Redefining Student Housing: Mobility, Access, and the Campus of Tomorrow

Exploring the intersection of mobility, equity, and infrastructure in student housing

1. Introduction

Student housing is a critical component of the university experience, especially as institutions navigate growing student populations, limited on campus space, and increasing demands for sustainability and equity. As universities seek to meet these challenges, the transportation connectivity of student housing plays a pivotal role in shaping the student experience, operational efficiency, and long term viability of housing projects.

ModeScore, through its transparent and data driven approach, provides universities and private investors with valuable insights into the transport connectivity of student housing. By measuring factors such as public transport accessibility, bicycle infrastructure, walkability, and green logistics, ModeScore helps stakeholders identify housing locations that meet both academic and environmental goals.

In this context, student housing is also an integral part of a university's overall carbon footprint. Transportation options available to students whether they rely on buses, cycling, or walking directly impact a university's sustainability targets. Housing developments that fail to consider transportation accessibility may become financially stranded over time, as demand for poorly connected housing decreases and universities face challenges in maintaining such properties.

The affordability of transportation is especially critical for un and underemployed students or those from underserved communities. Car ownership imposes significant financial burdens including insurance, fuel, maintenance, and parking fees that disproportionately affect these students. Moreover, many universities prohibit first and second year students from parking on or near campus, making access to alternative mobility options not just preferable, but essential for inclusion and success.

1. Introduction

University years also present a rare opportunity to shape behavior at a formative stage in life. When housing supports walking, cycling, and transit use, students are more likely to carry those habits into adulthood, producing lasting health, financial, and climate benefits.

Finally, the physical design of a campus is shaped by how students move. Reducing car dependence enables universities to reclaim land used for expansive parking lots, transforming it into green spaces, academic buildings, or community amenities. Improved transport connectivity also benefits surrounding neighborhoods by providing shared infrastructure that promotes physical activity, recreation, and equitable access, helping to ease often tense town gown dynamics.

This report outlines how ModeScore's data can guide universities and investors toward housing solutions that not only meet student needs but also contribute to the long term sustainability and social impact of the university. In conjunction with ESGreLab, a second report will be released at the end of the summer highlighting findings from pilot programs conducted at several universities. This report will provide valuable insights into key factors affecting student housing, including proximity to campus, access to university bus lines, availability of bicycle parking, local safety indexes, and other relevant data. These pilot programs will serve as a foundation for a broader understanding of how transportation connectivity impacts student housing performance, affordability, and equity.

2. Stakeholders

As institutions and investors explore how to implement data-informed solutions, it becomes clear that student housing development must reflect the diverse priorities of its key stakeholders. Universities, private capital, and students each bring distinct needs, challenges, and goals to the conversation around transport-connected housing. Understanding these perspectives is essential to designing housing that is not only financially sustainable, but also socially inclusive and environmentally aligned.

Universities

Challenges:

Universities are increasingly tasked with providing affordable, high-quality student housing in areas that are not only safe and convenient but also well connected to transport networks. With limited land and growing enrollment numbers, universities need to identify locations for housing that reduce student commute times and increase accessibility to campus facilities.

Many universities prohibit freshmen and sophomores from parking on or near campus, making transport-connected housing essential to ensure equitable access to education and campus resources. Additionally, integrating transportation networks into student housing strategies is vital. Students' academic performance and overall well-being are significantly influenced by the accessibility of transport options. Universities need to consider how transport connections can enhance the student experience, reduce commuting stress, and help achieve sustainability goals.

2. Stakeholders

Universities

Needs:

- ✓ Efficient Use of Space: Universities seek housing locations with strongaccess to public transport routes, bicycle networks, and pedestrian-friendlypathways, allowing them to maximize available space and create vibrant,well connected communities.

- ✓ Transportation Integration: Universities need to evaluate transportationinfrastructure as part of their housing development strategies. This includesconsidering the availability of bus routes, metro stations, cycling lanes, andpedestrian paths, ensuring that students can easily move between housing,campus, and nearby amenities.

- ✓ Sustainability Goals: ModeScore helps universities measure how theirhousing projects align with sustainability objectives. By incorporatingenvironmentally friendly transportation options, such as electric vehicles(EV), bike-sharing stations, and access to green transport modes,universities can reduce carbon emissions and support their climate goals.

- ✓ Student Experience and Equity: A well-connected student housing projectenhances the student experience by reducing commuting time, loweringcosts, and promoting an overall healthier lifestyle. Affordable and safetransportation options help alleviate financial hardship for students fromdiverse backgrounds, supporting greater inclusion and equity.

