

International Journal of Development and Sustainability ISSN: 2186-8662 – www.isdsnet.com/ijds Volume 7 Number 2 (2018): Pages 822-835 ISDS Article ID: IJDS18013002



Urban planning inputs in sustainable condominium housing projects in Ontario, Canada

Jacob Adejare Babarinde *

Papua New Guinea University of Technology, Lae, Morobe Province, Papua New Guinea

Abstract

This paper is a scenario analysis designed to critically examine how urban planning inputs during the development process can enhance the sustainability of private condominium housing projects. Due to scathing criticisms against the development control system, the paper contends that urban planners, as development approving officers and public interest specialists operating under the aegis of local planning authorities, are better positioned than allied professionals to increase city sustainability through a holistic development process that benefits from the concept of *strong sustainability* as posited by ecological economists. In terms of methodology, the paper simulates a 56-cell holistic land development model as a tool for achieving an urban planner-led vision of project sustainability, which passes the test of basic investment return-risk tradeoff, and adopts the typical high-rise residential condominium in Ontario-Canada as a scenario. This is supported with secondary data and the author's Canadian experience as an urban planner and licensed realtor with condominium customer service experience across Toronto and Mississauga cities since 2008. Based on findings from two research questions examined, the paper argues that urban planners can seize the opportunity of being leaders of the land development team to synergize the risks and value creation in land development that are key drivers of *strong sustainability*. The paper outlines some policy implications for sustainable condominium housing and for averting disasters like fire hazards and terror attacks in high-rise residential buildings in cities.

Keywords: Urban Planners; Development Process; Development Control; Local Planning Authority; Condominium Housing Projects; Investment Return; Investment Risk; Return-Risk Tradeoff; Sustainability; Ontario

Published by ISDS LLC, Japan | Copyright © 2018 by the Author(s) | This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.



Cite this article as: Babarinde, J.A. (2018), "Urban planning inputs in sustainable condominium housing projects in Ontario, Canada", *International Journal of Development and Sustainability*, Vol. 7 No. 2, pp. 822-835.

^{*} Corresponding author. E-mail address: mysustainabilitygoal@gmail.com

1. Introduction

This paper is essentially a scenario analysis aimed at explaining how urban planning inputs can enhance the sustainability of condo housing projects in the development process. It is an argument that is situated within the domain of the discourse on crime prevention through environmental design (CPTED) (Cozens, 2015). Urban planners can achieve the goal of sustainable building projects for cities as they uniquely hold the key to approving or rejecting development applications. Although the conventional development control system has been used by planning authorities for centuries to regulate the development and use of land (Amos, 1980), there are strong complaints that the complexity of development control is excessively costly and that its sluggish nature stifles initiative (Dissanayake, 1987). As the role of the state expanded, the definition of the 'environment' subject to planning control has changed over time as it now embraces the social and economic consequences of development (Brundtland Report, 1987). Povelopment control on its own has proved incapable of meeting additional demands (Dissanayake, 1987). For example, the veracity of fire disasters and terror attacks involving high-rise condos in recent history makes it compelling for members of the development team, including planners as public interest specialists (Lennon, 2016; Faber, 2008; Meyerson and Banfield, 1955), to have to re-evaluate their contributions to city sustainability. The pains of New York's 9/11 terror attack and London's Grenfell Tower fire of 14 June, 2017, *inter alia*, must not be in vain.

In conceptual terms, the paper gleans from the theoretical lenses of *strong sustainability* as posited by ecological economists, e.g. (Faber, 2008). Supporters of *strong sustainability*, e.g. (Daly, 1991), as opposed to *weak sustainability* supporters, e.g. (Solow, 1997), argue that natural resources and ecological functions are non-renewable once exhausted or destroyed. Therefore, public policy regarding land development owes a fiduciary duty, including duty of care, to the wider ecological world. Land development, strong sustainability and the case study used in this paper are related. The development process can be used as a pedagogical tool to assist planners in understanding the process, risks, and value creation in land development that are key drivers of *strong sustainability*. The paper attempts to answer the following two research questions as a means of contributing to knowledge of the subject:

- i) How can planners add value to a condo housing project during the development process?
- ii) How can we evaluate the sustainability of a condo housing project?

