

**THE COMMUNITY <--> SCHOOL NEXUS:
THE CHALLENGE OF PLANNING
SUSTAINABLE SCHOOL FACILITIES**

by

SHELDON R. GREEN

A Thesis
Submitted to the Faculty of Graduate Studies
in Partial Fulfillment of the Requirements
for the Degree of

MASTER OF CITY PLANNING

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Abstract

This thesis explores the relationship between schools and communities in order to articulate a strategy that will lead toward planning school facilities that are able to readily serve multiple community needs over the long-term. It recognizes that, as a result of demographic change and premature facility obsolescence, many urban areas experience school closures; while in other areas of those same cities the threat of closure is a less significant issue. Furthermore, in areas of those same cities experiencing population shifts and/or growth there is often demand for more school facilities. The central question of this thesis asks: how are we to effectively plan school facilities that are adaptable to present as well as future needs, in order to maintain their long-term use as valuable community resources regardless of the level of school-age children in the communities they serve?

This thesis also recognizes that the general “balkanization” of our societal structures poses a challenge to our increasing cognizance of the need to make development sustainable - the necessity of managing our resources for the long-term, taking into account their present as well as future value.

This thesis demonstrates that close associations between schools and communities have a great deal to offer in diversifying the use of school facilities, assisting to sustain their long-term use. In this way, school facilities are better prepared to change with changing community needs. It concludes that although jurisdictional rigidity poses the most significant obstacle to activating sustainable planning, it can be overcome. The final chapter discusses a comprehensive framework to plan sustainable school facilities. This framework addresses the need for greater local level empowerment by recommending provincial level *enabling* mechanisms, while complementing this with local level *activating* mechanisms, in order for school facilities to be planned in the context of other social needs.

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CHAPTER 1

INTRODUCTION

CHAPTER 1

INTRODUCTION

The city is a teacher.
- Plutarch

Through history, as cities grew in size and complexity, people formed new institutions or reorganized old ones to satisfy their needs. One such institution is the school.

Generally, the school system as we know it gained widespread support during the social reform years of the mid-to-late 1800's. Society collectively began to recognize education as a valuable experience, and necessary to achieve a higher quality of life. Schools became a significant feature in the organization of urban physical and social form as many early city planners and social reformers embraced the school to enhance their efforts. Early social reformers saw education as a necessary ingredient in the socialization of the individual. City planners saw the elementary school as an appropriate standard of measurement for a quality residential environment. The school quickly became a fundamental element in the composition of our societal framework.

However, just as society is in a constant state of change, so must our institutions, change with changing needs. School management techniques, building designs, teaching strategies, program offerings and curricula have changed over time attempting to reflect the necessary opportunities for experiences to develop skills and abilities in people. However, even with these changes, mounting evidence suggests that what we need is a plan for our schools to be permanent community resources. This role is in difficulty and in need of reform.

School closures are among the most overt signs that something is amiss. Two situations lead toward school facility closure. First, as neighbourhood demographic profiles change,

many schools experience falling enrolments making it financially unfeasible to keep classrooms operating. Second, as many school facilities age, as a result of deterioration and/or antiquated features, they are no longer acceptable for the purpose of formal education of children. Both circumstances potentially leading to school closure pose a serious challenge for school officials and communities. It appears that when vacant facilities have been successfully converted to alternative uses, as a result of declining enrolment and/or obsolescence, it occurs after a period of crisis for local residents and school officials alike.¹

However, while inner city school divisions (such as the Winnipeg School Division No. 1) experience high student mobility rates, the demand for schools remains strong. Divisions that enjoy a relatively consistent demand for school facility space are likely quite comfortable with their existence. The question to be asked here is whether they will always be so fortunate. It would be naive to assume that all schools will always have a population of school-age children nearby to fill them, hence the need for planning constructs to address potential difficulties created by demographic change. To further confound matters, in many cities there are areas in demand of more schools. Just how will these schools be planned and developed? What can be done to maintain long-term utilization of such valuable community resources? How are we to effectively plan such facilities to be adaptable to present, as well as future needs? In other words, how do we plan for school facilities in response to the challenges of "sustainable community development" as we move toward the 21st century? The need for schools to be developed in a way that would allow an alternative use should the space needs of school-age children decline and/or render a facility obsolete, is inherent to any strategy for sustainable community development.

¹The situation also exists that when a facility becomes obsolete, the need for a school may still exist in that area. School officials must then deal with finding a site in the already built-up area for a new school or demolition of the existing structure.

All levels of government, and society as a whole, have a stake in the outcomes of a reformed, more coordinated and effective strategy for school planning. These institutions can then help to improve the long term 'health' of our neighbourhoods and cities.

This thesis contends that given the potential for declining enrolments and facility obsolescence, existing school facilities must be coordinated into a community wide resource inventory if they are to be put to the greatest possible use. It also asserts that if new schools are developed as more than permanent single-use facilities, and their use is closely associated with the surrounding community they serve, this will be a positive step in the direction of sustainable school facility planning. Possible conversions to additional/alternative uses would be considerably less traumatic for both the community and school system if the potential for changing functions was considered at the outset. Schools developed in this manner would have a greater ability to continue as valuable community resources. Such an idea has implications for a number of established practices related to how services are delivered in cities, and how school divisions and cities plan (or fail to plan) for the long-term utilization of neighbourhood school facilities.

To this end, the cultivation of such systemic change, particularly concerning planning and development of *new* school facilities, will not be a simple undertaking. Unquestionably, significant change to contemporary school facility planning will require a change of 'mindset' from one where the life-span of a school's function and structure is being pre-determined to be unifunctional, to one where schools and communities coalesce to formulate ongoing linkages and webs of dynamic integration.

Chapter 1 provides a general introduction to the thesis. Chapter 2 relates school facility planning to the larger body of city (community) planning literature, informing the

contextual relationship between city planning and planning for school facilities. Chapter 3 then provides a sampling of concepts that promote closer association, or integration, between the structure and/or function of schools and their surrounding communities. Chapter 4 describes and analyzes specific examples of school planning arrangements that illustrate possible types and degrees of school-community integration, and their apparent conceptual integrity regarding their ability to be adapted for alternative/additional uses. Chapter 5 provides an overview of general, current school facility planning practices, serving as a basis for policy discussion. Also described and analyzed is school facilities planning in the Manitoba context, and particularly in the Winnipeg School Division No.1. Discussion in Chapter 6 refocuses the entire discussion and outlines a series of provincial and local level policy recommendations necessary to achieve sustainable school facility planning. Concluding statements are made in chapter 7.

CHAPTER 2

“PLANNING” AS A CONTEXT

CHAPTER 2

“PLANNING” AS A CONTEXT

2.1 Introduction

The evolution of modern North American city planning has its most significant beginnings in the late 19th and early 20th centuries. At the most basic level this beginning was a reaction to the growing social problems of the 19th century city (Hall, 1988). The poor quality of life endured by an increasing number of city dwellers during this time, many of them European immigrants, was rapidly spreading. As industrialization fueled the growth of urban areas it brought about profound changes within the structure of society. With a significant shift from a largely agricultural way of life toward a producer and consumer-oriented society (what Toffler (1980) would describe as the shift from the ‘first wave’ to the ‘second wave’ of systemic social change), the many difficulties of such change quickly became apparent. In simple terms, polarization between individuals who could access capital and those who could not was at issue in this expanding market-driven economy.

Generally speaking, such change brought about a concentration of poverty and substandard living conditions to many urban areas which society was not at all prepared to address. By the late 1800's, initiatives and ideas developed by concerned individuals and groups spawned a social reform movement to face the challenges and more rigorously plan for urban living.

What developed into the dominant “ways of doing things” in planning (leading to techniques, theories, etc.), or what Thomas Kuhn (1962) coined as a “paradigm,” for the most part, served to shape the physical and social urban form we are familiar with. Although Kuhn’s work aimed at further understanding how significant scientific ideas

came into prominence, his research is also useful as an analytical construct in the social sciences.

Kuhn contended that a paradigm emerged from the cognition of a 'radically new way of seeing things,' including those phenomena that the paradigm was not formally directed towards. To use Kuhn's own words, a paradigm is "prior to the various concepts, laws, theories, and points of view that may be abstracted from it," (p. 11) and "stands for the entire constellation of beliefs, values, techniques, and so on shared by the members of a given community" (p. 75). Furthermore, he also noted that upon anomalies arising to which the accepted paradigm could not address, this was characteristic of the growth of competing efforts to articulate a new paradigm. This condition was considered as a period of "paradigm crisis." From this, stated Kuhn, emerges further articulation of alternatives seeking to overtake the dominant paradigm, resulting in a pre-paradigm state where there is no unitary paradigm consensus. Remaining in this dynamic process is the moment when the members of a given constituency (planners, for example) accept one competing school of thought, or in Kuhn's words, experience a "paradigm shift."

Although the above discussion may appear tangential at this point, the application of Kuhn's construct is directly relevant to any discussion of a fundamental shift in planning (including planning for school facilities). This will become increasingly evident as this thesis proceeds.

2.2 Paradigm Crisis

The techniques that developed into the dominant practices of planning, resulting in the structure and function of our present communities and cities, were grounded in "rational comprehensive planning." Planning and development was determined and carried out by

'technocratic experts' for the 'common good' of society. Planning in this view was "rational" in that the goal was to increase the reasonableness of decisions by having full knowledge of any issue in question; and "comprehensive" in attempting to detail fully the ramifications of any plans (Davidoff and Thomas, 1973). It is then through the application of this mindset that many initiatives served to shape, and reshape, the function and structure of communities (including their school facilities).

Although, beginning in the 1960's the "rational comprehensiveness" of planning faced increasing criticism as discussion began, for example, to question the planners' ability to fully understand the 'public interest' (Altshuler, 1966). Friedmann (1981) criticized this view, calling it a "blueprint" model of planning. The blueprint model was a form of advance decision-making to devise a design for the future by a central authority with little thought given to the possibility of any deviation from the plan (what Gratz (1989) referred to as "top down" planning).

Davidoff (1965), like Friedmann, also criticized this model, arguing that what was needed was a form of advocacy planning where the planning processes would support the opportunity for citizen participation and contention to any plans being proposed.

Thus, the increase in the number of competing schools of thought regarding how plans should be made and carried out appeared to be related, in simple terms, to one thing - increased involvement of the 'community at large' in the ongoing efforts to plan for the 'betterment' of society.

Paralleling this growing public consciousness, characteristic of the 1960's, was a 'push' toward increased spending for education; both in terms of the increasing numbers of schools needed as a result of the post World War II "baby boom," and a growing

recognition of the need to improve educational opportunities in general. A result of this 'push' was the large scale promotion of Community Education (particularly in the U.S. by organizations such as the Mott Foundation) as an appropriate direction for long term improvement of the quality of life.

Clearly, the similarities between calls for increased citizen involvement in urban and community planning, and the promotion of community education, have a common bond. This is evidenced whereby Minzey and LeTarte (1972) stated that

the ultimate goal of community education is to develop a process by which members of the community learn to work together to identify problems and to seek out solutions to these problems. It is through this process that an on-going procedure is established for working together on all community issues (p. 3).

As planning was shaken into raising it's cognizance of increasing citizen participation (still remaining to be a significant obstacle for most formal planning constituencies to overcome), schools too were facing demands for greater community involvement. Although there was increased public involvement in schools, from programming all the way to facilities planning, it was, and continues to be, inconsistent and sporadic in how and where it is actualized.

Furthermore, the only consistency regarding school facility planning is that the mindset which pre-determines a school to be a unifunctional facility (clearly an application of Friedmann's (1981) aforementioned 'blueprint' model with respect to planning school facilities) continues to be the dominant paradigm.

As the paradigmatic dominance of central authority, "blueprint", "top-down" planning was perpetuated through the 1970's and into the 1980's, structural changes impacting the social and physical makeup of cities came to the forefront. As the impact of the baby boom began

to subside, it resulted in a declining birth rate. At the same time, the demise of central city industries, coupled with changes in demographic profiles (associated with shrinking school-age populations, non-family oriented gentrification, aging in place, and an increase in suburban development), placed a great deal of pressure on schools in established neighbourhoods, particularly in the inner city. Typically in most North American cities, there were many areas of cities that began to close obsolete schools. At the same time other areas in the same cities were in need of increased school space and new schools in areas with expanding school populations.

2.3 Paradigm Shift

For school facility planning, the problem school divisions faced with respect to the provision of facilities was a microcosm of a much larger problem - both community planning and school planning were experiencing anomalies which their traditional, accepted practices were unable to address. Accordingly, through the application of Kuhn's (1962) research on the evolution of paradigms, the above illustrations of paradigmatic crisis are characteristic of a pre-development stage of dominant "ways of doing things," leading toward a paradigm shift.

2.4 Sustainable Development

Perhaps more of an 'all encompassing' dimension than that discussed above, rising out of the competing schools of thought regarding the "knowledge to action" (Friedmann, 1987) continuum of planning, is the shift toward planning and development which can meet present needs without compromising the ability to 'sustain' future needs - or, sustainable development. To quote the renowned work of the often cited Brundtland Commission,

Humanity has the ability to make development sustainable - to ensure that it

meets the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987; 8).

The “buzz word” of the 1990’s - “sustainable development,” is quickly becoming an overused term. Yet, its significance to the future of humanity is far from being fully realized in practice as researchers, policy-makers, educators, politicians and planners walk a “tight rope act” in activating this paradigm on the knowledge to action continuum.

In a series of reports on sustainable development, resulting from the Manitoba Round Table on Environment and Economy (1990, #1), the Manitoba Government quoted Canada’s National Task Force on Environment and Economy which described sustainable development as:

... the requirement that current practices should not diminish the possibility of maintaining or improving living standards in the future. This means that our economic systems should be managed to maintain or improve our resource and environmental base so that the generations that follow will be able to live equally well or better. . . Sustainable economic development implies that resources and the environment must be managed for the long term, taking into account their possible value in the future as well as their value now (p. 3).

To give greater perspective to this note insofar as it applies to school facilities, one might simply substitute the words “school facilities” into this description for it to then read as follows:

... The application of sustainable development implies that school facilities must be managed for the long term, taking into account their possible value in the future as well as their value now.

Hence, if school facilities are to be planned and developed to be sustainable, as significant components in the development of sustainable communities, then reuse, adaptability and flexibility of school facilities must be considered.

Through the Manitoba Round Table on the Environment and Economy (1990, #1) the

Government of Manitoba defined their principles and guidelines for sustainable development as:

2.4.1 Principles

- **Integration of environmental and economic decisions:** requires that we ensure economic decisions adequately reflect environmental impacts including human health.
- **Stewardship:** requires that we manage the environment and economy for the benefits of present and future generations.
- **Shared responsibility:** requires that we acknowledge responsibility for sustaining the environment and economy, with each being accountable for decisions and actions, in a spirit of partnership and open cooperation.
- **Prevention:** requires that we anticipate, prevent or mitigate significant adverse environmental (including human health) and economic impacts of policy, programs and decisions.
- **Conservation:** requires that we maintain essential ecological processes, biological diversity and life-support systems of our environment; harvest reusable resources on a sustained yield basis; and make wise and efficient use of our renewable and non-renewable resources.
- **Recycling:** requires that we endeavour to reduce, reuse, and recover the products of our society.
- **Enhancement:** requires that we enhance the long term productive capability, quality and capacity of our natural ecosystems.
- **Rehabilitation and Reclamation:** requires that we endeavour to restore damaged or degraded environments to beneficial uses.
- **Scientific and Technological Innovation:** requires that we research, develop, test and implement technologies essential to further environmental quality including human health and economic growth.
- **Global Responsibility:** requires that we think globally when we act locally (p. 5).

2.4.2 Guidelines

- proper resource management and allocation together with incentives and disincentives to encourage **efficient use of resources**;
- encourage and provide opportunity for consultation and meaningful **public participation** in decision making processes;
- **understanding and respect** for differing economic and social values, traditions and

objectives is necessary to manage our common resources;

- **access to adequate information**, refining and improving our environmental and economic information base;
- **integrated decision-making and planning**, it must be open, cross-sectoral and relevant to long-term implications; and,
- development and **use of substitutes** for scarce resources where it is environmentally and economically viable (p. 5).

How, then, is this to be achieved? How will planning, in its broadest sense (as it applies to the planning of both communities and their school facilities), be responsive to such principles and guidelines?

The Brundtland Commission (1987) and the Manitoba Round Table on Environment and Economy (1990, #1) noted a number of considerations needed to ensure achievement of sustainable development:

- a political system that secures effective citizen participation in decision making,
- an economic system that is able to generate surpluses and technical knowledge on a self-reliant and sustained basis,
- a social system that provides for solutions for the tensions arising from disharmonious development,
- a production system that respects the obligation to preserve the ecological base for development,
- a technological system that can search continuously for new solutions,
- an international system that fosters sustainable patterns of trade and finance, and
- an administrative system that is flexible and has the capacity for self-correction (Manitoba Round Table on Environment and Economy, p. 2).

From many of the discussions of what is needed to achieve sustainable development, more effective (and increased) citizen participation in conjunction with creative partnerships and localized initiatives seems a consistent theme (Mah, 1992). Rees and Roseland (1991) supported this, and noted that "it is at the community level where most of these initiatives will have to be implemented" (p. 18).

To this end, it has also been articulated that what is needed for planning is a process whereby innovative change (whatever this might mean for a given community) can begin "from below" in a context of mutual learning between all involved - rather than a "blueprint" model imposed "from above" (Friedmann, 1981). To use Friedmann's words,

The ultimate terms of this struggle would be this: that planning "from below" might accurately reflect the genuine interests of the people engaged in the social production of their lives (p. 5).

To be sure, the challenges to both community and school planning are inextricably bound to each other. The development of communities brought about the need and subsequent building of schools. Yet, while schools have become dominant features in the dynamics of our physical and social urban form, they have also become very specialized and "removed" from the very sense of community that nurtured their development in society. Furthermore, while typical, specialized school facilities have for the most part remained static with respect to their relationship with communities, the dynamics of communities continue to impact, as well as be impacted by, their own physical and social form.

Hence, in order to articulate a direction for planning school facilities to be able to meet the needs of today without compromising their ability to meet future needs, articulating and moving through a paradigmatic shift, paradoxically, points toward the solution which lies webbed in the very nature of the problem - the relationship between the school and the community.

CHAPTER 3

COMMUNITIES AND SCHOOLS

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COMMUNITIES AND SCHOOLS

3.1 Introduction

This chapter briefly highlights a sampling of concepts which promote closer association, or integration, between the structure and function of schools and their surrounding communities.² For purposes of clarification, the "structure" of schools is defined as any element of discussion which is related to, and impacts on, the physical configuration of a school plant, and/or physical elements of a school site. Regarding the "function" of schools, this is defined as any element of discussion which is related to, and impacts on, the operational activities within a school plant and/or on a school site.

Evident in this discussion is that integration of schools can take many forms, and exist in varying degrees. Integration may occur where the function of a school is expanded after "regular" hours, or when an entire facility is built to house both school and community facilities, coordinated on an ongoing basis throughout each day. Varying types and degrees of integration, although evidenced in the following discussion, are components of further analysis in Chapter 4.

3.2 Structural Relationships

The traditional school plant and ancillary spaces, forming an integral societal institution,

²The definition of what constitutes a community is an issue which has been, and continues to be the source of much debate. A community has often been defined in geographical terms. Yet the significance of socio-economic characteristics has also been used to define a community. Debate on this issue has not reached consensus on a rigid definition. Although, in this thesis "community" will refer to the interface between a 'community-of-interest' relative to the utility of a given school facility, and pertinent spatial and geographical characteristics.

developed in relative isolation to the residential areas which they existed to serve. The prevailing urban and community planning practices only considered the school insofar as the land that school buildings and children's play areas would potentially occupy; (of course with the provision that there would be a population of children nearby to fill them once completed). In Canada this has undoubtedly been aided by the fact that schools are funded and operated, for the most part, completely independently of any municipal and/or community planning agencies. Therefore, there is no need for the school system to coordinate their planning within the scope of community plans, and vice versa, even though efforts by each group will undoubtedly impact the other. All of this, as Patrick Geddes (1949) noted many years ago, is in opposition to "seeing things whole."

Efforts to consider school facilities further, planning for greater association or affiliation with either the surrounding physiography and built environment, and/or the participation of other community/human service-related agencies in some fashion, have to date generally been overlooked; although not entirely. Many plans and ideas have been articulated regarding "structural" and/or "functional" integration between the school and community.

The Garden City, as conceived and described by Ebenezer Howard (1946), gave schools prominence as important community facilities. Howard's concept plan saw a 1,000 acre circular town for 30,000 people being built at the center of a 6,000 acre 'green-field,' or agricultural area. The town was designed to have six pie-shaped wards. Howard felt that each ward "should in some sense be a complete town by itself," (p. 71) with each ward containing a complete array of administrative and community facilities. The town would also have six boulevards as rings radiating outward from the center, with the Grand Avenue boulevard - a ring of green-space separating components of each ward, containing a school; one school for each ward.

The school site of four acres, consisting of a building, playgrounds, and garden areas, was intentionally designed to take economic and physical advantage of this green-space. And when speaking of the cost of school sites for his Garden City, Howard commented regarding the structure and resultant potential function of the school site in being adjacent to a garden area:

It is a great pity that the old suggestion of attaching, wherever possible, half an acre or so of land to each public elementary school in the country has never been carried out. School gardens might be made the means of giving the young an insight into horticulture, the effect of which they would find pleasant and profitable in after life. The physiology and relative value of food is a much more useful branch of school instruction than many a branch upon which the young have wasted years of their time, and the school garden would be the most valuable of object lessons (p. 73).

Although horticulture may not yet be a contender for prominence in grade school curricula, there is more to this point than may appear. Schools have potential to be many things which could serve to strengthen the relationship between activities related to a school plant and site, and the dynamics of life in surrounding residential areas.

In justifying his 'plan' with regard to the location of schools, Howard noted that the welfare of children was "the primary consideration of any well-ordered community . . .," and that "the children must be educated near their homes . . ." so as "to expend less than an average amount of energy in going to school . . . especially in the winter" (p.74). This of course necessitated that schools be situated in close proximity to each ward's residential area. This carried structural implications for the design of residential areas.

Howard also felt that schools could serve more than one purpose and be used as cultural centers, providing space for religious worship, concerts, libraries, and various meetings in the early stages of a community's development, prior to further capital outlay. Thus, Howard was concerned with the 'livability' of each ward of the total community, and saw the school, when structured appropriately within the townscape, as having the potential to

expand its functional utility.

Lewis Mumford, in his Introduction to Howard's Garden Cities of Tomorrow (1946), noted that Howard emphasized the need for regional planning. As Mumford stated,

Howard saw that there was no solution of the city's problems within the existing framework of municipal administration, because one of its greatest problems was the lack of economic and social and political relation to the surrounding countryside: here his vision was far clearer than the vision of those municipal reformers . . . who have let themselves become absorbed in some single aspect of urban development and have forgotten the larger situation of which the narrow problem they have chosen to solve is but a part. . . the relation of town and country within the Garden City area is equally applicable to the entire business of city and regional planning: the administrative unit that is created must be capable of embracing both the urban and the rural aspects of the region (p. 35-36).

From this, it would appear that a logical extension of Howard's work would be that city-wide and regional considerations should be a part of any planning and development, including those in relation to the structure and function of a school system. Also, that the inhabitants of a Garden City would "in their collective capacity own the land" (p.142), in a cooperative venture, it would seem likely that Howard would have supported the ability of the school to be responsive to the changing needs of the residential area it served. To this end, this thought may gain evidence when Howard noted the inability of cities of his time to adapt to societal changes:

These crowded cities have done their work; they were the best which a society largely based on selfishness and rapacity could construct, but they are in the nature of things entirely unadapted for a society in which the social side of our nature is demanding a larger share of recognition - a society where even the very love of self leads us to insist upon a greater regard for the well-being of our fellows. The large cities of today are scarcely better adapted for the expression of the fraternal spirit than would a work on astronomy which taught that the earth was the centre of the universe be capable of adaptation for use in our schools. Each generation should build to suit its own needs . . . The reader is, therefore, earnestly asked not to take it for granted that the large cities in which he may perhaps take a pardonable pride are necessarily, in their present form, any more permanent than the stage-coach system which was the subject of so much admiration just at the very moment when it was about to be supplanted by the railways (p. 146).

Howard's message presents a central question. What kind of school would we have if we didn't assume that they should be developed as a permanent single-use facility?"

To reiterate Howard's views, quality of life was an essential component of a well-ordered city, and its purpose should be to provide for this; the structure and function of the entire town should be considered in a regional context; and, inherent in the structure and function of towns and cities is that they will inevitably change with the changing needs of successive generations. However prophetic Howard's message sounds, such words of wisdom have not always enjoyed consistent practice. Although, one dimension of city planning that has experienced some consistency is that of the school-centered residential area.

Not altogether a surprise, Clarence Perry, a community/social planner for the Russell Sage Foundation from 1913-1937 (Hall, 1988), crystallized much of the social reformist and intellectual thought of this time into his idea of a complete residential module or "neighbourhood unit."

This concept had a residential area limited in size to that which could support one elementary school. The school, associated recreational open-space, and additional space to encourage other community institutions, would be located at the neighbourhood center. The intent was to allow for no more than one-half mile walking distance to the school for all residents (Perry, 1922); echoing similar suggestions by several of his predecessors (Howard, 1946), (Nolen, 1916).

Although, as the neighbourhood unit idea was to be widely used, it was not to be without criticism. The criticism focused on the design for being overly child and family-centered since a single-use elementary school was the physical center-piece (Rohe and Gates, 1985). It has also been felt that the neighbourhood unit was an expression of 'physical

determinism,' in that it emphasized homogeneous areas, enforced social segregation, and even maintained ghetto areas (Rohe and Gates, 1985). Keller (1968) stated that "neighborhood units which are supposed to be a microcosm of urban life fail because of segregation by income and family composition" (p.132).

Much of the criticism directed toward the Neighbourhood Unit concept has been the result of it being based on a static view of urban life, with a typically single-use facility for children as its center-piece; while modern life is dynamic and constantly changing. In spite of such criticism, the Neighbourhood Unit, with the capacity of a school influencing its size, has remained relatively unchallenged by any alternative residential-area planning construct.

In addition to being influenced early in his career by efforts to convert schools into centers of community life, and the work of Jane Addams' Hull House (Hall, 1988), Perry was undoubtedly also influenced by his own neighbourhood of Forest Hills Gardens, designed in part by Frederick Law Olmsted, the 'father' of American Landscape Architecture (Guttenberg, 1978). As for Olmsted, his design of Central Park in New York City, which separated vehicular and pedestrian traffic, was a precedent to other significant ideas for community planning as will become evident.

During the same decade that Perry published "The Neighborhood Unit," Clarence Stein and Henry Wright were designing communities such as Radburn, New Jersey (Guttenberg, 1978), with a similar neighbourhood plan to that of Perry (1922). Stein and Wright could be considered disciples of Ebenezer Howard, and saw the school as playing a significant role in their plans. Their Radburn design turned the homes away from the streets to an internal pathway that, while separating vehicular and pedestrian traffic (which was Olmsted's original idea), would all lead to the school site (Stein, 1958). A significant

Canadian example of Stein's use of the Radburn plan, can be seen in the design of Kitimat, British Columbia (Hodge, 1986). In addition, a local example of Radburn planning principles can be seen in the Wildwood Park area of Winnipeg.

Variations on this theme saw the development of Greenbelt towns such as Greenbelt, Maryland, with a Community-School Center being the focus of community life.

Furthermore, Thomas Adams - a prominent figure of early Canadian community planning, was influenced by both Garden City and Greenbelt planning principles when he designed the resource town of Kapuskasing, Ontario, in 1921 (Hodge, 1986).

The Garden City, Radburn, and the Neighbourhood Unit ideas were all brought together in the Greenbelt towns, with each holding the school as a fundamental component in the structural and functional organization of their concepts. Clearly, the significance of the school was entrenched as an integral element of both the physical and social fabric of a community.

Much of this thought of designing "livable" communities - communities with a focal point for public institutions and services to serve the residential sector therein, undoubtedly also influenced Humphrey Carver. Carver, a landscape architect, figures prominently in the development of present day Canadian city planning. In his book "Cities in the Suburbs" (1962), he concludes with great emphasis that large scale development of new urban areas (suburbs) has to start with planning a central place.

Carver felt that when planning for residential areas, that "The school would properly be placed in the Town Centre focus of these neighbourhoods, along with the other institutions that tie the community together" (p. 85-86). He also believed that since suburban

developments are typically developed in advance of the people who are actually going to live there, that a public "Trustee" was needed during initial planning stages.

There must be an institutional embodiment of the future "we" who come to live in the suburbs, a form of public Trustee to represent the interests of the future residents while the suburbs are in the making. This must be a public body with powers to buy community land, to make plans for each Town Centre, and to start developing its buildings and open spaces. When the Centre has grown to a mature stage and when the surrounding community has settled down and solidified, then the Trustee organization has discharged its responsibilities and can surrender the Town Centre property to the established local government (Carver, 1962: p. 118).

Carver also expressed the need for city building to be a partnership between public and private interests. He expanded on this idea, noting that on one hand we have private enterprise developing the suburbs, only to eventually have a series of relatively uncoordinated actions by municipal bodies to also develop property in these developing areas: school boards, library boards and parks and recreation agencies. "The strength of local government has been divided and fragmented" (p. 119).