Private Capital (Pension Funds, Endowments, REITs, Developers)

Challenges:

Private investors are increasingly focused on ESG factors in their investments, emphasizing long-term sustainability/value generation. In the context of student housing, transportation access is a crucial factor that can impact the financial viability of properties and the long-term performance of portfolios.

Real estate developers/investors must identify student housing locations that attract high occupancy, offer competitive rents, and maintain stable demand. Additionally, regulatory pressures are mounting to integrate green transport solutions and demonstrate environmental responsibility within their assets.

Needs:

- ✓ Data-Driven Insights into Transportation: Investors need clear, reliable data to evaluate how accessible housing locations are via public transport, cycling infrastructure, and walkability. This enables smarter investment decisions that balance financial returns with environmental impact.

- ✓ Strategic Investment in Transport-Centric Locations: Properties well-served by transit options and bike networks tend to have stronger demand, leading to higher occupancy and rental income. Prioritizing such locations supports both immediate financial goals and long-term asset appreciation.

- ✓ Sustainability and Regulatory Compliance: Growing sustainability standards require investors to demonstrate how their portfolios reduce carbon footprints and support ESG frameworks. Access to data on environmental and transport connectivity helps meet these requirements and align investments with global climate objectives.

2. Stakeholders

Students

Challenges:
For students, the location of their housing and its proximity to campus facilities, public transport, and other amenities significantly affects their academic success, mental health, and overall student experience. Commuting to/from campus can be stressful and time-consuming, especially if the housing is not well connected to reliable transportation options.

Car ownership is often prohibitively expensive for students, who may face financial hardship due to tuition costs, part-time employment, or lack of steady income. Many students, particularly freshmen and sophomores, are not permitted to bring cars to campus, making affordable and reliable alternative transportation critical.

Needs:
- ✓ Convenient and Affordable Transportation: Students need easy, affordable access to transportation options, whether it's buses, metro systems, cycling routes, or walkable paths. Efficient transport connections help reduce commuting times, increase convenience, and lower overall living costs.

- ✓ Green Mobility Options: Students are increasingly environmentally conscious and seek housing that aligns with their sustainability values. Access to green transport solutions, such as EV charging stations, bike-sharing programs, electric buses, enhances the appeal of housing developments.

Needs:
- ✓ Safety and Accessibility: Students value safe routes for walking and cycling, particularly in areas with limited public transport options. Reliable, well-maintained paths and bike lanes, as well as pedestrian-friendly environments, ensure that students feel secure when commuting.

- ✓ Supportive Infrastructure: In addition to transport routes, students expect housing to provide the necessary infrastructure, such as bike storage, carpooling services, and proximity to transit hubs. A transport-connected housing development fosters a sense of community, reduces commuting stress, and supports a healthier, more active lifestyle.

3. The Case for Connectivity

The accessibility of transport options significantly influences the success of student housing projects. Transport connectivity impacts everything from the time students spend commuting, to their environmental footprint, to their overall satisfaction with housing. A well-connected student housing property is more attractive to students, performs better financially for investors, and supports university sustainability and inclusion targets.

Student Well-being and Affordability

Accessible transport options help students manage their time more efficiently, balancing academic responsibilities with extracurricular activities, part-time jobs, and social engagements. For many students, especially those facing financial hardship or without access to a personal vehicle, commuting can be a source of stress and inequity. Well-connected housing can reduce or eliminate the need for car ownership, lowering costs and improving quality of life.

Moreover, the university years are a time of behavioral formation. Students who develop sustainable travel habits, walking, cycling, using transit—are likely to maintain these behaviors long after graduation. Housing that supports these habits contributes not just to a student's success on campus, but to broader public health and environmental outcomes.

3. The Case for Connectivity

Financial Performance and Resilience

For private investors, well-connected student housing properties tend to have higher occupancy rates, reduced vacancies, and a more stable income stream. Proximity to public transport, bicycle networks, and pedestrian-friendly pathways increases a property's attractiveness and long-term value. ModeScore empowers investors to identify locations that support both strong financial returns and compliance with ESG criteria, ensuring alignment with market expectations and regulatory pressures.

Sustainability and Campus Design

Transportation-integrated housing is a key tool in reducing a university's carbon footprint. By lowering dependence on cars and increasing access to green mobility options, electric buses, cycling, walking, institutions can meet or exceed climate targets. Reducing the need for commuter hardscape such as surface parking lots also frees up space for green areas, new facilities, or community-centered development, contributing to more vibrant and sustainable campuses.

Community Impact and Town-Gown Relations

When transport infrastructure serves both students and surrounding residents, it becomes a bridge rather than a barrier. Quality cycling paths, safe pedestrian routes, and accessible public transport benefit the wider community, not just the campus. This shared infrastructure fosters healthier, more inclusive neighborhoods and helps repair sometimes strained town-gown relationships by delivering public value alongside academic growth.