The paper is divided into five sections. Section 1 introduces the research problem, the conceptual framework, and the research questions, while Section 2 presents the research method and model specifications. Section 3 critically examines current planning inputs in condominium housing development in Ontario relative to the typical development process and answers two research questions. In Section 4 the findings are discussed in the context of current planning policy in Ontario, while the concluding section outlines the major policy implications of the paper.

2. Method and model specifications

The paper adopts the real estate development model (Kohlhepp, 2012) to simulate the land development process for high-rise blocks of apartments (condominiums) (Fig. 1) that planners should lead in protecting lives and property from fire disasters and terror attacks.



Figure 1. Various Condo Designs near *Square One* in Mississauga City, Canada (Source: The Internet, 30 January, 2018)

The paper uses a combination of secondary data and author's first-hand site observations as an urban planner and realtor with customer service experience working in ten condominiums across Toronto and Mississauga in Ontario, Canada, between 2007 and 2011, and as an Ontario resident in three different condos between 2006 and 2017. The case study used is the typical high-rise *Standard Residential Condominium* in Ontario, a form of ownership where the title to a unit is held together by a share in the rest of the property, which is common to all of the owners. The Standard Ontario Residential Condo is selected as a case study for two reasons. First, as a citizen of Canada with a family in Ontario, the author is deeply concerned about the worsening affordability of standard high-rise condos in most cities of Ontario Province. Second, the author wishes to sensitize the planning authorities, planners, governments and property developers in Ontario to the potential dangers of fire hazards and terror attacks in high rise residential buildings, particularly following the sad incidence of London's Grenfell Tower fire of 14 June, 2017. What lessons have we learned from such tragedies and how can we prevent a reoccurrence in other cities in the future?

2.1. Model specifications

2.1.1. Holistic development model

According to Kohlhepp (2012), the real estate development model is organized around a 56-cell, fuzzy stagetask matrix (Table 1), which describes the entire real estate development process in seven stages (columns) and eight tasks (rows).

The model allows the developer to create value during the life cycle of a project starting from the land banking stage and ending at the land redevelopment stage. It is contended that this model is analytically superior to the conventional development control apparatus that many planners have criticized as weak. Some tasks in the model are not done in any particular order and many are done simultaneously. A developer must *work down a column* or stage to create value in the process, while a professional (e.g. an urban planner) must identify his/her skills in the task categories and then *work across the row* to determine how s/he fits or profits in the development process (Kohlhepp, 2012).

	1. Land Banking	2. Land Packaging	3. Land Developme	4. Building Developme	5. Building Operations	6. Building Renovation	7. Site Redevelop ment
I.	I. 1.	I. 2.	I. 3.	I. 4	I.5.	I. 6.	I.7
Acquisition							
II.	II.1.	II.2.	II.3.	II.4.	II.5.	II.6.	II.7.
Financing							
III.	III.1.	III.2.	III.3.	III.4.	III.5.	III.6.	III.7.
Market Studies & Marketing							
Strategies							
IV.	IV.1.	IV.2.	IV.3.	IV.4.	IV.5.	IV.6.	IV.7.
Environmental Studies							
V.	V.1.	V.2.	V.3.	V.4.	V.5.	V.6.	V.7
Approvals and Permits							
a. Federal							
D. State							
c. Regional Authorities							
a Privata							
VI	WI 1	WI 2	VI 2	VI A	WI 5	WI 6	WI 7
Improvements	VI.1.	V1.2.	v1.3.	V 1.4.	v1.J.	VI.U.	V1.7.
VII	VII 1	VII 2	VII 3	VII A	VII 5	VII 6	VII 7
Transportation / Accessibility	V 11. 1.	V 11.2.	v 11.3.	v 11.7.	v 11.J.	VII.0.	v 11.7 .
VIII	VIII 1	VIII 2	VIII 2		VIII 5	VIII 6	VIII 7
Sales and Disposition	v 111. 1 .	v 111.2.	v 111.J.	v 111.4	v 111.J.	v 111.0.	v 111./.
bales and Disposition							

