei either horizontally or vertically allows for the occupants adaptability with changes in age and mobility (Fig. 2). Embracing prefabrication, this model accentuates efficiency and adaptability, seamlessly integrating with the existing neighborhood fabric from the front while adding a new layer of dynamism and density to the back of the lot.

## SKOKIE SPLIT LEVEL EXTENSION

Within Skokie's “R-2 Single Family” zone, the late modern “split-level house” emerge as an opportunity for innovation, by connecting 3 adjacent lots across their shared back yards (Fig 10). A heavy timber post and beam system introduces versatility in spatial arrangement through a 9 square grid (Fig. 3). Collective spaces share a singular elevation while bedrooms are positioned at varied elevations allowed by varying the beam height along the column (Fig. 7). This crafts a fragmented yet shared domesticity, echoing the rhythm of polynuclear families. The design strategy, as sculpted by the system, carves out an occupiable roof landscape (Fig. 8), and shared sunken back yard in the underbelly of the extension pushing boundaries of conventional wooden frames and utilizing spaces both diasporic and westernized families recognize.

## STERLING HEIGHT MCMANSION EXPANSIONS

The vast expanse of Sterling Heights' “R-60 One Family Residential” zoned lots becomes fertile ground for the straw bale constructed McMansion expansion which connect 4 Existing and identical McMansions across their back yards (Fig. 6). Straw bale, celebrated for its insulation properties, also offers the allure of wall thickness. This thickness is more than just a structural feature—it becomes an architectural device, subtly demarcating boundaries within shared spaces, crafting nooks of privacy in an otherwise communal setting and allowing for occupation of the wall space with vertical circulation to create clear demarcations of shared and private spaces (Fig. 1). Its volume to cost ratio makes it ideal for crafting otherwise expensive landscape elements for a communal courtyard (Fig. 4). While maintaining a street side elevation which is largely unchanged to preserve neighborhood character (Fig 5).