Further to looking at the structural relationship between the school and community was the 'educational park' concept which came out of the United States (U.S.) in the late 1960's. The genesis of the 'educational park' concept came from educational authorities who tried to solve the problem of school segregation that came about from racially segregated communities (Gallion and Eisner, 1986). This 'educational park' consisted of a system of schools serving varying age levels of children and youth for a community area. There were facilities within each neighbourhood area for very young children and parents. In describing this "Parent-Child Educational Center," Gallion and Eisner stated that,

Each village is composed of three to four neighbourhoods. Ideally, a Parent-Child Educational Center should be located in each neighbourhood. The facility is intended as a social and recreational activity center for children from infancy through seven years (grades N-2) and their parents. These centers should be located within easy walking distance of the

children's homes (p. 313).³

Facilities for elementary, junior and senior high students were planned at the 'community' level; while students from the various neighbourhoods would attend a cluster of schools on a large single site in the center of the community. As Gallion and Eisner noted,

A village, roughly one square mile in area, containing approximately 8,500 people, could support an Educational Park. The park would provide a program of education for children of elementary and junior high/high school ages. The park would contain three or four middle schools, providing instruction for children in grades 3-8.

The goals of an educational park should be reflected in its shape and organization. An Educational Parks (sic) goals will be unique, reflecting the cultural, educational, and social values of a particular community (p. 313-314).

Although this concept does not integrate community services or facilities with schools per se, it nonetheless is an illustration of an effort to plan for the development of closer relationships between schools and their surrounding residential areas.

Each of the above concepts briefly gives examples of elements of the structural relationship between schools and communities that have been articulated. In each instance emphasis was placed upon the structural relationship of land uses, with school buildings and sites holding a pivotal role in the community. The following section will continue to explore the relationship between the school and community, with particular emphasis on initiatives impacting the functional nature of their interdependence.

3.3 Functional Relationships

While ideas were being articulated by people such as Howard and Perry, initiatives were also being expressed by a host of other reform-minded people. One of the earliest examples of efforts to intervene in neighbourhoods, impacting the functional relationship

³Note: The terminology "grades N-2" used in this quote refers to "Nursery" school and "Grade 2" respectively.

between schools and communities, was the Settlement House approach (Rohe and Gates, 1985). Although this initiative was not directed at schools per se, its influence during this era bore pressure upon the function of schools.

Settlement House efforts, quite likely in part forming the beginnings of community development and neighbourhood level planning, saw settlement workers seeking to intervene in deteriorating neighbourhoods to educate the poor so they might pull themselves out of the lower 'classes.' During the late 1800's in Chicago, Jane Addams, influenced by efforts she witnessed on a trip to England, established Hull House, one of the first North American settlement houses. Hull House, as Hall (1988) stated, was

. . . a voluntary movement dedicated to saving the immigrant from his (and, especially, her) own errors and excesses, socializing him into American folkways, and adjusting him to city life . . . They dispensed continuing education for early school-leavers, summer camps to take children back to nature or playgrounds for those who stayed behind, an old people's club (designed to break down their prejudice against the immigrants), a boarding club for girls, a programme to save 'fallen women', and a day nursery (p. 40-41).

In this approach, the neighbourhood was seen as an important social unit "that could be used to help solve the problems of poverty, illiteracy, criminal behaviour, and ill health" (Rohe and Gates, 1985: 14). Through these efforts, the realization of the potential of the school to strengthen society gained in significance. The present function of the school was seen as being unable to address the problems that were growing in many urban areas. To address this, as Woods and Kennedy (1922) noted,

Miss Addams was a member of the Chicago school board . . . and was instrumental with others in introducing a number of enlargements of public school service and in endeavoring to bring about a constructive, progressive, and harmonious administration . . . A committee of these trustees had power to appoint and remove teachers and janitors, to contract for supplies, and to engage buildings (p. 276).

To an extent, the Settlement House served to function as an alternative to the institutionalized nature of traditional education, largely as a result of the school's inability to

deal with the growing complexity of urban life. To illustrate the role taken by a settlement house in one instance, Woods and Kennedy (1922) stated,

Hull House rescued a school building from the grip of a ward healer who had appropriated the land on which it stood as a factory site, even though the number of sittings were insufficient to accommodate all children in the ward. College Settlement, New York, when an unusually large number of first-grade children were denied admission to public school, made itself responsible for the grade, providing room and teacher (p. 275).

Also being debated at this time was whether or not it was part of the schools function to make provision for feeding programs for undernourished children.

As early as 1894 Starr Center and College Settlement in Philadelphia began the sale of nourishing food and drink in penny portions to pupils of a nearby school. . . In 1901 Henry Street Settlement set out to discover as definitely as possible the number of neighborhood children in need of food. So many cases came to light that it offered to organize a system of penny lunches provided the Board of Education would guarantee expense of maintenance. . . Settlement residents, however, are very far from agreeing that because some children are undernourished all should be fed at a municipal refectory. It seems clear that the need of school feeding is overstated by its extreme advocates, and that in any case money and energy expended in providing school lunches would be better devoted to meeting family problems which produce under nourishment (Woods and Kennedy, 1922: p. 277-278).

The views of this approach suggest that Settlement House proponents would have likely supported schools that were readily able to respond to the particular needs of their local neighbourhood areas. To this end, Woods and Kennedy also made the following comment:

Experience suggests that the school should be quick to take account of neighborhood demand for particular forms of education, whether manual training, elementary evening classes, or housekeeping, while seeking to stimulate interest in subjects intrinsically worthy but for which there is no ready-made demand. Not a few local school administrators have endeavored to create cultural units like those of settlement craft guilds, music schools, local art centers, through which such interests may find permanent expression. A conviction first expressed by residents is gaining ground that school principals and at least a moderate proportion of teachers should be required by law to make their homes in communities which they serve (p. 284).

With respect to schools, the Settlement House undoubtedly served to raise awareness of the

ineffectiveness of the accepted function of the school system in meeting the changing needs of society. Schools were simply not flexible enough to be effectively utilized to work toward addressing the growing complexities facing residents of their surrounding communities. Typically, schools were, and still are, primarily planned to be permanent single-use facilities.

In addition to the demands for industrial and technical employees to serve an increasingly complex, consumer/service oriented society, education was seen as essential for socialization of the individual. As McKelvey (1969) stated, "The mushrooming cities, their new industrial functions, and the polyglot character of their populations combined to demand new services from schools" (p. 64). The 'three R's', typical of formal education in the latter half of the 19th century, were no longer able to provide people with necessary skills and abilities.

. . . All cities where the schools were thronging with immigrant children - evolved new techniques for object teaching, new courses in elementary science, and new programs for handicraft and mechanical instruction that progressively made the public schools vital urban institutions . . . the urban schools . . . effectively removed children from the streets . . . and also prepared their members for participation in the increasingly urban society (McKelvey, 1969: p. 64).

Hence, as McKelvey indicated, in order for schools to be effective and meet the dynamic needs of society, their function had to be able to evolve.

Although the promotion of literacy skills was a key component of much of the change in education, complementary efforts to improve the human condition were continuing. One such example, occurring at approximately the same time as the Settlement House beginnings, was the Vacation School movement (Perry, 1913). This movement advocated extended use of school facilities for various programs during the summer months. In several U.S. cities their development was in recognition of the large number of "forlorn

homes and crowded streets in the city,” and that there was a need “to secure the use of school yards for children who had no place to play” (Perry, 1913: p. 35). Although the need for outdoor recreational space was integral to their formation, many other activities were organized for children - sewing, art, industrial work training, music, and nature study. With this movement there was a functional extension of school facilities (primarily for children), although it had little or no impact upon the structural elements of the school, its site, or the community area it served. The use of the school yard for children’s play did, however, highlight the lack of attention given to urban open space planning.

Paralleling efforts to convert schools to centers of community life, the turn of the century in New York City also saw Recreation Centers becoming widespread, as schools were opened up in the evening for recreational pursuit (Perry, 1913). Again, for the most part it was the function of the school that was being expanded; while the structure of the school plant, and the structural relationship between the school and the larger urban ‘fabric,’ was left largely unchanged.

The Recreation Center idea has become a significant development in many Canadian cities as well. For example, Winnipeg School Division No. 1 has agreements with the Department of Parks and Recreation, City of Winnipeg, which has brought about the development of recreational facilities (buildings or ancillary spaces) in close association with nearly a dozen school facilities (Ed Lagiewka, Parks and Recreation, City of Winnipeg, Personal Communication, January, 1993).

Further to the increased attention for schools to be integrated in some fashion with the surrounding residential areas they served, was the formation of “Community Councils.” During the first World War in the U.S., with impetus from the National Council of Defense, neighbourhood associations formed “Community Councils.” These Councils,

intent on "mobilizing various local resources needed for the prosecution of the war," found the school to be a natural meeting place (Perry and Williams, 1931: p. 41-42).

In addition, increasing political use of the school was recognized by the New York Board of Education in 1928-1929 when they wrote,

The use of the school during election time for the submission of the issues is constantly increasing, and it is but a matter of a short time when practically all the political meetings will be held in the schoolhouse (Perry and Williams, 1931: p. 44).

As evidenced, in a rather sporadic fashion the school took on greater significance as both an institution to formally educate society, and as a 'natural' location for all ages to come together to participate in a whole range of activities.

From this hodgepodge of school and community integration initiatives also came the formation of the People's Institute, (later known as the New York Social Center Committee, and associated with the United Neighborhood Guild, Inc.) (Perry and Williams, 1931). The People's Institute sought to establish centers "around which the human interests could meet and organize themselves" (Perry and Williams, 1931: p. 22). In addition to leisure and other social pursuit, the school in this instance functioned to assist the neighbourhood's ability for local political organization; a sort of sociopolitical 'common ground.' Again, the view regarding the potential function of schools was broadened.

Considerable work has been accomplished in their neighborhoods in the field of civic welfare through the activity of the local center groups, who arrange meetings on vital local problems, and so stir up a public opinion which brings about improved conditions (Perry and Williams, 1931: p. 41).

In the case of New York's initial experience with the People's Institute, with assistance from a local school principal, the Social Center Committee hired a trained community organizer to "develop an enlarged program of activity" (Perry and Williams, 1931: p. 23). In addition to the People's Institute making a valuable contribution to promoting adult

education, such initiatives began to attract attention in New York with calls for all of the schools in the city to be converted into "centers of community life" (Perry, 1922: p. 26).

Occurring on a superficial level was the volunteer organization of leisure time to aid the improvement of urban life. Although, on a deeper level, was concern over the weakening between the individual, the 'place,' and the community becoming prevalent with the increasing urbanization of society.

Much of the social reform initiatives offered as examples thus far were integral to the development of modern city planning; although, in many instances, they represented the desire to preserve pre-urban social and moral values. It was hoped that through strengthening and broadening city planning and related efforts, that the degradation and ills of the modern metropolis could be corrected, or ameliorated in time.

Yet another concept, on somewhat of a different level from any of the preceding discussion, although having a major impact upon the function of schools, is the Community Schools movement. This movement, whose support appears to have peaked in the mid-1970's, strives to develop expanded community involvement in some form of association (program and/or facility-related) with the ongoing activities of a given school.

Community Schools began in the U.S. as an effort to strengthen the relationship between the local community and the school. The 'birth-place' of Community Schools in Canada was in the 1962-63 school year in Winnipeg's Seven Oaks School Division (Hanna, 1980). Hanna traced the development of Community Schools as being inspired by the idealism of post World War (W.W.) I involvement, and subsequent societal difficulties of the "Great Depression." In short, educators and school officials felt that they had the potential to solve many pressing community problems by taking leadership and developing

programs such as home economics and agricultural economics. Schools also maintained an involvement in their communities by coordinating volunteer war service projects, ration programs, and adult evening classes. Clearly, as previously discussed by Perry and Williams (1931), this beginning was consistent with the promotion of adult education that came about with the development of the People's Institute.

With the increased pace of urbanization in the decades following W.W.II, the Community School gained increased attention. The Community School began to be seen as the vehicle with which to promote continuing education for society at large. Over time, Community School programs came to include those for school-age children during the school day; additional programs for children and youth before and after school; and, programs for adults (Hanna, 1980).

What is most significant to this thesis regarding the Community School, is that with an increased level of attention to the dynamics of the surrounding community, the greater the likelihood is that the school facility will always be a significant resource to be utilized by area residents, regardless of student enrolment levels. However, such an assumption is only possible with cooperation on the part of potentially involved agencies and the school, and a school plant that is adaptable to changing needs.

The Community School movement primarily impacts the function of the existing school. Although, due to the intention of extended community use, it is likely that in cases where pre-planning was involved, that facilities such as the gymnasium and library would be given greater consideration. Community Schools, as popular as they may appear to be, however, have been sporadic at being developed.

Collectively, the efforts expressed in this section were primarily aimed at more fully

utilizing existing schools. The functioning of the facility was extended to include community social, recreational, and political activities, with the physical structure of the plant, its site and physical relationship to the surrounding built community, remaining largely unchanged. The following section will continue this discussion by noting in particular those efforts which primarily and more equally impacted both the structural and functional relationship of the school and community.

3.4 Structural and Functional Relationships

Also stemming from this atmosphere of reform, and undoubtedly concentrating many of the views being expressed by people concerned with community and social development, was the Community Center (or 'social center' as once referred to by Perry (1921)) movement. This movement was "clearly derivative from the approach of Jane Addams in Chicago" (Hall, 1988: p. 123), and sought to develop schools into community centers through citizen involvement.

Similarly to what Howard (1946) expressed earlier, the Community Center movement felt that the school indeed had greater utility than was typically being exercised. Both the structure and function of community centers, however few they came to be, were often designed to provide facilities and services for all members of the community. Schools were promoted as the appropriate "vehicle" for these centers. Their location would serve adults and children alike to seek involvement in the activities of the day. Perry and Williams (1931) noted that,

To help the movement along, (the Board of Education) tried to make the physical conditions in its buildings better adapted to the needs of the neighborhood bodies. . . It entered into written agreements with them whereby they were assured of the use of certain accommodations for a specified period, so that they could make plans for a season, rather than for single occasions. . . The Board of Education thus became accustomed to deal with voluntary associations and to see them work within school walls.

It learned to . . . realize the value to society which would be gained if they were assisted in the pursuit of their own ends through the use of school facilities (p. 30-31).

Taking this concept a step further was Jackson (1918). Jackson wrote of a community center as having many roles:

- 1) The People's University - With so many men and women who were lacking formal education, what was needed, he said, was a 'People's University,' with the public school as a community center.

While the public school is dedicated primarily to the welfare of the child, it is becoming daily more evident that the Nation's welfare requires it to be used for adults and youths as well. Notwithstanding the fact that it is our finest American invention and the most successful social enterprise ever undertaken, its golden age lies before it (p. 3-4).

- 2) Community Capitol - "From the standpoint of citizenship," (p. 5) the school should be the place where all polling occurs.

- 3) Community Forum - This is the meeting of community members in their school for discussion of any concerns facing them. "The forum furnishes the means for mutual understanding. It aims to create public-mindedness" (p. 11).

- 4) The Neighbourhood Club - This was thought to be an opportunity for members of a community to "meet on terms which preserve their self-respect . . . and multiply their contacts" (p. 12-13) with one another. This club was to be located in a schoolhouse.

- 5) The Home and School League - This effort was to strengthen the bond between a child's home life and his/her school life. Jackson saw this 'League' as potentially becoming the parent organization from which a community center would grow.

- 6) Community Bank - A community bank should be set up in a local school for adults and children alike.

As regards children, it ought, so far as possible, to be a part of the curriculum of the school. Such banks are now conducted in many schools for children. . . Its aim is to multiply the efficiency of the people's savings by pooling them for cooperative uses. Its aim is to capitalize character and to democratize credit. It serves a community use by enabling the people to

do jointly what they can not do separately. By clubbing their resources they can use their own money for their own productive purposes.

Such a bank operated for the common welfare will not only furnish the working capital for community enterprises, but will also be a loan society (p. 22-23).

7) Community Exchange - This idea saw the organization of a community resource exchange being carried out in schools. Everything from garden produce to a housekeepers' alliance could be a part of this exchange.

Jackson's ideas and examples represent the possibilities that were being articulated as components of a 'multi-use' facility. However, proponents of the community center movement, and related movements, were not always talking of the same thing with respect to the structure and function of schools; even though schools were pivotal to the overall Community Center concept. For example, some people felt that simply extending opportunities to increase the use of existing school facilities after and/or before school hours for recreation was the answer. For others, the structure and function of the traditional school plant and site had to be expanded to house other uses in some association with it.

As already evidenced, the school was recognized as having a special relationship with the community, offering the neighbourhood social, recreational, and even political common ground on which to gather.

Patrick Geddes (1949) added to the above dimensions with his discussion of citizenship. Placing his comments in context, he spoke of the city park being so rigidly developed and managed that it failed to be all it could be, particularly in the self-education of children:

Their lay-out has as yet too much continued the tradition of the mansion-house drives, to which the people are admitted, on holidays, and by courtesy. . . Now, if the writer has learned anything from a life largely occupied with nature-study and with education, it is that these two need to be brought together, and this through nature-activities (p. 53).

Furthermore, regarding the school and associated ancillary spaces, Geddes optimistically noted that

With the dawning reclamation of our school-system, hitherto so bookish and enfeebling, there is coming on naturally the building of better schools - open-air schools for the most part; and henceforth, as far as may be, situated upon the margins of these open spaces. With these, again, begin the allotments and the gardens which every city improver must increasingly provide - the whole connected up with tree-planted lanes and blossoming hedgerows, . . . (p. 54).

To relate this to his discussion of citizenship, then, he felt that the upkeep of all this should not be paid for through taxes, but rather

be naturally undertaken by the regenerating schools and continuation classes, and by private associations too without number. What better training in citizenship, as well as opportunity of health, can be offered any of us than in sharing in the upkeep of our parks and gardens? Instead of paying increased park and school rates for these, we should be entering upon one of the methods of ancient and of coming citizenship, and with this of the keeping down of taxes, by paying at least this one of our social obligations increasingly in time and in service rather than in money (p. 54).

Clearly, Geddes supported strengthening linkages between schools and communities. His notes have implications for the both the structure and function of school facilities and their ancillary spaces. However, this was not all he had to say about the link between schools and communities. In his discussion of "The Survey of Cities" in Cities in Evolution (1949), he articulated that what was needed for supporting the social development of cities was ongoing citizen surveys, initiated at the local level. He commented on the role to be taken by schools:

. . . weakest and least specifically prepared hitherto, yet fullest of hope and possibility of all - the primary school. . . Here, in fact, are beginnings for a "Know your City" movement which may spread through our towns as of late . . . ; the more since, in the rise and growth of the boy scout movement, we have beginnings of regional survey; and from this to real beginnings of city survey is a natural step (p.121).

Any notion for bringing the objectives of school facilities and communities closer together, is undoubtedly an initiative that Geddes would have endorsed.

Related to Geddes' ideas of attuning schools and communities, and the community center movement, was Howe's (Toffler, 1968) 'living park' concept. Howe articulated another variation on the community center theme when he noted that 'education parks' should be 'living parks.'

Howe spoke of the city's potential to be a teacher to society. He noted that the education park concept, as it was applied in the U.S., may bring benefits in furthering racial integration and school operational efficiency, but that there could be something more:

the popular conception of an "education park" has come to mean a massive structure similar to the schools we already have, but enrolling 10,000 or more students . . . We might dream . . . about creating not an "education park" but what might be called a "living park": a building that would integrate retail stores, banks, a medical center, restaurants, offices, and apartments; a building that would not only house and employ people but would at the same time educate their youngsters from preschool through high school. . . thereby providing new services to the community, part-time job opportunities for students, and extra revenue for the school system (emphasis in original) (p. 22-23).

Such a school, stated Howe, would necessitate that educators forge new alliances with city planners, architects, politicians at all levels, business, law enforcement and various human service-related agencies (p. 24-25).

Brubaker (Toffler, 1968) also echoed many of the ideas associated with the community center movement when he noted that

the city school should be planned *with* other urban facilities, and should be closely related to streets, parks, community social and cultural facilities, and to other educational institutions, as well as commercial and government facilities. Cultural, arts, or community centers are natural neighbors (sic) for schools - or the school itself can be considered to be the cultural-education center . . . studies have even explored the possibilities of integrating . . . schools with commercial areas, along with new rapid-transit stations . . . the schools, themselves, will become community centers . . . expressing the growing recognition that "living" and "learning" are one (emphasis in original) (p. 72-73).

The community center and associated concepts were often attempts to re-create a perceived lost sense of "community." It was felt that by having a focal point for activities in a neighbourhood, this would foster a rekindling of "neighbourliness" and promote pre-urban social and moral values.

Also being discussed were the associated implications of these centers of neighbourhood activity. The notion of a 'neighbourhood center,' as evidenced (Howard, 1946; Perry, 1922; Stein, 1956), was widespread in early 20th century city planning discourse. In an article titled "Neighborhood Centers," in City Planning (Nolen, 1916), Comey advocated that when planning for municipal services that there are general citywide services, and local or neighbourhood services. He noted that such neighbourhood services should be given a number of considerations:

Public facilities gain in dignity, convenience, and economy if grouped, instead of being scattered, regardless of one another, throughout the district they serve. This is especially true of the educational, recreational and social elements of the city plan. Not only is the architectural effect of buildings greatly enhanced by their becoming units of a large composition, and by being visible across the necessary open spaces at a far more effective angle than when seen merely along a street, but, of far greater importance, the service rendered is vastly increased, both through the economical interlocking of the various facilities in such an arrangement, and especially through the increased use apt to be made of a single comprehensive plant in contrast with scattered units, each of which must be sought separately. Looked at in this way, the neighborhood center properly constitutes a single plant which serves the needs of all ages from the play of the youngest child to the quiet reading of the elder citizens (p. 118).

Comey indicated that such a center, of which he believed the school to be the most suitable, would be located best where access by all residents in the neighbourhood would be maximized. In Comey's own words, "Speaking broadly, a half mile is found to be close to the limit of effective service of most recreational and social facilities" (p. 125). In addition, he noted that a system of neighbourhood centers was possible to be realized in the planning of cities.

In this instance, both the structure and function of schools was being challenged. The organization and location of municipal services would be impacted, as would the planning and design of educational facilities. Schools in this context would not exist in 'isolated islands,' but rather, would be housed in some fashion with other essential neighbourhood services in a single plant, coordinated within the urban 'fabric.'

The notion of neighbourhoods was being expressed in several dimensions: social, physical, and political. Schools played a significant role in each of these dimensions, facilitating both the human side of community development and city building, and the physical design of the city. Although, undoubtedly to the lament of individuals such as Perry and Williams (1931), schools were never really elevated to "centers of community life" (p. 22); at least not for the vast majority of communities. In fact, any significant efforts to reach out beyond the school and extend their 'functionability' were, at best, sporadic in their application, and inconsistent regarding their role.

Generally speaking, two broad classes represent voluntary associations using school facilities: those concerned with social betterment which "sought to develop community centers in schools by supplying the organizing ability required to bring local leadership into operation," (Perry and Williams, 1931: 31); and those which developed and maintained programs for their own members within the confines of the traditional school plant and site.

To this end, with concepts such as the Garden City, Radburn, 'educational park,' Neighbourhood Unit, and Greenbelt Towns, we saw particular emphasis placed upon the structural relationship of land uses, with school buildings and sites holding a pivotal role in the community. On another level were the Settlement House efforts, the Vacation School movement, Community Councils, Recreation Centers, the People's Institute, and Community Schools. All primarily impact the function of the existing school while

enhancing its relationship with the dynamics of its surrounding community. On yet a third level, having implications equally for both the structure and function of schools, was the Community Center and associated movements, Geddes' notions for citizenship and surveying of the city, Howe's 'living park' concept, and Comey's 'neighbourhood center' idea, which sought to convert schools into centers of community life.

Establishing the rich precedents and concepts which demonstrate how schools have greater utility to a community than a single-use facility for the education of children, poses the following question. What is the optimal and specific prototype for a school-community facility arrangement?

Also emerging from this discussion is speculation about the type and degree of school-community inter-relationships possible. To this end, specific examples of school and community integration will be dealt with in the following chapter.

CHAPTER 4

COMMUNITY AND SCHOOL INTEGRATION

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COMMUNITY AND SCHOOL INTEGRATION

Small opportunities are often the beginning of great enterprises.
- Demosthenes

4.1 Introduction

In the preceding chapter the focus of discussion briefly highlighted a sampling of concepts which promote closer association, or integration, between the structure and/or function of schools and their surrounding communities.

Chapter 4 continues this discussion, adding two topic areas: an introduction to the varied structural and functional relationships that are possible between a school and community; and a more detailed discussion of five concepts which promote closer association between schools and communities.

The first section, "Linking Space and Activity," provides more insight into the various school-community relationships that are possible. Types of integration are briefly categorized with regard to the physical organization of space, and/or by the inter-relatedness of functions and activities. Numerous examples of the creative ways with which educational and city planners have worked to facilitate the achievement of varying types and degrees of school and community integration are also pointed to. This section is concluded with a brief outline of the various considerations that must be made by the school and the community when integrated relationships are desired.

Section 2, "Integrated School and Community Facilities," discusses specific concepts of school facility arrangements which in varying degrees and ways serve to closely associate

(or integrate) schools with the dynamics of their surrounding social and physical form. Each concept, while not necessarily mutually exclusive, is analyzed to determine the following:

- 1) the distinguishing elements of each concept; (i.e. elements may relate to the structural and/or functional characteristics of that concept); and,
- 2) the level of potential that each concept appears to hold with respect to the school facilities' ability to allow its uses to change over time (overall adaptability and flexibility). This can also be thought of as a facility's ability to readily serve multiple needs, and is a direct application of sustainable development principles. This judgment is passed on each of the five examples at a conceptual level, considering the concept behind a particular development. Concern, therefore, is for the potential that a concept holds regarding a facility's ability to be readily serve multiple needs, and thus fit into one of three categories: not recyclable; first-order recyclable; and second-order recyclable.

4.2 Linking Space and Activity

The "traditional" view of the public school is that it is 'apart' from the community it serves. Sullivan (1978) described a scenario where the view of the school was that of "an Island apart" from the mainland (the community), separated by a "deep moat of convention and tradition." He went on to relay a scenario by describing that

A drawbridge was lowered over the moat at certain times of the day to allow the children from the mainland to cross to the island in the morning and return to the mainland at night. Very few adults from the mainland were allowed or encouraged to cross to the island and rarely were children allowed to venture back to the mainland during the day. The paradox of the scenario . . . (was) that the task for which the students have been separated from the mainland was to develop skills to allow these students to live on the mainland (p. 2-3).

Although the traditional relationship between the school and the community is one of relative detachment, there are a number of constant structures and functions through which schools 'physically' interface with the larger neighbourhood and community. School buildings, physical education and athletic areas, recreational space, maintenance and parking areas, legal setback requirements, and site access points are examples. In addition to these, there are optional components, such as: outdoor education activity space; community-use facilities; ceremonial space; landscaping; and temporary or permanent building expansion space (American Society of Landscape Architects Foundation (ASLAF), 1973). Optional uses are typically seen as 'frills' to the traditional composition of schools. Where optional or additional uses have been taken advantage of, it is generally in a very ad hoc manner (often at the discretion of a particular school administrator who wishes to cooperate with the larger community).

There are a number of physical space configurations which in varying degrees demonstrate how spaces can be utilized to achieve varying forms of physical integration (Figure 1, p.45). As illustrated, the number of relationships between different users, either in terms of interdependence and/or physical connections between spaces, is many and varied.

In many typical situations a school, and its ancillary spaces, takes on additional significance in a neighbourhood because it has the most desirable open space and recreational facilities. This has an historical precedence as has already been mentioned with initiatives such as the Vacation School Movement and Recreation Centers (Perry, 1913).

The following sections, "Structural Association" and "Functional Association," offer sample illustrations of school and community integration.

