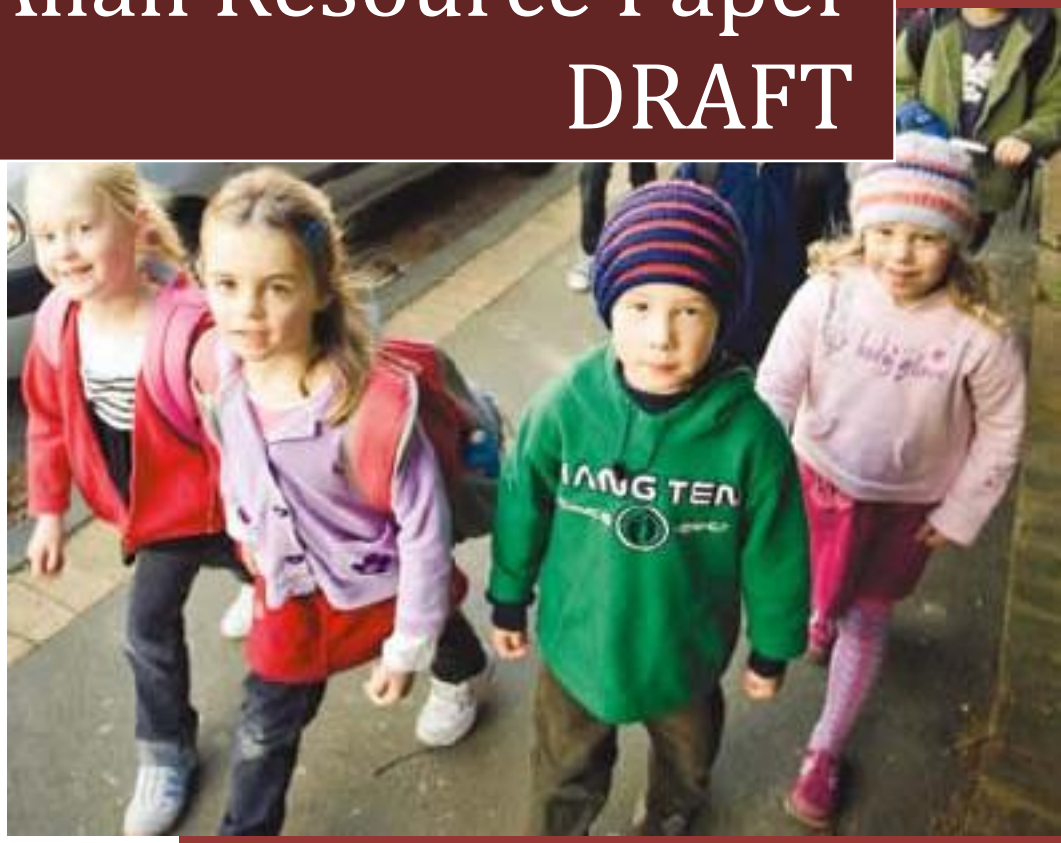
Dalewood Accommodation Review Committee

George R. Allan Resource Paper DRAFT



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For:
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March, 2011

With contributions from:

Disclaimer and Disclosure:

The opinions expressed in this paper are of the Author alone, and do not represent the position of McMaster University on any of the issues discussed herein. The Author is a resident of the Dalewood Area and has two children who attend George R. Allan School.

Executive Summary

- Hamilton-Wentworth District School Board approved on January 24, 2011, an accommodation review of schools in the Dalewood area of Hamilton. The review includes George R. Allan Elementary, located in the core of Westdale.
- Accommodation reviews are periodic assessments of facility utilization across the Board, attending to aging infrastructure and changes in enrollment demand. These reviews aim to improve the allocation of resources to better support the mission of the Board which is to provide value to students, communities, and the local economy.
- Westdale is an older, well-established neighborhood in the city of Hamilton, with a stable population that is socially diverse.
- Originally conceived as a planned neighborhood, Westdale is a once and future transit village.
- Educational institutions are an important element of Westdale, culturally and historically: "A neighborhood built with books and mortar".
- School board projects a stable area-wide level enrollment in the Dalewood schools, but a dramatic decline for Westdale's elementary school.
- However: independent demographic projections indicate that the population of Westdale will remain stable over the next three decades, at greater than 6,000 residents.
- Also: inspection of Census population data shows that over the past two decades Westdale has become a younger community relative to the city of Hamilton, with a stable school-aged population.

Glossary

Accommodation Review Committee (ARC):

Active Travel (AT):

Average Daily Enrollment (ADE):

Human capital:

Peak oil:

Ped Shed: Also called Walkable Catchment.

School Information Profile (SIP):

Social capital:

Sustainable development:

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Introduction

On Monday, January 24, 2011, the Hamilton-Wentworth District School Board (HWDSB) approved the initiation of an elementary accommodation review of students in the Dalewood Area of Hamilton, Ontario. This area includes two elementary schools: Prince Philip and George R. Allan, and one middle school: Dalewood. Accommodation reviews are part of a periodic process of reassessment designed to ensure that available School Board space is used efficiently, attendant to aging facilities that may be prohibitive to repair and changes in demand for enrollment. The Board's commitment is to create innovative learning environments that support student achievement.[1] The working assumption is that accommodation reviews support the School Board in meeting this commitment by facilitating the efficient allocation of resources.

An accommodation review begins with the approval of the School Board. It calls for the constitution of an Accommodation Review Committee (ARC). According to the terms of reference,[2] the voting members of the Committee are selected from the various constituencies as follows:

- HWDSB staff: One principal and one teacher not associated with schools in the area.
- Students: Two student leaders from outside the review area.
- Public school supporter community leaders: Two members appointed by the Parent Involvement Committee, not directly associated with schools in the review area.
- Parent Representatives: Two parent representatives from each of the schools in the review area.

In addition to the voting members, the Committee also includes the following non-voting members: Area Superintendents of Education, Area Trustees, Area Ward Councilors, one Principal, one Teacher and one Non-teaching Staff from each of schools in the review.

Parent representatives for George R. Allan Elementary School were selected on March 9, 2011, after an initial call for nominations issued on February 28, 2011, with a deadline for receiving nominations set to March 4, 2011. This period did not coincide with any scheduled meetings of the School Council or the Home and School Association. Presumably other schools in the area operated under similar timelines to nominate representatives. In the case of George R. Allan, the School Council also approved the formation of a GRA-ARC Sub-Committee to provide an interface with parent representatives. It is possible that other schools have also made provisions to similarly liaise with, and support their representatives. Several members of the ARC appear *ex-officio* and are not subject to election for the Committee (e.g. Trustees, Councilors). The selection of public school supporter community leaders has not been announced as of March 28, 2011. The initial meeting of the ARC is scheduled for April 6, 2011.

The mandate of the Accommodation Review Committee, according to its terms of reference, is to produce a report to the Board encompassing the following items:

[1] Ken Bain, Associate Director of Education, HWDSB: Letter to Dalewood Review Area Parents, January 25, 2011 (http://www.hwdsb.on.ca/arcelementary/?page_id=136; accessed on March 28, 2011).
[2] Terms of Reference: Elementary Pupil Accommodation Review Committee – Dalewood Review Area (http://www.hwdsb.on.ca/arcelementary/?page_id=34; accessed on March 28, 2011).

- Accommodation: recommendations to maximize the utilization of facilities, with a target 100% utilization for a future ten-year period.
- Facility condition and funding: recommendations for capital improvements and development of funding strategies.
- Program: recommendations about strategic locations of programs (e.g. French Immersion, Special Education).
- Transportation: recommendations to address the implications for student transportation.
- Implementation: recommendations for timelines to implement other recommendations.

The reference criteria for fulfilling the mandate of the Committee include:

- Maximization of facility utilization over the long-term (i.e. 10 years).
- Minimization of non-permanent accommodations for the long-term.
- Range of program offerings.
- Quality of the teaching and learning environments.
- Transportation policy implications.
- Opportunities for development of partnerships.
- Equity status, in terms of accessible facilities, accessible schools, and accessible programs.

Recommendations to the board can vary in scope and impact, and include, but are not limited to, school closures, new school construction, permanent additions to existing facilities, non-permanent additions, and partial decommissions.

Recommendations must be supportive of the core mission of the Board, which is to generate value to students as a priority, and also value to the School Board, to the community, and to the local economy.[3]

The concept of value is defined operationally in specific, but fairly narrow terms, in public documents pertaining to the Dalewood ARC. Some key terms remain undefined. Community for instance, is not clearly defined, but from the context the term appears to refer to the geographic catchment area of the schools. This definition goes against the grain of contemporary views on the nature of communities, not simply as geographically co-located individuals, but as networks of neighbors. The links between built environment, in particular the layout of streets in urban areas, and the emergence of communities have been documented.[4] In the case of Hamilton, there is evidence that the presence of major thoroughfares in the Dalewood area (particularly Main Street West) conspires against the notion that the Board-defined catchment area is a community in any meaningful social sense.[5] Definition of "communities" as "catchment areas" is problematic because it ignores basic sociological mechanisms that regulate the perception of community by its constituent members.

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[3] School Profiles (http://www.hwdsb.on.ca/arcelementary/?page_id=34; accessed on March 28, 2011 and April 21, 2011).

[4] Pioneering theoretical work and empirics from California are due to Rick Grannis, 2009. From the Ground Up: Translating Geography into Community through Neighbor Networks. Princeton University Press: New Jersey.

[5] Kate Whalen, Antonio Páez, Chandra R. Bhat, Md Moniruzzaman, Rajesh Paleti, 2011. *T*-communities and sense of community in a university town: Evidence from a student sample using a spatial ordered-response model. Urban Studies, forthcoming.

To understand the implications of a spatial reorganization of the schools in the Dalewood area, especially as it pertains to George R. Allan Elementary, members of the ARC and the community at large may wish to consider a more holistic view of the value of schools. A ruling principle in the context of a public school system must be the contributions of schools to the public good.