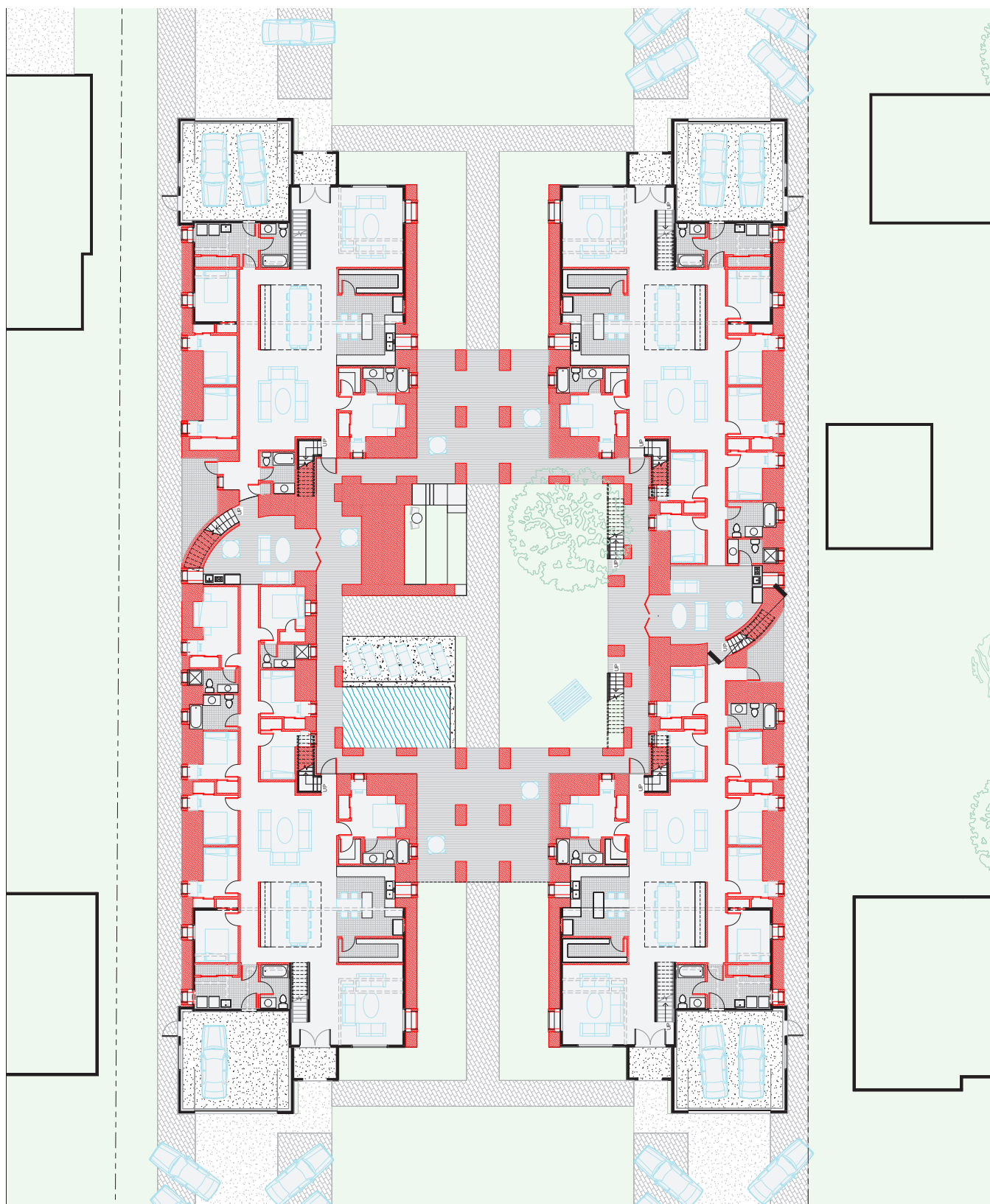


Figure 1. Sterling Heights McMansion expansion ground level plan showing intimate spaces and vertical circulation set within the wall thickness of the straw bale construction. Hanna.