Source: Kohlhepp (2012)

2.1.2. Model of project sustainability

In the context of this study, true sustainability ^[1] encourages the responsible use of resources. It involves not only making sure that the business is making a profit through an acceptable level of return on investment, but also that the operation is not creating environmental concerns that could harm the balance of local ecology.

2.1.2.1. Expected rate of return

A general way of viewing the rate of return k required on an investment is that it comprises a risk-free rate k_f and a premium for business risk k_m .

$$k = k_f + k_m$$
 Equation 1

The risk-free rate k_f is a rate of return applicable to an investment whose future returns are unlikely to divert from the expected returns. The return is, therefore, a compensation for forgoing current consumption, while business risk k_m is the risk specific in investing in a given asset. The latter indicates the relative variability of the asset's returns to market returns. It indicates the compensation for the likelihood that future returns may be lower than anticipated. Therefore, k is the required rate of return that reflects compensation for waiting and for the likelihood of less than expected returns. A basic measure of overall or actual rate of return from an investment is expressed as:

Where *R* is the overall (actual) rate of return, *NOI* is the net operating income, and *Value* is the market value of the underlying asset. The expected rate of return may be expressed as follows:

$$\mathbf{E}(\mathbf{R}_{A}) = \sum_{i=1}^{m} \mathbf{R}_{i} \times \mathbf{P}_{i}$$
Equation 3

Where R_i represents the overall return from the *i*th condition; *m* is the number of conditions and p_i represents the probability of the *i*th condition.

2.1.2.2. Investment project risk

To measure risk, investment analysis uses *variance* or *standard deviation*. These parameters measure the dispersion of the expected return around the mean value and provide information on the extent of possible deviations of actual returns from the expected returns. The variance (σ^2) of the mean is given by:

Standard deviation, a percentage change of expected returns, is, therefore, expressed as: ______ $\sigma = \sqrt{\sigma^2}$ Equation 5

Where 6 = Standard deviation

There is the possibility that the expected net operating income (NOI) may not be realised; there are chances that it could be less and that it could be more than the actual or current annual income from an investment project.

3. Findings

In this section, the two research questions posited in Section 2 of the paper are answered using the typical *Standard Residential Condominium* in Ontario as a case study for the first research question and a proxy-scenario for the second research question. This approach helps us to understand how urban planning inputs and sustainability of condo housing projects are related.

3.1. Revised standard residential condominium status in Ontario-Canada

Due to the growth and change in Ontario's condo sector over the past 16 years, Ontario announced a review of *Ontario Condominium Act*^[2] in June 2012, following a collaborative public engagement process. The review recommends, *inter alia*, that condo boards may carry out modifications to the common elements, any assets of the corporation, or services the corporation provides without notice to owners, for example, to ensure the safety or security of those in the condo property or prevent imminent damage to the property or any assets of the corporation.

The newly proposed changes "without notice" enable a condo board to authorize an addition, alteration or improvement to the common elements, a change in the assets, or a change in the service the corporation provides without consulting owners. The requirement not to give any notice to condo owners is significant as this will help forestall red tapes and fast-track urgent implementation of new condo works and repairs. The amendments also broaden the purpose of condo reserve funds to include (i) major repair to units, in addition to the common elements and any assets of the corporation, if a corporation has an obligation to repair units; and (ii) other items and projects set out in the Condo Act's regulations (e.g., energy-saving projects). In addition, the regulations in the Act have set out what constitutes a "major repair".

3.2. A Critique of planning inputs in Ontario condo development process

As hinted earlier, the most important analysis of the sustainable nature of a building project is made when the development is seeking various public approvals and permits prior to the construction of both horizontal (infrastructure) and vertical (building) improvements throughout its life cycle. This is why planners, plan approvals and permits are key aspects of this pursuit.

