

COLUMNS

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DESIGN AWARDS

EMERGING HOT SPOTS
THE CONNECTED CITY PROJECT
URBAN INFILL

CONNECTION

Contributors



**DREAM WEAVING:
HOW WILL DALLAS
REACT TO THE
PLANS PROPOSED
THROUGH THE
CONNECTED CITY
PROJECT?**

Greg Brown

Greg is program director for the Dallas Center for Architecture. His career has always included architecture, the arts, and film. Prior to DCFA, Greg was managing director of the AFI DALLAS International Film Festival, which grew to become one of the largest in the Southwest. He has also served as managing director of both the Meadows School of the Arts and the Meadows Museum at Southern Methodist University. A native Dallasite, he holds undergraduate and graduate degrees from SMU.



**URBAN INFILL:
MASTERING
INVESTMENT
HURDLES
AND DESIGN
OPPORTUNITIES**

Michael Buckley, FAIA

Michael is a clinical professor and director of the University of Texas-Arlington's urban think-tank, The Center for Metropolitan Density. His research is focused on strategic industry clusters, demographic shift, and high-density residential and workplace formats. Michael also heads a UTA advanced design studio, testing financial feasibility for large-scale urban infill with an emphasis on creating tax revenues, from which tax increment financing can offset infrastructure costs. As president of Halcyon LTD, he advises cities on urban mixed-use projects and re-use scenarios for under-utilized sites. He is a former board member of AIA Dallas, and a former president of the Connecticut Society of Architects.



**HOT SPOTS:
EMERGING
NEIGHBORHOODS
MAKE DALLAS
STRONGER**

Marcel Quimby, FAIA

As a Dallas resident for over three decades (much of that in the inner city), Marcel has observed and participated in the transition of inner-city neighborhoods—both historic and non-historic—from neglected and unappreciated to thriving and popular. She is a principal with Quimby McCoy Preservation Architecture, a practice committed to the rehabilitation and adaptive re-use of historic structures. Marcel serves on the City of Dallas Urban Design Peer Review panel. She has served as president of AIA Dallas and Preservation Dallas, and has served on the board of advisors of the National Trust for Historic Preservation, as well as similar boards for the city and state.