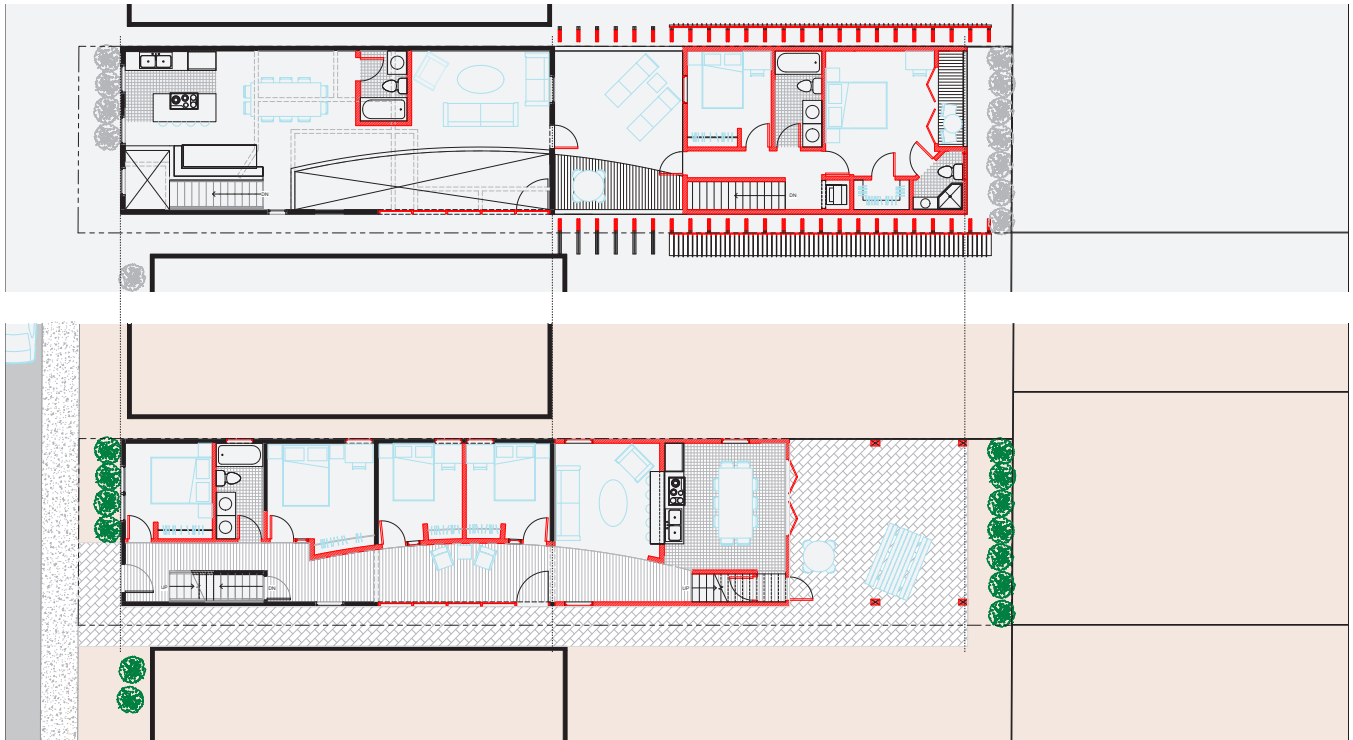


Figure 2. Bayonne Box Addition ground floor plan and second level above shows how all of the functions of a home, sleeping, living, dining and cooking can be accommodated if the home is thought of as upper and lower units or front and back units. Hanna.