Research Question 1: A reminder of our first research question: *How can planners add value to a condo housing project during the development process?*

This section is designed to answer the first research question by critically examining how the typical planning authority and planning officials in Ontario are performing their responsibilities of issuing planning approvals and permits under each of the seven stages of the development process (Table 1). While current practices in Ontario generally compare favourably with best international practices, there are still some loopholes that must be plugged.

- a. Land Banking Stage
 - i) The condo developer meets with staff of the City/Municipality for pre-consultation, searches for funds, secures a suitable site and then submits a complete condominium development application for approval. The developer should at this point appoint a planner as project manager, which is not the case at present.
 - ii) The City/Municipality charts the coordinates of the survey plan of the site on the City's Official Plan to confirm the zoning and circulates the completed condominium application to staff and external agencies for internal and external reviews. If the reviews are confirmed as successful by the Development Services Committee (D.S.C) or local planning officials, the Draft Condominium Plan may be approved with conditions, and within 20

days referred to the Local Planning Appeal Tribunal, which now replaces the former Ontario Municipal Board (OMB) for hearing if there is an appeal. The City then prepares the Condominium Agreement (if necessary) and clears conditions of approval. If all goes well, the City issues final release for registration of the condominium and the file is closed. However, the City should then start seriously monitoring the approved plan through regular site inspections (development control) to ensure that the approved plan agrees with site conditions on a daily basis. If any contravention is noticed, appropriate sanctions such as "Stop Work" or "Demolition Notices" must be served on the developer. Against what may be happening in certain jurisdictions, planning authorities should always tie the legal land title to ownership of project plan(s) as a condition for granting planning permission as done in the UK, or ask for deed of transfer of land as a proof of land ownership by the developer.

- iii) Ontario Ministry of Municipal Affairs and Housing should only issue certificate of occupancy after carefully verifying community's support for the project. If there are objections (e. g. by *NIMBY* groups), the applicant may appeal to the new Local Planning Appeal Tribunal, whose decision is final.
- iv) The Federal Government is expected to monitor land acquisitions for project development in the entire country for national security reasons. Towards this end, the Federal Lands Ministry in collaboration with the Ontario Ministry of Municipal Affairs and Housing must always perform security checks before approving the purpose of land acquisition (land banking) for project development. It is also desirable that land acquisition is tied to the national multi-purpose Land Information System (LIS) for national security reasons.
- b. Land Packaging Stage
 - i) The condo developer should seek further advice from the project manager (a planner) on land planning and zoning issues and from lending experts on project financing; obtain professional advice on project feasibility/viability and risk-return trade-off from real estate appraisers; and complete site environmental studies.
 - ii) It is only after completion of these investigations that the City/Municipality may approve land packaging proposals and issue occupancy permit. The city may also determine at this stage if a draft condo development application must go to the Development Services Committee (DSC) for review.
 - iii) With due respect to fairness and equity when private property rights are affected, Ontario Ministry of Municipal Affairs and Housing may review the project's zoning or rezoning status relative to other vacant lands in the city (public lands, First Nations' lands and privately-owned lands) based on the zoning by-law.
 - iv) Federal Government may approve the EIA Report and consider other federal issues related to the condominium project. EIA should always remain a federal issue for national security reasons in this era of terrorism.
- c. Land Development Stage
 - i) The condo developer must seek audience with the planning authority for plan review where site conditions compel minor alterations to the approved plan; obtain short-term

bank loan(s) and agreements on restrictive covenants, easements and development charges.