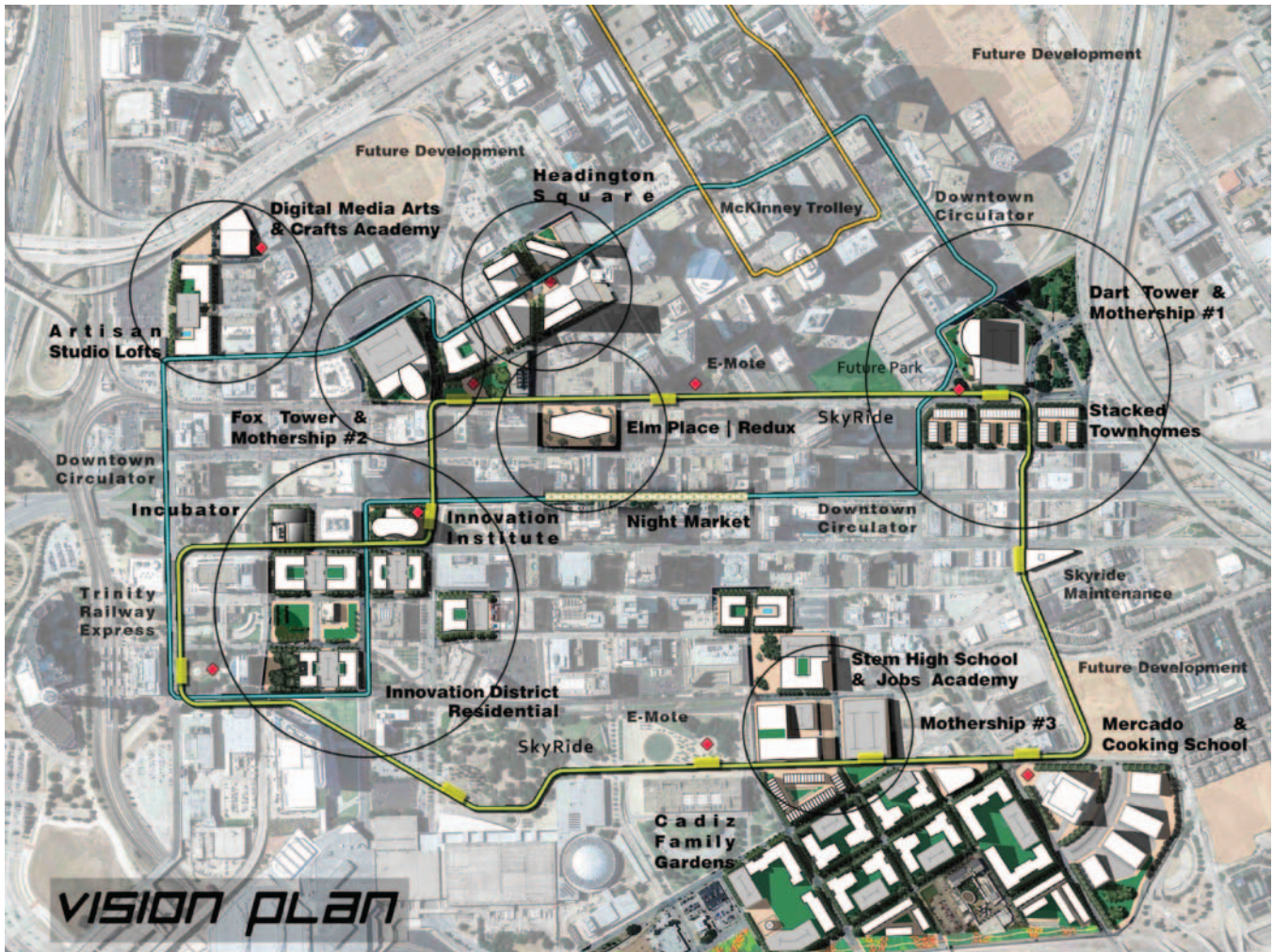
**PROFILE OF LISA
LAMKIN**

**James Adams, AIA,
RIBA**

Passionate for dense urban environments and the people and places that make them thrive, James proudly walks to work in the West End of Dallas daily from his loft in Downtown. At Corgan, he has worked as an architect on a multitude of office, mixed-use and residential projects over the past 10 years. An aspiring writer always looking for good stories, he is the associate editor of content for *Columns*. James has a zest for traveling the world which he hopes to instill in his 5-year-old daughter, Audrey.

URBAN INFILL

Mastering Investment Hurdles and Design Opportunities



ZIMMERMAN, UTA ADVANCED STUDIO

Urban Infill is the opportunistic repositioning of underutilized sites with higher density mixed-uses targeted to specific niche markets. Urban Infill presents unique development difficulties with increased density and re-zoning approvals, feasibility hurdles with expected investment returns, and most importantly, design opportunities to create new architectural profiles, thoughtful open space, and walkable streetscapes. Urban Infill is the premier signal that an area is ready for residential and live-work regeneration.

+ Advantages of Urban Infill

Urban Infill sites offer proximity for living closer to work, avoiding increasing suburban commutes. For obsolete warehousing or light manufacturing sites, prior uses can provide contextual themes for new developments. Infill allows larger footprints and denser residential projects than prior uses, creating a new “Density of Investment” for financial institutions based

upon expected future values. An absorption advantage also exists, as sites are typically under the development radar screen.

- Disadvantages Also Exist

Urban Infill occupies pioneering locations, where security and quality of life perceptions are not always positive. Prior uses may cause environmental uncertainty which affects timeline and financing. Approval thresholds are equally unclear due to re-zoning and increased density necessary for feasibility. Landowners may have unrealistic expectations for site values which can stifle revival that the neighborhood would otherwise enjoy. Hence, cities should consider assisting site acquisitions based on future Tax Increments generated, as existing uses are upgraded to mixed-use, producing higher taxes with portions re-dedicated to site infrastructure.