Accordingly, the primary value of schools for students in the immediate and long term is to provide a pathway to academic achievement – in and of itself an important goal for personal fulfillment, and increasingly also a condition to individual financial success. In addition, schools are also key elements that shape the social experience of children, including social connections and the normalization of behaviors.[6]

Value to the community includes such tangibles as public facilities that support a wide range of academic and extra-curricular activities (e.g. after-school programs, community meetings, etc.), and also intangibles including the generation of social capital.[7] In a very real sense, schools generate value for the community through the capitalization of school accessibility and quality into housing values.[8] Property taxes, in turn, are a key source of revenue for public services, including schools.

Based on the school profiles, it is clear that the Board sees the value of a school to the local economy as consisting exclusively of the percentage of jobs the school contributes to the community (see School Information Profile Item 18). This measure is of questionable value in an urban environment, where school employees are likely residents of different communities, even in the most elemental geographical way. Furthermore, the number of school-related jobs is but a minuscule fraction of the economy. In 2005, according the Statistics Canada, the total work activity in the Westdale area included 8,260 full time jobs, of which 2,430 were related to the social sciences, education, government services, and religion. In contrast, according to its School Information Profile, George R. Allan employs about 34 people. The percentage of local jobs related to the school is negligible, and by this criterion, the impact to the local economy of a school, or contrariwise its absence, is vanishingly small. This narrow criterion, however, ignores all evidence to the effect that schools contribute to the local economy at many different levels, not just as employers. Regionally, schools provide the kind of formal education that helps to establish learning regions, attractive places for residents, businesses, and visitors.[9] Schools contribute to the generation of human capital[10,11] necessary to support entrepreneurship and employment growth.[12] More locally, schools also generate traffic that contributes to support

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[6] Claire Freeman, 2010. Children's neighborhoods, social centres to 'terra incognita'. Children's Geographies, 8:2, 157-176.

[7] Jose M. Bolivar and Janet H. Chrispeels, 2011. Enhancing Parent Leadership Through Building Social and Intellectual Capital. American Educational Research Journal, 48:1, 4-38.

[8] Hoon C. Chin and Kok W. Fong, 2006. Influence of School Accessibility on Housing Values. Journal of Urban Planning and Development, 132:3, 120-129.

[9] E.J. Malecki, 2004. Jockeying for position: What it means and why it matters to regional development policy when places compete. Regional Studies, 38:9, 1101-1120.

[10] Antonio Ciccone and Elias Papaioannou, 2009. Human Capital, the Structure of Production, and Growth. The Review of Economics and Statistics, 91:1, 66-82.

[11] Wolfgang Lutz, Jesus Crespo Cuaresma, and Warren Sanderson, 2008. The Demography of Educational Attainment and Economic Growth. Science, 319:5866, 1047-1048.

[12] Z.J. Acs and C. Armington, 2004. Employment growth and entrepreneurial activity in cities. Regional Studies, 38:8, 911-927.

small businesses and commercial establishments such as coffee shops, eateries, stationery stores, and so on, and thus help to sustain the local economy.

The notion of value to the Board is, if anything, more nebulous, since the Board exists to serve the public: students, communities, and the local economy. A reasonable supposition is that in this context the Board refers to the capital value of infrastructure, and any and all concomitant financial obligations – which are ultimately borne by the public.

Given the patent importance of schools to communities, even by the narrowest of criteria, the School Board establishes that public consultation must be at the heart of the accommodation review process.[13] Public consultation can contribute to robust decision making by providing legitimacy, transparency, and accountability. Participation from different members of the public is embedded in the formation of the Accommodation Review Committee, which as noted above includes members from different constituencies. Furthermore, the Board establishes that the review must be conducted in public, including specifically designated public meetings[14] where members of the community not actively involved in the Committee can participate, question, and provide input into the process.

Public participation is increasingly common in all spheres of public policy. As decisions become more complex, consultation processes "require a more informed citizenry that has weighed the evidence on the issue, discussed and debated potential decision options, and arrived at a mutually agreed upon decision or at least one by which all parties can abide."[15] Two key principles are used to evaluate public participation methods: *fairness* (the distribution of opportunities to act meaningfully in all aspects of the process) and *competence* (access and interpretation of information required to develop appropriate levels of knowledge and understanding of the issues). The School Board has already taken important steps to ensure representation in the Committee, and has publicly released relevant information about the process and procedures, thus giving an opportunity to all members of the public to become involved. The Board has thus made substantial progress in terms of establishing the fairness of the process. On the other hand, the Board has been less supportive in terms of creating the conditions necessary for other interested individuals to achieve a reasonable value of competence. Information has been released on short timelines, is often difficult to find, or is not properly documented. The Board may, or not, improve in this aspect as the process advances. However, for public consultation to be meaningful, it now behooves each individual member of the community to be informed, to weigh the evidence, and to discuss and debate potential decision options. In other words, it is the responsibility of the public to achieve an adequate level of competence, to effectively act as an informed participant of the decision making process, by generating useful information, or by requesting and obtaining it from the School Board.

The objective of this resource paper is to contribute to the effectiveness of the public consultation process surrounding decisions about schools in in the Dalewood area. Specifically, it provides information that any interested participant in the process can consult to understand the issues and the implications of decision options. The paper seeks to clarify at least some relevant

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[13] Ken Bain, 2011, *ibid*.

[14] The public meetings dates are: April 6, 2011; May 19, 2011; September 14, 2011; and October 19, 2011 (http://www.hwdsb.on.ca/arcelementary/?page_id=34; accessed on March 29, 2011)

[15] Julia Abelson, Pierre-Gerlier Forest, John Eyles, Patricia Smith, Elisabeth Martin, and Francoise-Pierre Gauvin, 2003. Deliberations about deliberative methods: issues in the design and evaluation of public participation processes. Social Science & Medicine, 57:2, 239-251.

issues. As outlined by the terms of reference there are various decision options that could become the outcome of the review. Of these, additions and decommissions do not imply a spatial rearrangement of infrastructure, and thus their potential for impacting the community is relatively low. Additions may in fact contribute to resolve pending accessibility issues in George R. Allan. New school construction, depending on the scale and site, may imply a spatial rearrangement of facilities. Given the maturity level of the neighborhood and existing land uses, a plausible scenario for new construction is the redevelopment of one or more of the existing sites. School closures are a possibility in conjunction with new construction to consolidate catchment areas. Of these options, consolidation accompanied with school closure(s) implies the most dramatic rearrangement of facilities and provision of services. For this reason, this alternative is examined in particular detail in this paper.

Spatial reorganization of educational facilities can have implications for communities along multiple dimensions. The paper is organized to cover several issues as follows. These are not the only issues, but appear to be the most salient and amenable to analysis:

- The historic, geographic, and demographic context of Westdale. It is important, in order to properly assess the evidence and arguments for recommendations, to understand the context of the neighborhood. This section is concerned with these questions: What kind of neighborhood is Westdale? What is the role of schools in the neighborhood? What do demographic trends indicate about long-term enrolment needs?
- The context of the school. Physical accessibility at the facility level and school needs. How does G.R. Allan perform in terms of academic achievement?
- Mobility and accessibility issues. Accessibility to the facility, short and long term mobility implications of decision options, and fiscal sustainability of alternatives.
- Property assessment implications. Does proximity to schools affect property values?
- Community impacts. What are the implications of decision options for the social fabric, character, and future outlook of the community?

Each of these items of interest will be discussed in detail next.

The Community: Historic, Geographic, and Demographic Context of Westdale

History and Geography

George R. Allan Elementary School is located at the center of the Westdale neighborhood in the City of Hamilton, between two zones identified in earlier social research as the "working men" and "core" areas of the development (see Figure 1)[16]. Westdale is an older, established neighborhood, located in land initially targeted for development during the "ambitious city" stage of Hamilton.[17] Annexation of land by the city in 1914 added 869.0 acres to the area, an increase of 13.9% in total area.[18]

[16] John C. Weaver, 1978. From Land Assemby to Social Maturity. The Suburban Life of Westdale (Hamilton), Ontario, 1911-1951. Histoire Sociale – Social History, 11:22, 411-440.

[17] During this period in the history of the city, civic initiatives succeeded in bringing to Hamilton the first telephone exchange in Canada, and attracting major industries to the city, some of which later formed Stelco. See: Harold A.

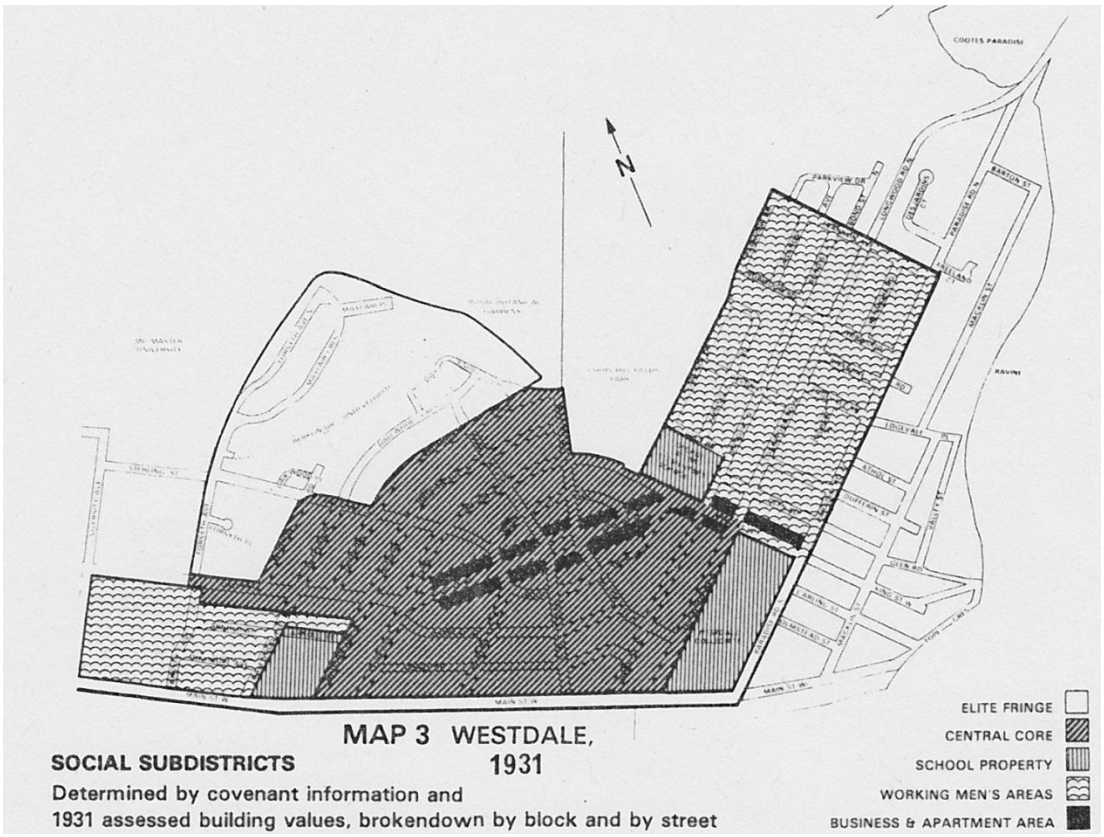

Figure 1. Westdale plan in 1931 with social sub-districts (Source: Weaver, 1978)