- ii) The City / Municipality must continue to closely monitor site activities to ensure that the approved plan is strictly followed by the main contractor and sub-contractors.
- iii) With public participation, Ontario Ministry of Municipal Affairs and Housing may approve community transportation plans pertaining to the site; verify EIA report; and undertake project clearance for piped water, electricity, telephone and sewerage services. It is unhealthy for city residents living in some condos to be peripherally served with mass transit buses. This detracts from city sustainability.
- iv) The Federal Government may have no direct involvement in the land development stage and in the subsequent stages of the development process, except where the project is owned by it or any of its agencies operating in the province.
- d. Building Development Stage
 - i) Contrary to what happens presently, the condo developer must provide planner-led project management services and seek timely audience with the planning authority for plan review where necessary. S/he may obtain long-term bank loan(s).
 - ii) The City / Municipality must ensure that the approved plan is implemented using resilient green building technology and crime/terror-proof materials; conduct frame inspections and regular site inspections; and evaluate progress on site relative to the approved plan.
 - iii) Ontario Ministry of Municipal Affairs and Housing can now resolve outstanding building permit matters, including litigations. Fire Authority must issue fire certificate and disabled access clearance.
 - iv) Against current practice, the project architect's certificate of building completion cannot be issued to the condo developer until authorized by the planning authority.
- e. Building Operations Stage
 - i) Unlike current practice, condo developers must continue to provide planner-led project management services until a Condo Board takes over after reimbursing the owner the full cost of developing the condo using the proceeds of condo sales. A certificate of project's compliance with all building, planning and environmental regulations must be obtained and residents' and neighbours' complaints about the building's operations resolved to avoid litigations and disasters. Eventually, the Condo Board will take ownership of the project, but it must immediately open a Condo Reserve Funds account.
 - ii) The City / Municipality must regularly revalidate fire rating approval; conduct regular site inspections; and perform regular condo performance assessments that are currently not a priority in many condos. This was one major public criticism against the operators of the ill-fated London's Grenfell Tower.
 - iii) Ontario Ministry of Municipal Affairs and Housing must revalidate the certificate of project completion earlier issued by the architect and ensure that the developer obtains an insurance cover for the entire building. The project must be insured for the full reinstatement cost of all improvements and equipment on site, which must be regularly verified by the Ministry.

f. Building Renovation Stage

- i) Some condo owners tend to downplay the reality that renovation will ultimately become necessary at the end of a building's economic life due to depreciation. Planning authorities should issue red alerts for timely renovation works for which necessary approvals and permits must be obtained and enforced.
- ii) The City / Municipality must exercise due diligence in issuing planning consent for renovation; conduct frame inspection; issue occupancy permits; conduct regular site inspections during and after the renovation; and perform periodic condo performance measurements. All residents' and neighbours' complaints about the condo's past operations must be resolved to avoid litigations and possible disasters.
- iii) Ontario Ministry of Municipal Affairs and Housing may extend or renew the building lease if the old one is deemed to have expired; revalidate the survey plan to confirm that there are no land disputes; and issue planning consent authorizing the renovation, which must comply with all fire and crime (terror) prevention regulations.
- g. Site Redevelopment Stage

The site redevelopment stage is essentially a repeat of Stage 1 (above) as the project is now a new development that must pass all the previous tests for approval all over again. No assumptions should be made regarding the suitability and legality of the land and building(s) to be redeveloped on the same site as many elements of the old condo project may have changed over time.

Research Question 2: A reminder of our second research question: *How can we evaluate the sustainability of a condo housing project?* To answer this question, we have adopted a proxy-condo scenario as follows:

Habitat Developers Ltd., a risk-averse condominium developer, is proposing to develop a block of 80 apartments in Mississauga City, Ontario, Canada, subject to planning permission being granted by the Municipality. Construction will gulp \$19.5 million and land can be secured at an extra cost of \$1.5 million. Market analysis reveals that the completed development will sell for \$24 million at the end of a 3-year holding period. It is anticipated that vacancy rate will be 5% per annum while operating expenses will be 40% of the gross potential income per annum. The developer requires an investment return of 12.97% and needs professional advice.

3.3. Analysis

Step 1: What are the minimum annual and monthly rents per apartment to make the project viable?