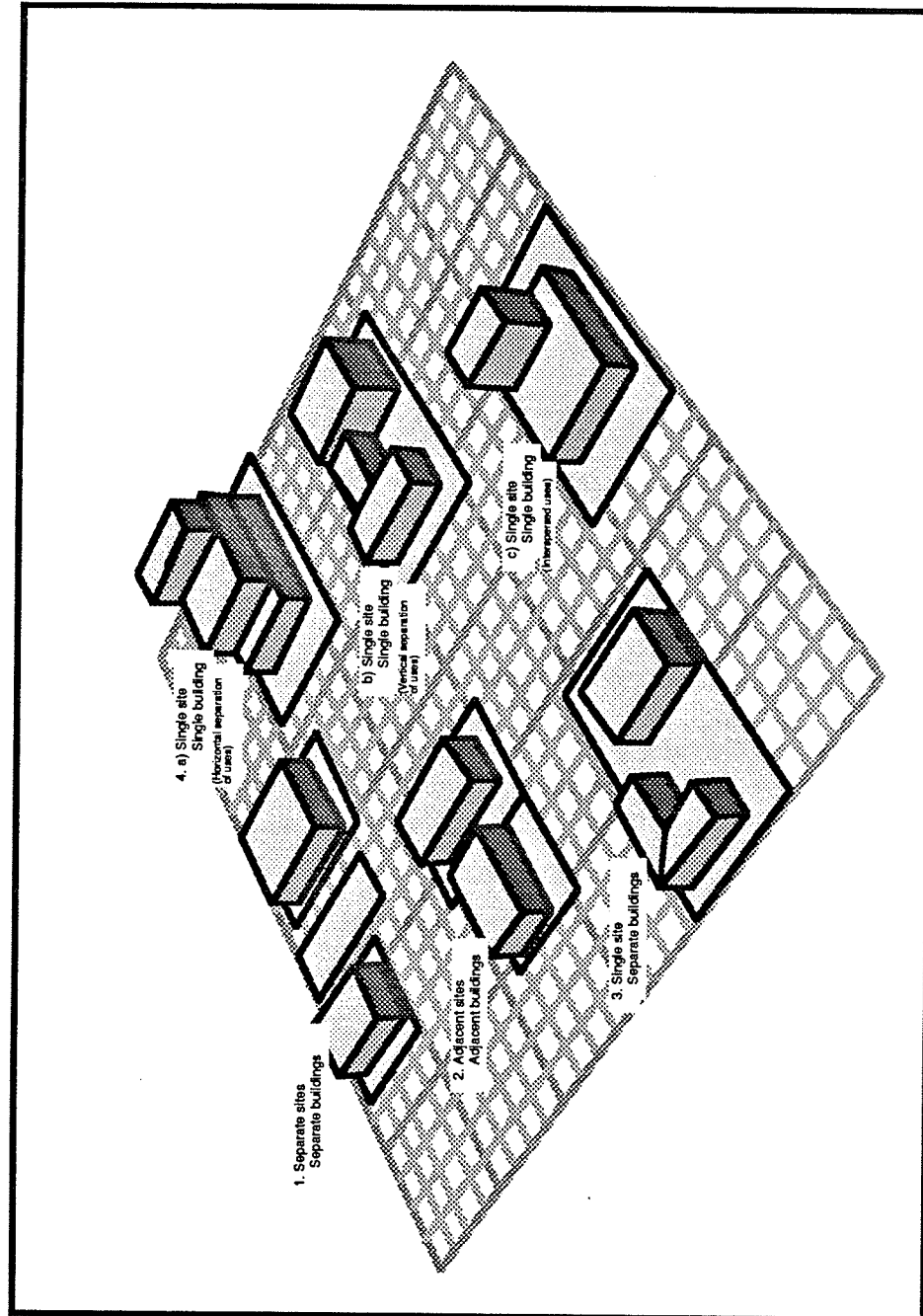


Figure 1: Physical Space Configurations (Toronto Study of Educational Facilities, 1970)

4.2.1 Structural Association

- Integration of facility design with adjacent urban and/or architectural design. For example, a school may be built attached to green space that has a strong physical connection with a residential area, and also given architectural detailing to enhance visual continuity with the predominantly residential nature of the area.
- A school division could lease and operate classrooms in a retail/commercial building, (e.g. a school division could open a special classroom in a local shopping mall by leasing space as would a retailer to address youth at 'risk' from dropping out of the school system).
- Mixed use and ownership of facilities. One possibility is a multi-use facility where a school is in some form of physical association with community services, or residential space. For example, a medical complex could be the hub of neighbourhood activity, incorporating school and community facilities into it's design. Facilities could include housing, community health, a drop-in center, city offices, social and family service areas, and daycare; all part of urban revitalization efforts.
- Closing streets adjacent to a school to encourage non-vehicular accessibility and improve safety for pedestrians and cyclists (the Brooklands School of Winnipeg is a case in point) (Kallos, 1979); thereby bringing about increased integration of land uses.
- Additional outdoor recreational and leisure space to improve utilization of "school-space" before and after-school hours.
- In high density areas, compaction of facilities through vertical stacking (e.g. tennis courts on roof tops; or parking at grade with playground facilities located above) to create high-rise schools.

4.2.2 Functional Association

Offered as examples are features which serve to associate varying user groups.

- Joint-use of sites and facilities:
 - alternate sharing of space, with one user having exclusive use of space at different times.
 - use of space and equipment at the same time, in a cooperative fashion between different users.⁴
- Common personnel between user groups (e.g. administrative and/or maintenance staff).
- Communication links between personnel of different user groups.
- Common users or participants between the differing user groups of a given facility or site.

It is also important to note that simply integrating buildings does not necessarily mean that there will be the same degree of functional mixing by each of the participant groups; they may or may not make frequent use of each others spaces, regardless of the structural context. For example, the David Livingstone School - Sokol Manor (seniors' housing) complex, Brandon, Manitoba (Appendix 1, p. 125), is a facility with two primary user groups, although the degree of functional mixing is generally quite low (Elaine Franklin, David Livingstone School, and Ruth Williams, Sokol Manor; Personal Communication, March, 1992).

4.2.3 Some Considerations for Effective Integration

A school facility built or remodeled for multi-use by the community, as touched on earlier in this chapter, necessitates a number of considerations (i.e. Land-use bylaws pertaining to

⁴This extent of co-operation would require rigorous scheduling by each of the user groups. The extent of co-operation is directly proportional to the level of attention necessary to be given to scheduling and facility management.

zoning for mixed-use development and site regulations such as height restrictions, set-back requirements and parking allotments). Moreover, with an increase in the number of uses of the facility, the significance of site accessibility and site utility opportunities are paramount. In addition, agreements must be reached by cooperating agencies to ensure the extent of conditions of use of spaces. Conditions to be dealt with include custodial and administrative arrangements regarding job descriptions and payment structures, responsibility parameters of each user group, conflict resolution mechanisms, legal considerations of liability insurance and leasing policies, as well as agreements related to capital improvements and equipment maintenance.

The following section considers five concepts of school facility arrangements which in varying degrees and ways serve to more closely associate (or integrate) schools with the dynamics of their surrounding social and physical form.

4.3 Integrated School and Community Facilities

As evidenced above, the possibilities for school-community integration are virtually unlimited. In this section, five examples of concepts which bring about varying degrees of school-community integration are analyzed:

- Shared-use
- Joint-use
- Community School
- Community/School
- The Everywhere School

Examples are analyzed to determine the following:

- 1) the distinguishing elements of each concept; (i.e. elements may relate to structural and/or

functional characteristics of that concept); and,

2) the level of potential that each concept appears to hold with respect to the school facilities' ability to allow its uses to change over time (overall adaptability and flexibility). This can also be thought of as a facility's ability to readily serve multiple needs, and thus fit into one of the following categories:

- a) "not recyclable", i.e. a facility that is physically developed and administratively operated for one primary purpose, with little or no consideration given to the possibility of the local school-age population declining and not being able to sustain facility operations, and/or the potential of the facility to be utilized for any future alternatives. Thus, having a low level of adaptability to future uses;
- b) "first-order recyclable", i.e. a facility developed as having greater potential to be adapted from its original intent to one particular use as a result of its structural and/or functional arrangement should the local school-age population decline and not be able to sustain facility operations. Thus, moderate, yet limited, adaptability; and,
- c) "second-order recyclable", i.e. a facility having greater potential to evolve into a variety of alternative uses, while maintaining future potential to again be adapted without any additional difficulty over the initial conversion, should the local school-age population decline and not be able to sustain school facility operation. Thus, theoretically unlimited future use adaptability.

4.3.1 Shared-use

As implied by the name of this concept, shared-use school facilities exist where classrooms and ancillary spaces are used by community groups and/or agencies outside of "regular" school hours (Carney and Chrispeels, 1984).

Efforts to provide schools with the ability to facilitate sharing are generally of secondary

concern to needs of the primary user group - school-age children (in many cases likely seen as a frill to the school's operations).

The shared-use concept may become operational in one of two contexts:

- a) Where a school embraces the concept of sharing after the physical plant is in operation, thus negating the concept of sharing as an objective in the planning of the facility. This would undoubtedly impair the full potential of a facilities sharing ability, (e.g. difficulty of using classrooms and/or ancillary space for community use without the necessary pre-planning, having negative implications for the long-term use of the school as a continuing community resource). This type of sharing is most often the context for shared-use of school facilities (Earthman, 1986).
- b) Where a concept of sharing is incorporated into the original structure and function of a school facility, its library, meeting spaces, and recreational spaces, for example, may be given greater consideration for their ability to meet community needs over the long-term (although, before or after "regular" school hours).

In either case the level of program planning and student/staff management considerations in a shared-use situation is not appreciably altered from the routine of typical operations related to educational programming for school-age children. The school's programs have priority over any shared activities. Aside from addressing questions of liability insurance, establishing leasing policies and covering any related costs (e.g. custodial, equipment maintenance, etc.), sharing space should quite easily be accommodated in most schools.

Sharing of school facility space in the Winnipeg context can be seen, for example, where the Winnipeg School Division No. 1 and the Manitoba Department of Community Services have made provisions for the operation of school-age day care (Before-School, Noon and After-School Programs or B.N.A.S.) for children age six to twelve, and preschool day care for children under six (Winnipeg School Division No. 1, 1982). Under guidelines set

out by the school division, these programs may utilize “school areas which both the principal and superintendent identify as not required for school purposes” (p. 2).

A school utilizing a shared-use concept would typically afford itself a low level of adaptability if the number of students were to enter serious decline necessitating a search for alternative uses. The only consolation for this concept in promoting the continued use of the facility as a community resource, should enrolment significantly decline, would be that more community residents and school facility personnel would be familiar with sharing the school than would residents in a community where little to no sharing occurred. To this end, residents involved in sharing a school’s facilities would likely be more sensitized to the issues potentially associated with declining pupil enrolments. Namely, possibilities of school closure, disposition of surplus school space, and the potential loss of facilities for use by the community.

Accordingly, if a school facility was built to be a shared facility, it’s potential to continue as a community resource should pupil enrolment significantly decline would likely increase. However, given that a new or existing school provides for shared-use with the community, the primary concern remains that all significant functional and structural considerations made by a school division focus on educating school-age children. Thus, a shared-use concept would likely most often be considered “not recyclable” since the primary client for which the facility was developed is an unstable population base of school-age children.

4.3.2 Joint-use

As implied above, a school developed using this concept often does not necessarily significantly differ in physical structure from a typical single-use school facility. As discussed in the shared-use concept this would depend on the extent of joint-use, and when

it became an objective of the school to facilitate. A joint-use situation would see the accommodation of school and community-related activities occurring 'jointly' during school hours (a concept which has yet to enjoy universal acceptance). For example, a home finance seminar for community residents may occur in an unscheduled classroom while students utilize other space in the building. Of obvious concern here to school personnel is the potential for disruption to their daily operations. In this instance the school may have concern over the potential of having classes disrupted by "guests" arriving for or departing from their "visitation" purposes. Concerns of this sort are likely associated with the structure of a school as not originally developed to accommodate joint-users; perhaps resulting in a situation where the school and the community are "making the best of it."

Joint-use would require more cooperation between the school and community than would be the case in a shared-use concept. Program planning and organization on behalf of the school and community would have to be determined well in advance, with both groups being fully aware of, and agreeing to meet, their respective commitments.

In the Winnipeg context, the City of Winnipeg Parks and Recreation Department has joint-use agreements with Winnipeg school divisions in order to operate local recreational programs in schools. Expanded use of school space for recreational purposes is the most significant agreement of joint-use for Winnipeg school divisions.

A significant example of a joint-use school is the cooperative venture between the City Council and School Board of Dublin, Ohio, which has brought about a joint-site development of which they are continuing to use as a prototype for many of their new schools. The City and School Board had the same goal of "increased benefits for students and community for less money" (Ficklen, 1988: p.35). Scottish Corners Elementary School (Kindergarten - Grade 5), Dublin, Ohio, houses approximately 500 students while

integrating school grounds with a park, and community-use of school facilities. This facility was devised with special features to allow the facility to be "recycled."

. . . the school is built in such a way that the entire facility can be recycled for another use should local school enrollment (sic) decline in the future (Ficklen, 1988: p. 34).

Educational planners in the Dublin school system were aware that there would not always be an influx of young families to populate the school, therefore, the possibility of declining enrolment had to be addressed. To this end, future use was addressed through several structural/design features. Several elements from classic French chateaus, in addition to colors, textures, and other detailing allowed it to conform to the form and scale of the surrounding residential area, rather than it being an 'imposing institution.'

The structure of the building saw few load-bearing walls, with relocatable partitions separating functional space, all centered around a two-storey library/media center, workroom, conference room, storage area, staff rooms and offices. The intent was to allow for any future space configuration to be easily achieved (without undue expense).

Community use was also considered in the development of Scottish Corners school . In addition to the site - sharing a community park with softball and soccer fields, shelters, surfaced play areas, and a bicycle path, the building has one wing that can be secured from school equipped areas and become a self-contained community center. Area residents are provided access to a stage, multi-purpose room, kitchen area, art and music space, offices, and restrooms. The local Parks and Recreation Department also developed various recreational programs in this facility. Indeed, this is one of the most innovative strategies, clearly pointing out a direction for optimal long-term utilization of community resources. This particular facility is definitely a concept of "second-order" recyclable quality.

As evidenced above, there is no hard and fast pattern to the various concepts of schools and communities working cooperatively to utilize school facilities. Under a joint-use concept it is possible to have schools which would have a low level of ability to be adapted to future alternative uses, as well as having schools which potentially may have unlimited future alternative use capabilities. A school with a joint-use agreement providing for a storage room to be utilized by a local parks and recreation department for evening recreational programs is vastly different from the level of joint-use of Scottish Corners Elementary School. To this end, a single joint-use agreement with a local parks and recreation department would likely most often put that school into a non-recyclable category (although this would also depend on the extent of associated structural considerations). Yet, the Scottish Corners Elementary School would definitely be a second-order recyclable facility given the diversification of both structural and functional considerations for joint-use of the school building and its ancillary spaces.

4.3.3 Community School

The term "Community School" is a broad and all encompassing term which varies from community to community in how it is actualized. Educational Facilities Laboratories (EFL) (1973) noted that

To some districts, a community school means the use of the premises during non-school hours for recreation, adult education, public gatherings or just plain summer school. To others, community school means extended use of the school building for fine arts, vocational education, social or preschool services. Some cities pay lip service to the word "community" and merely print it on school signs and stationery (p. 1).

In a study of international perspectives on Community Schools, LaBelle and Verhine (1981) identified Community Schools functioning in five different contexts:

- for educational access - created to satisfy community demands;

- to enhance learning - the primary purpose being to relate the school to the community in order to link schooling with overall community goals;
- to foster the transition between study and work - less emphasis on bringing the community into the school and more on preparing children to be employable;
- as community centers - the school becomes an institutional focal point for community services, and varies from community to community. The only similarity is the seeking of community betterment.
- to strengthen nationalism and socio-economic development - concern here is for raising the national identity and consciousness of students and community members, and encouraging the use of the school as an agency of community change.

Undoubtedly a single definition does not exist. However, having said that, the basic concept could be described as one which sees both the school and the community as having resources which are potentially mutually beneficial. Sullivan (1978) expanded on this when he stated that advocates of Community Schools believe that

the goal of school programs should be to allow children and adults to develop skills and equip themselves to live successfully in their surrounding communities. The school belongs to the communities and is supposed to serve the needs of the community. Consequently, it seems irrational to exclude a school's community numbers and their lifestyles from the educational process (p. 3).

Sullivan (1978) also discussed a U.S. study which sought to identify the "essential ingredients in the concept of community schools" (p. 4). Through this study, five major areas were identified: financial commitment of the community; community advisory council; a policy on staffing procedures; program development; and, outside agency involvement.

It should also be noted that a common understanding of the essence of Community Schools was not found in this study. What was found, though, was that the major emphasis of Community Schools was on programs rather than on the process of Community Schools (p. 4). This would appear to suggest that the study group tended to have rather narrow

objectives for the operation of Community Schools.

On somewhat of a different dimension is that confusion appears to exist between the concepts of community education and Community Schools. Sullivan quoted another researcher as saying “. . . the Community School concept has truly evolved into a community education concept” (p. 3). Yet, Sullivan believed that the most appropriate definition of the terms was that “the difference between community education and community school is that community education is the concept and community school is the delivery system for that concept” (p. 3).

Moreover, the concept of community education as defined in Georgia is very simple:

...that schools, businesses, agencies, and individuals join forces to identify and meet community needs; that schools, a common denominator for every community, can serve as places for cooperatively planning local education needs and as centers for community activities (Liebertz, 1983: p. 27).

Having brought to light the discrepancies in defining the Community School concept, six components integral to an effective Community School were identified by Sullivan (1978):

1. Education program for school-age children
2. Joint-use of school and community facilities
3. Additional programs for school-age children and youth
4. Programs for adults
5. Delivery and coordination of community services
6. Community involvement (p. 6-7).

From the discussion thus far, it appears that any school facility - be it involved in a shared or joint-use arrangement, could be defined as a Community School. If a new or existing facility established any one or more of the six components above (in addition to an education program for school-age children), it could potentially be considered a Community School. In fact, if one were to take a cursory view of what Hanna (1980)

outlined to be the various possible goals of Community Schools (Appendix 2, p. 127), the differences between definitions of what constitutes a Community School can be appreciated.

As well, depending on the level of functional integration between the school and the community, and at what point in a facilities life-span a close association was planned for (before or after a facility is built), the structural implications vary accordingly. Ultimately, also impacting a facility's ability to readily serve multiple needs.

Regarding the function of what Sullivan (1978) would describe as an effective Community School, ongoing efforts in planning (at both the facilities management and program/pupil/staff management levels) would necessarily become more of a partnership between the school and community. This would necessitate an expanded decision-making process from that associated with a typical unifunctional school.

As already evident, a Community School could embody the concepts of shared-use and/or joint-use as described above. And consequently, as also indicated in the above sections, the extent of community integration of a school has serious implications for the continued use of a facility should the level of school-age children significantly decline. Therefore, a Community School could potentially range from "not recyclable" to "second-order recyclable" with respect to its structural and functional integrity associated with integrating the community and school.

All-in-all, a Community School is just that - a "school," with a generally accepted notion of expanded community involvement in some form of association with the ongoing activities of that school. In this respect, a shared-use, joint-use, and Community School are similar.

The concern remaining is, therefore, associated with the process and extent of both the functional and structural integration between schools and communities, which establishes a critical pre-condition for the continued use of schools as community resources.

For local examples, the Winnipeg School Division No. 1 has three schools designated as Community Schools: Tyndall Park, William White, and King Edward Schools.

4.3.4 Community/School

Formulated out of the "Community School" movement, the Community/School is a somewhat more specific concept of an integrated community and school relationship. EFL (1973) defined this concept as "a place planned and operated cooperatively by schools and other agencies for the delivery of social services, including education, to the entire community" (p.1). Ringers (1976) defined the Community/School as

a "community center" in which many community human service programs in addition to formal education take place during the same time frame with the patrons of the several programs having programmed access to all specialized areas as their needs require. The Community/School may be operated by more than one governmental agency (p. 61) (emphasis added).

As noted above, the notion of a school being the location of a community center was also what Clarence Perry (1913; 1921; 1922; 1939) strongly advocated throughout a majority of the first half of the 1900's, and which was embodied in his oft criticized, yet popular, "Neighbourhood Unit" concept.

The President of EFL characterized the Community/School as having the ability "to be a catalyst for community action" (Ringers, 1976: p. 23). He viewed the concept as converting school spaces to "places for people" (p. 23); as joining several human service delivery agencies together; and effectively serving all classes of a community.

Furthermore, a former U.S. Attorney General noted that a Community/School is a concept which

is concerned with the whole person; . . . with bringing services for people together in a way that makes the most effective use of resources; and one which contributes to a sense of community (Ringers, 1976: p.23).

In support of the Community/School concept Ringers (1976) stated that such initiatives would

enable a community to stretch tax dollars, permit more productive use of public buildings and equipment, and provide coordinated community services. Multiple and extended use of facilities and equipment reduces the overall need for capital funds because duplications are reduced. Consolidation of programs reduces operating costs or permits the servicing of previously unmet needs.

School administrators faced with shrinking enrollments (sic) are opening school doors to programs which service a broader range of the community residents . . . (and thus) could directly benefit sizable segments of our population which compete annually for a share of these expenditures (p. 15).

The difference between this concept and the three previously discussed (shared-use, joint-use, and Community School) is that such an initiative is not dominated by any one constituency, but by the community itself. When a facility is built to be a school, regardless of the level of sharing, joint-use or otherwise, its primary obligation is to the education of school-age children. The Community/School has the needs of the community (the provision of human service programs for all ages, including formal grade-school education) as its primary objective.

One of the most significant examples of a Community/School in North America is the John F. Kennedy School and Community Center, Atlanta, Georgia. Although initiated by the Atlanta Department of School Plant Planning and Construction, thirteen public agencies, two foundations, and the U.S. Department of Housing and Urban Development came to be involved in planning this facility (EFL, 1973). The list of services and programs associated with this facility is very comprehensive (Figure 2, p. 60).

Figure 2: Services and Programs of the John F. Kennedy School and Community Center.
(Source: Educational Facilities Laboratories, 1973).

1. activities for senior citizens	12. middle school program (6-8)
2. adult basic education	13. municipal information
3. Area 1 Superintendent of Schools	14. pre-kindergarten program
4. child day-care/infant services	15. public recreation
5. community action program	16. workshop for teachable mentally handicapped
6. educable mentally handicapped program	17. vocational education program
7. employment job training and counselling	18. welfare casework
8. housing and home maintenance; housing code	19. volunteer community service program
9. housing relocation	20. active daily living center
10. social security	21. distribution of government surplus foods
11. legal aid	(see Appendix 4 for further details, p. 129).

An example of a significant Canadian Community/School concept is the Lester B. Pearson High School - Village Square Leisure Center, Calgary, Alberta (Appendix 3, p. 128). This cooperative venture is between the Province of Alberta, the Calgary Board of Education, and the City of Calgary, Department of Parks and Recreation. The school has educational facilities for 1,000 students in grades 10-12; while the Leisure Center component boasts community offices for volunteer recreation programming, food services, a public library, Calgary Board of Health offices and clinic, Calgary Social Services Regional Office, a wave pool, two gymnasiums, two ice surface arenas, fitness rooms, a weight room, a rock climbing wall, and saunas. The School Division and Leisure Center are operating with a two year joint-use agreement that is currently being evaluated and adjusted for long-term effective use by all involved. Although the dual functions of the facility have individual administrative entities, both administrations come together to participate on a Joint-use Facilities Committee (Tuff, W., Community Relations Officer, Lester B. Pearson School, Personal Communication, March, 1992).

Clearly, integration of school and community facilities of the magnitude offered as examples, puts the John F. Kennedy and Lester B. Pearson Schools in a favourable position to continue over the long-term as community resources regardless of the level of school-age children in their catchment areas. Also, now very obvious, is that there are no

“hard and fast” rules for categorizing facilities with respect to school and community joint-use, shared-use, and/or community-school-related concept manifestations.

Of the four school and community integrated concepts discussed thus far, the Community/School is the most advanced in terms of increasing its capability to respond to change. Changes within the community, possibly resulting in changing needs for space in local school facilities, are potentially much more efficiently addressed in a Community/School. Although, this concept is limited since it does not address, from the beginning, its ability to change in use to meet changing needs in the local community. It is planned and developed to be a comprehensive facility, with the various types of spaces determined at the beginning.

4.3.5 The Everywhere School

When plans were being created for the renewal of a deteriorating neighbourhood in Hartford, Connecticut, a community group proposed that such plans include “a new school that could be totally integrated into the life and activities of the area” (American Society of Landscape Architects Foundation (ASLAF), 1973: p. 45). The idea was developed into the overall renewal plan and is named the “Everywhere School” concept. This concept is a very innovative example of the possibilities of school-neighbourhood cooperation. The goal of the “Everywhere School” is a “system of education that permeates an entire neighbourhood, physically and socially, and calls upon it daily for personnel and facilities” (p. 45).

The site of the “Everywhere School” encompasses 56 acres in a community area of approximately 5,000 residents. To illustrate the degree of integration between the school and community a number of points can be made: the site includes housing for 2,500 people

- three-story walk-ups over an open ground floor which consists of multi-instruction areas (MIA), and nine-story elevator buildings over another open ground floor which is available for office space, neighbourhood services and commercial use.

The overall physical site plan of this neighbourhood area can be divided into two areas:

one hard-surfaced for pedestrian circulation and housing access, and one soft-surfaced for recreation. Each MIA opens into soft recreation surfaces. All the soft areas lead to the major playfields (p. 46).

As well, the school facilities are also separated into two categories:

a) The Multi-Instructional Areas are located on the ground floor in four-story buildings (three stories of housing are located above the MIA). The reasons for this are:

1.) Accessibility-Diffusion: The work-learning space will be entirely accessible due to its ground-floor location and the diffusion of MIA's throughout the neighborhood.

2.) Economy: Housing employs the space above the instruction area, producing a double utilization of land coverage.

3.) Flexibility: Nine of the fifteen presently planned housing structures could contain MIA's. However, the same space that can serve as a MIA can also house commercial facilities - shops, offices, etc. Thus, the number of MIA's can, in accordance with contractual arrangements, be expanded to meet the demand.

b) The other facilities - arts building, gym, information-resource center, theatre, etc. - are diffused around the pedestrian spine that interconnects the MIA's. This type of diffusion allows activity to be spread throughout the neighborhood environment for pursuing special interests. In general, the diffusion of elements allows the learning system to encompass the whole neighborhood; in fact, the entire ground floor of the neighborhood is the learning environment (p. 46).

Initiatives such as this are in a strong position to deal with neighbourhood change over time since their functions can be relatively easily adapted to suit changing neighbourhood needs.

The Everywhere School incorporates elements of sharing and joint-use, in addition to having similarities to the Community/School approach. Both school and community activities are closely associated with one another, creating a school with virtually unlimited capacity for conversion to additional/alternative uses. The Everywhere School concept can

be considered "second-order recyclable." However, even though this concept has many merits, as evidenced, given that cities (fortunately) are today not often repeating outdated, "top-down" planning practices of "urban renewal" and "slum" clearance for the purposes of such "mega projects," seeing the Everywhere School flourish is quite unlikely. Perhaps a modified, down-sized version may be more acceptable.

4.4 Lessons Learned

In order for a school facility to continue to be a community resource regardless of the level of school enrolment in a given schools catchment area or facility obsolescence, a number of considerations must be made:

- A school must have the ability to change to meet the changing needs of a local community. This necessitates that such considerations be made in the initial, as well as ongoing, planning processes. The ability to change can be analyzed on two levels: the ability of the **physical plant to accommodate additional/alternative uses** over time, and; the ability of the schools **administrative and planning processes to facilitate the necessary changes** to identify and address changing community needs.
- The need to be able to **identify changing needs** of a community is a prerequisite for a school to continue to be a community resource.
- The **structural and functional characteristics** of schools are factors which either facilitate or inhibit a schools ability to continue as a community resource regardless of the level of school-age children in the area.
- The establishment of enduring **frameworks for collaboration** between the community and school will impact the long term utility of the school as a continuing community resource.
- The possibilities for interagency cooperation are virtually unlimited, and the community at large may be better served by their resources over the long term when **creative partnerships** are formulated.
- There are potential cost savings when **enhancing the utilization of public expenditures**. Initiatives which serve to address such issues must be given greater consideration, particularly in light of increasing government fiscal restraint, and an

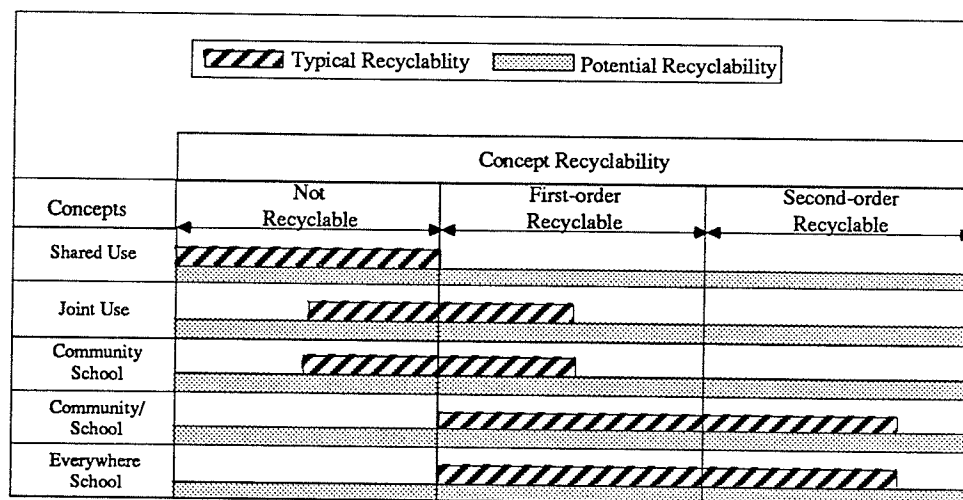
increasing public consciousness of the need to reduce (over)consumption of resources.

- A **willingness to cooperate**, particularly on behalf of the school system, is key to developing school facilities which have the ability to continue to be community resources regardless of student enrolment levels.

4.4.1 Summary

Clearly, the possibilities for school-community integration are virtually unlimited. Arising from this chapter may be the desire to place one or more of the concepts explored into a definite category of recyclable integrity. More realistically, however, would be to place each concept within a range of recyclable potential. Given that the process and extent of functional and structural integration regarding each concept can so widely vary, a range is most applicable (Figure 3).

Figure 3: Recyclable Potential of School-Community Integration Concepts⁵
(Source: Author)



⁵Note: The Everywhere School Concept appears to have significant potential to change with changing community needs. However, as previously mentioned, the likelihood of mega-project of this scale is very remote. Therefore, since this concept offers less practicality than the community/school, it is not emphasized as offering significant potential. A significantly scaled-down version may have more applicability.

The potential exists, conceptually at least, that each of the school-community integration examples may give school facilities the ability to readily serve multiple needs. However, as previously noted, the deciding factor rests with the process and extent of both the functional and structural integration between schools and communities, and establishes a critical pre-condition for increasing a given school facility's recyclable potential.

The concept with the greatest potential to facilitate a school facility's ability to readily serve multiple needs is the Community/School. This too is limited, though, as a result of its permanent structure and function being determined at the outset. This may serve to negate the facility's ability to accommodate change.

The key components to be considered in building a framework for planning school facilities that are able to readily serve multiple needs are:

1. willingness to cooperate
2. frameworks for encouraging collaboration
3. establishing creative partnerships
4. flexibility in design in order to accommodate additional/alternative uses for schools
5. administrative and planning processes to facilitate the change over the long term
6. ongoing analysis of changing community needs
7. enhancing the utilization of public expenditures

In order to now take the points listed above and lay out a strategy for planning school facilities that are able to readily serve multiple needs, one must be aware of how schools are presently being planned and developed. This leads us to Chapter 5, "School Facility Planning and Development."