Originally conceived as a planned neighborhood, the traditional locus of Westdale was the terminus of a streetcar line introduced to support movement towards the traditional central business district of Hamilton. The development also included an array of local amenities, including educational, shopping, and recreation opportunities. Although the development was driven primarily by commercial concerns, the developers managed a fine balance between financial, aesthetic, and environmental considerations, which made Westdale comparable to any of the best planned neighborhoods in North America.[19] Westdale was, in this sense, unusual and different from the vast majority of Canadian commuter suburbs of the epoch, and makes it still notable in contemporary terms. Conceived in the first half of the twentieth century, the design of Westdale is consistent with what urban planners currently call "transit villages", that is, areas planned for transit access and pedestrian movement[20]. Several urban design parameters of Westdale, including its Land Use Mix (LUM)[21], intersection density, and sidewalk density,

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Wood, 1987. Emergence of the modern city: Hamilton, 1891-1950. In Steel City, Eds. M.J. Dear. J.J. Drake, and L.G. Reeds, University of Toronto Press: Toronto, pp. 122-127.

[18] See Table IX in John C. Weaver, 1982. Hamilton, An Illustrated History. James Lorimer & Company and National Museum of Man: Toronto.

[19] John C. Weaver, 1978, *ibid*.

[20] Michael Bernick and Robert Cervero, 1997. Transit Villages in the 21st Century. McGraw-Hill: New York.

[21] Land use mix is calculated using an entropy index that summarizes the proportion of different land uses in an area; a value of 0 indicates a perfectly homogeneous (i.e. single-use) area, whereas a value of 1 indicates a perfectly heterogeneous (balanced mixed-uses) area. See: Lawrence D. Frank, Martin A. Andresen, Thomas L. Schmid, 2004. Obesity relationships with community design, physical activity, and time spent in cars. American Journal of Preventive Medicine, 27:2, 87-96.

compare favorably to the average of Hamilton (see Table 1). Some of these parameters are associated with increased levels of active travel, and are advocated in the planning literature as effective interventions for environmental and health reasons.[22] In this sense, despite its age, the neighborhood stands at the ready to figure at the forefront of urban design in Canada.

Table 1. Urban design parameters, Westdale and Hamilton, 2006.

	Land Use Mix (0: single use, 1: mixed uses)	Sidewalk density (km/km^2)	Intersection Density (#/km^2)	Population Density (persons/km^2)	Dwelling Density (units/km^2)
Westdale (excluding Churchill Park)	0.33	27.22	86.48	4274.22	1815.93
Westdale (including Churchill Park)	0.35	25.21	79.02	3914.21	1660.53
Hamilton	0.31	21.85	58.41	4499.54	1950.30

Socially, the neighborhood's trajectory was marked, like that of virtually every other suburb in the country, by broader social and economic forces, including spatial sorting by race and class.[23] By 2006, however, Westdale had become a diverse area where more than 20 languages were spoken across households in the neighborhood, and almost 10% of residents had immigrated to Canada within the previous five years according to the Canadian Census.

The development potential of Westdale, after the land was annexed by the city in 1914, was delayed by Canada's involvement in the Great War, but began in earnest in 1923, with streetcar operations starting in 1924.[24] Also in 1923, the city made a bid to attract McMaster University to Hamilton by donating a parcel of land on the western end of the Westdale terrace.[25] The impact of this visionary bid, and the University's decision to relocate to Hamilton, was "immediate and profound", and it increased the certainty of favorable financial outcomes for the developers of Westdale, and contributed to the image of a high-class residential development among members of the public. This image was reinforced by a shrewd and extensive advertising campaign that billed Westdale as "a place of new, delightfully modern homes", and one of the most desirable communities in Hamilton[26]. The name of Westdale, in fact, is an outcome of the massive advertising campaing that offered a prize to contestants vying to christen the new development. In line with its concept as an early transit village, in the 1930s Westdale already had its own well-developed shopping district (see photo in page 93 of Henley's *Hamilton Our Lives and Times*), which to the day continues to provide services and amenities locally to residents of the neighborhood.

Housing conditions across the city were problematic throughout various periods in the history of Hamilton. In 1945, consultants tasked with taking stock of the state of housing across the city identified only a handful of city blocks that could be classified as "slums"; however, several

[22] For one example, see: Lawrence D. Frank, James F. Sallis, James Chapman, Brian E. Saelens, W. Bachman, 2006. Many pathways from land use to health – Association between neighborhood walkability and active transportation, body mass, and air quality. Journal of the American Planning Association, 72:1, 75-87.
[23] John C. Weaver, 1978, *ibid*.
[24] Harold A. Wood, 1987, *ibid*.
[25] Harold A. Wood, 1987, *ibid*, p. 129.
[26] Brian Henley, 1993. Hamilton Our Lives and Times. The Hamilton Spectator: Hamilton.

areas of the city were classified as "blighted" or in "decline". In fact, only one-sixth of the population was found to live in "sound" neighborhoods, which notably included Westdale.[27] The process of decline and blight is explained by urban economic theory, which suggests that excessive suburban development and urban blight are caused by similar market failures.[28] The theory is consistent with the epochal observation that deteriorating conditions in parts of the city were associated with the newfound ability of the middle class (fueled by increasing incomes and mass motorization), and its desire (the ideal of spacious residences) to abandon established residential areas in favor of newer, ever more distant developments. This population relocation process left behind buildings in areas that offered limited incentives for maintenance, and that were moreover architecturally unsuited to the needs of lower-income tenants who took residence there. It is remarkable, for what eventually became an inner suburb of the city, that Westdale has proved resistant to this flight of the middle class. Historically high levels of home ownership in the neighborhood[29] have contributed to maintain conditions favorable for continued maintenance and renovation of properties.

Doubtless, the robust state of Westdale can be attributed at least in part to the array of local amenities, including a small but lively commercial street, the park, and the social environment.[30] A notable factor of course is the proximity of McMaster University, and also other educational opportunities. For instance, as early as 1930, motivated by the construction of a new high school in Westdale, the Hamilton Herald praised the provision of "educational facilities that very few, if any, communities have anywhere in North America." Children in Westdale, continued the Herald, would be able to graduate from university without having moved "a stone's throw for their education", thus generating conditions that would "lead to great results, intellectually and athletically". From its very beginnings, the community of Westdale "was built with books and mortar."[31]

Demography

Some demographic information regarding Dalewood can be gleaned from the School Information Profiles (Item 1). The Board statistics indicate that current Average Daily Enrolment (ADE) is 188 and 471 for Prince Philip and George R. Allan respectively. These values correspond to utilization rates in excess of 100%. The Board projections are for a moderate increase in ADE for Prince Philip (to 219 in five years and 208 in ten), and a large decline for George R. Allan (to 356 in five years and 345 in ten). The ARC is asked to consider whether all schools in the area will be needed to accommodate projected enrollment in five and ten years. Overall, the projected area-wide enrollment appears stable, with differences across schools. The value of these projections depends entirely on their reliability, and as such, they should be able to stand up to independent scrutiny. Currently, however, their provenance in official Board documentation is opaque and the manner of their derivation unclear. Other sources of data can provide a valuable reference to assess the projections from the Board. Official population statistics from the Canadian Census and other projections provide this much needed.

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[27] Harold A. Wood, 1987, *ibid*. pp. 133-134.
[28] Jan K. Brueckner and Robert W. Helsley, 2011. Sprawl and blight. Journal of Urban Economics, 69:2, 205-213.
[29] See Weaver, 1978, *ibid*. Table 11.
[30] A sense of community has been linked to an enjoyment of commuting by active modes of transportation. See Antonio Páez and Kate Whale, 2010. Enjoyment of commute: A comparison of different transportation modes. Transportation Research A – Policy and Practice, 44:7, 537-549.
[31] Brian Henley, 1993. Hamilton Our Lives and Times. The Hamilton Spectator: Hamilton, pp. 73-75.

As a mature, well-established neighborhood, the population of Westdale has displayed only relatively minor variations over the past two decades. According to Census data, the variation in population in the period between 1991 and 2006 has been at most 4.2%, with positive and negative fluctuations perhaps related to hiring conditions at McMaster and Hamilton Health Sciences, two of the largest employers in the city. In 1991, the total population of Westdale was 6,250, in 1996 it was 6,130, in 2001 it was 6,300, and in 2006 it was 6,030. Besides these relatively minor variations, a relevant piece of information is the breakdown of the population by age cohorts. For comparison purposes, the demographic profiles of Westdale and Hamilton are shown in Figures 2-5.