Capital Value = Present Value of \$1 p.a. x NOI + Present Value of \$1 x Net Sale ... Equation 6

Where: NOI = Net Operating Income; and

PV p.a. = Present Value of \$1 per annum = 2.36

PV of \$1 = Present Value of \$1 = 0.69

Net Operating Income = Potential Gross Income – Vacancy – Operating Expenses ...Equation 7

= 80 (Rent) - 0.05(80)(Rent) - 0.4(80)(Rent)

= (1 – 0.05 - 0.4) Rent x 80

= 44 (Rent)

Therefore, Value (V) = 2.36 x (44)(Rent) + 0.69 (24,000,000)

21,000,000 = 103.84(Rent) + 16,560,000

103.84(Rent) = 21,000,000 - 16,560,000 = 4,440,000

Rent = \$42,758 p.a. or \$3,563 per month per apartment.

It is contended that any rental value below \$42,758 p.a. or \$3,563 per month per apartment will render the housing project unviable. This may happen if the project's development application has been poorly processed by the planning authority for planning permission or is wrongly located or poorly executed during the construction stage.

Step 2: What is the Actual Rate of Return (ARR) on the investment?

Actual Rate of Return = Net Operating Income/Capital Value x 100% Equation 8

 $= \frac{80 \times 12 \times 3,563}{21,000,000} = \frac{3,420,480}{21,000,000}$ = 0.1629 = 16.29%

Step 3: What is the Expected Rate of Return on the Investment?

Two assumptions are necessary. First, three statistical probabilities (e.g. 15%, 45% and 25% for the pessimistic, normal and optimistic rental conditions respectively) are assumed. Second, an assumption that the annual rental estimate will increase or decrease by a certain amount (e.g. \$30,500 p.a.) is necessary in response to consumer demand, supply of comparable blocks of apartments in the locality and quality of services offered by the project (Table 2).

Capital Value	Net Operating Income (NOI)	Market Condition	Actual Return (R _i)	Probability (P _i)	R_iP_i
21,000,000	K3,389,980	Pessimistic	0.1614	0.15	0.0242
21,000,000	K3,420,480	Normal	0.1629	0.45	0.0733
21,000,000	K3,450,980	Optimistic	0.1643	0.25	0.0411
Expected Rate of Return				E(RA)	0.2483 or 24.83%

Table 2. Estimation of Expected Rate of Return

Step 4: The last step of the analysis is the estimation of the Variance and Standard Deviation as shown in Table 3.

Probability (Pi)	Actual Return (R _i)	PiRi	R – (ERA)	[R – (ER _A)] ²	[R - (ER)] ² x P _i
0.15	0.1614	0.0242	-0.0869	0.00755	0.001133
0.45	0.1629	0.0733	-0.0854	0.00729	0.003281
0.25	0.1643	0.0411	-0.0840	0.00706	0.001765
				Variance	0.006179
					√ 0.0062
Standard I	Deviation (S	D) or Squar	e Root of Vari	ance (σ)	= 0.0787
					or 7.9%

Table 5. Estimation of variance and standard Deviation

The standard deviation is the square root of the variance. A low standard deviation below 0.5 indicates that the data points tend to be close to the mean (also called the expected value or expected rate of return in this case) of the set, while a high standard deviation indicates that the data points are spread out over a wider range of values. Therefore, the return–risk ratio (sustainability) for this condo project may be calculated as follows:

Sustainability = $E(R_i)/\sigma_i$ Equation 9

= 0.2483/0.0787 = 3.16 or 316%

That is, for every unit of risk inherent in the condo housing project, the developer can achieve a return of 3.16 or 316 per cent. This is a good and positive indication of the viability or sustainability of the project, made possible by the fact that the project has been granted unconditional planning permission and subjected to orchestrated supervision by the planning authority throughout the development process. On the other hand, a similar project without planning permission will obviously lack functionality and good quality that are prime drivers of project viability and sustainability.