CHAPTER 5

SCHOOL FACILITY PLANNING AND DEVELOPMENT

CHAPTER 5

SCHOOL FACILITY PLANNING AND DEVELOPMENT

5.1 Introduction

Decisions faced by school boards regarding planning for school facility developments fall into one of four categories:

- 1) renovating existing facilities for either expanded or alternative uses;
- 2) acquiring nearby space for existing facility expansion;
- 3) building a new school complex within the already built-up area or in a developing area; and,
- 4) “moth-balling” or closure and disposition of surplus school space.

These categories have remained consistent over time for the general planning and development of schools. However, the needs of schools today (and indeed society at large) continue to evolve, suggesting that the way we plan and develop schools must also evolve. In order to articulate a strategy for school facility planning and development which applies sustainable development principles, it is imperative to discuss the status of present school facility planning and development.

This chapter provides an overview of the processes for planning schools in the contemporary and Manitoba contexts.⁶ The intent is to identify the central elements in the processes, and the extent these elements constrain or support sustainable school facility planning. In conclusion, this discussion will provide a directive for action in achieving sustainable school facility planning, and is elaborated on in the following chapter.

⁶All detailed reference in this chapter to school facility planning is primarily based upon that of the province of Manitoba and the Winnipeg School Division No. 1. The intent is not to scrutinize any particular jurisdiction for any preconceived agenda, but rather, to provide specific examples of school facility planning in the Manitoba context.

5.2 The Analytical Context

Chapter 2 indicated that the application of sustainable development principles implies that school facilities must be managed for the long term, taking into account their possible present and future value. Reiterating points from Chapter 2 informs the analytical context for this chapter.

The Manitoba Round Table on Environment on Economy (1990, #1) defined their guidelines for sustainable development as: proper resource management and allocation together with incentives and disincentives to encourage **efficient use of resources**; encourage and provide opportunity for consultation and meaningful **public participation** in decision-making processes; **understanding and respect** for differing economic and social values, traditions and objectives is necessary to manage our common resources; **access to adequate information**, refining and improving our environmental and economic information base; **integrated decision-making and planning**, it must be open, cross-sectoral and relevant to long-term implications; and development and **use of substitutes** for scarce resources where it is environmentally and economically viable.

Based upon sustainable development principles and guidelines, the Manitoba Round table on Environment and Economy (1990, #2) also established objectives and developed recommendations regarding institutional change in the public sector. It was noted that the province has a number of relevant roles to play in enabling sustainable development in the public sector. Of the roles and associated objectives and recommendations of the Government document "Towards Institutional Change in the Manitoba Public Sector" (1990, #2), seven roles for the provincial government are directly applicable to school facility planning:

<p><u>As Leader:</u></p> <ul style="list-style-type: none"> - Provincial political leaders, reeves, mayors and school trustees must take an active leadership role in pursuing the needed changes to sustainable development not only in society but also in those public institutions for which they have ultimate responsibility.
<p><u>As Legislator:</u></p> <ul style="list-style-type: none"> - If public institutions are to conduct their activities in a sustainable manner, then laws must be amended to incorporate sustainable development. Public institutions must be similarly mandated. - The Premier and Ministers ensure existing and future laws promote, incorporate and make functional sustainable development. - The Premier ensure all public institutions have mandates and responsibilities for sustainable development. - The Premier enact new legislation to ensure integrated resource management, planning and conservation and integrated environmental, development and land use reviews.
<p><u>As Organizer:</u></p> <ul style="list-style-type: none"> - Manitoba must ensure the structure of the public sector supports sustainable development and ensure agencies have internal structures for implementing sustainable development. This will require that . . . Local government, school boards, and health organizations evaluate their structures from a sustainable development perspective.
<p><u>As Manager:</u></p> <ul style="list-style-type: none"> - (Public sector) Managers must ensure that resources available are integrated, coordinated and operate within systems that require sustainable choices be made. This will require that . . . (:the Province's) Executive Council ensure public sector institutions have sustainable development missions, roles, goals and objectives and management systems which are coordinated and integrated; (the) Treasury Board support sustainable development in areas of budgetary planning, national accounting, accountability and reporting systems; (and) Ministers and senior managers ensure compliance with sustainable development, in areas of decision making, planning, organization, and budgeting.
<p><u>As Administrator:</u></p> <ul style="list-style-type: none"> - Manitoba must ensure public sector administrative policies comply with the principles and guidelines of sustainable development and that public sector administrative policies and procedures are minimized, integrated and effective in support of sustainable development.
<p><u>As Promoter-Developer:</u></p> <p>The Premier establish a "Greater Manitoba Development Policy" which: (among others) establishes an integrated approach to delivery of public services.</p>
<p><u>As Communicator:</u></p> <p>Ministers must encourage awareness of, and cooperation in the development and delivery of information programs on sustainable development. Ministers establish information mechanisms and programs to facilitate public participation in decision making.</p>

It is essential that the above points are kept in mind as discussion focuses on present school facility planning.

5.3 Central Planning Elements

There are generally acknowledged school facility planning and development practices in the sparse contemporary literature on this topic. A general framework for school facility planning can be identified consisting of the following categories: Long-range Planning; Educational Specifications; Site Planning; Space Planning; Financial Planning; Physical Development; and, Occupancy and Post-occupancy Procedures. This framework guides a brief description of the processes for planning schools in the contemporary and Manitoba contexts, and is included in Appendix 5 (p. 130). Gleaned in part from these details is the overall school facility-related planning processes of the Winnipeg School Division No.1 (Figure 4, p. 71), and the extent of involvement of the City of Winnipeg (Figure 5, p. 72) and the Province of Manitoba (Figure 6, p. 73).

As illustrated in Figures 4 through 6, the actual planning of school facilities primarily occurs at the school division level. The province serves primarily as an approval and funding body; while municipal involvement is primarily regulatory in nature.

Two central elements can be identified from the description in Appendix 5 (p. 130); although they are not mutually exclusive. As will become evident, each central element has aspects which either constrain or support sustainable school facility planning.

The first central element of the planning process is the Facilities Review at the school division level. Through an annual audit of facilities at the school division level, this review serves to inform and, if at all possible, perpetuate the status quo (i.e. continued use of the unifunctional building stock). The review of all division schools considers enrolment statistics, program overviews, and general facility conditions. It is the mechanism which assists the division in determining the extent of reaction needed to plan for any identified

Figure 4: School Facilities Planning Process - Winnipeg School Division No. 1
(Source: Author)

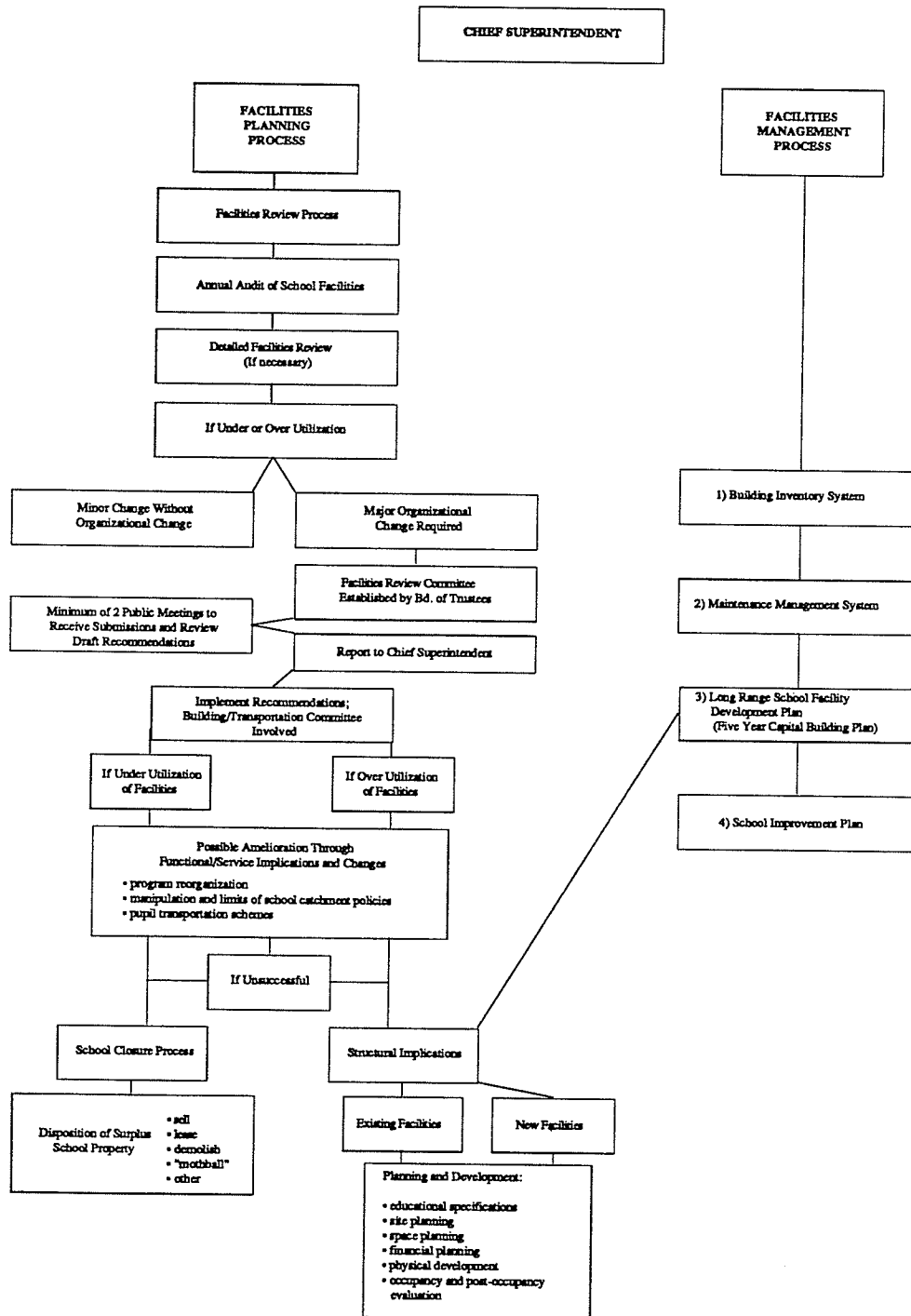


Figure 5: School Facilities Planning Process - Municipal Involvement
(Source: Author)

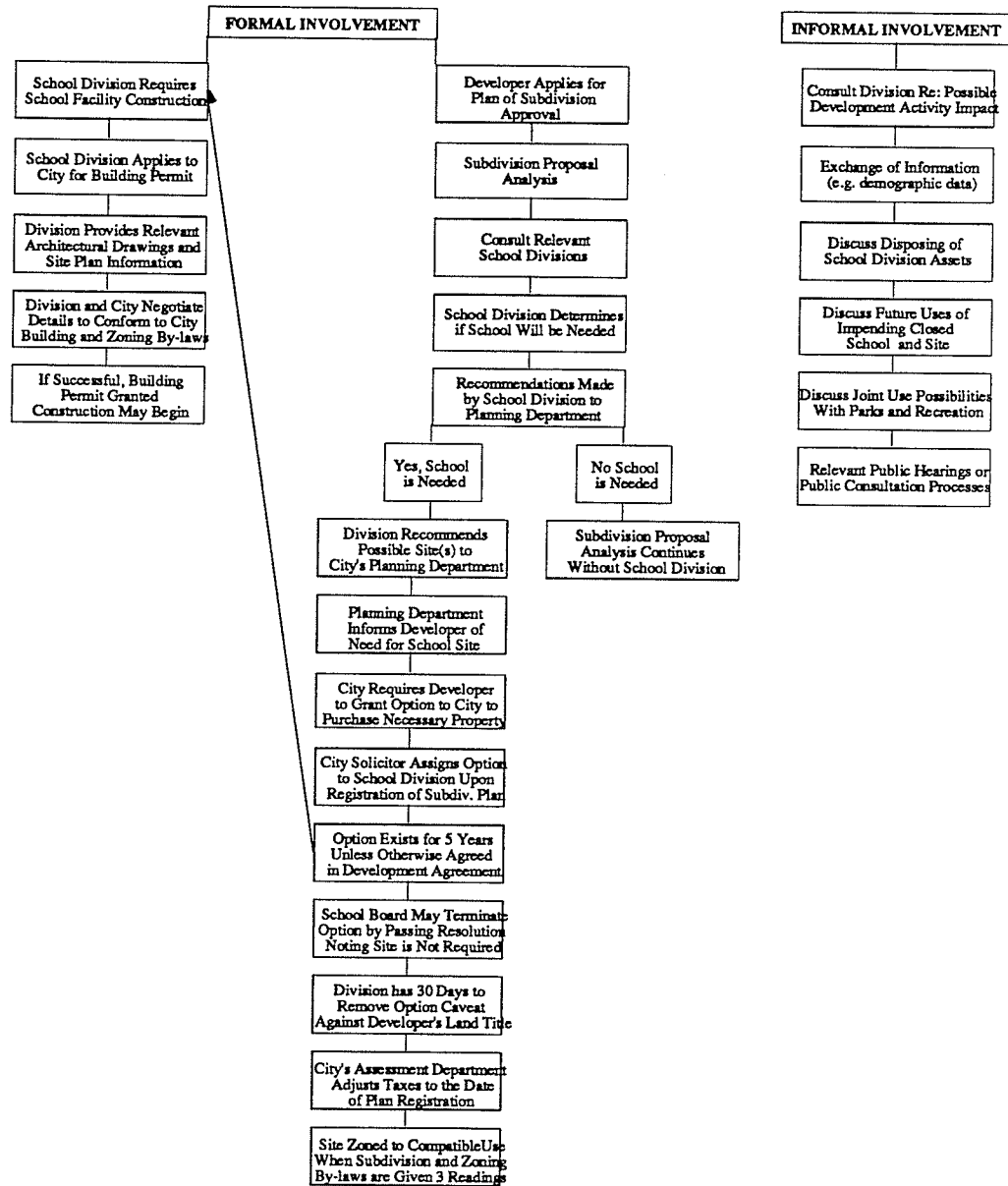
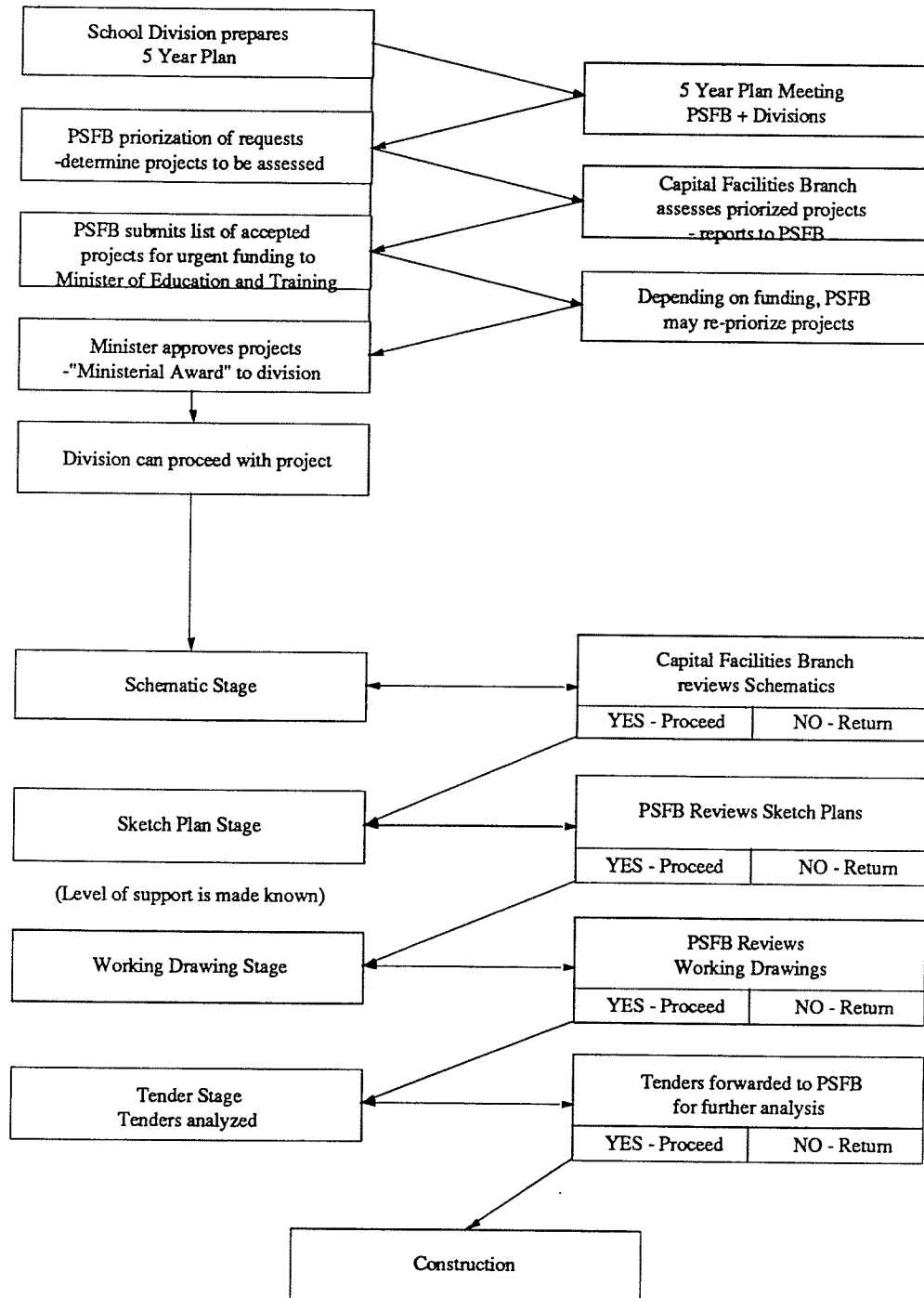


Figure 6: School Facilities Planning Process - Provincial Level Involvement
(Source: Author)



problems with respect to facilities utilization; whether or not the reaction demands minor attention, or major organizational change, to ameliorate the identified problems.

If problems of under or over-utilization are identified by the review, the division reacts to address them. If minor changes by division administration will not solve them, a Facilities Review Committee is established by the school board to involve the community and school division in developing an appropriate reaction. Major organizational changes, such as reorganizing programs, manipulation of student populations, and pupil transportation schemes, are sought here in an effort to solve the problem. If unsuccessful, under-utilization of school space may lead to closing a facility and disposing of the property (i.e. sell, lease, demolish, "mothball"); while over utilization may lead to structural changes (i.e. renovation of existing buildings and/or new construction). In the case of structural changes, these must be prioritized annually in a division's Five-Year Capital Building Plan.

It is clear that the Facilities Review Process, which serves to inform the division of facilities' conditions, is positive, and would undoubtedly offer support to sustainable school facility planning; but that it serves as a *central* planning element results in a reactionary planning approach, which is, at the same time, a constraint to sustainable school facility planning.

As a result of the reactionary approach, the continuing use of school facilities as community resources is unnecessarily threatened. Apart from the democratically elected school board members' involvement in the planning process, more rigorous formal involvement of the community to plan for changes in facility use is only sought *after* a facility has been designated "under review." Such a designation indicates the need for intense scrutiny of a facility's operations, requiring the school board to establish a Facilities Review Committee. All efforts to deal with the problems are, for the most part, kept to the purview of the

school division. Efforts to involve (integrate) other agencies in planning and decision-making appear to be, at best, a final option (apart from relatively minor involvement of municipal parks and recreation departments); certainly not a consideration during initial planning and design.

This is not to imply that the school system is not accessible to the public. It suggests that divisions lack encouragement and support to be innovative in their planning and design of schools. This is particularly evident given the possibility of declining numbers of school-age children in a school's catchment area and the likely consequence of facility obsolescence. However, if more direct and meaningful participation can be rallied, as it often is, to address specific problems, it should be possible to maintain from initial planning and design onward.

For instance, the Winnipeg School Division No. 1 makes an earnest effort to consult with parents and community residents regarding activities of the school division. When a school is being built, altered, added to, or demolished and disposed of, community members are consulted. However, regarding pre-architectural planning - the area of critical importance in establishing the pre-conditions which will either serve to encourage or prohibit a given facility's long-term, overall flexibility and adaptability (see Chapter 4) in response to changing community needs, more information and broader public discussion about long-term potential community needs in relation to public facility development must take place.

Another pertinent point to note here is that the Winnipeg School Division No. 1 is progressing in the area of increasing the utilization of resources by supporting the development of Community Schools, in addition to their recent discussions of "School-Based Decision-Making." They define School-Based Decision-Making as "a process which allows decisions to be made centrally and at the school level in order to assist

schools and the Division in the achievement of stated goals" (1992: p. 1). However, no mention is made of what this may mean for facility planning and development, presumably because the prime focus of this process is directed at the educational program; with little thought given to any changes in school facility planning and development.

The second central element of the planning process is the allocation of capital support from Manitoba Education and Training's Public Schools Finance Board (PSFB). The allocation of capital support requires that each division annually submit a Five-Year Capital Building Plan. Again, as indicated in Appendix 5 (p. 130), the Five-Year Plan is a positive feature, and an opportunity for school divisions to identify and project their capital facilities needs - new construction, renovation, additions and/or replacements, in reaction to their annual Facilities Review. Divisions are expected to update this Plan annually to reflect priorities. The PSFB then prioritizes all school divisions' project requests relative to provincial Capital Support Program criteria, and available finances in a given year. If a particular project is successful in acquiring a "Ministerial Award," a division is authorized to retain an architect to proceed with design and physical development (Government of Manitoba, 1991, #2).

When a new school is identified as desirable, as a result of a Facilities Review, proposals are included in a Five Year Plan. Through the PSFB's Capital Support Program, cost-shared arrangements are allowed (only the specific school's space in the arrangement is supported), although this is not encouraged over conventional school facilities (facilities primarily for permanent use by school-age children). Simply providing an opportunity to potentially receive funding for the school component of cost-shared facilities, is much different than encouraging, and then facilitating, the planning and development of inter-agency, cost-shared facilities. In this regard, the Capital Support Program acts as more of a constraint than support for any innovation associated with sustainable school facility planning.

Moreover, apart from the one positive element where day care facilities can be funded when approved by the province in a capital building plan, the PSFB does not support or encourage any other community-purpose facilities to be cooperatively planned and designed in association with schools. To this end, the view could be supported that with this lack of encouragement, and no provincial level enabling mechanisms to facilitate cross-sectoral cooperation, the life of the Five-Year Plan is ultimately discouraged from any innovation associated with the promotion of sustainable school facility planning. It could also be argued that it is much easier for a division to continue with present practices of building unfunctional facilities with little attention given to ensuring their continuing use as community resources. Any innovations requiring significant cross-sectoral integration would demand unreasonable amounts of time and effort by division personnel, ultimately having a negative financial impact on them. In addition, in the present context there is potential that innovative plans may require a greater effort by the PSFB to approve and determine support for. Such instances may result in a division being at a disadvantage when competing with traditional project proposals in seeking to be ranked a priority by the PSFB in order to receive capital project funding in a given year.

Further perpetuating the lack of attention to long-term, integrated planning is the fact that, in order to warrant the expenditure, the PSFB only requires that a division wishing to build a school be able to justify that it will remain in active use for a minimum of five years. The structure of planning for facilities at the PSFB level seems weighted in favour of consideration of growth-oriented expenditures (consumption of resources); in opposition to conservation and more efficient use of resources in the best interest of a given community. In reality, the above PSFB policy acts as a disincentive to any notion of applying sustainable development principles to school facility planning.

Another aspect not addressed by the Facilities Review or the PSFB allocation of capital

support, is significant and sustained community involvement as it relates to the long-term planning and utilization of facilities. Regarding the always possible event of declining enrolments and possible non-school-use conversion or facility closure, having meaningful community involvement as a standard planning characteristic would go a long way toward achieving sustainable facility planning. This is particularly evident when problems arise and a division, without such a standard characteristic, is forced to react as best it can to keep facilities operating; again, further highlighting the reactionary and restrictive planning milieu divisions are faced with.

Clearly, the process for allocating finances to build schools not only impacts how those facilities are determined to be needed, but what type of facility is built. Since no incentives are given to school divisions to ensure that facilities be able to remain as continuing community resources regardless of the level of school-age children in a given area (thus requiring, as a central planning element, a greater degree of innovation and inter-agency collaboration at the outset of a new school facility), the situation of having a Facilities Review serve as a central planning element has developed into an acceptable practice. Furthermore, lack of attention to the long-term implications of possible changing community needs perpetuates development of the traditional, accepted unifunctional facility with unnecessarily high potential for obsolescence.

5.4 Directive for Action

5.4.1 Opportunities, and the Will to Change

With respect to planning and development of school facilities, school divisions are essentially 'creatures' of the province. School boards are required under current legislation "to determine the number, kind, grades, and description of schools to be established and maintained" (Manitoba Education and Training, 1991, #1). However, it is the province's Public Schools Finance Board (PSFB) who controls the funding, and, therefore (apart from the divisions' prioritized Five Year Plan for capital facilities), it is ultimately the province who also controls capital facility development. One may wish to say here that it is the role of the province, then, that must be first to change in this regard if any real change is to be accrued; (this is supported by the roles that the Government of Manitoba has outlined for itself with respect to activating sustainable development in public sector institutions). It is clear that political will is undoubtedly the most significant source to drive sustainable development in any comprehensive and meaningful fashion.

Through the Capital Support Program, the PSFB does make allowance to potentially fund the school component of cost-shared space. Presumably then, it is also the school division, municipal government and other local level agencies providing services who have key roles to play in the development of sustainable school facilities. However, with education as a provincial responsibility, the application of sustainable development principles to school facility planning, is primarily the provincial government's purview to encourage and support through policy development (provided the political will exists to take the necessary steps to devolve greater decision-making authority to local level communities). Locally developed initiatives in response to the province's leadership would then "set the course" for sustainable school facility planning. This point, regarding provincial leadership, is consistent with the following Government of Manitoba goal:

To ensure sustainable development is embodied in the management systems, structures and operations of the Public Sector including: Cabinet, Cabinet Committees, Departments, Agencies, Boards, Commissions and Crown Corporations (#1: p. 14).

Moreover, it should be noted that it is not so much that the province, as an entity, is the obstacle to be overcome, but that it is rather tradition and accepted practices of isolated jurisdictional planning that have to be addressed. In support of this, Shils (1981) comes to a pertinent conclusion:

One of the main reasons why what is given by the past is so widely accepted is that it permits life to move along lines set and anticipated from past experience and thus subtly converts the anticipated into the inevitable and the inevitable into the acceptable (p. 198).

Therefore, the existence of practices that have outlived their ability to meet the challenges of the day provides opportunities to embrace new and innovative constructs. To this end, opportunities to promote sustainable school facility planning abound within the present context of school facility planning. The development of the Five-Year Plan by the PSFB in the early 1980's, for example, was a significant and positive step forward for school facility planning in Manitoba. Now, a decade later, time has come to take another step forward; a bigger step than ever before, in support of sustainable school facility planning. Diligent cooperation at the Provincial, Municipal and School Division (and Board) levels with each other and additional public and private agencies is absolutely necessary for any real success in our move toward sustainable development.

5.4.2 Barriers to Achieving Change

It must be acknowledged that coordination is more easily talked about than achieved. The present lack of coordination is a result of the "balkanized" structure of governments which precludes the level of inter-agency cooperation and integration needed to more efficiently use our school facility resources to be continuing community resources. Hence, we come

full circle, back to looking at the province as being the driving force behind facilitating community driven, sustainable school facility planning.

Unquestionably, in order for authorities associated with school facilities planning to activate sustainable planning, their attitudes which often lead them to protect their own "turf" must be overcome. The luxury no longer exists for public revenues to be distributed to independent public agencies in order for them to then independently proceed with attempting to address the very same public interest. If perceptions exist that somehow the school system (as well as all public agencies) will be able to proceed with all of their accepted practices, regardless of the escalating pressure on fiscal resources, not to mention the growing concern for the (over) consumption of physical resources, they are sorely mistaken.

Resulting from the discussion in this chapter, it is clear that greater opportunities for community-purpose facilities to be considered in conjunction with school facilities must become an objective of not only the relevant educational jurisdictions, but of government in general. A prescription for action implies challenges at both the provincial and local levels to overcome the barriers to change. Those barriers are: lack of an appropriate planning milieu to encourage and reward innovation and integrated planning; as well as lack of adequate processes for causing and sustaining meaningful change in this regard. Unquestionably, the levels of challenge are intertwined to the point where they are, for all intents and purposes, inseparable. More specifically they relate to: the relationship between community needs (educational and others) and how the varying jurisdictions plan to address them; the relationship between school divisions and the Department of Education's PSFB as the allocator of capital support; the administrative processes of school divisions regarding facilities planning and development, and numerous community planning and human service-related agencies (included in this is the level of direct participation by local

communities in decision-making); as well as traditional authoritarian school architecture.