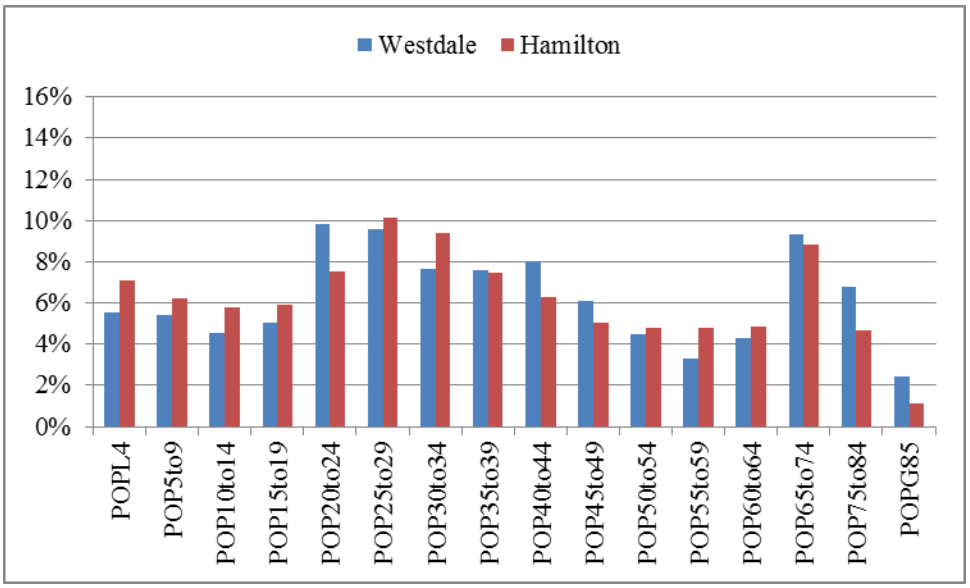

Figure 2. Population composition in Westdale and Hamilton by age cohort, 1991 (source: Statistics Canada)

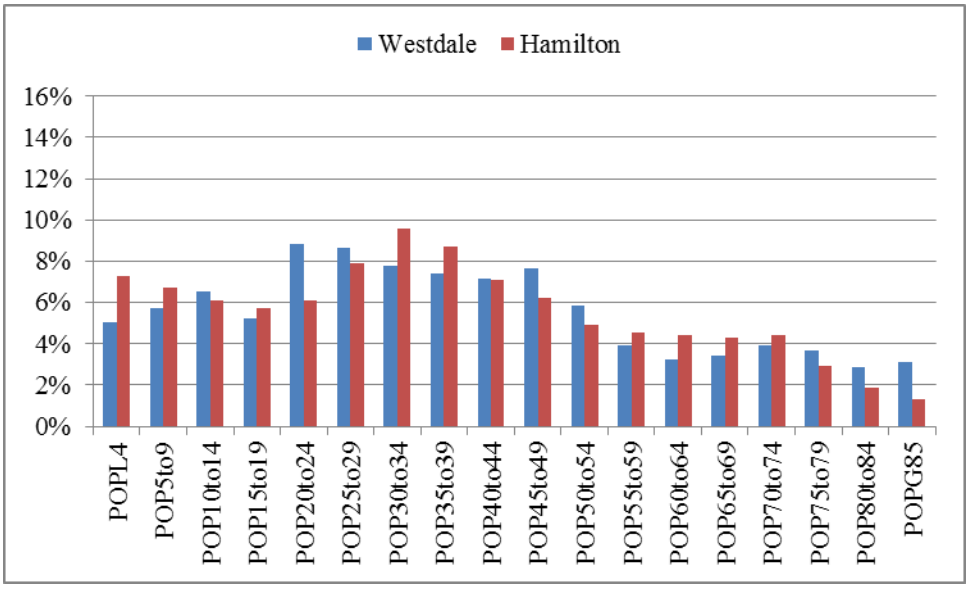

Figure 3. Population composition in Westdale and Hamilton by age cohort, 1996 (source: Statistics Canada)

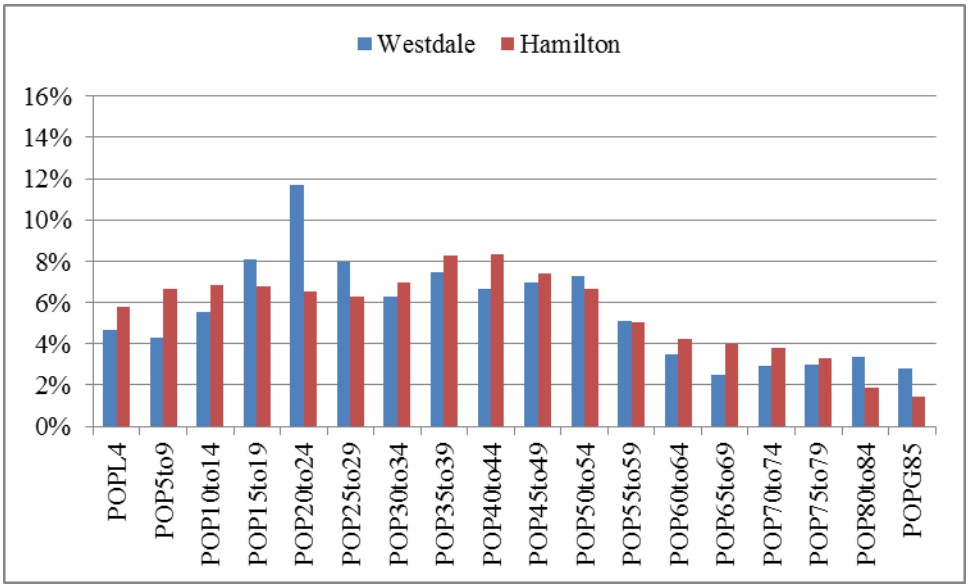

Figure 4. Population composition in Westdale and Hamilton by age cohort, 2001 (source: Statistics Canada)

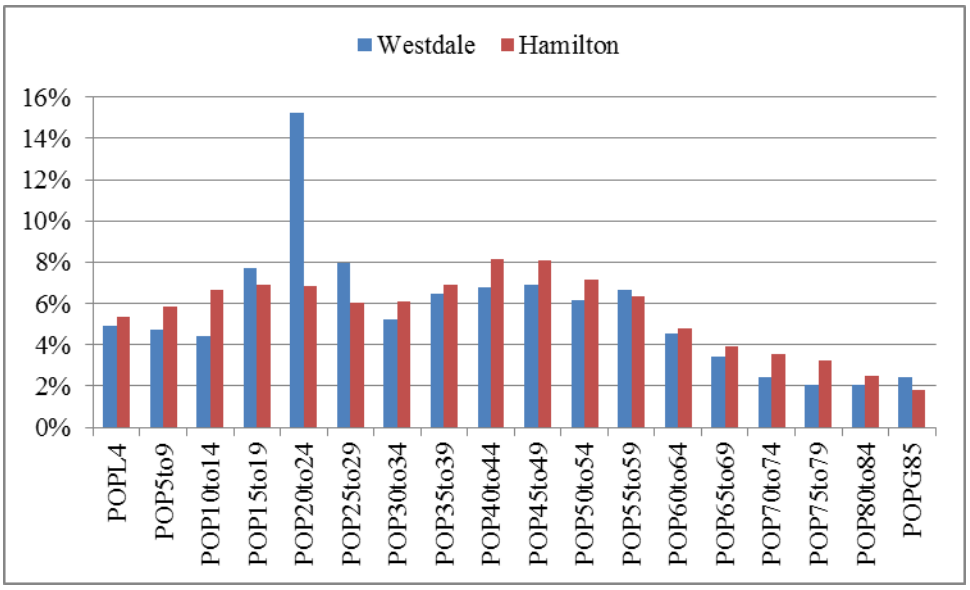

Figure 5. Population composition in Westdale and Hamilton by age cohort, 2006 (source: Statistics Canada)

It can be seen from the figures that Westdale has historically had, relative to Hamilton, a greater proportion of seniors (individuals aged 65 and over). A trend, however, is that the city of Hamilton is aging faster than Westdale. In 2006, the composition of Westdale was already noticeably younger. A part of this local rejuvenation (or alternatively slower demographic aging) is the large spike in people aged 20-24 in 2006. The sudden increase of this population group is attributed to the "double cohort" effect of 2003, and increased university enrollment following province-wide changes in the Ontario Academic Credit year. More relevant is the fact that, while the proportion of the population aged 0 to 4 and 5 to 9 in Westdale has experienced a slight decline, in the case of the youngest cohort from 5.52% in 1991 to 4.68% in 2001 and up to

4.89% in 2006. The maximum difference is of less than one percentage point, a decrease that is considerably less pronounced than for the city of Hamilton, from a peak of 7.28% in 1996 to 5.33% in 2006. Current Board ADE figures are consistent with statistics indicating that about 8% of the 2006 population of Westdale was in the 0-9 year cohort, and would require school placement in the intervening time. More generally, population trends over the past four Census periods suggest that Westdale has become younger and has maintained a relatively more stable school-aged population compared to the city as a whole. This profile stands in contrast to Board projections that ADE at George R. Allan will drop by about 25% in next five to ten years.