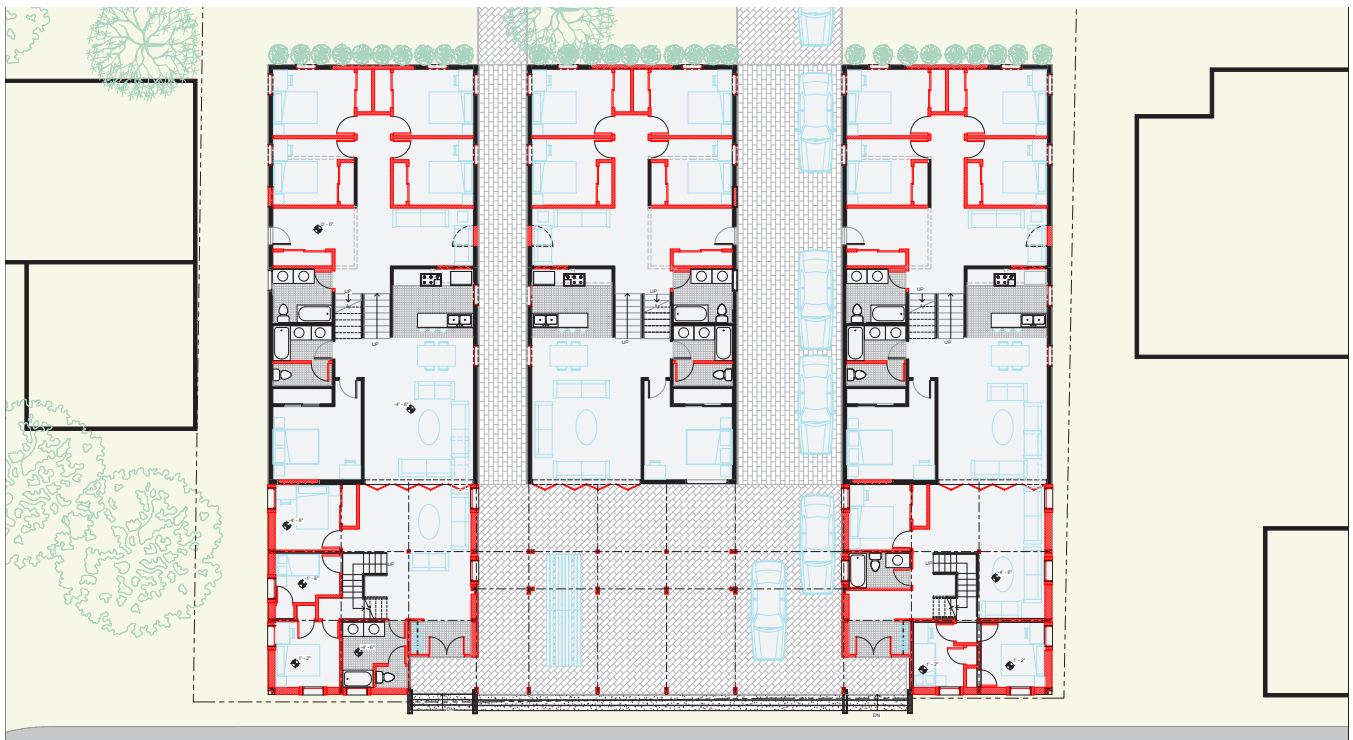


Figure 3. Skokie Split Level Extension, Ground Level Floor Plan Showing the 9 square grid of the post and beam system with surrounding rooms and differing elevations. Hanna.





Figure 4. View of the Sterling Heights McMansions expansion internal shared courtyard from the second level of the straw bale terrace. Author

### CONTEMPORARY DISCOURSE

The Extended Family Home emerges in the housing dialogue with a distinctive voice. Unlike the “Plexes” that are designed for polynuclear families but often result in redundant and underutilized common spaces such as kitchens, and laundry facilities, this model of housing integrates the efficiencies of co-housing without compromising individual privacy.<sup>4</sup> It artfully converges shared and private spaces, offering a pragmatic yet nuanced solution by designing subtle demarcations and utilizing proportions of bedroom to common area that place the extended family type somewhere between the communal and the Familiale.<sup>5</sup> A unique difference in the extended family home is its ability to garner additional rental income when portions are not in use by designing the extensions to be easily converted into single connected flats, this is achieved by balancing both the communal and private living needs, presenting an evolved housing typology that is as economically and spatially efficient as it is considerate of the diverse and complex family structures in contemporary society.



Figure 5. View of the Sterling Heights McMansion Expansions from the street highlighting the minimization of frontage change in the neighborhood. Hanna.