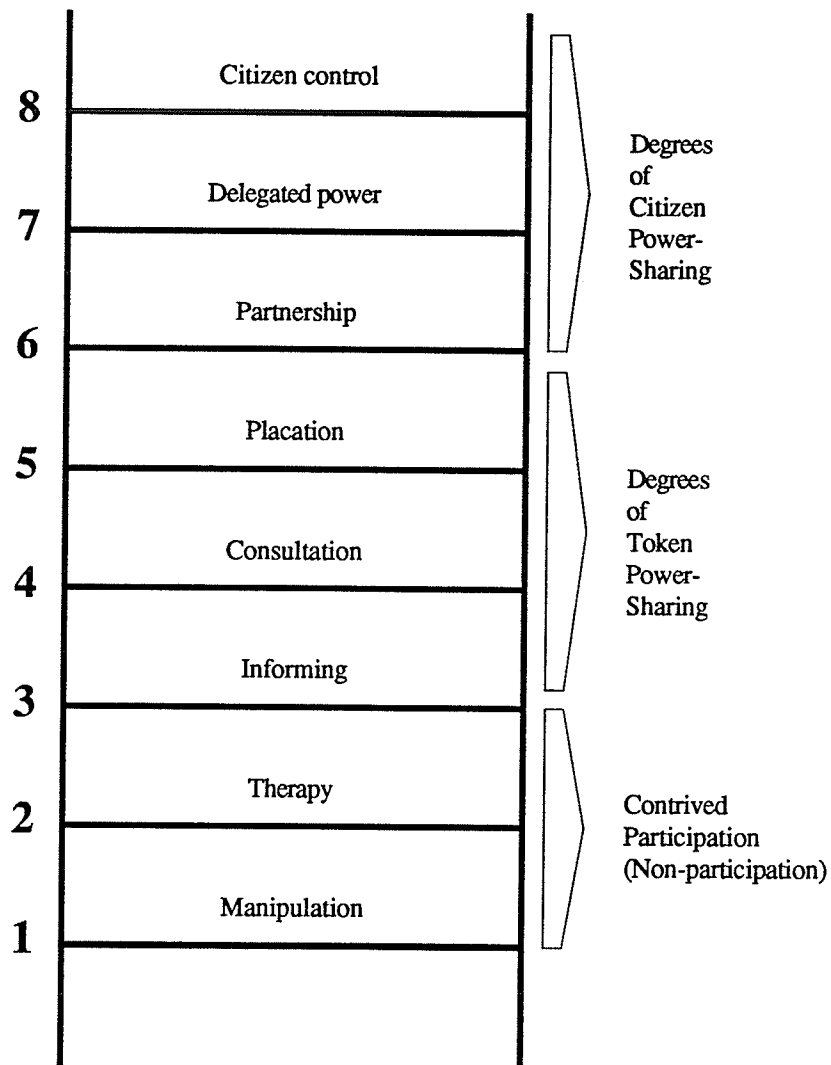
5.4.3 Decision-making and Local Communities

It is only through integrated planning at all levels, coupled with locally based decision-making, that the planning and design of school facilities can hope to become sustainable - to be able to change in use with the changing needs of the community. As noted by the Ontario Legislative Assembly (1975), integrated planning could help in a number of ways to: "avoid duplication of facilities; provide multi-purpose, flexible facilities; improve utilization of existing facilities; (and,) make community services more accessible" (p. 17). Although, without significant sharing of decision-making abilities by the province to the school divisions, and school divisions to community residents, in reality, necessary change toward sustainable development will undoubtedly never reach its full potential.

As previously mentioned, sharing of decision-making capacities is critical. However, as Hodge (1986) stated, "While participation of community members in their government (and associated jurisdictions) is applauded in principle, it is not always so in actuality" (p. 351). Varying degrees of participation exist depending upon the disposition of those with the decision-making control. Arnstein's "Ladder of Citizen Participation" (Hodge, 1986) (Figure 7, p. 83) discerns eight levels of participation, "each corresponding to the degree to which citizens could share power in government decision-making" (p. 352).

The diagram in Figure 7 is quite self-explanatory. The first two rungs describe "non-participation," and are ways of avoiding sharing power by informing and persuading

Figure 7: Arnstein's "Ladder of Citizen Participation"
(Source: Hodge, 1986)



citizens of essentially already-decided upon courses of action in order to obtain their support.

The middle three rungs describe moderate participation in decision-making control. Citizens are given information and asked for their opinions on particular issues. Their opinions may or may not be used by those who are still in control of the decision-making. The top three levels illustrate increasing degrees of sharing planning decision-making. It is

at this level where planning (for both communities and their school facilities) must operate if meaningful change toward sustainability is to be achieved. Moreover, the extent of isolated jurisdictional planning further exacerbates the shift toward inter-agency, citizen-shared planning.

When Humphrey Carver (1962) wrote of the school being "a focus of community life and an essential element of the Town Centre" (p. 84) (see Chapter 3) for Canadian cities, he too recognized the fragmentation of city building. Carver's observations appear to parallel the beginnings of growth in questions being asked of our societal direction. Moreover, this growing public consciousness, characteristic of the 1960's, is consistent with the large scale promotion of Community Education (including increased spending on education in general) (see Chapter 2) as a means toward achieving a better quality of life. Somehow planning authorities (for both communities and schools) appear to have forgotten key elements of the philosophies which sought to create more humane living environments. So often today we develop cities without attempting to make a *modern* application of the philosophies which form the roots planning. Howard, Stein, Wright and Perry, for example, would undoubtedly be addressing any criticisms of their plans and modifying them to address the dynamics of modern urban living. Furthermore, Patrick Geddes' (1949) ideas of "seeing things whole" continue to grow in pertinence to the processes of community building. Why are our present practices not being questioned to the extent necessary to bring real change? Why are our schools no longer the focal points for communities, helping to tie communities together?

To this end, Carver (1962) came to a pertinent conclusion in his analysis of the city:

New adventures in city-building await us. We may again find out how to make excellent places to be remembered with warm affection. We may discover new and vivid expression of the purposes of life, the pursuit of knowledge, and the confrontation of friends and strangers. But these adventures will come only to those who are bold enough to devise new

political processes to achieve those ends, in a way that fits our time and place. This is the essential creative art of local politics: to nurture each new community through its period of growth and finally launch it upon the experience of self-government. This is the central creative act in the politics, the planning, and the architecture . . . (p. 120).

Sustainable planning and development will lead us in the right direction, but only if our present decision-makers are true to its principles, particularly in reference to providing local level ownership in the official planning arenas. Undoubtedly, the order of change pointed to throughout this thesis regarding school facility planning and development, however, is only a small fraction of the systemic change on the horizon.

Policy recommendations to affect change in bringing about sustainable school facilities planning is the focus of the following chapter. Challenges pertain to both the provincial and local levels, and fall into three broad categories: planning; facilitation; and financing.

CHAPTER 6

THE CHALLENGE OF PLANNING SUSTAINABLE SCHOOL FACILITIES

CHAPTER 6

THE CHALLENGE OF PLANNING SUSTAINABLE SCHOOL FACILITIES

"We are witnessing a growing trend toward integration. Boundaries are beginning to crumble. Work, school and home are no longer clearly separate as the growth in part-time studies, adults in high schools, workplace day care and home-based business illustrate."

*Building a Solid Foundation for Our Future -
A Strategic Plan 1991-1996. Manitoba
Education and Training, 1991; p. 4.*

"The real world of interlocked economic and ecological systems will not change; the policies and institutions concerned must."

*Our Common Future. World Commission on
Environment and Development, 1987; p. 30.*

". . . to consider the desirable in the light of the possible, (compels) the making of choices."

*Providing for Future Change: Adaptability
and Flexibility in School Building.
Organization for Economic Co-operation and
Development, 1976; p. 103.*

6.1 Introduction

If the credo that "form follows function" is true, then our decision-making systems and institutional frameworks must adjust substantively to reflect sustainable thinking (Perks and Tyler, 1991). Indeed, in order to plan school facilities to have the ability to meet present needs, while retaining the ability to change to meet future needs, necessitates significant reform. The objective of this chapter is to articulate the decision-making and institutional functions needed to reflect sustainable thinking regarding planning and development of school facilities.

The time for change is upon us. All forms of planning and development will not escape the 'magnifying glass' of the necessary efforts to activate sustainable development. Society is just reaching the edge of the overall challenge, trying to make sense of it in light of our past and present circumstances. Our schools are caught-up in this 'web' of challenge, revealing their inabilities and inadequacies, as well as offering bold new opportunities for change. As we learn how to apply sustainable development to societal dynamics, society too will continue to evolve. Clearly, as discussed in Chapter 2 in terms of a paradox, the challenge, in its most specific context, lies in the "separated relationship" between the school and the community. Moreover, Friedmann was also cited in Chapter 2, noting that all planning and development must be carried out by processes of continual, mutual learning between all involved - through processes in opposition to "top down" planning. In such a state, one might conclude that "change" will be the only constant variable, requiring planning and development to be considered as evolving processes.

In response to Chapter 2's conclusions, discussion in Chapter 3 highlighted a sampling of planning ideas and concepts which promote closer association, or integration, between the structure and function of schools and their surrounding communities. Numerous examples informed the contextual relationship between community planning and school facilities planning; demonstrating how schools have had greater utility to a community than as single-use facilities for the education of children. Chapter 3 concluded with a note of speculation about the type and degree of school-community inter-relationships possible, in addition to posing the following question. What is the optimal and specific prototype for a school-community facility arrangement?

To this end, Chapter 4 discussed specific concepts which promote some form of enhanced "inter-connectedness" between schools and communities. Concepts were analyzed for their ability to continue as community resources regardless of change in the level of school-age

children in the areas they served (i.e. to be sustainable). From this, a number of lessons were gleaned pointing toward reforms related to the barriers of achieving: sharing between present sectoral jurisdictions; innovative and flexible school facility planning, design and administrative structures; and ongoing analysis, and means of addressing changing community needs. Chapter 5 strengthened this discussion by providing details and analysis of overall school facility planning processes, again pointing toward reforms both in addition to and consistent with those noted in Chapter 4.

It was noted that barriers to long-term functional use of spaces, given the likelihood of change to a community's needs for space, would require particular functions of educational and community service jurisdictions in order for them to be overcome. Such functions should lend themselves to optimizing the long-term functional use of school facilities through enhanced cooperation between the varying jurisdictions providing services (educational and other) to communities. More specifically, through integrated and coordinated planning at the provincial and local levels, coupled with locally based decision-making, planning and development of schools can become sustainable - to readily serve multiple community needs. Increasing the functional use of space through cooperation should work toward: avoiding duplication of facilities; providing multi-purpose, flexible facilities; improving use of existing facilities; and, making community services more accessible (Ontario Legislative Assembly, 1975).

Chapter 6 is organized around a series of policy recommendations impacting the function of those provincial and local jurisdictions associated with school facility planning. Policies are discussed in order of their importance to the overall planning of sustainable school facilities. This discussion serves to provide a synthesis of the various enabling elements needed to achieve sustainable planning and development of school facilities, and, is an opportunity to articulate specific details of the contexts associated with each policy.

6.2 Framework for Action

There are two levels of planning to be discussed. As previously noted, changes must occur at both the provincial level and at the local (school board and community) level. Both levels have three broad, inter-dependent functions, all lending themselves to more local, integrated planning and decision-making. These functions are: planning; facilitation; and financing. An overview of this "framework for action" is illustrated in Figure 8 (p. 91), and is followed with explanatory notes. The delineation of these levels and their functions becomes more evident as we proceed.

6.2.1 Policy Recommendations

1) Provincial Level

Given that the province has formal jurisdiction over education, changes impacting the planning of school facilities must first occur at that level. Any discussion of how to facilitate innovative school and community partnerships to ensure that schools are planned to meet present needs, while retaining the ability to meet future needs in the event of change, requires a serious coordinated effort. Since the provincial government is also responsible for funding most human/social-service related initiatives, cooperation to facilitate integration through school and community-purpose facilities requires that a definite position of leadership to begin this process of change be taken by the province.

To that end, the Manitoba Round Table on Environment and Economy (1990, #2) noted in their Sustainable Development series of documents, that the Premier must assume overall

	PLANNING	FACILITATING	FINANCING	
Province	<ul style="list-style-type: none"> • Long-range Planning • Community Resource Planning • Resource Inventories • Trend Analysis • Issues Analysis • Community Needs Analysis 	<ul style="list-style-type: none"> • Sustainable Development Policy Guidelines • Inter-departmental Co-operation • Formal Jurisdiction for action • Information Resources for Communities 	<ul style="list-style-type: none"> • Fiscal Co-ordination • Cost-efficiency • Apply Sustainability • Devolution of Resources • Consider funding on facility basis, not just school use 	ENABLING SUSTAINABILITY
Municipality	<ul style="list-style-type: none"> • Strategic Community Planning (action area planning) • Community Resource Planning • Resource Inventories • Community Needs Analysis 	<ul style="list-style-type: none"> • Integrate School Division Plans into Development Plan. • Cooperate with public and private service agencies and school divisions when planning public facilities • Articulate principles of Sustainable Development into all levels of activity 	<ul style="list-style-type: none"> • Apply sustainability to the budget process • Align Development Plans with budgets • Inter-departmental fiscal coordination 	ENABLING & ACTIVATING SUSTAINABILITY
School Board	<ul style="list-style-type: none"> • School Division Development Plan (to include current 5 Year Capital Building Plan) • Cooperate with other agencies to consider School Planning in the context of other social needs • Community Needs Inventory 	<ul style="list-style-type: none"> • "Vehicle" for community ownership • Facilities Use Committees at school level • Consider facilities adaptability and flexibility at the outset • Administrative process to accommodate change "as the rule" instead of the exception 	<ul style="list-style-type: none"> • Annual Capital Grant (primary source) • Capital Support Program (secondary, equalization source) • Budget features to allow flexibility to accommodate change 	ACTIVATING SUSTAINABILITY

Figure 8: Overview of Framework for Activating Sustainable School Facility Planning
(Source: Author)

leadership by: "implementing sustainable development in the public sector, having sustainable development as the basis of public policy, and having a provincial sustainable development strategy and code of ethics" (p. v).

a) Planning

The objective of the planning function of the province should be to establish a sustainable development mandate aimed at provincial level planning associated with developing school facilities. More specifically, Manitoba Education and Training should develop a long-range facilities planning strategy.⁷ This strategy should not attempt to determine the specific facilities needs of the entire province. Instead, work should be carried out in: gathering information associated with public facilities resources in school divisions; demographic trend analysis; articulating facilities-related issues of general concern to the school system; and enhancing the general understanding of community needs in relation to long-term planning of school facilities. Simply put, education should be considered within the context of other social needs. This would also establish a formal link between the province and urban and rural municipal planning jurisdictions.

In this regard, the province's role should be to serve an information gathering and advisory capacity for local area planning; and, as part of an inter-departmental initiative, identify existing and potential services and programs which may be possible to integrate with any new school facilities. Although the province presently does a great deal of work carrying out demographic and related statistical analysis, many divisions also spend a lot of time on this task. The collection and processing of demographic and related statistical data, in conjunction with a locally determined inventory of public facilities resources and

⁷Although Manitoba Education and Training publish a Strategic Plan (Manitoba Education and Training, 1991, #2. Building a Solid Foundation for Our Future - A Strategic Plan 1991-1996), it consists of very general goals. No specific mention is made in this "Plan" of planning for school facilities.

community needs, could together form an integral part of the "back-bone" of community development strategies. Therefore, it is recommended that:

POLICY RECOMMENDATION - 1. The Minister of Education and Training should, in consultation with school divisions and other relevant jurisdictions, establish enhanced provincial level mechanisms to consider education within the context of other social needs - gather and coordinate school planning-related data, and carry out issue and trend analysis relevant to long-term, integrated facility planning, in order to develop long-range plans at the provincial level.

This policy is consistent with action that Manitoba Education and Training (1991, #2) identified as necessary to ensure they have the capacity to implement their Strategic Plan.

- Development of an effective information technology system and coordinated data bank. This project will provide more timely and relevant information about the state of our education system (p. 26).

Identified in this plan is the initiative of sustainable development. It was noted that:

The Department will play a vital role in this initiative and will:

- Provide leadership and ensure the concept of sustainable development is integrated into all aspects of educational programming and decision-making.
- Participate effectively in the province-wide dialogue towards a sustainable development strategy for Manitoba. This includes supporting the development of various components of this provincial strategy (p. 25).

b) Facilitating

The second function of the province should be to establish a "climate" in order to facilitate sustainable school facility planning. More specifically: policy guidelines which require that

sustainability is given paramount consideration when planning schools; mechanisms to ensure inter-departmental cooperation; and, to facilitate easy access to information and resources for communities to engage in orderly planning and decision-making regarding school facilities development.

In order to ensure that Manitoba Education and Training has the capacity to implement their current strategic plan, they describe a second action (also relevant to this thesis) which is intended to be carried out:

- Continued development of the evolving concept of "partnership" and enhancement of the working relationship with the broader community.

In order to create a "climate" to facilitate sustainable school facility planning, it is recommended that:

POLICY RECOMMENDATION - 2. The Premier of Manitoba should establish an "Inter-departmental Advisory Board" of those Provincial agencies most directly involved in facilitating the delivery of educational and other community services.

An Inter-departmental Advisory Board⁸ would consist of numerous jurisdictions; for example: Education and Training; Urban Affairs; Rural Development; Social Services; Health; Economic Development; and Transportation. The leadership role with respect to planning school facilities would best be served by the PSFB of Manitoba Education and Training. The extent to which supportive roles would be played by the various departments would depend on the differing requirements of each community. It is the provincial level which should facilitate locally determined, innovative school planning to

⁸The genesis for this idea came from a personal discussion with Mr. Irvin Brunas, Director of Facilities Planning, Saskatchewan Education, November 25th, 1992. Mr. Brunas participates in a similar Inter-departmental mechanism in Saskatchewan.

address a wide array of social needs. This is a particularly important action for inner-city communities where families and children experience many hardships in their day-to-day survival; hardships that are absolutely unnecessary in our affluent society. A coordinated effort is fundamental to addressing the multi-dimensional problems many inner-city families face. Schools could offer a common ground to provide services for inner-city children, as well as to the community.

The Inter-departmental Advisory Board would also act as a *catalyst* for the development of "Total Community Resource Plans" to serve local level planning and decision-making. Total Community Resource Planning is characterized by action where all public resources located within a geo-political area (facilities, funds, agency and human expertise) are cooperatively used to serve the needs of a given community. In essence, it is "the complete coordination of the infrastructure of the community" (Earthman, 1986: p. 4) (Appendix 6, p. 174). In this context, an Inter-departmental Advisory Board could facilitate local innovations for planning and ongoing use of facilities (school and other) to more effectively address locally defined needs.

In Chapter 5 it was emphasized that present planning guidelines used by Manitoba Education and Training (PSFB) give practically sole priority to school designs for formal education of children. To this end, it is recommended that:

POLICY RECOMMENDATION - 3. The criteria established by Manitoba Education and Training for the approval of school facility development proposals should reflect the principles of sustainable development, considering community needs today (educational and other) while not inhibiting the ability to accommodate changing community needs.

The intent here is not to make the provision of formal education facilities for children less important, but rather to increase the attention given to other community needs when planning and designing school facilities. Given that schools are a significant characteristic of a community's identity and ongoing, overall development, and the inevitable change over the long-term of a school's local community's needs, planning and design considerations must be given to a wide range of community services and programs when building new school facilities.

Implied here is that the function and structure of a given school facility, with the objective of achieving its continued use as a community resource regardless of the level of school-age children in the area being served, is able to facilitate ongoing community change. More specifically, schools should be planned and designed for the possibility of a dynamic process of ongoing integration of varying uses, should the need for functional changes arise.

Although most of the discussion of sustainable school facility planning is directed at new facilities needs, the reality remains that an existing school may reach a point where it is determined a surplus, or obsolete for the formal education of children (due to deterioration, antiquated design characteristics, etc.) As noted in Chapter 5, processes are in place to provide school divisions with guidelines for closing schools and disposing of surplus properties. At the same time, opportunities are available for local communities to articulate how they may be able to use surplus space. However, as was also noted in Chapter 5, determining alternatives for surplus space and soliciting community input, is often too little too late. Therefore, in conjunction with the aforementioned recommendations, it is further recommended that:

POLICY RECOMMENDATION - 4. Manitoba Education and Training's processes for the closure of schools and disposition of surplus school space, should be changed to give greater priority to the continuance of school facilities as community resources, in order to meet locally defined needs in cooperation with the school division and other municipal and community service jurisdictions.

With the above recommendations in place, a mechanism is needed to coordinate the various jurisdictions at the local level. A vehicle such as a Community Council⁹ offers a great deal of promise. The Community Council (or some variation of the idea) should include representation by the local school division, other community service and planning agencies, and broad representation of community members. The specific role, participatory guidelines, and extent of partnership of such a mechanism should not attempt to be determined, as circumstances in each community will differ. The province, school boards, and municipal councils should facilitate local communities to determine these parameters. To this end, it is recommended that:

POLICY RECOMMENDATION - 5. The Minister of Education and Training should require school boards to establish and maintain local "vehicles" for community ownership in the planning and use of school facilities for educational and other community needs.

This "vehicle" should also be a significant partner in an overall Strategic Community Development Plan.

⁹Chapter 2 noted the idea of Community Councils. These Councils, intent on mobilizing various local resources needed for the prosecution of the First World War, found the school to be a natural meeting place (Perry and Williams, 1931: 41-42). The idea surfaced again in the Province of Ontario (1975) as a mechanism to coordinate community involvement in decisions regarding the use of school facilities for educational and other community purposes.

However, before integration can be encouraged and facilitated through local level participation and decision-making, the fiscal enabling framework must exist.

c) Financing

The third function of the province should be to create a fiscal framework to enable communities to achieve sustainable school facility planning and development. This financing function should include: coordination of community service agencies' capital expenditure resources; and, the application of sustainability to financial planning mechanisms for planning and development of school facilities.

Efforts to optimize cost-efficiency for the provision of community service facilities must be considered an objective. To realize this at the local level in planning school facilities, it is recommended that:

POLICY RECOMMENDATION - 6. The Premier of Manitoba should secure the inclusion of Inter-departmental budgetary mechanisms which can support sustainable development, encouraging inter-agency planning and design of school facilities that are able to readily serve a multitude of community needs.

Inter-departmental budget provisions associated with development of schools and other local community services would provide the PSFB with an avenue to approve and support school facilities which can readily serve multiple needs. This thesis has suggested in numerous instances that planning and design of school facilities has been dominated by the

needs of formal education for children, typically giving little attention to wider community educational and other program needs. This is not to refute or belittle the efforts many school divisions make in opening their doors for a range of community programs. For example, the Winnipeg School Division No.1 responds to community needs by offering over forty-five programs and initiatives in schools beyond regular educational programming (Appendix 7, p. 178). However, facilities are primarily constructed for formal education of children, and thus experience an unnecessarily high level of risk for premature obsolescence.

In the present "climate" of capital support for new school construction, no formal fiscal mechanisms exist to encourage and facilitate the cooperation necessary for integrated school planning and design.¹⁰

Chapter 5 outlined that in Manitoba the Capital Support Program of the PSFB requires that school divisions conform to provincial guidelines, with the PSFB controlling the funding levels of any approved projects. This situation should be changed to provide school divisions with an annual capital grant. In addition, school divisions should have an opportunity to apply to the Capital Support Program to compete for any additionally available funds in a given year, just as they presently do. The only difference in this situation from the present would be that school divisions, for the most part, would control their own facilities planning processes, with the province providing opportunities to compete for additional funds. Therefore, it is recommended that:

¹⁰Of special note on this point, is that the Facilities Planning Branch of Saskatchewan Education gives a higher priority for capital support to facility proposals which are part of a joint use development, and a lower priority for conventional, unfunctional school building proposals (Mr. Irvin Brunas; Personal Communication, Nov. 25th, 1992).

POLICY RECOMMENDATION - 7. The Minister of Education and Training should discontinue the Capital Support Program of the PSFB as the *primary* funding source for the development of school facilities. Primary funding for school facilities should be provided through an Annual Capital Grant based upon a per capita formula to apportion relative shares to each school division. Equalization grants for school divisions in greater need of capital resources can then be provided by the Capital Support Program through its established procedures.

This does not mean that school divisions can build any kind of facility they choose. Of course, the province and development approval jurisdictions will require, as they presently do, that proposals meet the various educational guidelines, building code and land-use bylaws. In addition, though, school divisions must be able to justify that their facilities will readily serve multiple needs, regardless of whether they are using the Annual Capital Grant or Capital Support Program funding.

Such consideration will also require that the provincial grant structure for independent community-purpose facilities be examined with a view to further developing the necessary coordination for the funding of school-community-purpose facilities. Moreover, the funding of a whole host of public facilities has potential to be coordinated with the planning of school facilities.

Chapter 4 described and analyzed five school-community integration concepts, concluding that facilities with multiple uses as a significant initial objective (most notably were the Community/School and Everywhere School Concepts) had the greatest potential to change to readily serve multiple community needs. Thus, recognizing and accepting the dynamics

of modern urban living and neighbourhood change, and planning to address this change.

Serious implications result from this recommendation regarding the design of school facilities. Clearly, as noted on many instances in this thesis, facilities must have a stronger relationship with their local communities if they are to be sustainable. Proposed here are schools which consider multiple uses, in addition to having the structural ability and flexibility to change to meet changing community needs.

The implication, as in previous recommendations, is that coordination is needed at the provincial level first, with the varying jurisdictions involved in fiscal coordination as the basis, in order for positive results to accrue at the local level. To this end, it is further recommended that:

POLICY RECOMMENDATION - 8. The Minister of Education and Training should ensure that school facility-related funding is not concerned with distinguishing community use from school use, providing capital grant support for facilities through Inter-departmental cooperation, on a 24 hours a day basis, all year long.

Clearly, greater fiscal coordination at the provincial level is paramount for activating sustainable school facility planning.

d) Provincial Level Summary

Three inter-related functions have been articulated, addressing planning, facilitating and financing school facilities in the provincial context. The overall role for the province here,

is to establish processes and mechanisms to overcome the barriers to sharing which prohibit planning of school facilities to serve their communities' long-term needs for space. Through each of the functions - planning, facilitating, and financing, the intent is for the province to enable the devolution of control, supporting cooperative exercises to be determined and achieved at the local level.

The extent to which these functions are also applicable at the local level, and the processes and mechanisms associated with them, is discussed in the following section.

2) The Local Level

Changes at the provincial level to realize partnerships for local level facility planning and development require complementary actions at the local level. The enabling functions discussed at the provincial level mirror actions associated with planning, facilitating and financing that should be taken by school divisions and municipal planning authorities (see Figure 8, p. 91).

a) Planning

Chapter 5 noted that the central element in the local level planning process was the Facilities Review by the school division. Through an annual audit of facilities, this review serves to inform and, if at all possible, perpetuate the status quo (i.e. continued use of the building stock). This was criticized because it results in planning being driven by reactions to undesirable circumstances; in opposition to ongoing incremental planning which serves to create, and evolve in a parallel fashion with, desirable outcomes.

Planning, facilitation and financing at the provincial level should enable the local

community, including those providing educational services, to be brought together to cooperatively address local needs. Therefore, it is recommended that:

POLICY RECOMMENDATION - 9. The planning of all future schools and community facilities should be a cooperative effort between the public and separate school boards, municipal councils, public and private community/human service-related agencies and local community members.

As previously indicated (Chapter 5), school divisions generally have processes in place to deal with facility utilization, involving parents, residents, and even other agencies from time to time. It would, then, be advantageous for a school division to facilitate involvement of other human service delivery agencies in the planning and development of any new school facilities. Moreover, this would be a *formal* link with municipal planning agencies (a link that at present appears rather informal). Regardless of where a new school facility is being planned, inter-agency involvement is a critical precondition in order for a given school facility to readily serve multiple needs over the long-term.

There appears to be relatively significant consultation of local residents and other community service agencies regarding the issues of surplus space, school closure and disposal of surplus school property. However encouraging this is, it is often too little too late for many schools to continue as community resources in the face of community change. Furthermore, research (Valencia, 1984) suggests that the long-term implications of school closure are complex, and likely to have an adverse impact on associated communities.

Involvement of the community must be maintained throughout the entire planning process -

from pre-design through the duration of a facilities life-span. In this way circumstances which at present might require that a facility be designated "under review," requiring intense scrutiny of its operational viability and the establishment of a Facilities Review Committee (with community representation), may be prevented from occurring; in this event, the school closure and surplus school space disposal processes could potentially become obsolete. As previously implied, any success in this regard will require significant inter-agency coordination. Although, the entire concept of attempting to develop school facilities to meet existing and potential local community needs, necessitates a clear articulation of a community's needs and aspirations.

It is here where long-range planning at the provincial level is put to use at the local level in the development of Total Community Resource Plans, including a Community Needs Inventory. Therefore, it is recommended that:

POLICY RECOMMENDATION - 10. Municipal councils and school boards should encourage and support the development of Total Community Resource Plans, including Community Needs Inventories, as significant elements of locally developed Strategic Community Development Plans.

Essentially being proposed is the placing of the decision-making into the local level, while placing the advisory role, and demographic and facilities resources-related research and trend analysis into the provincial level. The intent would be to encourage and enable school divisions to more actively facilitate the participation of their local communities in the planning and design of school facilities; while doing so within a broader context of an overall community development strategy.

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Duke of York, Commander-in-Chief	60, 61
Oke, Ensign John	60, 138
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To this end, local communities (both urban and rural) must participate in a process of "visioning;" a process whereby a community determines where it is, where it seems to be going, where it wants to go, and how it can get there. This is not only meant to be meaningful involvement for community representatives, but for individuals and/or groups which have interests in the area, and/or may be potential partners in any future school facility developments (Appendix 8, p. 179). A community's vision, then, must be incorporated into a strategic community development plan (in some rare occasions such an instrument may to some extent already exist). In addition, the community's goals must also be reflected in their school division's Five Year Capital Building Plan.

For an example in the local context, it appears that the City of Winnipeg would be supportive of this general discussion. The City's development plan, "Plan Winnipeg - Toward 2010" (1992), noted the following pertinent Statement of Principle:

The City seeks to promote access to a quality education for all residents, to strengthen the role of our schools in community development, and to recognize the value of our schools in providing neighbourhood stability (p. 66).

The appearance of their support for this discussion becomes more explicit when the explanatory text associated with this Statement of Principle is viewed:

The City shall cooperate with local school divisions, . . . and other levels of government in support of initiatives that provide a high quality of education to Winnipeg residents (p. 66).