FAR LEFT: VISION PLAN INFILL SCENARIOS

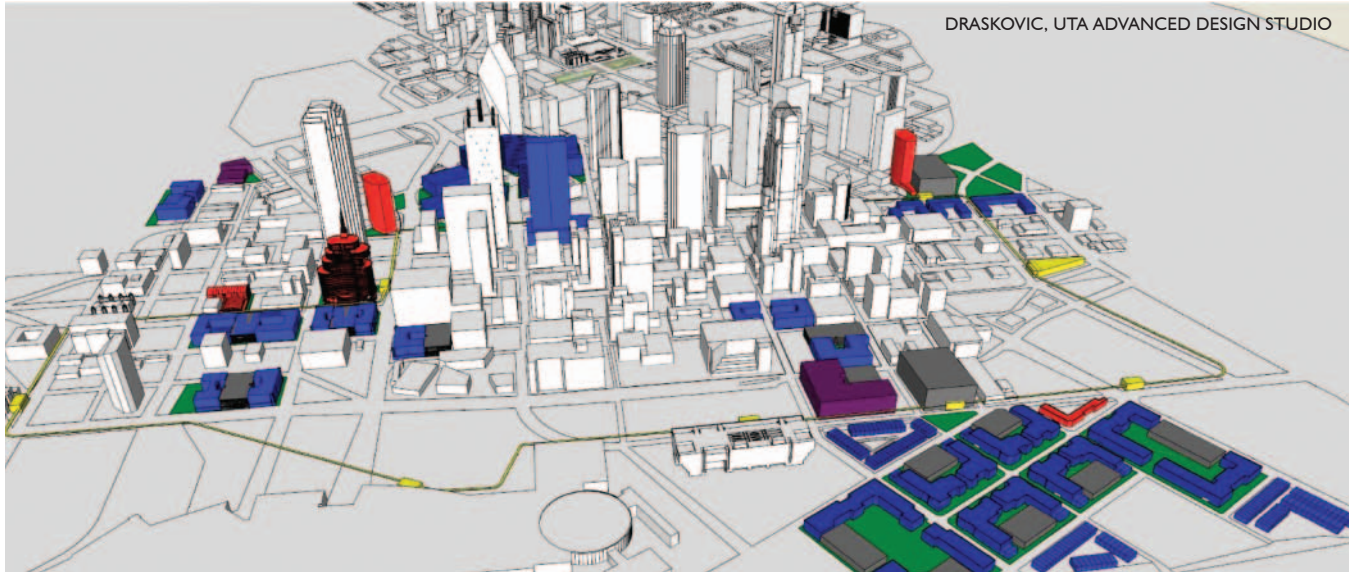
Infill projects can be grouped to form a new urban district with unique image and identity. UTA's Advanced Studio for Fort Worth and Dallas repurposed currently vacant land with Infill uses targeted to specific niche markets. UTA Advanced Design Studio goals are to test feasibility

and the benefits of density, and as such the scenarios are academic exercises, not intended to show consensus with stakeholders or city agencies.

BELOW: DALLAS REGEN—MAPPING NEW URBAN DNA Proposal focuses on re-purposing vacant /underutilized sites connected by a new transit

linkages and residential/retail/learning offerings to create a regionally-definitive, high-density, NextGen Workplace. Infill sites shown in color are connected by a "SkyRide" people-mover, linking three parking "Motherships," each with high-density offices, an incubator, and new residential choices such as micro-lofts,

innovation district workforce housing, and family courtyard units. "Tomorrow's Workforce" educational concepts feature an Innovation Institute, STEM High School and Jobs Academy, with "E-Mote" digital kiosks sponsored by Dallas Public Library scattered throughout.



GONZALES, UTA ADVANCED STUDIO (LEFT AND CENTER)



A. ESPINOSA; MARTINEZ, UTA ADVANCED STUDIO (RIGHT)

LEFT AND CENTER: Dallas Incubator—Shared office collaborative features stick-built over concrete first level garage with barrel vault wood truss

RIGHT: Stacked townhomes allow two units per footprint—ground floor flat, double-height upper floor, and roof decks.