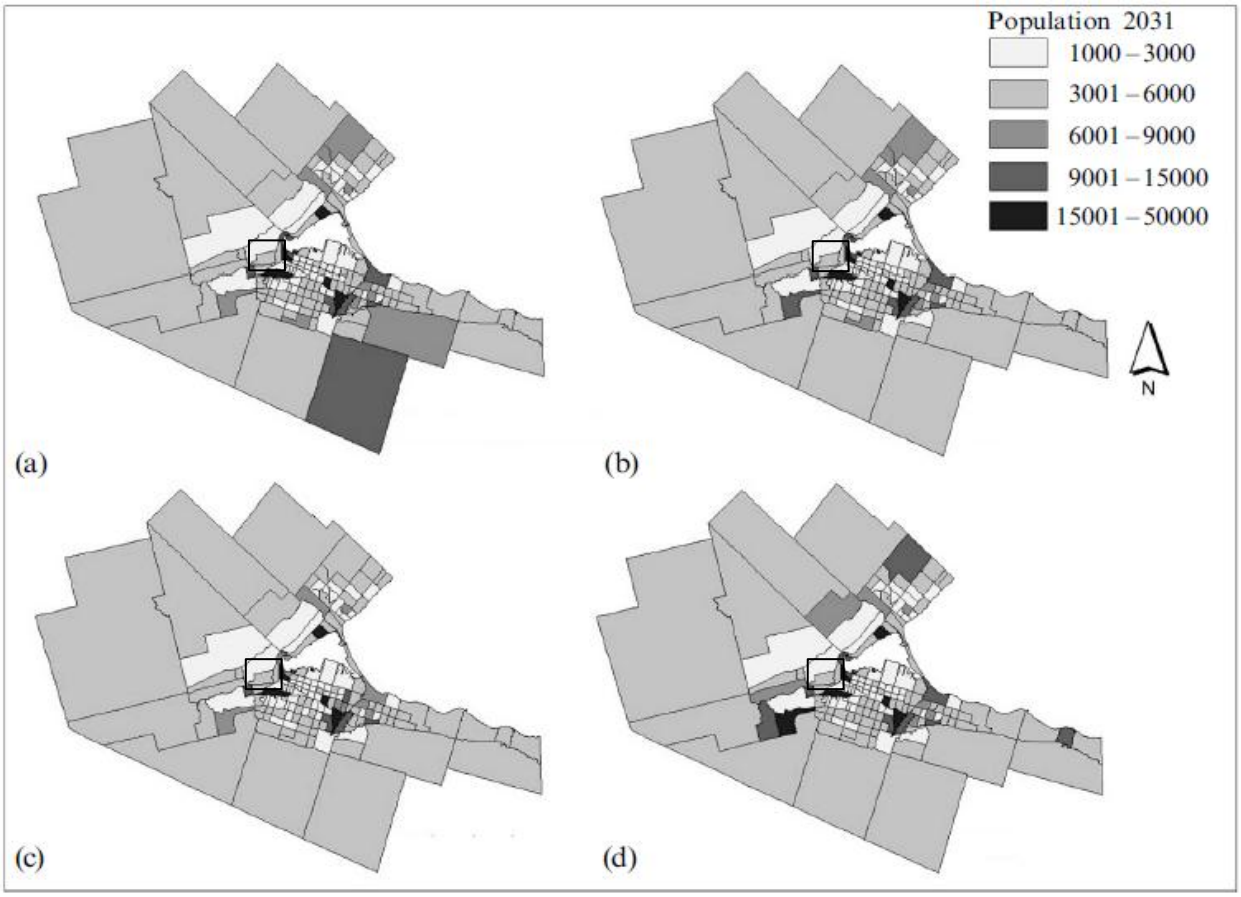

Figure 6. Population projections for Hamilton in 2031: a) business as usual, b) reference, c) urbanized, d) suburbanized (source: Kanaroglou et al. 2009)

One possible explanation for such a large drop could be population loss. This question can be examined based on independent projections for population change in Hamilton, developed by researchers at McMaster University based on state-of-the-art econometric techniques.[32] These projections, developed in 2009, indicate that the population of Westdale for the period until 2031 will remain stable at greater than 6,000 people under a variety of different urban development scenarios, from continued suburbanization to centralization (see Figure 6). These projections do not consider new housing in Westdale in the intervening period, and may be somewhat

[32] Pavlos S. Kanaroglou, Hanna F. Maoh, Bruce Newbold, Darren M. Scott, and Antonio Páez, 2009. A demographic model for small area population projections: an application to the Census Metropolitan Area of Hamilton, in Ontario Canada. Environment and Planning A, 41:4 , 964-979

conservative under a scenario, contemplated in Urban Hamilton Official Plan, of infill housing and new higher density development.[33]

In line with aging trends in Hamilton relative to Westdale, small area population projections support the notion that aging is likely to become an increasingly suburban phenomenon. The area of Westdale, the evidence indicates, is quite robust both to population loss and to demographic aging under a variety of large scale conditions. Specific factors that account for the stable position of the neighborhood are its distance to the city centre, which offsets to some extent the effect of rent (higher property values), as well as the presence of parks and local amenities. Of particular relevance is the positive effect uncovered for schools in census tracts (George R. Allan serves two census tracts) and the attraction schools exert on families with children.[34] This finding, specific to Hamilton, is in broad agreement with other research concerning the importance of schools on the residential decisions of families, especially those with children. Thus, where the Board finds no data elements concerning the effect of schools on the retention or attraction of families to a community (see School Information Profile Item 21), independent analysis of population trends indicates that the presence of schools is a factor that influences the location decisions of families with children. Analysis of demographic trends strongly suggests that city policies (development of new housing, densification, infill) as well as School Board policies (location of schools) can have a large impact on the spatial distribution of population, and underline the need for coordinated action to achieve not only facility utilization, but broader urban development goals.

With respect to the ongoing ARC process, a key item to consider, given its importance to decisions about facility utilization, is the manner of the derivation of Board demographic projections. Examination of population trends based on Census data and independent projections suggest a stable neighborhood with a relatively younger population compared to Hamilton overall. This suggests a scenario that stands in stark contrast to large School Board-projected declines (of over 25%) in the demand for enrollment at George R. Allan for the next five and ten years. Furthermore, ignoring the relevance of schools in residential decisions means that, under the scenario of school closures, projected lower enrollments could well end up being a self-fulfilling prophecy.

The School: George R. Allan Elementary

The site of George R. Allan was already designated as school property from the very beginnings of the Westdale survey, and has long provided a point of interface between the different geographical and social elements of the neighborhood (see Figure 1). Given its historical situation in the neighborhood, as one of the "books and mortars" structural elements of the community, it is reasonable to consider George R. Allan as a building of historical significance

[33] Urban Hamilton Official Plan, Volume 2: Secondary Plans and Rural Settlement Area Plans, Section 6.2.5.2 (http://www.hamilton.ca/NR/rdonlyres/020529CD-2FB4-40A3-9607-475392A0CF99/0/Vol2Web.pdf; accessed on March 29, 2011)

[34] Kanaroglou et al., *ibid*. Table 3 and discussion in pp. 971-972.

that the Urban Hamilton Official Plan aims to conserve.[35] The school is in fact adjacent to the designated Cultural Heritage Landscape of Westdale identified in the Urban Plan.[36]

As noted in the preceding section, the school serves a stable population of about 6,000, and is, according to its School Information Profile (Item 1), currently operating at an Enrolment to Capacity Ratio in excess of 100%. The school is projected to have a negative difference between revenue and expenditures in ten years, of about $79,000 for the cost of school operations (see Item 2), and about $22,000 for the cost of school administration (see Item 3). The source of revenue for these calculations is the Imputed Grant for School Operations, a quantity not explained in the School Information Profiles, and which may critically depend on the quality and reliability of enrolment projections. These values are difficult to place into context based on available information. As of April 24, 2011, less than a week before the next meeting of the Dalewood ARC (scheduled for April 28), the only other set of School Information Profiles released to the public is for schools in the King George Area, a set of schools with even larger projected deficits.

In terms of facilities, some of the schools in the area have been in operation for over three quarters of a century, and their Facility Conditions Indices (FCI) reflect this history of service (Item 4). The conditions of all three facilities in the area (George R. Allan, Prince Philip, and Dalewood) are rated as critical with FCIs greater than 30%. George R. Allan's index is, at 45.93%, comparable to Dalewood and better than Prince Philip.[37] Intriguingly, despite having a lower FCI, the cost of renewal projects, is consistently estimated by the School Board at a higher value for George R. Allan compared to Prince Philip.

The schools in the area are somewhat different in their provision of available programs and facilities. George R. Allan offers a slightly wider range of programs compared to Prince Philip, with computer studies, dance, and dramatic arts offerings (Item 6). In terms of its physical aspect, George R. Allan is broadly comparable to other schools in Dalewood, with the quality of the classroom space is rated as "fair" (Item 5-8). There are dedicated facilities for computer studies, which are not present at other schools in the area, although some investment in technology may be needed, as George R. Allan has the highest ratio of students to computers of the three schools. In contrast, some specialty spaces do not exist at George R. Allan that are available in at least one of the other schools in Dalewood. These include a dedicated general purpose room, music room, vocal music room, auditorium, and dedicated facilities for students with special needs. Some of the identified needs in terms of physical infrastructure relate to removing disabling barriers to physical accessibility.[38] Notably, the building lacks of at least one barrier-free entrance: a ramp in the front provides a limited degree of accessibility for individuals

[35] Urban Hamilton Official Plan, Volume 2: Secondary Plans and Rural Settlement Area Plans, Section 6.2.13.1
[36] Urban Hamilton Official Plan, Volume 1: Parent Plan, Appendix F
[37] Members of the ARC are asked as part of Item 4 of the School Information Profiles to compare the schools to others in the area. The information for conducting such comparisons remains very limited as of April 25, 2011. The only other School Information Profiles as of this date are for King George Review Area, and the FCIs are comparable with the exception of Prince of Wales, presumably a new facility.
[38] Disabilities emerge at the intersection between an impairing condition and a societal failure to accommodate a wider range of skills and abilities. The Accessibility for Ontarians with Disabilities Act (AODA) mandates that public buildings in the province be fully accessible by the year 2025. See Antonio Páez and Steven Farber, 2010. Understanding the transportation situation of Canadian adults with disabilities. Report to Office for Disability Issues, Disability Research and Knowledge Development, Human Resources and Skills Development Canada (http://www.science.mcmaster.ca/geo/faculty/paez/publications.html#reports)

with mobility impairments, but a wide/automatic door is still needed. Once inside the building, the upper reaches are not accessible for wheelchair users. The communication systems for individuals with visual or hearing impairments are inadequate, although depending on the technology employed, solving this issue may not require major physical changes to the building. Finally, washrooms are available only in the first floor, which limits the usability of space even by individuals with mobility impairments who are not wheelchair-bound.