The City shall work cooperatively with local school divisions in addressing neighbourhood management issues (p. 66).

The City shall solicit the support of the other levels of government and the local school divisions in the maintenance and revitalization of neighbourhoods (p. 79).

The City shall promote the sharing of facilities and services with local school divisions and shall work cooperatively with local school divisions to establish consistent practices and procedures that facilitate shared use (p. 67).

The City shall work cooperatively with local school divisions in identifying opportunities to deliver support services in neighbourhood schools (p. 67).

Clearly, the City of Winnipeg (in principle at least) appears to be supportive of enhanced cooperation to ensure that school facilities continue as community resources, assisting in the provision of neighbourhood stability. However, several links remain to be made: the application of these goals through the development of "action area" (or strategic community development) plans for the numerous communities that make up the City of Winnipeg; and where action area and development plans become specifically identified in associated municipal budget allocations. These are significant obstacles which are prohibiting a direct link between planning and action. Therefore, it is recommended that,

POLICY RECOMMENDATION - 11. Municipal Councils should cooperate with public and separate school boards, public and private community/human service-related agencies and local community members to establish Total Community Resource Plans, including Community Needs Inventories, as significant elements of locally developed Strategic Community Development Plans.

POLICY RECOMMENDATION - 12. School Boards should establish division level Development Plans (inclusive of their Five Year Capital Building Plans) focusing on long-term implications of facilities use and future needs, and have them incorporated into municipal development plans for more effective use of community resources.

POLICY RECOMMENDATION - 13. Municipal Councils should incorporate plans created at the school division level into their Development Plans; bringing Strategic Community Plans and School Division Plans together for an overall coherent vision.

With strategic community planning being addressed, the City's goals of working closely with school divisions, and the necessity of school divisions planning facilities within the context of other social needs, would forge the critical links in order for locally defined needs to be dealt with.

b) Facilitating

The second function of the local level should be to support provincial efforts, by further establishing a "climate" in order to facilitate facility plans that can readily serve multiple needs. More specifically, support provincial policy guidelines by: articulating local policy guidelines which put sustainability into action; creating mechanisms to ensure Inter-agency cooperation; and, creating a clearly defined local vehicle to access information and resources from the provincial level to support local planning and decision-making.

When it comes to planning and design of school facilities, few partnerships are made, with the needs of formal education for children dominating facilities planning processes. To this end, to ensure that facilities meet the needs today of both the school and community, while considering their continuation as community resources regardless of changes to the level of school-age children in the areas they serve, it is recommended that:

POLICY RECOMMENDATION - 14. School boards should establish policies which aggressively ensure the participation of all members of a local community in the initial and ongoing planning and design of schools, establishing greater community ownership over their school facilities in order for those facilities to be able to readily serve multiple community needs over the long-term.

Quite clearly, functional and structural integrity in this regard implies the need for flexible school facilities. The functional and structural characteristics necessary for school facilities to be in such dynamic integration, must become an objective of any new school capital facility planning and development, and, in the larger context, an element of the aforementioned Total Community Resource Plan; in conjunction with Strategic Community Development Plans.

Design considerations for schools should be expanded from strictly linking school needs to desired facilities. Instead, they should link both community and school needs to planning facilities that potentially could readily serve multiple functions. In this regard, structural adaptability and flexibility are paramount (Appendix 9, p. 182)).

An example of an appropriate policy *direction*, although falling short of acceptance here, can be viewed in the Winnipeg School Division No. 1 context. Their policy states:

The Winnipeg School Division shall endeavour to develop and maintain liaison both at the Division and the school level with the community agencies involved in providing services to the students in the Winnipeg School Division in order to ensure the coordination of planning and implementation of programs and services (Winnipeg School Division, 1988: p. 7.)

However encouraging this appears, there is no mention of how they view planning school

facilities in this "climate" of inter-agency coordination encouraged in policy. To this end, a policy to address PSFB facilities design criteria which would obligate planning facilities that readily serve multiple needs, must consider the structural design integrity to achieve approval. Therefore, to modify the above Winnipeg School Division policy it is recommended that:

POLICY RECOMMENDATION - 15. School Divisions should develop and maintain liaison both at the Division and the school level with the community agencies involved in providing services to the students in their communities, in order to ensure the coordination of planning and implementation of programs, services *and facilities*.

To utilize a community's needs inventory and inventory of public spaces regarding planning school facilities that readily serve multiple needs, requires a coordinating mechanism. A Facilities Use Committee could serve this function, and be lead by the locally defined Community Council. The circumstances exist for ongoing integration of community and school uses. Such a dynamic process requires that administrative structures established in a given facility be flexible, and very receptive of change. Change of working conditions may often be the rule instead of the exception (Appendix 10, p. 185). Therefore, it is recommended that:

POLICY RECOMMENDATION - 16. School Boards should facilitate the establishment of administrative systems in schools that are flexible and have the capacity for self-modification based upon changes of the functional use of their spaces.

A flexible and adaptable administration must be implemented in schools that will readily serve multiple needs. Typical administrators are teachers, and have further specialized in educational administration. However appropriate this is for conventional school facilities, with the integration of multiple community needs into the functional use of school facilities, in some instances there will be a need for teacher-administrators to have broader qualifications. The most desirable situation, though, would be for an administrator to have a specialization in public, and educational, administration. This aspect of operating sustainable school facilities must not be taken lightly by school boards. The entire process could hinge on having an administration that can readily serve multiple needs, involving numerous agencies on an ongoing basis. School administrators must be prepared for such a change in their traditional environment, since their role in conventional school buildings is already complex, and often very difficult.

c) Financing

The fiscal cooperation at the provincial level serves an "umbrella" function for inter-agency organization to be realized in the planning of school facilities. At the local level, considerations of sustainable school facility planning would have to be given to initial capital support costs, as well as the ongoing costs of potential alterations/additions and operating expenses. Given that the Five Year Plan is only an annual mechanism, the need would exist for funding arrangements to be able to assist any minor capital improvements associated with change in a portion of a facility between annual capital support grant allocations. Any significant alterations/additions would best be addressed through the Five Year Plan (Appendix 11, p. 188). Therefore, it is recommended that:

POLICY RECOMMENDATION - 17. Local school boards should support through operation and maintenance budgets, capabilities for ongoing capital improvements of school facilities to readily serve multiple needs.

Clearly, the need for Inter-departmental fiscal cooperation at the provincial level is necessary in order for school divisions to be supported in their endeavours with local communities to address multiple needs in school facilities.

Furthermore, the municipal level would also have to address fiscal issues relative to this overall framework. For the City to establish linkages to facilitate locally-defined Strategic Community Development Plans (including elements of Total Community Resource Plans and Community Needs Inventories) requires a financial commitment. Therefore, it is further recommended that,

POLICY RECOMMENDATION - 18. Municipal Councils should align their Development Plans to the necessary budgetary provisions in order for action to be achieved at the local level.

The key point to be made in reference to Policy Recommendation 16 is that municipal spending that is coordinated over the long-term, guided by a Development Plan, will be more effective in the face of growing fiscal constraints.

d) Local Level Summary

Three inter-related functions have been articulated, addressing planning, facilitating and financing school facilities in the local context. The overall role for the local level is to

activate school facility planning within the provincial enabling "umbrella," by creating "vehicles" to access information and involve the community in planning and use of school facilities that readily serve multiple needs. Through these functions, the intent is for the local level to take orderly control of planning for school facilities.

6.3 Summary

The objective of this chapter was to articulate the decision-making and institutional functions needed to reflect sustainable thinking regarding planning and development of school facilities. The provincial and local level policy recommendations discussed above aim to do this through the functions of planning, facilitating and financing.

Unquestionably, the most significant obstacles to be overcome in activating sustainable school facilities planning are our present societal functions and structures (i.e. political, social and economic). The transition will take us from independent jurisdiction resource consumption to a dynamic process of optimizing and sustaining the use of resources through coordination and collaboration.

It is clear that cooperation is an objective in the overall process of "planning" for community resources. School facility planning and community planning environments must have stronger formal planning linkages. As was shown, the province has a role to play in both of these environments. As well, at the local level, the municipality and school division all need to get their "houses" in order. And finally, the province, municipality and school division need to make a commitment to activating the principles of sustainable development by establishing the appropriate "vehicles" for community-based planning and decision-making. Such action is based on modification and creation of processes in association with the functions of planning, facilitating and financing.

CHAPTER 7

CONCLUSION

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The "pioneers" of planning recognized that the school had a significant role to play in urban social and physical development. However, while the roots of city planning held the school in utmost regard, present community planning is waning in taking advantage of school facilities to assist in long-term community-building. To further confound matters, paralleling this loss, school divisions have developed into very specialized jurisdictions, planning their facilities quite independently.

The role of the conventional school in the dynamics of modern society is in need of reform. Not only have traditional school facilities been losing their significance as pivotal features in urban social and physical development, they cannot be counted on to continue as community resources. The central question in the Introduction (Chapter 1) to this thesis asked how are we to effectively plan school facilities to be adaptable to present, as well as future needs, in order to maintain their long-term use as valuable community resources; particularly in the context of sustainable community development.

Chapter 2 discussed school facility planning within the broader context of city planning. It concluded that planning for school facilities and planning for communities both face the same challenges. Each jurisdiction bares the results of "rational comprehensive" planning, and the development of specialized, rigid structures for addressing societal needs. The concept of sustainable development is held out as the necessary direction in order for planning to overcome these challenges. More specifically, however, Chapter 2 noted that the solution for planning sustainable school facilities lies webbed in the very nature of the problem - the relationship between the school and the community.

Having “set the stage” for the thesis, Chapter’s 3 and 4 expanded on the relationship between the community and school. Many precedents were described where schools have the potential to be many things to the neighbourhoods they serve. Upon closer examination of some possible close associations between schools and communities, the author concluded that for school facilities to be sustainable, i.e. to be able to readily serve multiple community needs over the long-term, that functional and structural flexibility and adaptability (integration of multiple uses) is paramount; in addition to community-controlled planning.

In order to answer the question of how to plan sustainable school facilities, Chapter 5 investigated and analyzed contemporary school facility planning. While focusing on the Manitoba context, it was made clear that since the province controls the finances, and therefore capital development decisions, they are in the lead position to enable the local level to have a larger decision-making role, and to encourage and support the planning of integrated school facilities. The analysis found missing from this description an overall enabling framework at the provincial level, as well as mechanisms for action at the local level.

Chapter 6 articulated a series of policy recommendations aiming at the decision-making and institutional functions needed to reflect sustainable thinking regarding planning and development of school facilities. Changes at the provincial level to realize partnerships in order to achieve integrated facility development are complemented with prescriptions for action at the school division and municipal levels. More specifically, while change at the provincial level was aimed at establishing the *enabling* mechanisms to achieve greater local level empowerment, change at the local level was aimed at articulating the *activating* mechanisms needed in order to plan sustainable school facilities.

In the final analysis, the direction is quite clear. The key ideas for sustainability in the public sector are linkages (political, social and economic) supporting cooperation and collaboration aiming at establishing community-driven plans. Sustainability requires that we can no longer tolerate the rigid, mechanistic separation between government departments, levels of government, public and private agencies, and decision-making processes and citizens. Moreover, with enough political will at the provincial, municipal and school board levels to break down the inter-departmental barriers, overcome protectionist attitudes, and begin focusing on locally-defined, community-based plans (for communities and their school facilities), we can then truly begin to realize a sustainable future.

SOME ITEMS FOR FURTHER RESEARCH

- If planning and development of school-community integrated facilities is a goal, then the provincial funding system for community-purpose facilities (i.e. community centres), should be analyzed. This would be necessary to ensure effective coordination of community resources, and serve to eliminate service duplications.
- Research and analysis must be conducted regarding the notion of facilitating greater devolution of decision-making to increase the ability of the local level to have control to achieve enhanced financial independence.
- The impact of school building permanence to community stability should be analyzed. As well, the financial impact of building redundancy, and premature school facility closure and obsolescence.
- Discussion of paradigmatic development should be extended to articulate what likely challenges we are to face once sustainable development has pervaded our societal order. Are we moving in a direction toward ever-increasing self-reliance of communities? And if we believe so, how does that make what we are striving to do today any different?

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APPENDICES

APPENDIX 1

David Livingstone Elementary School - Sokol Manor, Brandon, Manitoba

The David Livingstone School (Kindergarten - Grade 2 (K-2)) - Sokol Manor (Senior's Housing) complex was opened in 1989. Developed as an elementary school attached to a seniors housing complex, it is an attempt to plan a school that is flexible enough to change, if necessary, to meet potential future demands. In the event that enrolment in the elementary school is in decline, the facility may be taken over by Sokol Manor for use by residents (Elaine Franklin, David Livingstone School: Ruth Williams, Sokol Manor; March, 1992).

The K-2 school, including classrooms, office space, staff meeting and work space, a library and gymnasium, is slightly below its maximum capacity of fifty students. Sokol Manor has thirty-two self-contained dwelling units - three of which are double capacity units - and all are full. Each housing unit is complete with all necessary independent living accommodations such as a refrigerator and stove, while all residents enjoy a lounge or 'common' area for various social and recreational activities. Manitoba Housing manages the housing component, while the Brandon School Division manages the school. If the school division determines that there is a significant enough decline of school-age children in their catchment area they may wish to proceed with negotiations permitting the expansion of the facility's Seniors' component.

While the complex has the appearance of being one structure, the school and housing component are only accessible to one another through a common room. On occasion Seniors visit the school to participate in student activities, and may be found reading a story to a group of children. As well, throughout the school year students are welcomed into the Seniors' lounge to entertain guests and residents with art and music.

With respect to the site, due to its compact nature the limited parking space is primarily utilized by Sokol Manor, with the school being forced to use adjacent streets. This is not likely a major concern given the size of facility and consequent small staff.

The structure and function of this facility appears to be fairly well prepared to be "recycled." If either the housing or school component were in jeopardy of being closed, there appears to be some potential for them to be attractive enough in terms of possible utility to take on additional/alternative tenants. Although, once a decision is made to discontinue the school component of the facility, the possibility exists that the ability of reversing that decision at some future point may be made difficult depending upon the new use. If the initial converted use of the school component is something other than housing, possibly necessitating fewer structural changes to the building, the ability of the school to resume use at some point would be greater. However, given the overall structure and multi-function of this facility, this particular school can be considered as being "first-order recyclable."

APPENDIX 2

Comprehensive List of Community School Goals

- "Make maximum use of community resources to provide a comprehensive educational program for the entire community.
- Establish coordination and cooperation among individuals, groups and organizations to avoid unnecessary duplication.
- Develop a program or process for identifying existing and future individual and community needs and wants; and marshal community resources capable of effecting appropriate change.
- Encourage citizen involvement and participation in public school and community affairs.
- Provide and develop increased opportunities for lay and professional people to assume leadership roles.
- Provide and promote alternative activities which could combat vandalism, juvenile delinquency, crime and other school-community problems.
- Provide social interaction and improved human relationships among people with differing cultural backgrounds.
- Offer supplementary and alternative educational opportunities for adults and children to extend their skills and interests.
- Provide health programs to improve the extent and availability of community health services.
- Provide or develop employment and vocational opportunities for meeting the individual's and the community's employment needs.
- Provide or assist residents in securing needed social services from an approved agency.
- Offer programs designed to increase understanding of political procedures, processes and issues.
- Provide, develop or use available community resources to meet the people's recreational and leisure time interests.
- Encourage processes and programs for community development and environmental improvement.
- Provide activities relating to cultural enrichment and domestic arts and science.
- Develop means of assessing and evaluating the extent to which the goals of community education are being met by the program and processes" (p. 25-26).

APPENDIX 3

The Lester B. Pearson High School - Village Square Leisure Center, Calgary, Alberta

The Lester B. Pearson High School - Village Square Leisure Center, Calgary, Alberta, was built in 1990. This particular suburban area of Calgary has been experiencing considerable growth in the past several years. All parties to the development feel that such an integrated facility is a valuable tool for strengthening both the community and the school (Tuff, W., Community Relations Officer, Lester B. Pearson High School; Bowran, J., Superintendent, Village Square Leisure Center, Personal Communication, 1992.). It is a 200,000 sq. ft. facility housing technologically modern educational facilities for approximately 1,000 students in grades 10-12, in addition to the Leisure Center. The Leisure Center component boasts community offices for volunteer recreation programming, food services, a public library, Calgary Board of Health offices and clinic, Calgary Social Services Regional Office, a wave pool, two gymnasiums, two ice surface arenas, fitness rooms, a weight room, a rock climbing wall, and saunas.

Zoning of the area was Public Education, as determined in the 1970's, and allowed this development to be completed without any zoning amendments. The Board of Education owns their component while the City of Calgary holds title to the remainder. The School Division and Leisure Center are presently operating with a two year joint-use agreement that is currently being evaluated and adjusted for long-term effective use by all involved. Although each facility is an administrative entity unto itself, both administrations work together by participating on a Joint-use Facilities Committee.

Although a significant decline in student enrolment in this area of Calgary is not likely to occur in the next 15-20 years, the Superintendent of the Leisure Center indicated that such a facility could support the evolution of community uses with relative ease.

APPENDIX 4

John F. Kennedy School and Community Center, Atlanta, Georgia

Opening in 1971 on a 5.1 acre site, the John F. Kennedy School and Community Center includes a 250,000 sq. ft. facility incorporating a grade 6-8 school for approximately 1,000 students, and a large number of municipal and community agencies. The overall concept, which grew out of a study of the needs of residents of this neighbourhood area, was initiated by the Atlanta Department of School Plant Planning and Construction; although thirteen public agencies, two foundations, and the U.S. Department of Housing and Urban Development also came to be involved in this facility's planning (Educational Facilities Laboratories (EFL), 1973). As previously listed, the list of services and programs associated with this facility is very comprehensive.

The entire facility has a central administration that includes a number of community service directors that administer the various city, state, and federal programs.

Facilities such as John F. Kennedy School, do not require extra funds to operate (Educational Facilities Laboratories (EFL), 1973). There are a number of sources that are contributing to such specialized and integrated facilities. EFL noted that

“the chief differences between financing a conventional after-hours program and an expanded community/school is in how and where the money is acquired, the administrative agency that manages it, and where the services it purchases are deployed. A community/school makes more efficient use of public money because it pools the resources of several agencies to purchase common goods and services. Furthermore, community/schools are often eligible for funds not available to a conventional school and more likely in the future to attract a greater proportion of revenue sharing funds (EFL, 1973: p. 30-31).

APPENDIX 5

School Facility Planning and Development Contemporary and Manitoba Contexts

Hathaway (1989) proposed a set of specific guidelines to guide educational facility planners in plan formulation. To paraphrase Hathaway, he noted that: the facility plan must balance rapid, continuous and erratic change with some stabilizing and calming elements; learning should be considered a life-long process, associated with several institutions, and for various purposes; planners must recognize that technological and pedagogical knowledge are broadening our understanding of how learning occurs; the educational system should include both formal (elementary - post-secondary levels) and non-formal (libraries, museums, business and industrial training, information resource centres, churches and other various public uses) dimensions; facility plans should include a framework which ensures that decisions meet the broadest range possible of community needs; several dimensions of public policy could be impacted by recognizing the many concurrent needs that exist between school facility utilization and the facilities resources needed by other jurisdictions (e.g. child care and care of the elderly, resource institutions built around unusual or costly resources which also provide access for the public - museums or libraries, service institutions offering learning programs and evaluation or certification services); as well as consideration of linking facilities (e.g. child, senior citizen and health care facilities), non-formal use integration with private organizations, facilities incorporated into other designs (e.g. office buildings, shopping centres, apartment blocks), with some uses having public funds and control, others being private and not for profit, as well as the possibility of profit oriented uses (p. 137).

A lot of ground is covered within the parameters set out by Hathaway. To what extent contemporary processes operate within these parameters is unknown. To be sure, it will vary from school division to school division, as well as from province to province.

The following section provides an overview of school facility planning and development in the contemporary and Manitoba contexts.

1. Long-range Planning

i) The Contemporary Context -

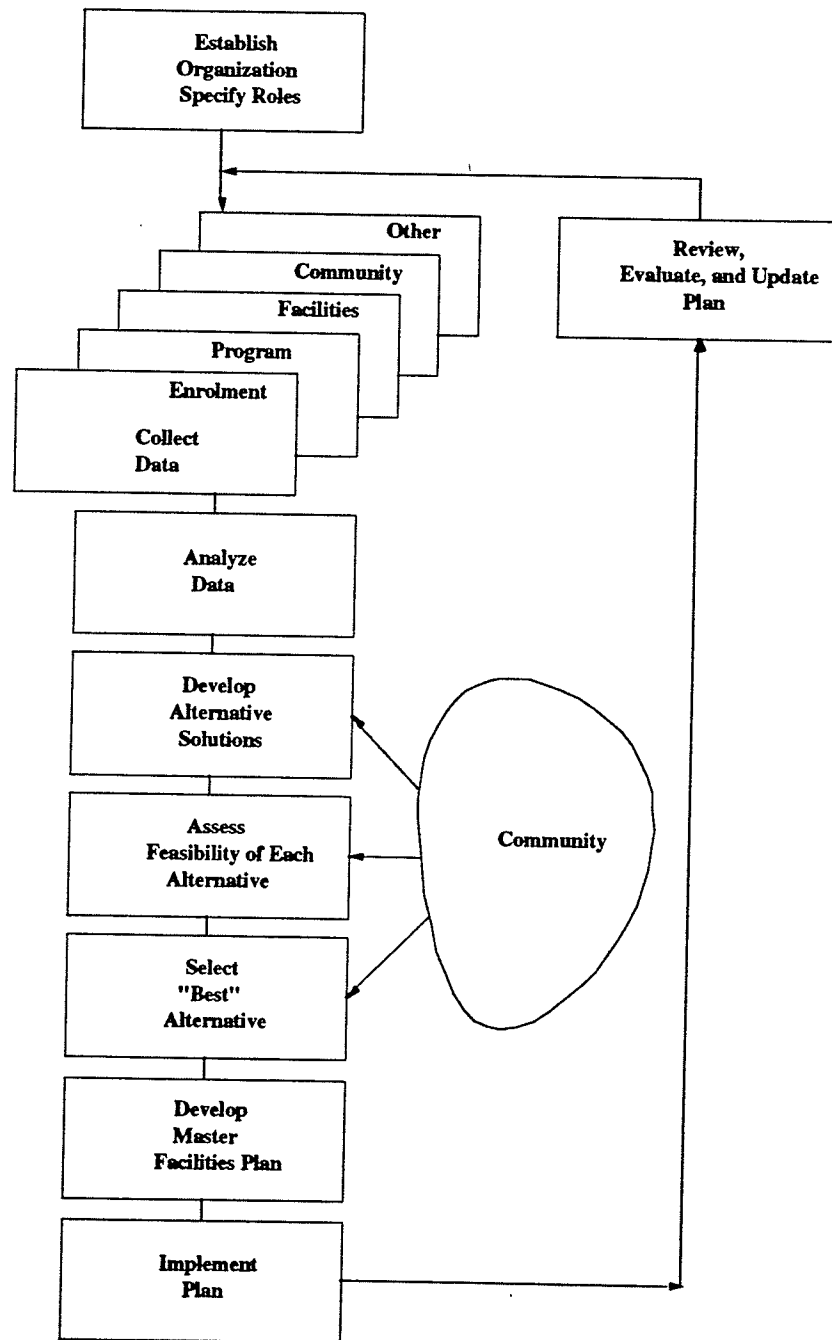
Ideally, when planning for school facilities, any capital outlays - remodeling, expansion, new construction or otherwise - should be part of a long-range plan. This plan should as much as possible have integrity by being based on facts and substantiated professional judgments. Considerations should be given to promoting effective utilization of serviceable facilities to remain educationally effective, while avoiding making ad hoc additions that may prove to be financially detrimental. Castaldi (1987) identified five steps that he felt should be included when developing a long-range plan.

- 1) *enrolment projection* - this is useful in creating the long-range plan, for facility-related decisions. Such projections will make it easier to determine new school sites and costs of possible student transportation programs.
- 2) *school building survey* - this may take many forms depending upon the degree of details that are desired of the school division's facilities.
- 3) *adopt a long-range building plan* - this should provide a flexible "blueprint" of the desired direction and priorities of the school division.
- 4) *plan implementation* - on-going monitoring and alteration of the plan.
- 5) *enlist citizen participation* - citizens should be involved to express what they feel should be accomplished by the schools and to reflect the "values and mores of the community" (p. 84).

The Council of Educational Facility Planners, International (CEFPI) (1985), suggested a more clearly articulated long-range plan, and expressed minor differences in terminology. In their "Master Planning Process" they viewed the educational facility planner as having the primary responsibility for the Plan's development; she/he will also provide overall continuity to any development by being involved from initial and 'macro' planning stages, to conceptual design, through to post-occupancy evaluation, etc. CEFPI's facilities Master Planning Process (Figure 9, p. 132) is outlined in the following steps:

1. Establish an organization and specify the roles and responsibilities.

Figure 9: Council of Educational Facilities Planners, International - Master Planning Process (Source: CEFPI, 1985)



2. Collect data about such factors as enrollments (sic), facilities, community expectations and the educational program.
3. Analyze the collected data and identify trends, directions and goals.
4. Develop alternative ways of achieving the ends identified by analysis of collected data.
5. Assess the feasibility of each identified alternative.
6. Select the preferred or "best" alternative(s).
7. Develop a facilities master plan to achieve the chosen alternatives(s).
8. Implement the plan, provide the required facilities, and put the developed facilities into use.
9. Evaluate the completed facilities and initiate an update of the facilities master plan (1985: p. C-2).

As a general framework for typical long range school facility planning, these steps are easily accepted. However, what remains to be the most concern is how these terms are achieved. For example, fifty years ago a desired "end state" of planning might have been for a better quality of life in a given context; however, while as an "end" this undoubtedly continues to be an objective, consensus to grasp the paradigm of sustainable development requires a fundamental change in "means" to achieving this end. This discussion will be revisited in the next chapter. In the meantime, discussion of school facility planning will continue.

ii) The Manitoba Context -

In Manitoba the bulk of long-range planning occurs at the Division level as a component of the Facilities Management Process. In the Winnipeg School Division No. 1, the Chief Superintendent is responsible for the development of a comprehensive Facilities Planning Process and a Facilities Management Process (Winnipeg School Division No. 1, 1991, #1). Members of the Long Range School Facility Development Committee (of the Facilities Management Process) are the Chief Superintendent, Superintendent of Secondary and Elementary Schools and Director of Buildings (Winnipeg School Division No. 1, 1986: p. 5.). Their role is:

- 1) to coordinate studies concerning long range development;

- 2) to coordinate proposed major new construction or renovation programs and projects;
- 3) to develop and recommend the five-year program priorities for new construction, renovation, additions or replacements to be submitted to the Board and the Province (PSFB);
- 4) to consider the implications of requests referred to it by the Board and the School Improvement Committee; and,
- 5) to maintain liaison with local municipal and provincial agencies to ensure compatibility of long range plans (p. 5).

The pivotal component of this process is the Facilities Review which is concerned with the quantity and quality of school facility utilization.

A.) The Facilities Review Process

The Facilities Review Process includes an annual audit by administration of all schools in the division to determine any facility utilization-related concerns. Enrolment statistics, program overviews, and general facility conditions are considered and then reported to the Building/Transportation Committee. The Building/Transportation Committee will then determine if any facilities may be in need of further review.

If a school is identified as needing further review, the administration collects additional details about the school(s) related to the present school staff, programs and options, organizational structure, enrolment profile; physical facility conditions and utility; current operating costs associated with staff, maintenance, equipment, supplies and transportation (if necessary); and, other data deemed relevant. If a school is identified to require a detailed review in order to determine possible organizational alternatives that may rationalize or enhance its utilization, administration will give the following recommendations to the Building/Transportation Committee:

a) to designate the school as under review and to identify any other school(s) that may be affected by the review process

b) to establish a Facilities Review Committee (Winnipeg School Division No. 1, 1991, #2: p. 2).

The formal establishment of a Facilities Review Committee is performed by the Board of

Trustees. The structure of the review committee sees that there is "no more than two representatives from the Superintendent's Department. . . two representatives chosen by the parent council of the school(s) under review, one representative chosen by the parent council of any school(s) that may be affected by any organizational changes. . . (and) one administrator from each school(s) involved" (Winnipeg School Division No. 1, 1991, #2: p. 3). The representative from the Division office will coordinate and organize the actions of the committee, with parent/community representatives providing feedback to their respective communities. School administrators and any possible Building Department representatives will serve as resource persons to the committee.

The Facilities Review Committee will review all relevant data collected, hold meetings with parents, school staff, and the community at large to receive input regarding possible organizational alternatives, and prepare a final report with recommendations to the Building/Transportation Committee. This report is then discussed with the Chief Superintendent regarding possible further action.

The Facilities Review Process could result in one or more of several situations arising from either an under or over utilization of facilities:

i) Under Utilization

If under utilization brings a school's enrolment below Division minimum requirements (a level which fluctuates depending upon the specific circumstances), considerations related to alteration of catchment area policies, reorganization of programs, and/or pupil transportation schemes may be made. If under utilization is perceived to be inevitable, at least into the next five years, a possible process of closure and disposition of surplus space may ensue. In this case, the Province of Manitoba has established guidelines for school closure and the disposition of surplus school space (Government of Manitoba, 1982; and

1987, #1).

ii) Over Utilization

If a facility is experiencing over-capacity, considerations related to alteration of catchment area policies, reorganization of programs, and/or pupil transportation schemes may be made. If the situation is judged by the division to be significant enough, it may lead to identifying a need for construction of additional facilities and/or renovation. In this instance, any request by a school for construction and/or renovation is required to be identified in the Division's prioritized Five Year Plan for capital projects when submitted to the province's Public Schools Finance Board (PSFB).