Feasibility Testing

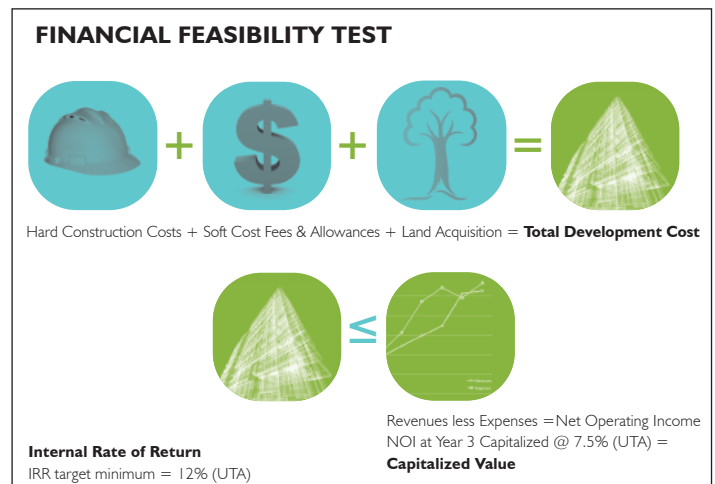
Many architects fail to understand that the "holy grail" for developers is the capitalized value of a project, not its cost. This capitalized value concept is foreign to many architects as they may concentrate on controlling cost alone. Developers also focus on net operating income (NOI), the net revenue after operating expenses, maintenance, and taxes—but not including financing/mortgage charges. Financial institutions also focus on NOI as the source for debt repayment.

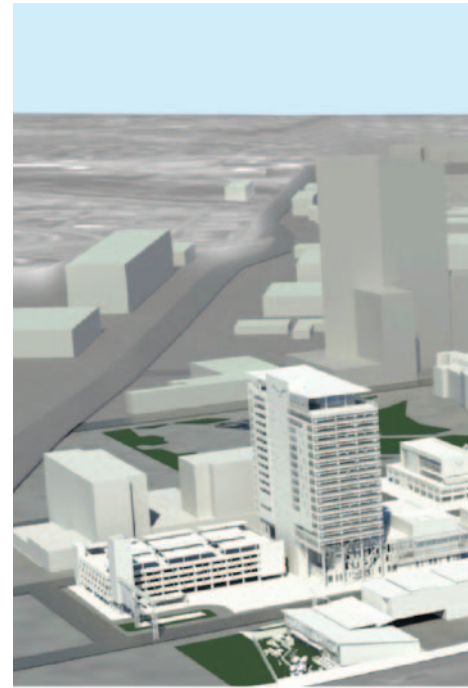
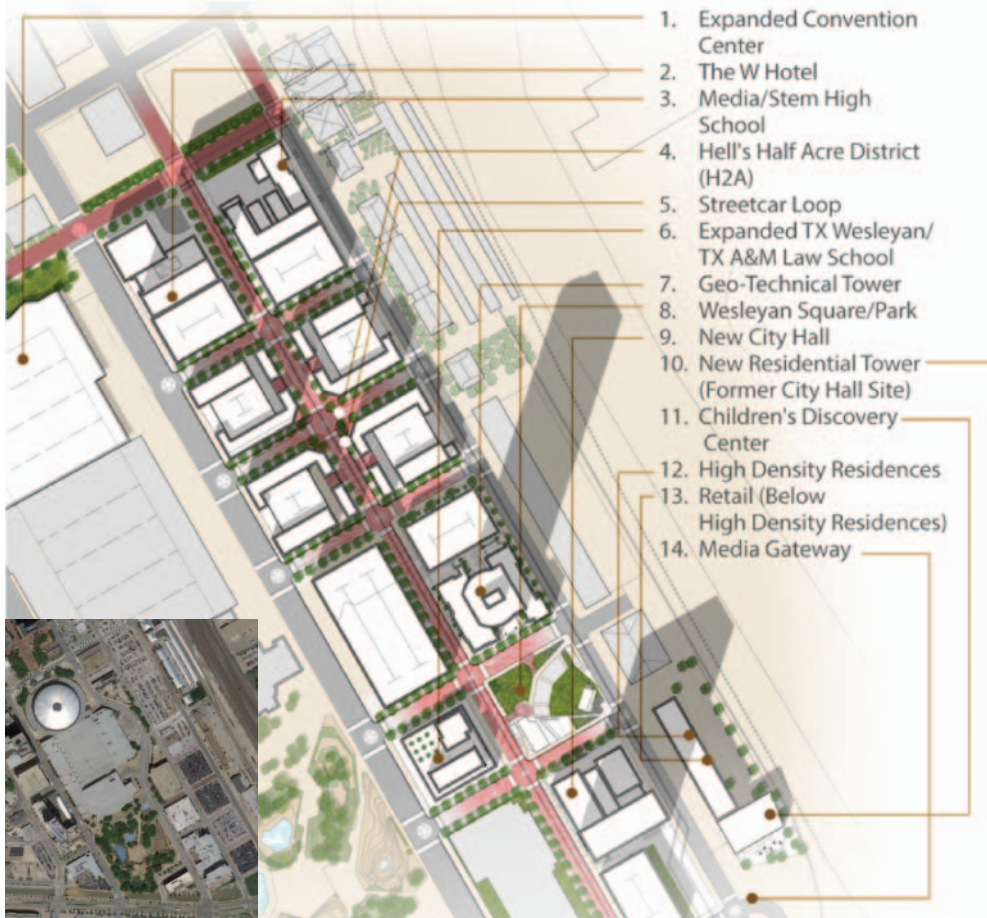
The Advanced Design Studio at the University of Texas-Arlington (UTA) has developed feasibility templates and cash flow models for architects to illustrate NOI over time with discounted cash flow (DCF) spreadsheets. These inflate both revenues and expenses each year over 10 years, and include a hypothetical residual project sale in year 11. Then the annual NOI amounts and residual sale are discounted to present day at an appropriate discount rate (UTA Model uses 8.5%).