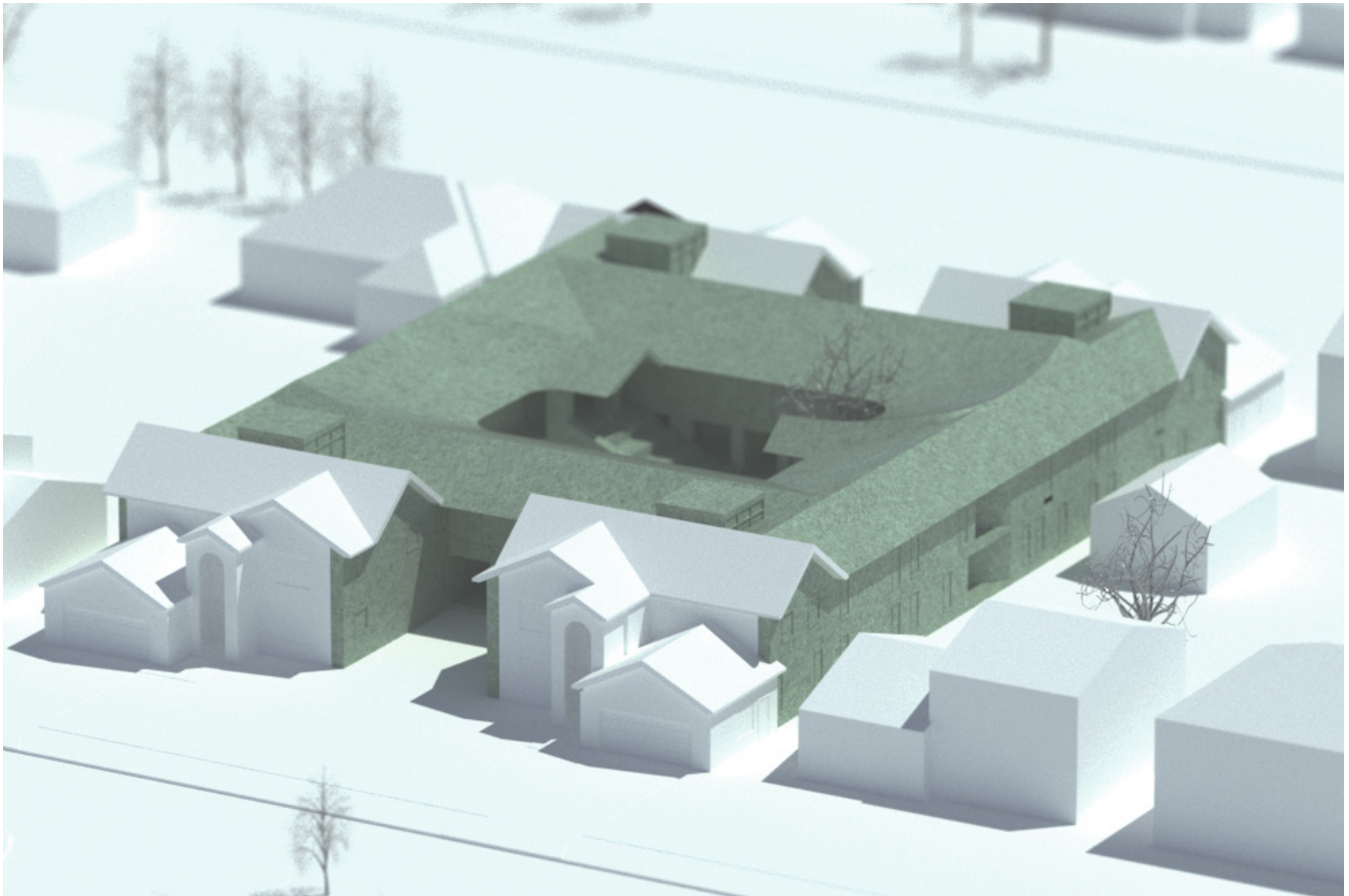


Figure 6. Sterling Heights McMansions Expansion massing depicting unchanged street side elevations with new proposed interior fill. Author.



Figure 7. Back of the Skokie Split Level Extension depicting individual unit elevation changes to accommodate shared common area on roof and under belly. Hanna.



Figure 8. Skokie Split Level Extension roof Top terraces. Hanna.