The annual Facilities Review Process forms the basis with which a given facility becomes directly incorporated into formalized long-range planning priorities.

B.) The Five Year Capital Building Plan

Long-range planning in Manitoba school divisions is primarily carried out at the school division level through a Five Year Plan. However, there is some involvement from the Government of Manitoba, since they approve all projects and control the level of financial support, as well as the City of Winnipeg, since they have statutory planning responsibility for the city in general and are involved in the development approval process. Figure 6 (p. 73), illustrated in the main body of this thesis, provides an overview of the level of involvement by the provincial government in the school facility planning and development process. In addition to being described here, elements of this overview will be discussed throughout the remainder of this appendix.

When a school division determines a need for facilities, either new or by renovation and/or conversion, such facilities must be identified in a Five Year Plan. The Five Year Plan is an

opportunity for school divisions to identify and project their capital facilities needs in order for the Province's PSFB to prioritize projects relative to available finances in a given year. Divisions are expected to update this Plan annually to reflect priorities. The Five Year Plan does not directly deal with the management or long-term utilization of facilities with regard to the always possible event of declining enrolments and possible non-school-use conversion or facility closure. Rather, issues of this sort are dealt with at the local level through processes that together form background data used in the creation of a Division's Five Year Plan. More will be said of how the Manitoba public school system deals with issues of facility conversion and closure later in this appendix.

Upon the submission of plans from all divisions to the PSFB, a Five Year Plan meeting is held for the PSFB and Division Administrators to discuss priorities. Following this meeting the PSFB prioritizes a list of projects to be accepted for assessment. The assessment is to determine the level of need for any construction, and does not imply that actual construction will occur on a given project in that year.

At this point, the Project Leader from the Capital Facilities Branch of Manitoba Education and Training, with input from various other government educational consultants, assesses requests and reports all findings to the PSFB. It should also be noted that the assessment process may entail that a division submit a "Letter of Intent" providing relevant information in justification of a project. Moreover, at present, in order for a new construction project to be considered for capital support, a school division must be able to demonstrate that the school-age population is growing and that they can not accommodate this growth.

Once the Project Leader completes her/his report, the PSFB submits a list of urgent projects for capital funding to the Minister of Education and Training. Depending upon the level of funding authorization, the PSFB may have to re-prioritize projects.

Upon final recommendations being submitted to the Minister, individual projects are then approved and formally acknowledged with a 'Ministerial Award' forwarded to the appropriate school division. The school division is then authorized to retain the services of an architect to proceed with development of the project. However, before any architectural details are determined, pertinent information related to the educational specifications, site, and finances is necessary.

2. Educational Specifications

i) The Contemporary Context -

Educational specifications provide the link between school programs and desired facilities. It is here where educational planners must have an understanding of the "inner working" of school programs. To identify the desired function of the facility, input of a conceptual nature regarding programs and facility functions should be obtained from division and school staff, the local school board, students, and a local parent's association prior to any architectural and engineering-related details (Castaldi, 1987). In Figure 10 below, the CEFPI (1985) summarize their view of what the educational specifications should entail.

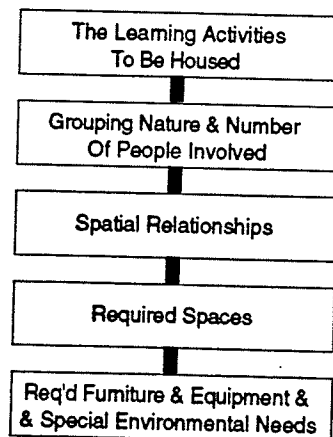


Figure 10: Characteristics of Educational Specifications.
(Source: CEFPI, 1985).

The educational specifications should "provoke intelligent communication among educator,

consultant and architect" (CEFPI, 1985: p. E-2).

ii) The Manitoba Context -

In a study related to the facility planning process in Manitoba, Guarino (1980) indicated that the Director of a school division often recommends to the school board an individual to chair a working committee to determine needed educational specifications. With the school board's decision, it is generally the school's principal who coordinates the planning process. In the event that a new facility is being built, the principal-elect typically coordinates the planning process (Guarino, 1980). It appears that in Manitoba a specialist in educational facility planning is rarely retained to coordinate this task.

The working committee, chaired by the principal-elect, is made up of community representatives, a central office representative, and the division's architect. Discussion relates to the particular features of the school with respect to the type and size of programs. The notion of innovative planning and design, integrating other human service agencies' space needs with the school, is traditionally given little attention in this process.

Once the learning and related activities are determined, they form the basis of the physical requirements and special features of the facility. Included in these specifications should be information regarding the rationale for the project, a community profile consisting of both social and physical data, educational plans stating the general curriculum plan, the various methods employed to address the curriculum, and an outline of the facility's staffing plan (Guarino, 1980).

With the educational specifications developed, an architect must then be brought into the process. The architect must understand the desired function of the building in order to incorporate the educational specifications into her/his design program. Although, before

educational specifications are actualized in a design program, pertinent information regarding the site and associated financial considerations must be addressed.

3. Site Planning

i) The Contemporary Context -

When planning for the location of school facilities, there are a number of considerations that must be made. The CEFPI (1985) indicated that considerations should be given to how a site might both impact, and be impacted by, the educational program, building costs, transportation-related needs, landscaping, enrolment, land values and adjacent land-uses. In addition, "the site's potential as an educational and community resource should be understood and used" (p. F-2). Similarly, as noted by Castaldi (1987),

The characteristics of school sites depend upon many factors, including the type of school proposed for the site, its initial and projected ultimate enrollment (sic), the breadth of educational program, the cost and availability of sites, the grade levels to be housed, and the aesthetic values possessed by the community. The specific characteristics and general location of the school sites needed in the future should be clearly stated and discussed in the rationale supporting the site program (p. 113).

Traditionally, planners were primarily concerned with well drained, easily accessible sites; however, the CEFPI noted that planning for today's school sites is much more complex than in the past. Considerations must be given to the overall development of an area, regarding environmental education, conscientious energy use, the high cost and availability of well situated land, and the potential for community use of schools.

To maximize school site accessibility, facilities are generally located in the center of the area being served; logically, a well situated school would then be found in the middle of a residential area. To this end, it would appear that Perry's (1922) concept of the Neighbourhood Unit (with a school at its center), in so far as the location of the school is concerned, has stood the test of time. That his concept was focused on the child, however, still must be a philosophical and physical reality of contemporary school facility planning

and development to be reckoned with.

Determining the location of a school site is likely to be much easier to speculate about than to achieve. For instance, in the case of a rapidly growing area where land values are quickly increasing and a school division is in need of land, this cost feature of any plan will be a significant factor of consideration. As well, there is the possibility of needing a school site in an already built-up area, potentially forcing a school division to alter plans in order to conform to a site rather than demanding that a site meet program and facility objectives.

School site acquisition may be handled in a number of ways (Castaldi, 1987).

1. A site may be purchased as soon as the need for it is established.
2. A desired site may be chosen but not purchased. In this instance the school division may seek an option to purchase an available parcel of land.
3. A school division may monitor a specific parcel of land for its potential value, and await confirmation of demographic and other relevant trends.

Suggestions have also been made regarding standards of school enrolment and the resultant size of school sites (Castaldi, 1987).

Table 1: Generally accepted range of enrolment of various types of schools.

Type of School	Minimum Enrolment	Maximum Enrolment
Elementary	200	600-650
Middle School (Grades 7-8 or 7-9)	500-600	900-1,000
High School (Grades 9-12 or 10-12)	600-700	1,200-1,500

(Source: Castaldi, 1987)

Table 2: Reasonable minimum standards for school sites.

Type of School	Basic Number of Acres per	Additional Acres 100 Students
Elementary (Kindergarten-Grade 6)	5	1
Middle School (Grades 7-8 or 7-9)	10-15	1
High School (Grades 9-12 or 10-12)	15-20	1

(Source: Castaldi, 1987)

ii) The Manitoba Context -

Site planning in Manitoba occurs at the school division level by central administration representatives. The acquisition of sites in Winnipeg may typically occur in one of two ways:

1. as a required dedication of land from plans of subdivision that the City of Winnipeg Planning Department, in consultation with appropriate school divisions, has determined are in need of land for a school. This dialogue occurs prior to any public hearing being held of a plan of subdivision, to negotiate with the developer in order to provide the required acreage; and,
2. acquisition of land not provided for in any dedicated lands in plans of subdivision. A division may purchase vacant land or exercise their subordinate legislative right to pass a by-law allowing them to expropriate land for a school site or land adjoining an existing school site.

In Winnipeg School Division No.1, site planning is carried out by central office in consultation with the Long Range Facility Development Committee - a committee of the Facilities Management Process. When a site is desired, a member of this committee will identify possible sites having a central location to the area being served, possibly have

informal discussions with the relevant District Planners from the City of Winnipeg Planning Department, and communicate those sites to central administration for an eventual decision. Informal discussions between District Planners and School Divisions would often be related to exchanging information such as demographics, relevant development activities, disposition of School Division assets, future uses for an impending school closure, public consultation opportunities, and joint-use possibilities with the Department of Parks and Recreation, City of Winnipeg (Dave Nelson, City of Winnipeg, Personal Communication, January, 1993).

Information regarding a particular site and impending school-related construction must then be included in the Sketch Plan Stage by way of a 'site plan' showing the proposed site, costs, and provisions for future expansion. In addition to approving any Sketch Plans, the PSFB also determines and provides support, by way of negotiations, that it "considers reasonable towards the costs of purchasing an appropriately sized parcel of land for a school" (Government of Manitoba, 1991: p. 9).

The site plan will also have to be approved regarding its conformance to City of Winnipeg zoning by-laws for development of school sites.

4. Space Planning

i) The Contemporary Context -

Space planning is carried out on several levels related to the educational specifications and the design program of the architect. In the educational specifications, the emphasis is on trying to determine the objectives of the facility (answering the needs of the provincial curriculum at the school level). At this level the relationship to space planning is to establish criteria in order to determine spatial expressions of functional attributes. Once established, the functional objectives are then translated into spatial considerations in the

architects design program.

This is where the architects apply their specialist talents. They must know how many of the various types of spaces are desired, in addition to, where possible, square footage suggestions (i.e. classrooms, laboratories, offices, storage, libraries, recreational space, etc.) (Castaldi, 1987). Once this is determined the architect, and likely the school administrator, discuss spatial relationships of the various desired spaces.

ii) The Manitoba Context -

In the Winnipeg School Division No. 1 the Long-range Facilities Development Committee of central office administration undertakes a Facilities Review Process of those facilities that have been identified to be of concern through an annual Space Utilization Review. This concern may take the form of either a current or impending lack of space, or a possible surplus. In the case of the former, discussion would occur to identify a solution through the evaluation of a number of potential options:

- 1) increase class sizes in some fashion to create the necessary space;
- 2) implement a transportation strategy of busing students in order to utilize surplus space in an adjacent facility;
- 3) add High Quality Relocatable classrooms to the facility;
- 4) construct additional space onto the facility;
- 5) construct additional space onto an adjacent facility to relieve the pressure;
- 6) construct a new facility somewhere in the Division in order to create the necessary space configuration by providing for manipulation of student populations within practical limitations; and,
- 7) create an option by combining two or more, or all of the possibilities.

In the case of surplus space being identified as a concern, a 'Community-use of School Buildings Committee' would be established by the Division to discuss possible solutions such as: soliciting tenants, for example, from community/public agencies and/or non-profit

organizations. Local schools also have the right to create a participation program of community and school members to develop a facility-use proposal. When completed, this proposal is forwarded to the Area Superintendent for review and possible action.

In the event that a school is no longer being fully utilized by the school system, the Government of Manitoba provides guidelines to divisions regarding the closure and disposition of surplus school space. Apart from these "guidelines," issues in this regard are left up to individual school divisions to address.

As previously mentioned, the Public Schools Finance Board (PSFB) of Manitoba Education and Training controls capital project funding, thus determining what projects are carried out as per available funds and Five Year Plan priorities in a given year. Once a school division is directed to proceed with architectural planning related to facility needs, the province requires that educational space guidelines, as established in their School Building Space Guidelines (Government of Manitoba, 1990, #1) be followed. These guidelines provide the technical details related to architectural planning related to the following areas:

- Core Instructional Areas (regular classrooms, kindergarten, science, special education, art facility, band facility, physical education facilities, language programs and courses);
- Instructional Support Areas (materials resource centre, resource teaching area, guidance services, designated discretionary space, multipurpose room);
- Special Program Areas (business education, computer education, industrial arts, home economics, vocational facilities);
- Other Support Areas (health services facility, kitchenette); and,
- Calculation of Area (calculation of total net instructional area, expressed as the total space of the four areas described above, and calculation of the gross area) (p. 3-17).

These space guidelines will assist the architect through the technical phases of preparing appropriate drawings.

The first stage is the Schematic Stage, where a single-line floor plan illustrates the details of proposed renovations, conversions, etc. The schematic drawings are then reviewed by the Capital Facilities Branch for "educational acceptability and conformance to the award" (p.4). If acceptable, the next step is the Sketch Plan Stage.

Included in the Sketch Plan Stage are dimensioned drawings complete with sections and elevations; a soils report; specifications and cost estimates of mechanical, electrical, structural and architectural details; indication of the complete scope of work and costs; and a site plan showing the proposed site, costs, and provisions for future expansion. Upon approval by the PSFB the level of support for the project will be made known to the division along with authorization to proceed to the Working Drawing Stage.

Also relevant to the discussion of space planning is the Facilities Management Process introduced earlier in this appendix. In the Winnipeg School Division No. 1 this process is composed of four systems (Winnipeg School Division No. 1, 1986): Building Inventory System; Maintenance Management System; Long-range School Facility Development (previously discussed); and School Improvement Plan. Each component addresses space planning and management from an individual, yet complementary perspective.

5. Financial Planning

i) The Contemporary Context -

Financial planning as it relates to school facilities can be discussed on two planes. The first is the macro-scale of fiscal and policy concerns of the educational system. The second, is the financial planning related specifically to the planning and development of a given school facility.

With the provision of education mandated as a Provincial jurisdiction, each province has taxation power to generate revenue for educational expenditures. Thus, provincial Departments of Education are the primary supporters with respect to the development of school facilities. However, even though the provinces have most of the control over educational finance, municipal government resources are heavily affected.

The provinces establish legislation to allow school divisions to maintain operating budgets by receiving monies collected through annual municipal government taxation. For instance, when a school division has received notice of capital support from the Province's PSFB, the division then estimates the remaining amount of revenue that will be needed for its annual budget. This estimate is then forwarded to each municipality within the school division to request, by way of a special levy against all assessable property in the division, each municipalities share of the total estimate. Each municipality then divides their share into the total assessed real property values, for properties located within the boundaries of both that municipality and school division, to determine a tax rate (mill rate). Finances obtained in this way serve the staffing, equipment, transportation, and program-related expenditures of the school division.

Monies raised through the imposition of an educational levy primarily pertain to operating budgets. Although, funds required to offset a shortfall of capital funding from the PSFB are not restricted from becoming part of the revenue estimate as requested from a given municipality, (although, the political sensitivity of increasing property taxes makes this an unlikely option).

To focus this discussion, it is important to become more aware that how school facilities are financed impacts how those facilities are provided, and, what type of facilities are provided. As government fiscal resources, at all levels, become increasingly difficult to

raise and distribute, the current pressures faced in financing education will too escalate. This pressure will likely result in changes in how we *finance* school facilities, and, moreover, the *type of school facilities* that we finance. To this end, Bird and Slack (1983) come to an applicable conclusion when they noted that

This interdependence of fiscal and educational policy choices must be taken explicitly into account if wise decisions are to be made in either arena (p. 92).

To be sure, as pressure mounts at the provincial level to keep expenditures down, and as municipalities face increased sensitivity to impinging upon property taxes, forging relationships with other agencies to maximize resource utilization will likely become a more significant fiscal and educational policy objective than at present. Indeed, this is particularly the case of those agencies controlling 'public purse' expenditures; although, the potential of linking public and private efforts must not be discussed lightly. Systems of public finance allocation have a very myopic view of the relationship of their own expenditures to the total amount of monies that are available for the provision of public services. This view, as mentioned more than once throughout this thesis, however, is not restricted to any one jurisdiction such as education; it is typical of our bureaucratic structures in general. The key, then, is facilitating greater integration of now independent resource expenditures. This is addressed in the following chapter.

To move this discussion to the micro-context of financial planning as it relates to a given school facility, a number of points must be made. In general, attention is given to the planning and development of buildings so that they function well and have reasonable operational and maintenance costs. Cost is affected at each stage of a given facilities development and consequent life span. The educational specifications, site plan, space plan, tendering of the project, construction, equipping, operation, maintenance, evaluation, and rehabilitation of a facility all have financial implications stemming from initial planning decisions and cost consciousness (CEFPI, 1985). Although, efficient financial planning of

school facilities will not result from a single decision or planning innovation.

The CEFPI (1985) recommended that specialists, such a professional educational facility planner, be employed to bring about the best possible solutions by being focused specifically on a particular project. This could also bring fresh ideas and approaches to the school division, increasing the likelihood of achieving economy of resources over the long-term.

A multi-dimensional approach of considering the long-term, as well as initial costs, is likely the best alternative. Moreover, to link this context with the macro-view discussed earlier, the fiscal and policy implications resulting in maximizing resource expenditures will be borne in each individual facility. Undoubtedly, achieving provincial level educational objectives will require a large degree of flexibility to accommodate the special circumstances within each school division in a province, and within each community area of a given school division. It is this dynamic, then, between the provincial allocation of resources, and the necessity of maximizing local autonomy which will be a significant contributing factor in planning school facilities for sustainable communities.

ii) The Manitoba Context -

Financial considerations regarding capital facility-related expenditures are, for the most part, controlled by the provincial government's Public Schools Finance Board (PSFB). The 'vehicle' utilized by the PSFB to establish the level of support for a given project is the Capital Support Program (Government of Manitoba, 1991, #2).

The Capital Support Program determines the level of support for a project relative to approved specifications, in conformance with the PSFB's guidelines for conventional school building types.. For new construction of buildings, or additions, the funding

formula is based upon the following categories: Basic Support for the building and its 'details'; Contributory Support which includes recognition plaques, parking, landscaping, asphalt play areas, and fire lanes among other features; Special Support such as hydro considerations, bus loops, elevators, septic systems, code upgrading costs, etc.; Day Care facilities; and Other Support, e.g. consultant fees, negotiated school site purchase support, interest support, furnishings, cost-shared space, and the Goods and Services Tax. Support is also provided by formula for Renovations and Roof Replacements; Replacement of Systems - structural, electrical, mechanical, and other determined systems. The final areas of funding support are by way of a Capital Grant for specific modifications or replacements not yet addressed by the Capital Support Program, and Environmental Assistance to correct any inadequate school environment conditions (Appendix 5 (a), p. 155).

As evidenced, Manitoba school divisions rely on provincial funding to develop school facilities. Although, when the capital support for an approved project does not fully support all requirements, a division may, if it desires, plan and address any funding shortfalls through its revenue requests of the relevant municipal taxation authorities. If this option is not feasible for a division to seek (which would most likely be the case), alternations would have to be made to the intended project in order for the Capital Support Program to support all costs.

Moreover, when a school division wishes to purchase a school site, unless this was a consideration of the Five Year Plan, and approved by the PSFB, the division would be forced to purchase the site on their own. In any case, the Secretary-Treasurer of the school division would be responsible for site purchase proceedings.

6. Physical Development

i) The Contemporary Context -

School facility construction requires that a number of legal requirements are met. For instance, site acquisition requires title clearance and transfer, and overall development requires public legal notices, review of bids, awards of contracts, and approval by provincial and local authorities. In addition, there are local and national standards governing elements of building and site construction.

Upon the approval of completed working drawings and specifications, a given project is ready to be opened up for bids (tenders) by contractors. Generally, invitations for tenders are advertised in local daily or weekly newspapers, and often circulated to relevant firms. Those individuals or firms wishing to furnish a bid must follow procedures established in the invitation to bid. Bidding firms will also generally furnish a list of subcontractors which they intend to hire to work on the project.

Once the deadline for tenders has passed, all submissions are analyzed for their conformance to the invitation, and the school board accepts a bid which best suits their particular circumstances. The school division and the chosen contractor will clarify the award, and agree on the terms of the contract.

Before construction will begin, the contractor will prepare a work schedule, identifying the various elements of the project, and propose dates of work start and completion.

ii) The Manitoba Context -

Upon approval by the PSFB of drawings from the sketch plan stage the division may proceed to the Working Drawing stage. At the Working Drawing stage a number of

considerations must be made: production of a dated tender set of working plans and specifications detailing all cost estimates; cost estimates and justification for non-standard features; and reports from the Department of Labour and the Department of Health with regard to the proposed plans. Since a considerable length of time has likely occurred from the last project cost estimates, updates in the level of support provided are determined from the Canadata Index (detailed Canadian construction cost updates). Pending PSFB authorization, the project may now be tendered.

Upon tendering the project, the division analyzes all submissions and forwards their report to the Capital Facilities Committee of the PSFB. The level of support is once again updated to reflect the final support provided for the project as per the Government's Capital Support Program criteria. Once a tender is awarded, upon obtaining a building permit from the City of Winnipeg, construction may begin.

In the Winnipeg School Division No. 1 it is the office of the Director of Buildings and their architect who oversee the construction as per contract awards. Typical practices have an awarded contractor subcontracting special elements of the overall construction to other construction firms who are considered specialists in a particular area (i.e. a roofing company may be subcontracted to complete this element of the development).

7. Occupancy and Post-occupancy Procedures

i) The Contemporary Context -

Upon physical construction of a facility, the project must then become operational. The CEFPI (1985) indicate that tests should be carried out to ensure that all systems - electrical, mechanical, architectural, and structural - are functioning as intended. As well, appropriate mechanisms must be put in place to record ongoing operation and maintenance of all systems in order to continually review the quantity and quality of facility utilization.

Having activated the operation of the building, orientation should consist of two programs: one for facility users - teachers, students, and the community; and one for public information - promote the familiarity of the school as a community resource (CEFPI, 1985).

With the structural and functional elements of the facility operational, the planning process continues. The post-occupancy evaluation is an activity which should never end. The CEFPI (1985) indicate that "it has become common practice to evaluate a facility during the first year and then at intervals through the next three to five years" (p. O-5). An evaluation will provide information regarding the level of success of planning, and will help in identifying any changes which could improve the planning process. Information can also be gleaned about the design and construction of the facility.

The CEFPI recommend a questionnaire or other suitable instrument to carry out a post-occupancy evaluation.

ii) The Manitoba Context -

As indicated above, the planning process at this stage has come full circle. The Winnipeg School Division No. 1 carries out an annual facilities review as part of their Long Range School Facility Development procedures, which essentially evaluates the functioning of their schools every year. In addition to this, through the aforementioned Building Inventory System (currently being developed), Maintenance Management System and School Improvement Plan, conditions and utilization of schools is monitored and subsequently prioritized for division attention.

With respect to activating the building systems and operations records, and orientation

programs of a given new facility or major renovation, these duties fall upon the administration of the specific school. Following this, a given facility would now be brought into the cycle and incorporated into the overall Facilities Management Process discussed at the outset of this chapter.

APPENDIX 5 (a)

Capital Support Program, Manitoba Public Schools Finance Board

CAPITAL SUPPORT PROGRAM

The Public Schools Finance Board will provide funding for approved capital projects as follows:

Debentured Projects:

- Section A - New school buildings or additions to existing school buildings, including new day care facilities, approved under the 5-Year Capital Plan.
- Section B - Renovation and roof replacement projects approved under the 5-Year Capital Plan.
- Section C - Replacement of complete systems as prioritized and approved under the 5-Year Capital Plan.

Non-Debentured Projects:

- Section D - Capital grant to school divisions for minor capital items to be spent at the discretion of the school division on eligible minor capital projects.
- Section E - Environmental Assistance Program.

THE AMOUNT OF SUPPORT TO BE PROVIDED WILL BE THE LESSER OF THE ACTUAL COST FOR APPROVED EXPENDITURES OR THE AMOUNT ELIGIBLE UNDER THE SUPPORT FORMULAE DEVELOPED BY THE PUBLIC SCHOOLS FINANCE BOARD AND AMENDED FROM TIME TO TIME TO REFLECT CHANGING CONDITIONS.

SECTION A - NEW CONSTRUCTION

I BASIC SUPPORT:

mended [New construction will be supported by The Public Schools Finance Board according to a formula based on an established unit cost for a basic conventional type building expressed in terms of September 1, 1991, costs and then adding a cost per sq. ft. premium, or bulk sum premium, for special educational requirements or other nonstandard conditions, i.e. allowances for size of projects, distance, etc. The basic support yielded by the formula is then factored by a currently adjusted construction index (Canadata) to reflect current costs fluctuations.]

The basic building is to be considered as a new building in the Winnipeg area, conforming to all codes and Public Schools Finance Board guidelines and includes regular and special classrooms, offices, corridors, mechanical, ventilation and electrical systems, lavatories, storage, specialized instructional areas, kitchen, intrusion, security, sound and fire alarm systems, sidewalks, rough grading and levelling of area covered by the new building, contingency (1% for new construction and 2% for renovation and tie-in costs), access, construction insurance (property and liability), performance bonding (50%), etc., but excludes all items of support identified under II, III, IV and V.

<p><u>MAXIMUM SUPPORT:</u> Basic support will not exceed the level resulting from the application of the following formula at tender stage.</p>
--

SECTION A - NEW CONSTRUCTIONSupport Formula**1) Basic Building:**

(based on approved gross area)

Includes air-conditioning, structural floor, poured-in-place foundations, energy conservation measures; i.e. roof - R28, walls - R20, triple glazing, grade beam insulation.

Roof slope and building details to be according to Public Schools Finance Board standards.

\$58.00

\$624.32

Note: Where divisions insist on roof top units as a source of heat and ventilation in lieu of a conventional HVAC system, basic support will be reduced by \$2.00 per sq. ft. (September 1, 1991).

2) Premiums:

(based on net area approved by The Public Schools Finance Board at sketch plan stage)

1) Kindergarten

11.80

127.00

2) T.M.H. facility

11.80

127.00

3) Resource Teaching

11.40

122.68

4) Library

- applies to library portion only and excludes workroom, office and seminar

8.00

86.10

5) Multipurpose

- junior-senior high

15.80

170.04

6) Multipurpose

- elementary

11.80

127.00

7) Band

21.60

232.46

8) Art

31.40

337.92

9) Business Education

11.80

127.00

10) Science

- chemistry

43.20

464.92

- physics, biology and general science

31.40

337.92

- elementary science classroom

21.60

232.46

11) Gymnasium

- 4,000 sq. ft. (430.4 m²) and over

33.40

359.46

- under 4,000 sq. ft. (430.4 m²)

25.60

275.50

12) Computer

13.80

148.52

13) Life Skills

19.60

210.94

14) Health Services

33.40

359.46

15) Kitchen

39.20

421.88

16) Home Economics

- nutrition

17.80

191.56

- textiles

11.80

127.00

- all purpose

21.60

232.46

17) Industrial Arts

- manufacturing

(includes dust collection)

34.40

370.22

- woodworking

(includes dust collection)

28.00

301.34

- graphic communications

17.80

191.56

- power mechanics

21.60

232.46

- electricity-electronics

14.80

159.28

mended

SECTION A - NEW CONSTRUCTION

3) Distance Factor:

- The base support will apply to Winnipeg and all areas within a fifteen mile (24 km) radius of the junction of the Red and Assiniboine Rivers (assumed City centre).
- 5% distance factor may be allowed to all areas from the fifteen mile (24 km) radius to a radius of forty five miles (72 km) from the City centre, and this factor shall, also, be applied to Portage La Prairie.
- 8% distance factor may be allowed to all areas from the forty five mile (72 km) radius to a radius of seventy five miles (120 km) from the City centre, and this factor shall, also, be applied to Brandon.
- 12% distance factor may be allowed to the remainder of the Province south of Parallel 51, and this factor shall, also, be applied to Dauphin.
- 15% distance factor may be allowed for the area between Parallel 51 and Parallel 51 1/2. Projects are subject to individual review and consideration.
- 18% distance factor may be allowed for the area between Parallel 51 1/2 and Parallel 52. Projects are subject to individual review and consideration.
- Above Parallel 52, projects are subject to individual review and consideration.

4) Small Size:

Size		Premium	
ft ² and over	m ² and over	Add per ft ²	Add per m ²
25,000	2,322.8	none	none
24,800	2,304.8	\$0.10	\$ 1.08
24,600	2,286.2	\$0.20	2.16
24,400	2,267.6	\$0.30	3.22
24,200	2,248.2	\$0.40	4.30
24,000	2,229.6	\$0.50	5.38

ended [and progressively increase \$0.10 per sq. ft. (\$1.08 per m²) for every decrease of 200 sq. ft. (18.6 m²) until reaching below 5,000 sq. ft. (464.5 m²) which will receive special consideration. Therefore, the following premiums should serve as a guide.

SECTION A - NEW CONSTRUCTION

Size ft ² m ² and over		Premium Add Add per ft ² per m ²		Size ft ² m ² and over		Premium Add Add per ft ² per m ²	
23,000	2,136.7	\$1.00	\$10.76	11,000	1,021.9	\$7.00	\$75.34
22,000	2,043.8	1.50	16.14	10,000	929.0	7.50	80.72
21,000	1,950.9	2.00	21.52	9,000	836.1	8.00	86.10
20,000	1,858.0	2.50	26.90	8,000	743.2	8.50	91.48
19,000	1,765.1	3.00	32.28	7,000	650.3	9.00	96.86
18,000	1,672.2	3.50	37.66	6,000	557.4	9.50	102.24
17,000	1,579.3	4.00	43.04	5,800	538.8	9.60	103.32
16,000	1,486.4	4.50	48.42	5,600	520.2	9.70	104.40
15,000	1,393.5	5.00	53.82	5,400	501.7	9.80	105.46
14,000	1,300.6	5.50	59.20	5,200	483.1	9.90	106.54
13,000	1,207.7	6.00	64.58	5,000	464.5	10.00	107.62
12,000	1,114.8	6.50	69.96	Under 5,000 464.5		Special Consideration	

II CONTRIBUTORY SUPPORT:

A contribution towards the actual costs of the following items will be made by The Public Schools Finance Board provided such items are included in the contract.