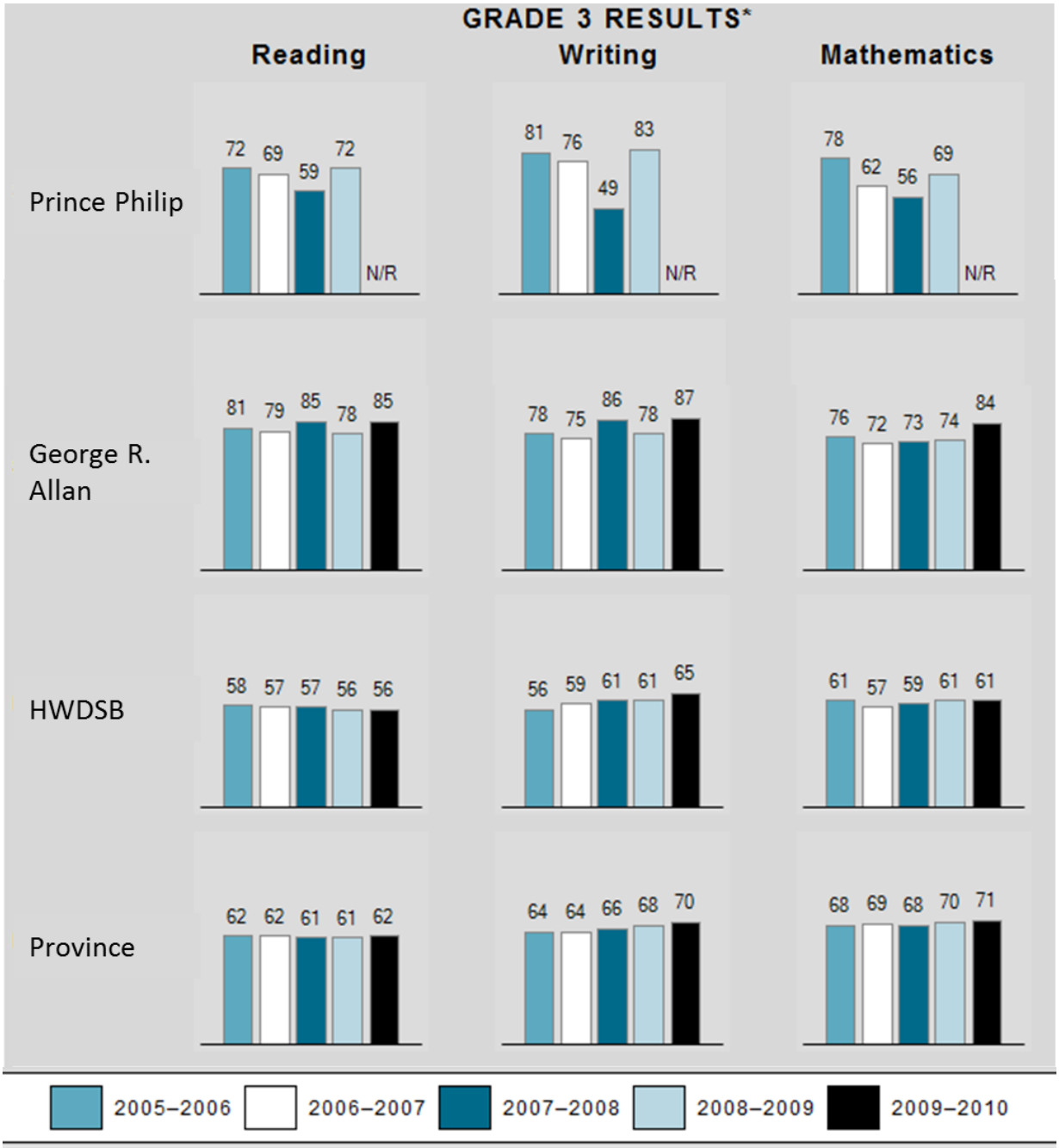

Figure 7. Percentage of all students at or above the provincial standard (levels 3 and 4) over time (source: EQAO; http://www.eqao.com/results/?Lang=E)

Clearly, George R. Allan, the building, is in need of work to restore, or in some cases introduce for the first time, a reasonable degree of functionality to meet modern standards. These physical facility needs notwithstanding, it is remarkable to note that student outcomes at the school (Profile Item 12), measured as the percentage of students at or above provincial standards, are generally positive (see Figure 7). The comparison is favorable with respect to the province-wide results, the Board-wide results, and the other elementary school in the Dalewood area.[39] This is an apt testimony of the diligence of students and educators, the community that forms George R. Allan, the school.

Mobility and Accessibility Issues

For decades, urban development in North America, and increasingly in other regions around the world too, has prioritized the use of private modes of transportation, first encouraging and then demanding a highly mobile lifestyle of urban residents. This model of development is increasingly rejected by academic and professional planners for its continued reliance on a mode of transportation (automobility) that is associated with a number of ever more critical issues, at the global, national, regional, local, and individual level:[40]

- The transportation sector accounts for approximately one quarter of emissions that contribute to global warming and climate change. It is also one of the fastest growing sectors in terms of energy consumption. Reliance on fossil fuels carries risks associated with geopolitical conditions in volatile parts of the globe.
- Private motorization using existing technologies does not provide a feasible alternative as world oil reserves peak and eventually dwindle. Newer technologies provide at best a reprieve, and some have yet to prove commercially viable at such scale as to replace oil-based technologies.
- Motorized mobility generates air pollution locally, and is linked to health issues, mainly respiratory health.
- Endemic automobility creates conditions that lead to implicit expectations concerning high levels of mobility. This creates stressors that result in socially exclusionary situations.
- Car ownership creates a powerful disincentive to use other forms of transportation. An insidious consequence is more sedentary lifestyles that contribute to health problems.
- Car use is associated with time use constraints that less time spent in activities of a social nature. This effect has been related to the erosion of social capital in communities.

[39] The School Information Profile for Prince Philip reports student outcomes not available from EQAO: see Item 12 – 1, 2, and 3.

[40] See: Steven Farber and Antonio Páez, 2011. Running to stay in place: the time-use implications of automobile oriented land-use and travel. Journal of Transport Geography, in press; Steven Farber and Antonio Páez, 2009. My car, my friends, and me: a preliminary analysis of automobility and social activity participation. Journal of Transport Geography, 17:3, 216-225. Bengt Johansson, 2009. Will restrictions on CO2 emissions require reductions in transport demand? Energy Policy, 37:8, 3212-3220; Lee Chapman, 2007. Transport and climate change: a review. Journal of Transport Geography, 15:5, 354-367; Hal Turton, 2006. Sustainable global automobile transport in the 21st century: An integrated scenario analysis. Technological Forecasting and Social Change, 73:6, 607-629; Frank et al., 2004, *ibid*; Simone A. French, Mary Story, and Robert W. Jeffery, 2001. Environmental influences on eating and physical activity. Annual Reviews Public Health 22, 309–335.

Hamilton, like many other urban areas across North America, faces the challenge of controlling sprawling development, and reducing motorized mobility in general, and auto use in particular. This is a challenge that has a utilitarian dimension (dispersed, low density development that exceeds the natural human scale)[41] and also a behavioral dimension (affective and cultural attachment to the car).[42] Like other cities, Hamilton has come to the realization that a more sustainable future requires the maintenance or creation of forms of transportation that provide a realistic alternative to rampant automobility. Provision of public transportation has long been regarded as an element of an integrated menu of alternatives to optimize urban transportation, and in the particular case of Hamilton, as a way to reduce congestion and to enhance the economic viability of city centers.[43] In addition, active transportation (e.g. walking and cycling) is increasingly recognized for its economic benefits (e.g. active transportation as an energy-efficient form of travel) as well as potential contributions to improved physical and mental health.[44]

Active transportation has been embraced as a general principle by the City of Hamilton in its Official Plan, which makes it an element of building *complete communities*. According to the Plan:

> "Complete communities provide convenient access to a mix of jobs, local services and shops, a full range of housing and community facilities such as schools, recreation facilities, open space, health care facilities, cultural facilities, and more. Complete communities enable residents to meet most of their daily needs within a short distance from their home, facilitating ease of access and use of public transit and active modes of transportation."[45]

Developing a transportation network that provides a sustainable alternative to the use of private vehicles is a key component of the transportation plan.

The specific vision in the Urban Plan for the Ainslie Wood Westdale area of the city corresponds to a well-designed, sustainable, balanced and stable community. Development objectives include the conservation of historical and architectural heritage, maintain a mixture of land uses while eliminating all but light industrial activities, and ensuring a transportation system that enables the use of alternative modes. The last two objectives speak to the two components of active travel. The first components is related to streetscapes, which must support active transportation, for instance, by incorporating suitable design elements such as obstacle-free sidewalks and multi-use pathways, visually appealing streetscapes, clear separation from motorized traffic, and so on.

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[41] Ronald N. Buliung and Pavlos S. Kanaroglou, 2006. Urban form and household activity-travel behavior. Growth and Change, 37:2, 172-199

[42] Ella Graham-Rowe, Stephen Skippon, Benjamin Gardner, Charles Abraham, 2011. Can we reduce car use and, if so, how? A review of available evidence. Transportation Research A – Policy and Practice, 45:5, 401-418; Linda Steg, 2005. Car use: lust and must. Instrumental, symbolic and affective motives for car use. Transportation Research A – Policy and Practice, 39:2-3, 147-162.

[43] City of Hamilton, 2011. Moving Hamilton Forward with LRT (http://www.hamilton.ca/NR/rdonlyres/559A62D4-7FDD-4A25-9108-95B68083FD01/0/RT_Funding_Proposal_FINAL.pdf; accessed April 25, 2011); Anthony D. May, Simon P. Shepherd, and Paul M. Timms, 2000. Optimal transport strategies for European cities. Transportation. 27:3, 285-315.

[44] Urban Hamilton Official Plan, Volume 1: Parent Plan, Design Goal 3.3.2.9 and section 3.7.1.

[45] Urban Hamilton Official Plan, Volume 1: Parent Plan, B.3.0; also see Design Goal 3.3.1.4.

Walkability audits recently conducted in several sectors of the city[46] identify the elements associated with walkable environments in Hamilton: mix of land uses, high sidewalk connectivity, smaller setbacks from buildings, and presence of bus stops. Thanks to its origins as an early transit village, most of these characteristics are already present in Westdale (see Table 2). Secondly, destinations that matter must be within reach, including, in addition to shops, dining, and recreation, local educational opportunities.

Location of School Relative to Place of Residence of Students

The School Board stipulates in its Transportation Policy document[47] the maximum walking distance in urban areas before students become eligible for Board-provided transportation services. This distance, which essentially defines a walkable catchment or Ped Shed, is 1.0 km for JK students, 1.6 km for Grade 1-6 students, and 2.4 km for Grade 7-8 students. Walking distance, according to this policy, is measured from the municipal road in front of the student's residence and the nearest maintained entrance to the designated school. The walkable catchments for George R. Allan and Prince Philip elementary schools are illustrated in Figure 8.