4. Discussion

Successful real life adaptation of the condo development model simulated in this paper depends on the efficiency of the legal framework for urban planning in Ontario, under the aegis of the Ministry of Municipal Affairs and Housing. The vision of the Ministry is to ensure that towns and cities in Ontario Province become place-making centres with well-designed, well-planned and smart communities that are capable of attracting jobs and sustainable investment opportunities where municipalities are given responsibilities for making cost-effective land use planning decisions. Towards this end, the Ministry takes full responsibility for identifying and protecting provincial interests and promoting sound infrastructure planning, environmental protection, economic development and safe communities.

However, following series of public criticisms against the planning system in the province, including some of the challenges identified in this paper, the Provincial Government approved a new legislation in 2017 tagged, "The Building Better Communities and Conserving Watersheds Act, 2017; to overhaul Ontario's land use planning and appeal system by creating the Local Planning Appeal Tribunal, which now replaces the Ontario Municipal Board (OMB). This Act was a sequel to a review of the scope and effectiveness of the Ontario Municipal Board (OMB) launched by the Ontario Government in June 2016. The review, which included extensive public consultations across various communities in the province, resulted in significant changes to Ontario's land use planning and appeal system that also have implications for the *Ontario Condominium Act*, 2012^[2] already examined in this paper. The guiding principles, which helped in framing the OMB Review included: protection of long-term public interests; maintenance or enhancement of access to dispute resolution; provision of transparency in hearing appeal processes and decision-making; and minimization of adverse impacts of the review on the court system. Without the OMB review, the purpose of this paper focusing on how urban planners may be used to increase city sustainability through the development process would be an illusion.

5. Conclusion and policy implications

The central thesis of this paper is that, as an experimental scenario, the holistic real estate development process (Kohlhepp, 2012) can be used to synergize development control and advance a role for planners as chief promoters of *strong sustainability* in cities. As planners hold the key to approving or rejecting development applications during the development process, they can perform two major roles. First, they can guide any city in averting disasters in high-rise residential buildings through careful approval of design and construction techniques for sustainable development and green buildings. These are best appreciated by society in the context of the life-cycle of the building, rather than at the beginning of building construction or renovation as conventional development control does. Second, and as a sequel to the first, planners can proactively lead other members of the development team in planned prevention of fire disasters and terror attacks in buildings.

The paper selects the *Standard Ontario Residential Condo* as a case study, in addition to answering two research questions, to demonstrate critically how planners and planning authorities can increase city sustainability by providing leadership in the seven-stage land development process. The first research question seeks to examine how planners can add value to a condo housing project during the development process. Findings indicate that planners and planning authorities can achieve this goal by enforcing strict compliance with planning standards and building regulations by property developers on a city-wide scale, throughout the seven stages of the development process representing the life cycle of buildings. The second research question attempts to evaluate the sustainability of a condo housing project. It does so by analyzing the return-risk ratio of a hypothetical condo housing project in Ontario. Findings indicate that if a condo project has been granted unconditional planning permission and subjected to orchestrated supervision by the planning authority throughout the development process, there is a high probability that the finished project will be functional, efficient and capable of attracting the highest return possible under the highest and best use

(HBU) to make the project economically viable and sustainable. Such a project will also tend to have a favourable return-risk ratio, which is a good indicator of sustainability that can be replicated across the whole province and country. The key policy implications of the paper are as follows:

- i) *Holistic Involvement of Planners in the Development Process:* Planning Authorities will have to overhaul the current development control system, which only focuses on a few stages of the development process. Instead, planners must play a leading role in a new-style development control that spans the entire life cycle of buildings.
- ii) *Power Balance and Dispute Resolution:* Effective post-development management of highrise residential (condo) properties depends on power balance between condo boards and owners/tenants. The good news is that the Condo Act of 2012 has corrected the old imbalance by providing a faster, more effective, less expensive and fairer dispute resolution process. Planners must play a strong role in this amended policy.
- iii) *Green Building Construction Strategies and Disaster Prevention:* Planning Authorities must proactively enforce fire-resistant and energy-saving strategies in condo development. These include safe ingress and egress routes, fire doors, green building technology and a functioning fire alarm system that is remotely connected to local fire stations for rapid consumer protection and smooth evacuation in case of danger. Every high-rise residential building must conduct periodical fire drills for all occupants, while fire systems should be inspected regularly and certified as functional.
- iv) *Long-term Site inspections by Planning Officials:* Planning Authorities must obtain a register of all condos and other high-rise buildings in their areas of jurisdiction and use it to prepare a Rota for conducting long-term site inspections by building inspectors and engineers throughout the buildings' life cycles. They should collaborate with the Property Manager, the Condo Board, the residents and the Concierge of each condo for daily exchange of useful information 24/7 that can help in nipping disasters in the bud.
- v) *Due Diligence*: During and after the processing of development applications, planners and planning authorities must exercise due diligence when dealing with developers and utility agencies. Sanctions must be applied against any development application that cannot provide sufficient evidence of adequate facilities having been provided in building plans and on building sites to prevent unnatural disasters from happening.

Finally, Planning Authorities and planners must develop a proactive approach to turn building approvals and permits into activities that permeate the whole life cycle of high-rise buildings. They must prevail on professional condo managers to avoid negligence in selection of condo owners/buyers, tenants and visitors with links to extremism. Corruption in the land development industry as a whole should be probed by the Ontario Ministry of Municipal Affairs and Housing. Above all, planners should stand up and defend their worthy mandate as public interest specialists.

Acknowledgment

The author is deeply grateful to the Managers, Supervisors and Boards of the various condominiums where he acquired professional-customer service experience, for their kind support and cooperation in allowing him to

learn first-hand what can hardly be learned from textbooks on condominiums. The experience spurred the author's interest in this paper.

Conflict of interest

The author declares no conflict of interest.

References

"Sustainability", available at: http://www.wisegeek.org/what-is-economic-sustainability.htm (accessed 20 January, 2018).

"The Ontario *Condominium Act* 2012" is an outline of the changes to Ontario's condo laws, available at: https://www.ontario.ca/page/condominium-law-changes (accessed 8 January, 2018).

Amos, F.J.C. (1980), "Development Control Reappraised", in University of Birmingham (Ed.), *Value for Money in Development Control*, University of Birmingham, Birmingham, UK, pp. 1-4.

Brundtland Report (1987), "Our Common Culture", Report of the World Commission on Environment and Development, available at: http://www.un-documents.net/wced-ocf.htm (accessed 6 January, 2018).

Cozens, P. (2015), *Think Crime! Using Evidence, Theory and Crime Prevention through Environmental Design (CPTED) for Planning Safer Cities,* Praxis Education, London, UK.

Daly, H. (1991), Steady-State Economics, 2nd ed., Island Press, Washington, D.C.

Dissanayake, L. (1987), "Effectiveness of the development control system for the city of Colombo, Sri Lanka", working paper, No. 36, available at: https://www.bartlett.ucl.ac.uk/dpu/publications/latest/publications/dpu-working-papers/WP36.pdf. (accessed 2 January, 2018).

Faber, M. (2008), "How to be an ecological economist", *Ecological Economics*, Vol. 66 No. 1, pp. 1-7, Preprint.

Kohlhepp, D.B. (2012), "The Real Estate Development Matrix", in *American Real Estate Society (Ed.)*, *Proceedings of the American Real Estate Society Meetings in St. Petersburg, Florida, USA, 2012*, American Real Estate Society, USA.

Lennon, M. (2016), "On 'the subject' of planning's public interest", *Planning Theory*, Epub ahead of print, DOI: 10, 1177/1473095215621773, Google Scholar.

Meyerson, M. and Banfield, E. (1955), "Politics, Planning, and the Public Interest: The Case of Public Housing in Chicago", Free Press, New York, NY, Google Scholar.

Solow, R.M. (1997), "*Georgescu-Roegen versus Solow-Stiglitz*", *Ecological Economics, Science Direct*, Vol. 22 No. 3, pp. 267-68.