

2018 Methodology Statement: City78 Urban Structuring

A City78® White paper

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Contents	Page
Introduction.....	1
History.....	1
Designing the urban spaces of tomorrow.....	1
Determining Quality of Life.....	2
Achieving Higher Urban Productivity.....	2
The 2018 City78 Urban Structuring	3
Products.....	4
User-Generated Built Environment Data Analysis.....	4
Retail Marketplace Analysis.....	4
Projective Land Use and Demographic Forecast Analysis.....	5

Introduction

A direct correlation exists between the design and structure of the built environment and its impact on productivity and the quality of life of urban dwellers. Therefore, in order to enhance urban productivity and achieve a higher quality of life, urban areas must be intentionally structured to achieve better outcomes. The process of structuring urban areas with these goals in mind specifically involves the identification of economic clusters, the determination of appropriate locations and mix of future uses, the understanding of perceptions held by urban stakeholders about the living environment, and the connection of proposed uses to a transit oriented framework and urban plan. To our partners and clients across the nonprofit, corporate and academic spheres, City78 offers area-specific retail marketplace analysis, synthesis of user-generated, community-centric data on the built environment, projective land use modelling (PLUM) and demographic forecast analyses.

History *Designing the urban spaces of tomorrow*

The realization that the shape of the built environment structures the life of the urban dweller is not a new discovery. Nevertheless, events in recent years have confirmed the dangers that result from structuring urban areas around the uses in space, rather than for the users of space. Evidence of this can be seen in the urban structuring adopted post-World War II, which fostered a mismatch of work and living areas by advancing auto reliance and segregation of uses. In order to solve the urban problems resulting from this widespread model of urban structuring, a new, focused approach is needed.

There is currently a large and ever-growing consensus that the users of space should be central to urban design and planning; in other words, it not nearly enough to only ensure that urban systems foster utility, these systems must also enhance the quality of life of urban populations. The result of this people-centric approach is embodied in highly-dense, highly-walkable transit-oriented urban areas, characterized by a mix of uses: the new urbanism.

Determining Quality of Life

While there are various interpretations as to what urban quality of life entails, there is little disagreement over what it is not; extreme sprawl characterized by a mismatch of offices and housing, supported by automobile-reliant transit systems. This form of urban structuring and location of uses has been proven to lead to a number of health problems through enhancing a lifestyle of reduced physical activity while also stretching urban infrastructure and economic resources. In addition, this mismatch of uses also creates an unfavorable economic environment for agglomeration economies, economies of scale and the development of urban economic clusters.

Although economic opportunities, unemployment rates, and income all serve as variables contributing to the quality of life, there are other factors that should be taken into consideration. These other factors can be best understood through Aristotle's description of eudaimonia, or human flourishing. In regards to urban dwellers' quality of life in the urban environment, eudaimonia is the idea that an individual being is able to achieve self-actualization, maintain good health, access pleasures, pursue employment opportunities, involve oneself in the community and consequently fulfil the pursuit of happiness.

We believe the City, shaped through City78's Urban Structuring framework focused on mixed-use, human-centric development, presents an engine to achieve a higher quality of life characterized by general well-being as well as an improved urban productivity for all users of the urban space.

Achieving Higher Urban Productivity

Cities are agents that stimulate innovation, creativity and productivity. As the global economic system becomes ever-more knowledge-focused (the knowledge economy), it is important to foster urban conditions favorable for innovation. These conditions can be achieved by identifying and fostering new and existing urban economic clusters, which have the potential to secure a competitive edge for cities in the knowledge economy, both now and in the future. The concentration of economic clusters leads to agglomeration economies, characterized by a situation in which the co-location of firms further reduces the cost of production, thus generating a large knowledge pool of skilled professionals, fostering knowledge-sharing between firms and reducing transportation costs.

City78 Urban Structuring

City78 Urban Structuring is an iterative process that includes a variety of tools to assess variables associated with achieving higher productivity in living environments and a higher quality of life for urban dwellers. Our methodology is rooted in two fundamental ideas. First, that the users of the living environment are the prime actors in determining the correlates of quality of life. Second, that urban form and structuring best improves urban productivity. These goals are achieved through a model that redefines the framework of participatory planning and directly analyzes urban consumers' behavior through user-generated data, demographic, and city data.