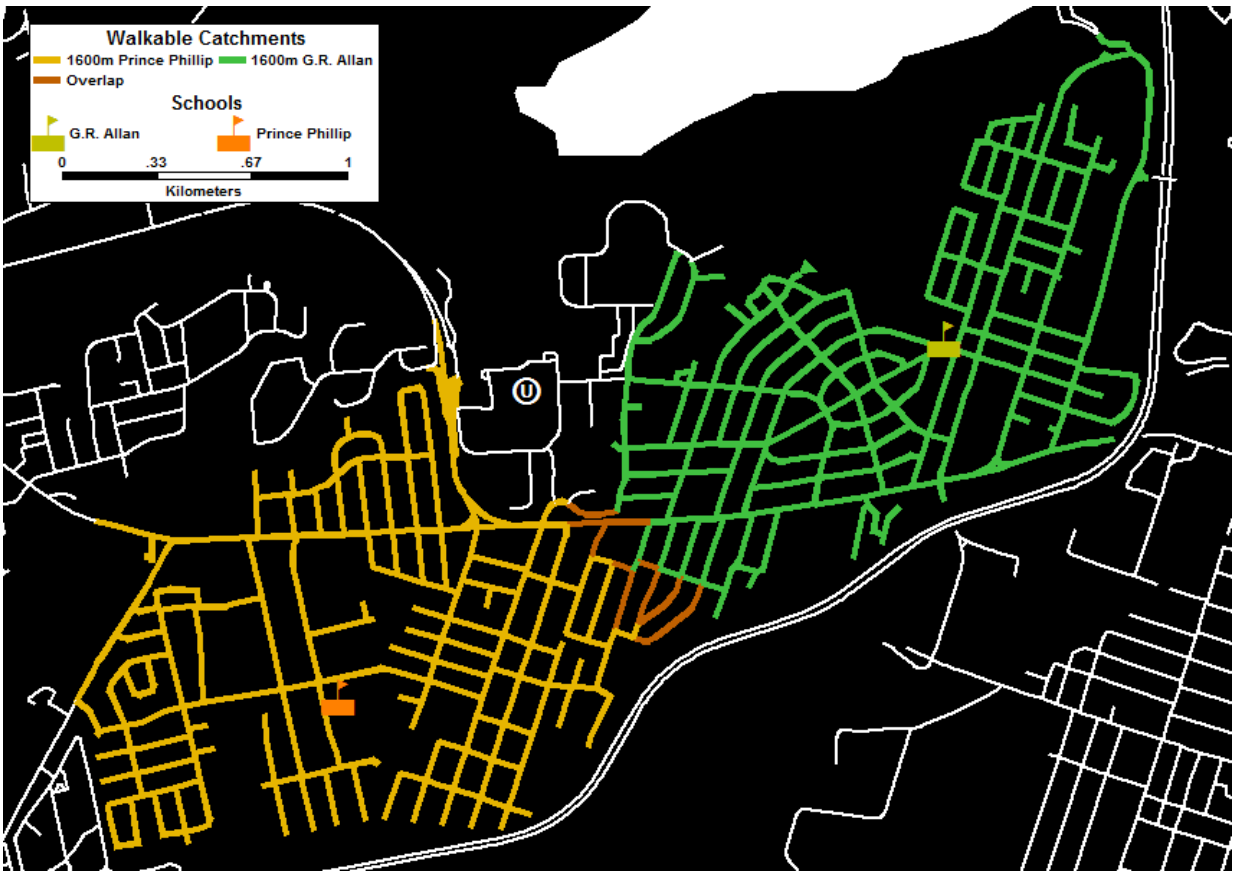

Figure 8. Walkable catchments of 1.6 km for George R. Allan and Prince Philip in the Dalewood area.

[46] Md Moniruzzaman and Antonio Páez, 2011. From meso-scale analysis to micro-scale environments: A model-based approach to select case sites for conducting walkability audits. Working Paper, School of Geography and Earth Sciences, McMaster University.

[47] HWDSB Policy No. 10.01 Financial (http://www.hwdsb.on.ca/transportation/policies/misc/transpol.pdf; accessed on April 26, 2011)

Figure 8 shows the network-based buffers between a given place of residence and the nearest school. The map demonstrates that George R. Allan and Prince Philip elementary schools are at the heart of two distinctly defined geographical areas, with only minimal overlap between their walkable catchments. The functionality of the walkable catchment area is well reflected in the statistic regarding provision of transportation services for George R. Allan students (School Information Profiles Item 11-1: Percentage of students who are provided transportation to and from school). This statistic shows that transportation services are not required by students at this school.

Statistics do not exist to assess the extent to which students travel by different modes of transportation to George R. Allan. About 25% of students attending the school live outside of the catchment area (Item 11-5). Some at least are bound to travel to school using a variety of modes of transportation, including transit or car. Casual observation of vehicular and pedestrian traffic along the streets surrounding the school suggests that active modes are by far the preferred mode of students to travel to school – walking and cycling. This observation is consistent with evidence of a broader culture of walking in the neighborhood. As seen in Figures 8 and 9, Westdale already has amongst the highest levels of pedestrian activity in Hamilton outside of the central core. While, Hamilton is below the national average in terms of percentage of commuters who walk, the levels of pedestrian activity in Westdale are high even in comparison to some of the most pedestrian active cities in Canada (Victoria, Kingston, and Halifax with >10%).

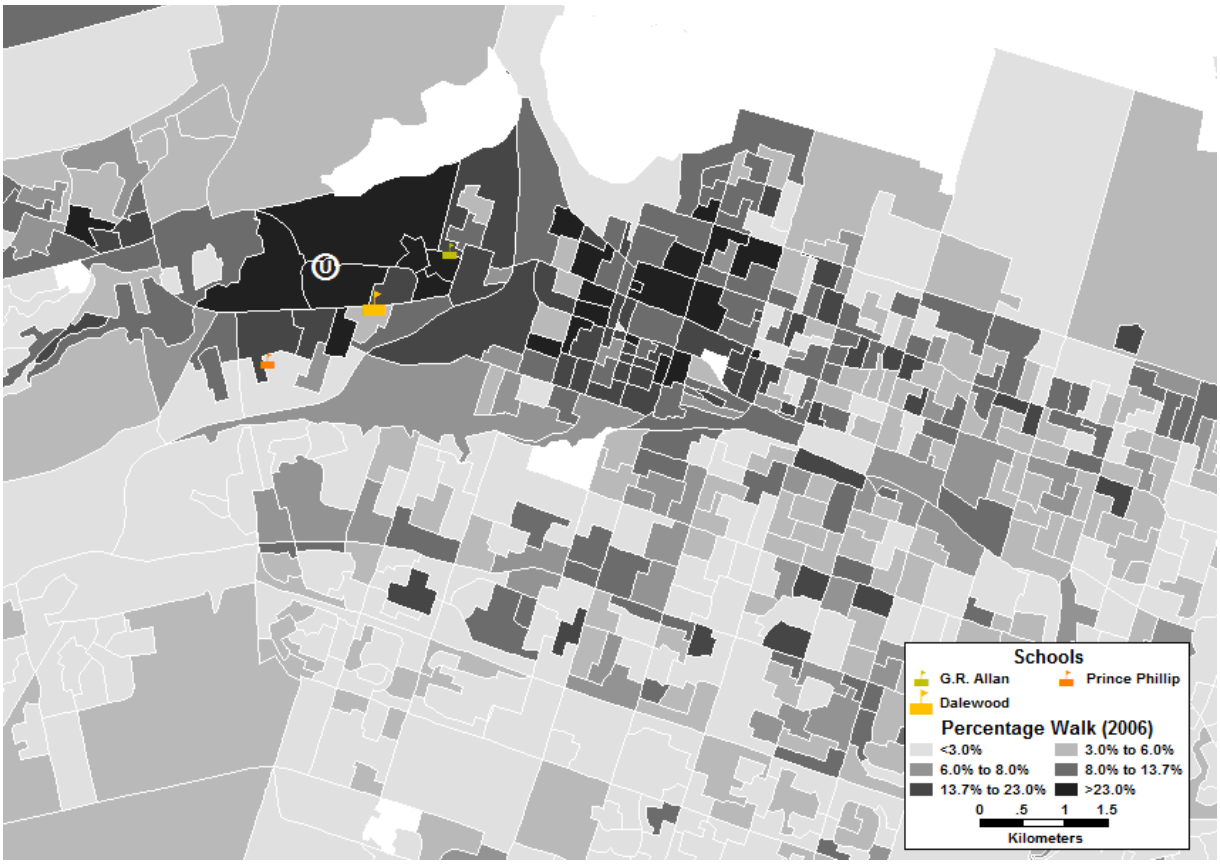

Figure 8. Percentage of population by mode of travel to work in 2006 (Walk)