The resulting net present value (NPV) is also used in computing the internal rate of return (IRR) which includes mortgage debt (UTA's model set at max 70% loan to cost). IRR is also carefully monitored by developers during design (UTA model threshold feasibility is 12% IRR). Thus,

architect/developer interactions feature two distinct modalities—architects fixated on cost and developers focused on IRR.

Architects should know that the developer's "management of risk" drives development value—and that designers who have an understanding of the risks and revenue potentials of their work will accordingly have more powerful roles in creating better architecture.





The Infill Design Opportunity

Urban Infill allows great flexibility for architects if they understand the developer's financial objectives. Density is the watermark solution for Urban Infill, as shared costs can be spread further and mixed use offers more revenue to afford architectural features, landscaping, and designed open space.

Multifamily is today's favored product, as young professionals eschew suburbia for more engaging urban experiences. Even conservative organizations such as the Pension Real Estate Association have endorsed a "Walkability Premium" of increased value for developments with walkable character.

Most Urban Infill is "stick-built" to conserve costs, providing wood-framed residential over a concrete podium ground floor, with supporting retail as significant revenue source and amenity. Structured parking is the unintended consequence of higher density Urban Infill, as the cost of urban parking is tenfold over that for suburban. Solutions include tuck-under and podium style garages with units built above. These solutions do not improve the streetscape experience and hence parking is a very special

design challenge. Design limitations imposed by stick-built require articulated facades and a "kit of parts" of materials and design vocabularies which adopt existing neighborhood context to achieve visual appeal for the "Walkability Premium" sought.



Putting the "Mix" into Mixed-Use

Urban Infill relies on dramatic transformation of former uses into higher intensity environments, mixing workplace and housing with retail. This requires careful planning as each use has varied mechanical preferences and user systems. Restaurants require kitchen exhaust and solutions to manage deliveries and trash removal far beyond what is needed for residential. Collision of these systems and services within the base building often cause design and configuration conflicts.



Urban Infill Critical Success Factors

Six components define critical success factors with desired attributes and performance standards:

Create Transforming Site/Use Concepts

- Architectural Image
- New District Character

Offer Broader Residential Choices

- Multifamily + MicroLofts
- Stacked Townhomes

Planned Mix of Retail/Foodservice Offerings

- Targeted Tenant Mix
- Food /Fashion/Frivolity

Respect User-Driven Configurations

- Retail Layout/Serviceing
- Parking Adequacy

Design Emphasis on Walkability + Open Space

- Streetscape Quality
- Public + Private Spaces

Advanced Testing of Financial Feasibility

- Identify Market Niches
- Illustrate Target Returns

Best Project Fit

The "best fit" balances compelling site concepts, with niche market support, matched with financial feasibility. This "holy trinity" of concept/feasibility/niche market support is a fundamental litmus test for Urban Infill, particularly for unconventional formats. New architectural profiles must transform perceptions of the pre-existing property. Niche market support must match uses to targeted psychographics, and financial feasibility must demonstrate market rents, with acceptable investor returns.