4. The Future of Student Living: Toward Connected, Experience-Driven Communities

As the student housing market evolves, the focus is expanding beyond location and transport connectivity to embrace a holistic vision of sustainability and well-being. Just as sustainable transportation is vital for reducing environmental impact and improving accessibility, modern student housing must also prioritize sustainability—through energy-efficient design, eco-friendly materials, and healthy living environments—and meet the growing demand for mental health support, community engagement, and digital integration.

Students today no longer see housing as just a place to sleep; they expect dynamic, flexible spaces that enhance their academic performance, personal growth, and social connections. This integrated approach to housing and transport has significant implications for how institutions and private partners select sites, design infrastructure, and plan long-term investments that foster resilient, vibrant, and sustainable communities.

Experience-Driven Housing

Modern developments increasingly prioritize hospitality-style amenities, such as meditation rooms, collaborative lounges, rooftop gardens, and wellness-focused fitness centers. These features aren't just lifestyle upgrades—they reflect growing awareness of student mental health, stress management, and the need for community in a post pandemic world.

Smaller, flexible gathering spaces are replacing oversized, underused lounges. Co-working nooks, quiet pods, and communal kitchens offer diverse, human centered environments that support both solitude and social interaction.

High-Performance, Tech-Integrated Design

Next-generation student housing is adopting smart building systems to streamline everyday living—automated maintenance requests, app-controlled utilities, and even AI-powered energy optimization are becoming baseline expectations. These features serve both sustainability goals and the seamless user experiences Gen Z and Gen Alpha demand.

Looking forward, buildings will increasingly be responsive environments that personalize comfort, manage resources efficiently, and reduce the operational footprint of dense housing.

Sustainability Meets Affordability

New construction techniques, including mass timber, are helping reduce embodied carbon and accelerate project delivery. The convergence of eco-conscious materials, passive cooling, on-site energy generation, and transit-connected site planning is redefining what affordable, sustainable student housing can look like, especially in climate forward cities.

4. The Future of Student Living: Toward Connected, Experience-Driven Communities

Projects like the Lucien Cornil Student Residence in Marseille, France, exemplify this approach. Utilizing cross-laminated timber for its structure, the eight-story building minimizes environmental impact while providing 200 student rooms that overlook a communal landscaped garden. The design incorporates curving perforated metal panels that allow light to filter through, creating a warm and inviting atmosphere.

Similarly, Olympia Place in Amherst, Massachusetts, reinterprets traditional New England architecture with a contemporary feel. The 73-apartment complex features high-performance building envelopes designed to reduce energy consumption by 40 percent compared to conventional construction. Communal work tables, study rooms, breakout areas, a fitness center, and a café provide a variety of spaces for interaction and individual work.

4. The Future of Student Living: Toward Connected, Experience-Driven Communities

Urban Integration and Mobility

The most transformative student housing is not isolated, but deeply embedded in the life of the city. Mixed-use developments that include ground-floor retail, community plazas, bike infrastructure, and transit access help connect students to local ecosystems.

At the University of California, San Diego, the North Torrey Pines Living and Learning Neighborhood integrates residential, academic, and retail spaces within a single complex. The development includes 2,000 beds for students, lecture halls, classrooms, faculty offices, dining options, and shops, as well as extensive outdoor areas, plazas, and paths for pedestrians and bicyclists. The proximity to the new Mid-Coast Trolley extension route has greatly expanded UCSD's public transit connections, enabling students to commute more efficiently and sustainably.

Mobility remains central. A smart, future-ready housing strategy must enable students to live car-free by integrating transport, services, and leisure—creating full-spectrum environments where sustainability and equity are built into the foundation.

5. Emerging Questions/Opportunities for Aligning Sustainable Student Housing/Transportation

Sustainable student housing and travel are deeply interconnected, yet aligning the priorities of universities, investors, students, and equity advocates remains complex. The following questions and ideas highlight opportunities to better integrate housing and transportation considerations:

What Shared Metrics Can Connect Housing and Travel Choices?

A unified set of metrics could help stakeholders understand and optimize the relationship between where students live and how they get to campus. Key questions include:

- ✓ How can we measure carbon emissions per bed in ways that reflect both building sustainability and travel behaviors?
- ✓ What approaches can accurately track commute mode splits among students and staff to support transit-oriented housing decisions?
- ✓ Should an affordability index incorporate rent and travel costs, recognizing that proximity to campus and transit access reduce total living expenses?
- ✓ Can we link student satisfaction and retention data to housing locations and travel patterns, illustrating their combined impact?

How Can University Sustainability Goals Be Harmonized With Investor Preferences?