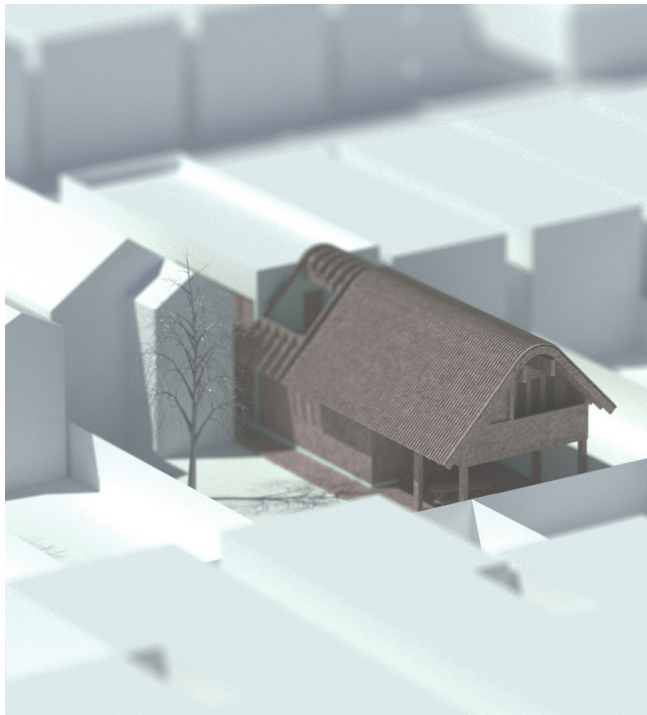


Figure 9. Bayonne Box Addition model depicting de-familiarized rear yard in relation to familiar street side grain. Hanna.

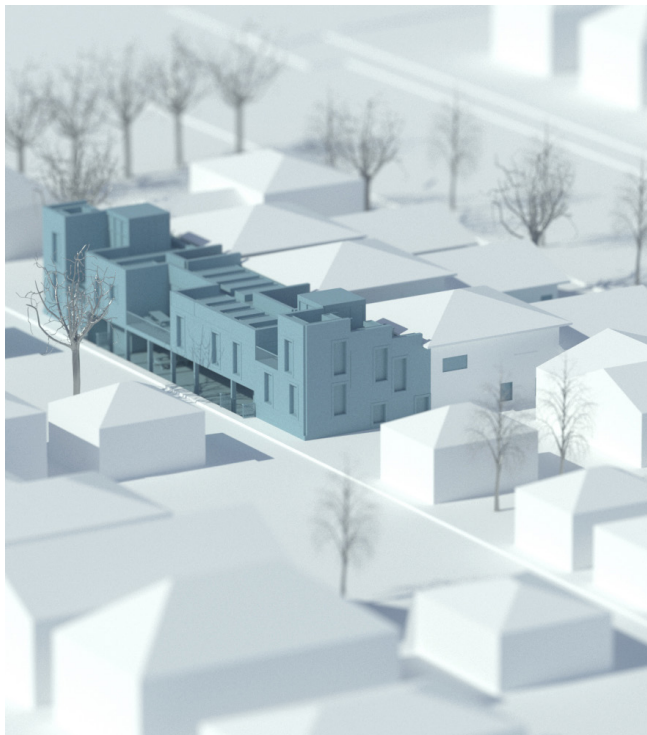


Figure 10. Skokie Split Level Extension model depicting difference between unique addition and streetside grain. Hanna.

## THE MARKET

In the complex interplay of market forces, the Extended Family Home model offers as a solution finely attuned to economic and spatial efficiencies. This model facilitates a communal living arrangement that optimizes cost through shared resources, while still allowing individual family units their autonomy. For builders, it represents a convergence of tested building methods and innovative design approaches, presenting an opportunity to diversify housing offerings without radical departures from established practices. It marks a balanced integration where economic pragmatism for residents aligns with a broader, adaptable housing inventory for the market.

## ZONING/MUNICIPALITIES

The emergence of Accessory Dwelling Unit law underscores the adaptability of zoning codes.<sup>6</sup> The case studies presented herein provide a blueprint for municipalities to adapt existing codes, enhancing FAR and mitigating rear yard setbacks while preserving front and side yard aesthetics. It's a strategic adaptation, safeguarding the communal and aesthetic integrity of neighborhoods while accommodating innovative housing needs.

## CONCLUSION

These case studies underscore the potential of the extended family type as a nuanced response to the evolving complexities of family structures, cultural diversity, and sustainable living dynamics within existing urban fabrics. It's not a radical departure but a considered evolution, reflective of a harmonious coexistence of varied family structures, economic pragmatism, and sustainable living. Each case study presented above, elucidates a unique pathway where architecture, zoning, and societal needs converge, pointing towards an inclusive, sustainable future of urban living. The Extended Family Home is not as an alternative but an intrinsic progression in the ongoing narrative of urban housing, a testament to the plasticity and adaptability of architectural and societal ecosystems.

## ENDNOTES

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