FAR LEFT, LEFT AND ABOVE: FORT WORTH S. JONES CORRIDOR VISION PLAN
Eight blocks south of currently vacant lots transformed with Infill concepts such as expansion of Texas A&M/Wesleyan Law School; a new Geotech Institute focused on the oil and gas

industry cluster; expanded convention center and new hotel; a workforce residential /retail enclave; and innovative educational facilities for training the emergent workforce, including Childcare/Discovery Center/ Digital Academy / Learning Laboratory

BELOW AND RIGHT: TRINITY LANDING
Vacant site at the edge of Dallas CBD, adjacent to the Design District with excellent highway visibility, offers park-oriented residential multifamily and stacked

townhomes, boutique hotel, ethnic food market Mercado, and a health club/café with access to pedestrianized Continental Bridge—uses which can serve on-site residents, Dallas CBD workers, and the Design District.



J. WALLACE UTA



ABOVE: Park-focused Residential, Hotel with skyline views of Dallas

ABOVE LEFT: Existing Underutilized Site

BOTTOM LEFT: Site Plan with Health Club, Townhomes, Park-oriented MF Residential, Hotel and Mercado

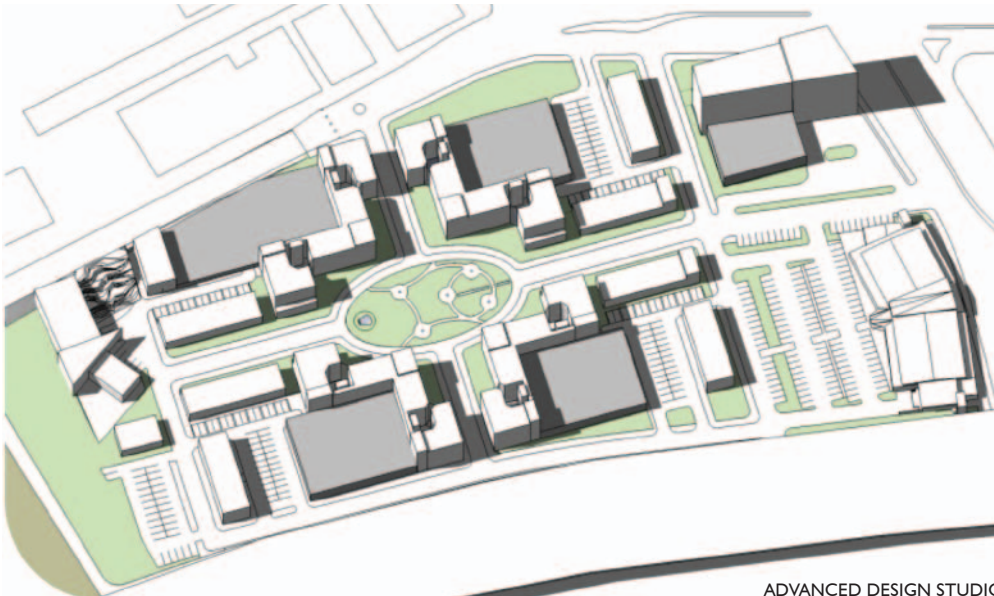


The Big Picture: Reconnecting the Urban Landscape

Urban Infill removes “missing teeth” from the urban streetscape experience and mitigates security concerns with underutilized properties. Increased density allows Tax Increment Financing to justify better landscaped open space and community infrastructure. Urban Infill activates neighborhoods, making them more sustainable and livelier. Unlike suburban development, Infill can use surrounding urban fabric as context. Architects who master design limitations and financial challenges of Urban Infill can create more valuable, authentic, and sustainable places. ■

Michael Buckley, FAIA, is director of the UTA Center for Metropolitan Density.

For information on Higher Density Benefits, Demographics, and Industry Clusters, see UTA Center for Metropolitan Density Research Journals—CfMD #1 for Research Premises and Interim Uses, and CfMD #2 for selected Advanced Studio projects—at www.uta.edu/architecture/research/cfmd.



ADVANCED DESIGN STUDIO

**Psychographics—
The New User Mix**

Infill should address specific market niches and certain psychographic profiles with these characteristics:

- Techies**—technology and media aware; **Nighthawks**—late-night roamers;
- Foodies**—seekers of latest café trends; **Hipsters**—effete seeking edgy experiences;
- Family Values**—family-oriented urbanites; **Learners**—seeking lifelong learning ; **Home Improvers**—décor-oriented;
- Arts/Crafties**—fine arts devotees; **Entrepreneurs**—individual achievers;
- Fashionistas**—latest hot places/objects