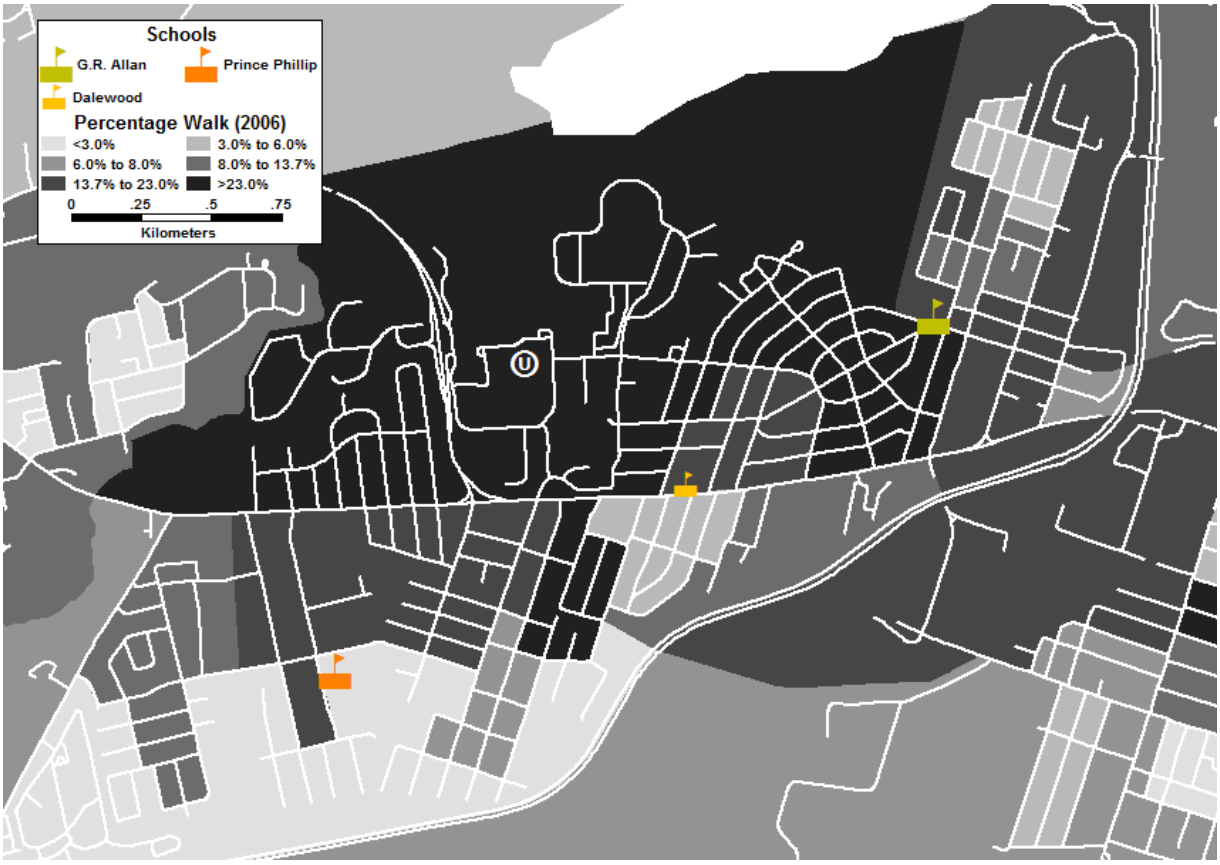

Figure 9. Detail of Ainslie Wood Westdale: Percentage of population by mode of travel to work in 2006 (Walk)

Another notable aspect of pedestrian activity in Westdale is that while walking as a mode of travel to work declined in average across Hamilton in the past decade and half, in average it increased by about 3% in Westdale between 1996 and 2006 (Table 2). Data do not exist to establish a statistical relationship; however, walking to school and walking to work in Westdale are likely to be closely related, as many parents may consider escorting their children to school as one intermediate stop in their journey to work.

Table 2. Pedestrian activity in Hamilton and Westdale (% Mode of travel to work: Walk)

		1996	2001	2006
Hamilton (486 EAs in 1996; 830 DAs in 2001; 706 DAs in 2006)	Min	0.0%	0.0%	0.0%
	Max	83.0%	50.0%	100.0%
	Mean	7.8%	6.3%	5.7%
Westdale (7 EAs in 1996; 12 DAs in 2001; 11 DAs in 2006)	Min	3.0%	8.2%	3.3%
	Max	34.5%	36.8%	40.0%
	Mean	17.8%	19.5%	20.8%

Note: EAs are Enumeration Areas, the smallest level of geography in the 1996 Census. These units were replaced by Dissemination Areas (DAs) in 2001; Source: Statistics Canada

Benefits of Active Transportation

The evidence strongly suggest that active transportation is commonly practiced by residents of Westdale, including school children. These includes a built environment with features that support walking and mixed land uses, paired with zero demand for school transportation and a high share of walking for the journey to work. Urban Hamilton Official Plan takes for granted that active transportation is associated with Describe the benefits of active transportation here. See: CSEP – Canadian physical activity guidelines, Be smart exercise your heart by Hillman et al., Exercise intelligence and cognition by Tomporowski et al., Physical fitness and academic achievement by Chomitz et al., and Physical fitness and academic achievement by Castelli et al., Texas study by Morrow et al.,

Implications of alternatives

What proportion of students use school buses after a school closure? How many switch to being car passengers? See: school location and student travel by Ewing et al., children's mode choice by Noreen McDonald,

Long Term Issues

Long term issues associated with spatial rearrangement of schools: normalization of behavior (automobility), see: Childhood influences on adult mode choice by Johansson, How children see their travel behavior by Zwerts et al., tracking physical fitness from childhood to adolescence by Janz et al.

Fiscal Sustainability of Motorized Transportation

The current dominant position of fossil fuel-based mobility has historically been possible thanks to the exploitation of oil fields with highly positive return on investment. None of the alternatives conceived to date have return on investment as high as oil (Krumdieck et al. 2010). Thus, planning on the assumption of a continued source of fossil fuel carries significant risks. The prospect of increasingly expensive transportation due to energy constraints poses several questions, as people may decide to trade-off or even be forced to exchange expensive private motorized mobility for other modes of transportation (Skipper et al. 2009; Cantos-Sanchez et al. 2009; Santos et al. 2010). Sub-urban residences may not remain attractive because of high transportation cost. It may also cause a dramatic re-arrangement of home-work location distribution in Canadian cities. One obvious implication is the emergence of transportation poverty as mobility constraints conspire against the ability to reach widely dispersed destinations.

Considering the risk of future and permanent decline in oil production is an important aspect of planning for mobility and accessibility changes. The cost of transportation borne by the school board was 13.9 million annually in 2008-2009.[48] This year was atypical as it coincided with high fuel prices in the summer of 2008 followed by the recession of 2009. Gasoline prices have since continued their inexorable upward march (Figure N).

[48] Transportation Frequently Asked Questions (http://www.hwdsb.on.ca/transportation/faq/index.html#assess; accessed April 26, 2011)

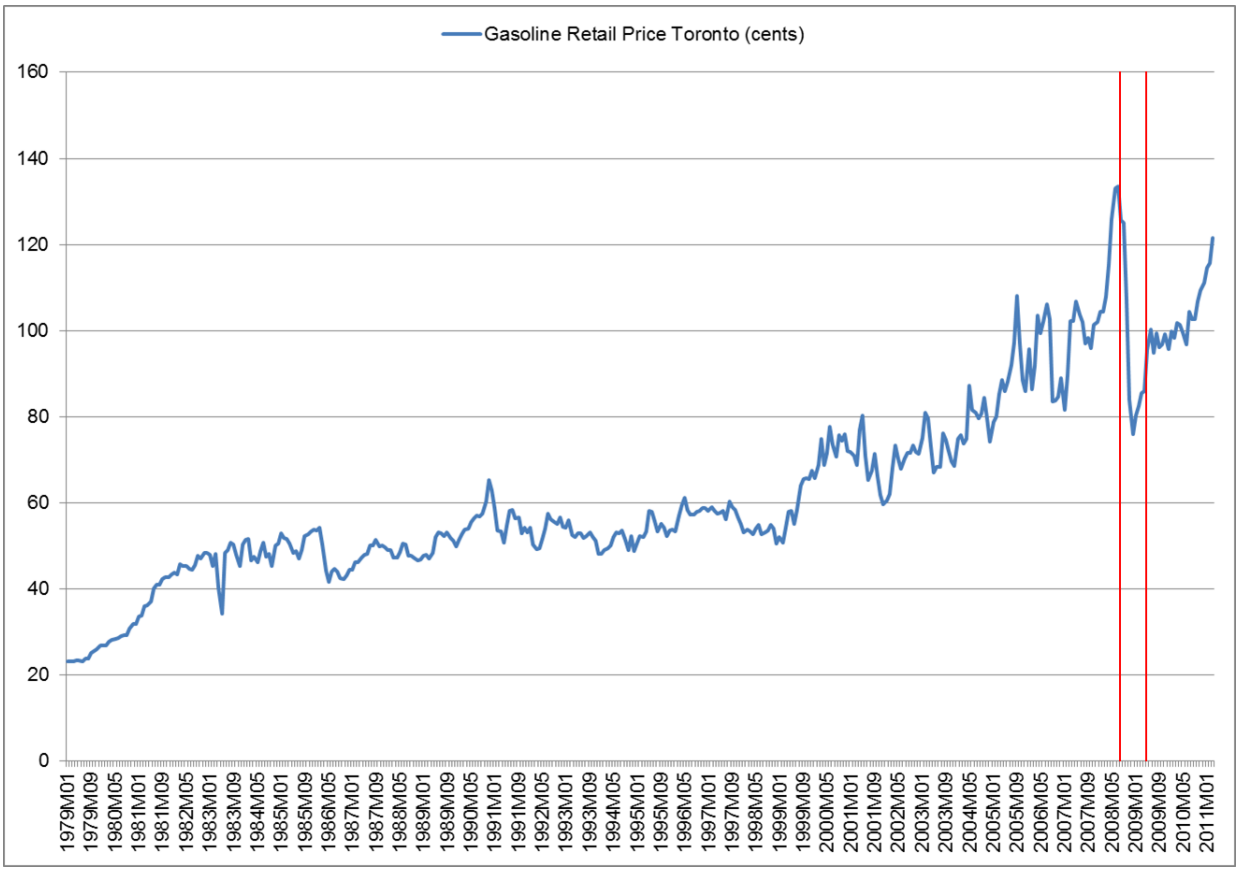

Figure N. Gasoline retail prices in Toronto, historical data (source: Statistics Canada)

Concluding Remarks Regarding Mobility and Accessibility

Westdale already embodies the principles embraced by Urban Hamilton Official Plan's concept of complete communities. An important element of this concept is active transportation, which in Westdale stands on two pillars: one is the existence of favorable built environment elements that support active transportation, and the other is a mix of land uses that provides ample opportunities for residents to meet a majority of their daily needs locally. Currently, Westdale displays a very high degree of pedestrian activity, with health and other benefits for residents, children and adult alike. A hazard to active transportation in Westdale is the loss from the community mix of destinations that matter. This is acknowledged in Hamilton's Official Plan, which aims to resist further decentralization pressures by maintaining a suitable range of residential opportunities, and shopping and other commercial activities with a particularly along the King Street historic community core. School closures would greatly detract from the plan of the city by removing a key element from the mix of activities in Westdale, an action that would not only impoverish an already complete community, but would also significantly reduce the opportunities for active travel for children and parents.

Property Assessment Implications

Community Impacts

Children's neighborhoods by Claire Freeman

From the Ground Up by Rick Grannis

Item 7: Statistics about extracurricular activities, find about activities that are supported by volunteers.

Item 14: extracurricular activities with participation from members of the community.

Item 15: use of facilities by members of community for recreational activities.

Item 20: partnerships – vibrant, engaged community.