City78's model is further strengthened by the fact that the internet already plays and will play a significant role in the creation of spaces which foster the personalization of the urban experience, organic place identity creation, and the shaping of contemporary urban communities. Smartphones, now a necessity for urban living, connect urban dwellers to real-time information about transit, traffic, health services, location reviews, safety alerts, and community news. Cyber communities, public cyberspaces, and web 2.0 applications further redefine the distinctions between the built environment and the virtual environment. These emerging elements of the 21st century urban space have created a relationship in which the internet contributes to an urban actor's process of sorting through multiple sensory and perceptual information as well as the molding of holistic impressions. While some would attribute these new trends to Millennial methods of interacting with the urban space, the reality as well as the potential of entire societies existing dually online as well as in the physical urban space presents planners with unexplored and ever-evolving methods and methodologies for understanding communities and creating actionable urban solutions.

Products

User-Generated Built Environment Data Analysis

Using advanced data tools, City78 identifies comments and reviews that urban stakeholders have registered regarding the various uses in the urban space. This data is collected and analyzed from Google and other leading review platforms, and is leveraged to extract trends and narratives held by users of the urban space. Through this analysis, City78 is able to diagnose and develop actionable solutions based on emerging trends which are at the intersection of urban dwellers' wants and needs and the elements the built environment that influence such needs. These findings are enriched with additional layers of data, such as demographic trends or zoning analyses of the area of study, which collectively have the potential to create a framework that identifies opportunities which enhance urban productivity and urban quality of life. Part of this is achieved through the identification of economic clusters and by tracking recurring topics and narratives in user-generated data. By employing this approach, City78 is able to capture the reactions of users of space in a way that puts real-time, granular and transparent information in the hands of urban stakeholders and community leaders to help them make informed choices in planning and designing highly-dense, highly walkable transit-oriented urban areas.

Retail Marketplace Analysis

City78's Retail Marketplace Analysis recognizes the potential that exists in an urban market for specific commercial uses, measuring saturation of the current locations, as well as market potential and identifying existing market retail leakage or surplus. Leakage represents a situation where demand exceeds supply, which means retailers outside the market area are fulfilling the demand for retail products; surplus indicates that supply exceeds the area's demand. The result of this analysis is derived from a direct comparison between retail sales and consumer spending by industry and the existing gap between supply and demand.

The Leakage/Surplus Factor of study market areas is represented in a range from “-100” to “+100”. Through this analysis, City78 is able to measure retail activity and present recommendations for the location of commercial uses by NAICS industry classification such as the following:

- Food and drink
- Automotive
- Electronics and appliances
- Health and personal care

Projective Land Use and Demographic Forecast Analysis

A) Commercial Use Modelling

Using models of zoning and land use that advance the ideals and approach of new urbanism, the City78 Projective Land Use and Demographic Forecast model prescribes and forecasts future land use mixes that ensure improved urban productivity and quality of life. The process is achieved by analyzing a variety of socioeconomic factors, demographic trends, market characteristics of specific urban areas, as well as in depth demographic analyses and forecasts. This includes expected population growth/change and recommendations regarding the uses needed to sustain the change in population and expansion in market potential achieved through predictive land use modeling.

B) Office and Residential Use Modelling

City78’s approach to assessing land use models for office and residential uses stem from the need to solve the current mismatch between office and residential locations. Using demographic trends and population forecasts, we are able to determine appropriate future office and residential uses in terms of square footage supported by the market while also determining location advantage.

City78

OUR SERVICE LEVERAGES residents, visitors and travelers' interactions with space deliver our partners with an informed understanding of contemporary urban problems.

WE ARE A TEAM of urban planners, coders and listeners of the urban space. We see the ever-increasing sources of rich community-driven data, combined with traditional government open data, as an opportunity to solve old, yet ever-present urban problems. We believe that building a city around solutions derived from understanding communities, their histories, needs, perceptions and use of space, we can foster equitable, economically sustainable and resilient cities.



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