Tensions between universities' focus on walkable, low-carbon housing and investors' emphasis on high returns and amenities can be mediated through: Transportation-focused criteria like ModeScore integrated into RFPs to prioritize transit-friendly developments.

What Financial and Policy Tools Encourage Housing That Supports Sustainable Travel?

Encouraging housing solutions that reduce car dependency and enhance affordability requires innovative tools such as:

- ✓ Total cost of living framing that combines rent with transportation and utility savings to present a fuller picture of affordability.
- ✓ Green leases or similar agreements that incentivize energy efficiency while promoting location-efficient living.
- ✓ Co-investment models that blend subsidies and private capital to fund housing near transit hubs.

How Can Equity Be Ensured in Sustainable Housing and Travel Solutions?

To avoid pricing out low-income students or forcing longer commutes, it's critical to explore:

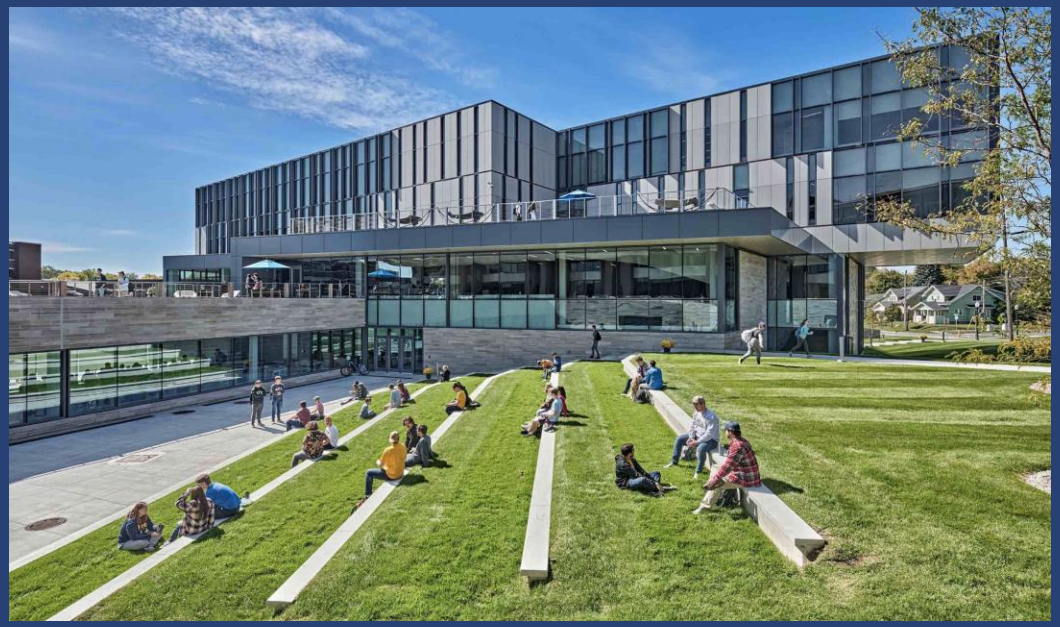
- ✓ Tiered rents and targeted transit subsidies that make housing near campus and transit more accessible.
- ✓ Location-based housing prioritization that supports students with the greatest travel and financial challenges.

6. The Future

Creating sustainable student housing that supports low-carbon, affordable, and equitable travel requires a holistic, multi-dimensional approach. This report has explored the interconnected challenges and opportunities across housing design, travel behavior, investment strategies, equity considerations, and stakeholder alignment. Each of these elements must be addressed in concert to realize truly sustainable outcomes.

By fostering shared metrics, innovative financing, equitable policies, and collaborative frameworks, universities, investors, students, and communities can work together to develop housing solutions that not only reduce environmental impact but also enhance affordability and accessibility. Continued dialogue, research, and partnership will be essential to advancing these goals and shaping vibrant, sustainable campus environments that meet the diverse needs of today's and tomorrow's students.

We invite you to participate in this journey to create more sustainable, inclusive, and connected student communities.



Author

Johan Tellvik brings 30+ years of experience in finance and real estate as a successful hedge fund manager, investment banker, sustainability visionary, and strategic advisor. He has managed large absolute return portfolios with a focus on real estate, ESG, capital markets, and technology. As a strategic advisor, he supports private start-ups with business development, financial planning, and long-term growth.

He is also the founder of ESGrelab.com, where he leads the overall development and direction of a multifaceted education firm specializing in real estate and finance. In addition, he heads its growing advisory division, which focuses on strategic and sustainable initiatives across Asia, Africa, Europe, and the United States.

Johan collaborates regularly with leading academics and industry professionals around the world, driving practical, high-impact solutions at the intersection of education, investment, and sustainability.