1) Job sign:

To be included in contract as per The Public Schools Finance Board standard specifications.

MAXIMUM SUPPORT: Supply and install \$1,000.00

2) Recognition Plaques:

To be included in contracts where required by The Public Schools Finance Board and including inscription specified by The Public Schools Finance Board.

MAXIMUM SUPPORT: \$500.00

3) Parking:

In recognition of administrative and support staff, and visitors, the formula provides for a number of parking spaces equivalent to 1.5 times the number of teaching stations approved for construction. This contribution recognizes the following - compacted gravel base, bumper curbs and electrification.

SECTION A - NEW CONSTRUCTION

An additional contribution may be made towards the cost of asphaltting the parking lot or providing a "light fence" when required by by-law of the municipality. When applicable, the division will be required to provide a separate cost breakdown for these items.

Amended

☐ MAXIMUM SUPPORT: Number of teaching stations times 1.5 times \$600.00 times Canadata. ☐

4) Landscaping:

The formula is based on a contribution towards the cost of providing top soil and sod in the front and side areas of the building equivalent to the area of new construction approved.

Amended

☐ MAXIMUM SUPPORT: Approved area times \$.60/sq. ft. (\$5.58/m²) times Canadata. ☐

5) Asphalt Play Area(s):

A contribution towards providing up to 3,000 sq. ft. (278.7 m²) of hard surfaced play area(s) for elementary students.

Amended

☐ MAXIMUM SUPPORT: 3,000 sq. ft. (278.7 m²) times \$2.00 times Canadata. ☐

6) Student Lockers:

A contribution towards providing full-size lockers to all students in grades VII and up.

Amended

☐ MAXIMUM SUPPORT: \$100.00 times number of students in grade VII and up times Canadata. ☐

7) Fire Lanes:

Where required by authorities administering the building code, The Public Schools Finance Board will support the actual costs of fire lanes, or in lieu of fire lanes, the costs related to providing more fire resistant floor and roof assemblies as per the following formula.

Amended

☐ MAXIMUM SUPPORT: Approved area times \$.70/sq. ft. (\$7.52/m²) times Canadata. ☐

8) Roof Heat Sink:

Where required by authorities administering the building code, The Public Schools Finance Board will provide support in recognition of the costs related to the supply and installation of gypsum board in conjunction with steel deck roofs.

Amended

☐ MAXIMUM SUPPORT: Approved area times \$.60/sq. ft. (\$6.46/m²) times Canadata. ☐

SECTION A - NEW CONSTRUCTION

9) Direct Digital Control (DDC):

Amended



Effective July 15, 1987, a contribution equivalent to \$7,600.00 plus \$.34 per sq. ft. adjusted by Canadata will be made available toward the installation of a direct digital control (DDC) system on the following types of approved major capital projects provided the installation is included in the contract:

- a) new schools;
- b) additions to schools including pre-designed classroom (P.D.C.) additions that form part of a planned multi-phase project only.



10) Metal Roof Premium:

In cases where school divisions select the design and construction of a sloped metal roof assembly over other alternative choices The Public Schools Finance Board will provide additional support in recognition of additional costs.

Amended



MAXIMUM SUPPORT: Approved area times \$2.10 /sq. ft. (\$22.60/m²) times Canadata.



III SPECIAL SUPPORT:

Special consideration may be given for support on other items if and when deemed essential by The Public Schools Finance Board and will include:

- code upgrading costs resulting from orders from authorities charged with the enforcement of the building code and directly related to areas in an existing building beyond those areas approved for renovations or new construction;
- hydro requirements as evidenced by submission from utility;
- catch basin(s);
- bus loop as recommended by Transportation section of Manitoba Education;
- additional costs resulting from unusual soil conditions beyond the costs of poured-in-place piles provided in the basic support formula;
- elevators (where required and approved) - actual costs of supplying and installing a 2,000 pound elevator (shaft excluded) in new multiple storey buildings;
- septic systems;
- items related to staged construction (support to be deducted from basic support of next construction phase);
- driveway approaches;
- hoarding and heating;
- costs of relocating existing services necessitated by an addition to an existing school building;
- additional costs of tying-to an existing building.

SECTION A - NEW CONSTRUCTION

MAXIMUM SUPPORT: To be determined and finalized at tender stage on the basis of separate prices obtained through the regular tendering process.

IV DAY CARE:

Where the construction of day care facilities is approved in conjunction with the construction of new school facilities, support will be determined as follows:

MAXIMUM SUPPORT: The sum of the following:

1) Basic support:

Application of Support Formula allowing a premium of \$32.00/sq. ft.

2) Contributory support:

An equivalent of six (6) parking spaces to be utilized for the provision of parking and drop off area, and landscaping as per formula.

3) Special support:

When applicable.

4) Other:

In the event of a project shortfall, additional support will be provided in an amount not to exceed the pro-rata share of the day care centre, calculated as follows:
$$\frac{\text{approved area (day care)}}{\text{approved area (total project)}} \times \text{shortfall}$$

V OTHER SUPPORT:

If applicable support may be provided for the following items:

1) Consultant Fees:

It is the responsibility of school divisions to hire consultant services and in so doing are bound by the terms negotiated and included in contractual agreements. The following ranges of support will be provided only in cases where projects in Sections A & B have been formally approved by the Public Schools Finance Board or for projects in Section C and roofs where specific authorization has been granted to a division by the Public Schools Finance Board to engage the services of a consultant.

- MAXIMUM SUPPORT: - 6.5% of approved support for new construction involving grade levels up to and including grade 9.
- 7% of approved support for new construction involving grade levels above grade 9.
- 10% of approved support for work other than new construction.

SECTION A - NEW CONSTRUCTION

- 4.5% of approved support for pre-designed classrooms. Applicable only on projects involving pre-designed classroom units as part of the second stage of a multi-staged construction approval.
- 4.5% of approved support for construction of pre-engineered steel buildings.
- All items under Contributory Support and all items under Special Support, with the exception of those noted below, command the appropriate fee rate for New Construction.
- The following items under "Special Support" command a fee rate of 10%:
 - a) code upgrading costs resulting from orders from authorities charged with the enforcement of the building code and directly related to areas in an existing building beyond those areas approved for renovations or new construction;
 - b) costs of relocating existing services necessitated by an addition to an existing school building;
 - c) additional costs of tying-to an existing building.

2) School Site(s):

The Public Schools Finance Board will determine and provide support it considers reasonable towards the costs of purchasing an appropriately sized parcel of land for a school.

MAXIMUM SUPPORT: To be determined following negotiations with school division.

3) Interest:

School divisions, when authorized by a by-law, may borrow funds on an interim basis to pay for construction costs pending the sale of debentures.

SECTION A - NEW CONSTRUCTION

1. Support in recognition of interest costs will be considered in the cases of construction of new school buildings, significant additions to school buildings and major upgrading projects only.
2. Support will be provided to the extent deemed reasonable by The Public Schools Finance Board for a period not exceeding six months following "substantial completion."

4) **Furnishings:** (New construction only)

An allowance will be made to furnish the new facility at the discretion of the school division.

MAXIMUM SUPPORT: Net instructional area (sq. ft.*/m²) divided by 750 sq. ft./69.6 m² times \$2,300. plus \$2,300. for kitchen if applicable. For Frontier School Division schools the support shall be \$2,500. per unit.

* Vocational and practical arts areas are excluded as they are furnished through the Establishment Grant.

5) **Cost-shared Space:**

Without attempting to restrict the right of a school division of using its own formula on cost-sharing agreements entered into with community groups, it is highly recommended that on matters of cost-sharing space in a new school building, the purchaser's portion of the costs be determined through the use of the support formula. The amount to be contributed should be finalized at the sketch plan stage.

6) **Goods and Services Tax:**

Support will be provided to recognize the cost impact of the Goods and Services Tax to school divisions. Support will be determined to offset the portion of the tax that is non-refundable to school divisions by the Government of Canada. The non-refundable portion equates to Net G.S.T. 2.24%.

NOTE: THE FOLLOWING ARE NOT ELIGIBLE FOR CAPITAL SUPPORT:

- ADMINISTRATION BUILDINGS
- BUS GARAGES
- CAFETERIA
- SWIMMING POOLS
- COMMUNITY SPACE
- TEACHER CENTRES

SECTION B - RENOVATIONS AND ROOF REPLACEMENTS

THE OVERRIDING GUIDING PRINCIPLE FOR SUPPORT CONSIDERATION UNDER THIS SECTION SHALL BE THE SCHOOL DIVISION'S REASONABLE ASSURANCE THAT THE SCHOOL BUILDING WILL REMAIN IN ACTIVE USE AS A PUBLIC SCHOOL BUILDING FOR A SUFFICIENT PERIOD OF TIME TO WARRANT THE EXPENDITURE.

I RENOVATIONS:

Although maximum support will not exceed 50% of the cost of new construction for the area approved by The Public Schools Finance Board under renovations, it is expected that most renovations can be achieved at a cost substantially less.

SUPPORT FOR RENOVATIONS WILL BE BASED SOLELY ON AREAS APPROVED IN THE MINISTERIAL AWARD AND WILL BE FINALIZED AT THE SKETCH PLAN STAGE FOLLOWING A SUBMISSION BY THE DIVISION'S ARCHITECT OF ALL REQUIRED DATA.

- MAXIMUM SUPPORT:
- To be determined at sketch plan stage and adjusted by Canadata at tender stage.
 - Contributory support for student lockers and job sign where applicable.
 - Special support for:
 - 1) code upgrading costs resulting from orders from authorities charged with the enforcement of the building code and directly related to areas in an existing building beyond those areas approved for renovations;
 - 2) access including elevators where required and approved;
 - 3) other special items as negotiated with the Public Schools Finance Board.
 - Other support
 - as per Section A: V 1), V 3).
 - 100% of approved costs to convert existing space to day care use.
 - Support for carpet in the following areas: kindergarten, music rooms, libraries and temporary classrooms.

SECTION B - RENOVATIONS AND ROOF REPLACEMENTS

NOTE: The Capital Support Program will provide support for renovation costs to heritage school buildings designated by Provincial or City of Winnipeg authorities. Final support will not exceed what is deemed by The Public Schools Finance Board to be reasonable and supportable costs under the Capital Support Program and its guidelines but in any event shall not exceed 50% of The Public Schools Finance Board formula for new construction.

II ROOF REPLACEMENT:

Replacement (entire or major part of) membrane and damaged insulation because of failure of a roof section in excess of 1,500 sq. ft. (139.3 m²). The following may be included provided they are part of a total or major replacement program recommended and deemed reasonable by The Public Schools Finance Board Architect:

- removal of skylights or mechanical equipment, repairs to upper portion of walls and associated with the installation of new roof;
- control joints;
- roof drains;
- connecting drains to sewer;
- insulation.

MAXIMUM SUPPORT: 100% of approved costs on roof projects prioritized and approved under the 5-Year Capital Plan.

SECTION C - REPLACEMENT OF SYSTEMS

I STRUCTURAL:

Replacement of or major rehabilitative work to main structural members, sub-floors, joists and all areas vital to the structural stability of the building by reason of failure or impending failure documented and certified by a qualified architect or structural engineer and as confirmed and recommended by The Public Schools Finance Board Architect.

MAXIMUM SUPPORT: 100% of approved costs.

II MECHANICAL:

Complete replacement due to certified failure:

1. Heating Systems:

- boilers (a, e)
- furnaces - cracked heat exchangers (b, c, d, e)
- heating supply and return piping

Note: failure will be deemed to have occurred when evidence can be shown by the division that 20% of the total piping has previously been replaced by the division and upon submitting evidence that the remainder of the system has failed through a sample section of pipe taken at random

(d, e)

2. Utilities:

- domestic water purification system (b, e)
- well (c, e)
- septic systems (holding tank, field, lagoon and water treatment plant) (b, e)
- galvanized domestic water piping

Note: failure will be deemed to have occurred when evidence can be shown by the division that 20% of the total piping has previously been replaced by the division and upon submitting evidence that the remainder of the system has failed through a sample section of pipe taken at random

(d, e)

- replacement of main sewer and water lines

(e)

SECTION C - REPLACEMENT OF SYSTEMS

Documentation Guide:

- a. Department of Labour inspection certificate;
 - b. mechanical consultant's report;
 - c. independent contractor's condition report;
 - d. annual maintenance costs;
 - e. The Public Schools Finance Board Mechanical Engineer's site inspection (if required) and condition report;
3. New Services:
- Connection to new municipal water system from existing well.
 - Connection to new municipal sewer lines from existing sewer system.

MAXIMUM SUPPORT: 100% of approved costs.

III ELECTRICAL:

1. Complete rewiring of a building or a substantial portion of same following documented certified failure.
2. Complete replacement or provision of a fire alarm system and emergency lighting system if ordered by a recognized Provincial authority.

MAXIMUM SUPPORT: 100% of approved costs.

IV OTHER:

1. Removal of asbestos material when certified a hazard to the health of students and staff of a school building by a Provincial authority having such jurisdiction.
2. Provision of or complete replacement of dust collection systems upon certified failure by the Provincial authority having jurisdiction over such matters.

Note: The relocation of existing dust collection systems will be the responsibility of the division under the "D" section of the Capital Support Program.

SECTION C - REPLACEMENT OF SYSTEMS

3. Support will be provided for the installation of required means of access for handicapped at such time as a handicapped student is expected to enroll in a school. The type and extent of access will be determined by a Manitoba Education consultant in consultation with school division personnel.
4. Removal of underground oil tanks, coal bunkers and septic tanks when deemed hazardous by an appropriate regulating authority.

MAXIMUM SUPPORT: 100% of approved costs.

NOTE:

- I - Support for consultant fees under this section will be provided only in cases where a project has been formally approved by the Public Schools Finance Board and where specific authorization has been granted by the Public Schools Finance Board to engage the services of a consultant.
- II - Support for interest costs is not provided on non-debentured projects.

SECTION D - CAPITAL GRANT

Each year, school divisions will qualify for a capital grant calculated as follows:

$$\text{Division Allocation} = \frac{\frac{A}{B} + \frac{C}{D}}{2} \times P$$

Where:

A = sum of ages of active school buildings in division
B = sum of ages of active school buildings in Province
C = sum of areas of active school buildings in division
D = sum of areas of active school buildings in Province
P = Provincial annual allocation

Conditions:

1. Grant monies must be spent on projects that fall within the following non-exhaustive list of items, provided they are directly related to school buildings:
 - 1 - replacing or blocking out of windows and glass blocks because of failure of major components or of demonstrable excessive solar heating or heat loss;
 - 2 - flooring replacement - carpeting, hardwood, tile, etc.;
 - 3 - bring ceilings to acceptable standards;
 - 4 - bring walls to acceptable standards;
 - 5 - replacement of doors (including door hardware), frames, millwork;
 - 6 - replacement of chalkboards, tackboards;
 - 7 - replacement of built-in cabinets;
 - 8 - acoustical treatment for specified needs;
 - 9 - replacement of lockers;
 - 10 - provision of storage cabinets;
 - 11 - replacement of exterior doors and frames, soffits, chimneys, landings, canopies, eavestroughs, downspouts, and splash pads;

SECTION D - CAPITAL GRANT

- 12 - replacement of exterior finish (excluding repainting);
- 13 - patching and repairing of roofs and related expenditures which prolong the life of the roof;
- 14 - replacement of toilets, partitions, urinals, showers, drinking fountains, hot water heaters, basins;
- 15 - replacement of incandescent and obsolete fluorescent lighting fixtures;
- 16 - installation of new and relocation of existing duplex outlets;
- 17 - increase main service if proven to be inadequate and consolidation of electrical primary service;
- 18 - new distribution panels;
- 19 - exhaust systems for specific areas;
- 20 - ventilation of general areas;
- 21 - vandalism deterrents such as exterior flood lighting, window guards, enclosure of exposed piping, enclosure of accessible roof areas, surveillance systems, etc.;
- 22 - sidewalks, trees, shrubs, paving of playground, fencing, drainage, tie-in to storm sewer, sprinkler systems, parking lots, playground equipment;
- 23 - relocation of dust collection systems;
- 24 - repairs to boilers, i.e. replacement of sections, re-tubing, water legs, etc.;
- 25 - replacement or upgrading of environmental controls;
- 26 - water line replacement;
- 27 - code requirements - it is the responsibility of school divisions to conform to improvement orders emanating from various regulating authorities respecting code requirements. The following are examples of such items that are appropriately funded under the "D" section grant:
 - fire rate or replacement of walls and ceilings;
 - fire rate or replacement of doors and frames;
 - installation of automatic self-closing devices on doors;

SECTION D - CAPITAL GRANT

- modifications to attenuate noise levels in specified areas;
 - enclose and/or fire rate vertical exit stair shafts, including doors and automatic self-closers;
 - installation of approved illuminated exit signs;
 - fire rated separations between rooms and between floors;
 - upgrading of emergency lighting for all exits and means of egress;
 - panic hardware on exit doors;
 - upgrading of fire alarm systems;
 - enunciator panel for fire alarm system;
 - emergency power supply for fire alarm systems;
 - smoke detectors - heat detectors;
 - installation of automatic fire extinguishing systems;
 - installation of required safety devices on boilers;
 - modifications of existing gas, electrical, and plumbing installations to meet current safety requirements.
2. Any unused portion of the grant may be transferred to a reserve and utilized in subsequent years. At no time should the reserve exceed the amount of the yearly allocation unless so authorized by The Public Schools Finance Board.
 3. Items on which capital grant monies have been spent shall be reported annually to The Public Schools Finance Board in the form of a listing of projects undertaken and their costs.
 4. Payments of allocated capital grant will be made to school divisions on the same dates and by the same percentages as for operational advances.

SECTION E - ENVIRONMENTAL ASSISTANCE PROGRAM

This four year program, initiated and announced in 1989, enables school divisions to select and prioritize projects involving corrective measures to resolve inadequate environment conditions in schools. The types of individual projects envisaged as meeting the intent of the program are described, in general terms, in a program outline circulated to all school divisions. With specific project approval of The Public Schools Finance Board, school divisions may embark on environmental improvement projects, on a 50% - 50% cost-shared basis, up to the maximum annual entitlement determined for each school division by The Public Schools Finance Board.

APPENDIX 6

Total Community Resource Planning

Total Community Resource Planning is characterized by action, where all public resources located within a geo-political area (facilities, funds, agency and human expertise) are "cooperatively utilized to serve the needs of the total community" (Earthman, 1986: p. 4). All of a given community's facilities resources would be utilized as determined by the identified needs of the larger community, rather than one particular constituency, such as the school system, acting as an autonomous body. In essence this "would be the complete coordination of the infrastructure of the community" (p. 4).

Indeed, the notion of this concept has very broad implications regarding a communities total physical, social, and economic resources. However, in relation to this discussion, Total Community Resource Planning is concerned with those public resources existing in a given community.

To this end, jurisdictions such as the school system utilize space almost completely independent of any other organization. Such independence of 'public purse' resource expenditure and consumption, however, is very prevalent.

It is this isolated planning, prohibiting our decision-making processes and institutional frameworks from meeting the needs of today, without compromising the ability of future generations to meet their own needs, that Total Community Resource Planning begins to address. It is pertinent to note here that the notion of cooperative planning is not to take away decision-making power from specific service agencies, but, rather, to open lines of communication and identify avenues of cooperation and integration between them. Decision-making power is, however, devolved in part from the provincial level to the local

level.

Briefly explained below is what Earthman (1986) outlined as a framework to achieve Total Community Resource Planning.

Inter-agency Organization

In order to achieve inter-agency organization in a particular geo-political area, a central office or agency would be needed to manage the utilization (or lack thereof) of local spaces. Earthman felt that the intent of this initiative would be to establish a cooperative board - an Inter-agency Advisory Board, serving a communication and advisory function regarding needs and availability of space, and would not wield any power to determine the ultimate utilization of space. As a new program, or any use needing space, was being developed it would be brought to the attention of this board for consideration in accommodating any spatial needs.

As used in this thesis, the concept of Total Community Resource Planning would be a shared role between a local area and the province.

Identified space needs would then be matched with available space in the given area. The intent would be to make the most advantage of available space prior to any new capital facility funding commitments.

Inventory of Public Spaces

An inventory of all public facilities should be established. Incorporated in this would be a description of the location and attributes (e.g. proximity to other similar spaces; special design features; present resources available, etc.) of each facility. Of note here is that most government and related organizations already have an inventory of their spaces. As

Earthman noted, the various inventories could be merged into a common inventory for all to utilize. The key to this would be in coming up with common descriptors for data of the various constituencies involved.

This inventory should be carried out at the local level, with cooperation from the province.

List of Possible Alternative Uses of Space

Each jurisdiction with space in the defined area would be responsible for suggesting possible alternative uses of their spaces in striving toward maximizing long-term utilization. A series of discussions within each jurisdiction would be held in order to develop consensus on particular alternatives.

Communication System to Identify Available Spaces

At present, the varying jurisdictions utilizing space in a given area are likely quite aware of their own needs for space and/or availability of surplus space. However, there is no precise way for varying jurisdictions to determine the availability of space in facilities owned by other groups. Communication in this regard could, for example, be facilitated by a monthly newsletter or memorandum being circulated. This could advertise both available space and a need for space.

Review System for Capital Improvement Needs

A Facilities Use Committee at the local level should review and determine potential capital improvement needs of each jurisdiction in order to meet identified possible space utilization alternatives. This review would not approve or disapprove of a particular need, but rather identify available spaces and associated capital implications.

Summary

Although this concept is explained as Earthman had intended, the applicability to this thesis is easily identified.

Total Community Resource Planning formulates the context for establishing decision-making processes which support, and encourage, sustainable school facility planning and development. The key to activating this context is communication. Identifying agencies to be involved, creating an inventory of public spaces, and establishing a network to inform others of available space(s) and capital improvement needs, are all associated with enhancing communication between resource consumers. Such communication, however, also implies a higher level of cooperation; an ingredient not implicit in traditional, accepted bureaucratic structures. The Manitoba Round Table on Environment and Economy (1990, #1) indicated that sustainable development is a shared responsibility, requiring "that all Manitobans acknowledge responsibility for sustaining the environment and economy, with each being accountable for decisions and actions, in a spirit of partnership and open cooperation" (p.14); while also noting their goal "to ensure sustainable development is embodied in the management systems, structures and operations of the Public Sector. . ." (p. 14). Clearly, Total Community Resource Planning would be a move in the right direction.

APPENDIX 7

Winnipeg School Division No. 1 Initiatives Beyond Regular Educational Programs

- | | |
|-------------------------------------|---|
| • Nursery Program | • Special Education |
| • French Immersion Program | • Heritage Language Program |
| • Bilingual Programs | • International Baccalaureate Program |
| • Advanced Placement Program | • Alternative/Multi-Grade Programs |
| • Work Experience Program | • Special Needs Program |
| • Adolescent Parent Centre | • Migrancy Program |
| • Children of the Earth High School | • Argyle Alternative High School |
| • R.B. Russell Vocational School | • Technical Vocational High School |
| • Winnipeg Adult Education Centre | • Montcalm School |
| • Tutoring Services | • Child Guidance Centre |
| • Summer School | • Early Identification Program |
| • Instrumental Music Program | • Nutrition Program |
| • Milk Subsidy Program | • Performing Arts Program |
| • Continuing Education Program | • English as a Second Language (ESL)/Adult ESL Programs |
| • Early School Years Program | • English Language Development |
| • Institutional Programs | • Native Students (ELDNS) Program |
| • Volunteer Program | • Personal Safety Program |
| • Elgin House Program | • Gifted and Talented Program |
| • Marketing Program | • Adolescent Parent Centre (APT) |
| • Human Rights Program | • Student Bursary Program |
| • Infant Development Laboratories | • Peer Tutoring Program |
| • Diagnostic Learning Centre | • Community Education Development Association (CEDA) |
| • Rossbrook House Program | |

(Source: The Winnipeg School Division No. 1 1992-93 Budget, March 1992.)

APPENDIX 8

Identifying Community Needs

Integral to the overall concept sustainable school facilities, is the ongoing identification of community needs. A "Community Needs Inventory" must be conducted by a Facilities Use Committee, involving both the local community and relevant school division(s). This research will serve to determine space needs for the development of school-community purpose facilities. The intent is for the overall concept to be community-driven. A community's needs must not be seen as a situation where a community continues to demand more services/programs. Identifying community needs should be viewed as an opportunity to enhance public expenditure efficiency. By being in close association with existing and potential user groups, service/program delivery agencies will be better able to identify and respond to changing user needs. Furthermore, by planning schools that readily serve multiple uses, efficiency of public capital expenditure will also increase.

As noted, the local community must be involved in determining its own needs. In Ringers' (1976) discussion of assessing community needs, he noted two major benefits of involving the community:

There is a greater likelihood that the resultant program will be client-responsive and, therefore, more likely to be successful;

With a clearer understanding of the program to be established because of their participation in delineating it, there is likely to be a cadre of supporters who are willing to provide solid support for the capital and operating funds which may be necessary for the program.

It is important to develop consensus on which expressed needs are of highest priority to the community. In order to do this, a community must participate in a "visioning" process. Visioning entails a community coming together to articulate its collective (real and potential) strengths, weaknesses, opportunities and threats (also called SWOT Analysis). It is a time

to determine where a community is, where it seems to be going, where it wants to go, and how it can get there. This is not only meant to be meaningful involvement for community representatives, but for individuals and/or groups which have interests in the area, or may be potential partners in a school-community purpose facility.

It would be logical if school division planners and Facilities Use Committee members were to coordinate Annual Needs Inventories with respect to the communities in their jurisdiction. The community should also be looked at as a potential resource in the mechanics of collecting this information.

Numerous techniques are available for identifying community needs and developing consensus. The "Community Round Table" is a series of meetings which seeks to have a problem/issue discussed by a community and all affected individuals and groups. The objective is to hear all sides of the problem/issue, and constructively develop a collective vision to achieve action in addressing/solving the problem/issue. It is the establishment of the current context, and building a framework for the unfolding of a desired direction (Green, 1991).

The Round Table idea is similar to the "charette" concept. A charette is an open public forum where community residents and agency representatives come together to lead discussion of any concerns faced by the community. Ringers (1976) noted that a charette "consists of concentrated talk, work, drawings, discussions, consensus, sharing of concerns, and other interactions" (p. 75).

In the 1960's the U.S. Office of Education used an "educational facilities charette" (Ringers, 1976). They noted that

"primary emphasis is given to educational facility and program as the natural catalyst for revitalization of the total community. The principal purpose is to

arrive at *implementable* plans and solutions to community problems in a compressed time period" (p. 75).

In addition, a survey could also be distributed to supplement the identification of community needs through public round tables or charettes. A survey may also serve to assist in further informing the public of the problems/issues being analyzed.

Regardless of the technique used, the key objective is that community participation is meaningful. Simply holding public meetings and accepting written submissions as expression of community needs is not enough. The community must meaningfully participate in setting priorities, identifying the necessary resources to meet their needs, and building consensus on how the overall assessment will be evaluated. This may require more time than if, for example, a school division research department were to act as "judge and jury" in determining community needs.

Ringers (1976) came to a pertinent conclusion, regarding assessment of community needs, when he noted:

The community role in the process must be specific. . . involvement in the decision-making process can bring about new relationships . . . to produce a creative solution. Citizens' involvement in the process takes time. . . the community will make better and faster decisions among the various needs identified if:

- All alternatives are set out clearly for consideration;
- All relevant information about the alternatives is readily available;
- The constraints are identified and discussed openly;
- The ultimate goals of the community are understood (p. 76-77).

It should be the Facilities Use Committee who facilitates meaningful community participation. With respect to planning school facilities, from the community needs inventory, the implications for space must be included in a division's Five Year Plan.

APPENDIX 9

Structural Adaptability and Flexibility

Two broad components need attention: first is the school and its needs for space; and, second is the existence of additional space in response to community needs (actual and potential). Although both elements need to be adaptable and flexible, each poses a different challenge.

The direct school-use component will be made up of both basic and specialized workplaces (Organization for Economic Co-operation and Development (OECD), 1976). Basic workplaces refers to spaces which do not require specialized features; the space could be utilized by having moveable desks, tables, and support equipment. Specialized workplaces refers to spaces needing particular features beyond the scope of a basic workplace; for example, scientific experiments, multiple group activities associated with home economics, wood/metal shop, physical education, etc.

Spaces in addition to those of direct school use, would likely best be served with basic workplaces. However, in the event that a particular agency needs special features, the long-term implications related to how, and to what extent, they are accommodated must be seriously considered.

To the extent that it is feasible, flexibility could be maximized by: providing a site area and building surplus over immediate space requirements; widening the range of activities that can be accommodated in basic spaces, especially by supplemental facilities such as mobile furniture and equipment; widening the range of specialized spaces in order to provide greater potential utility; considering the potential that High Quality Relocatable classrooms could complement a permanent facility; and, as we learned from the innovations of Scottish

Corners Elementary School, Dublin, Ohio, in Chapter 3, considering the existing built form and scale when building school facilities.

The OECD (1976) summed this up best when they noted that "The greater the flexibility the less the need for adaptation" (p. 87.) Although, change in the needs structure of the community being served by a given facility may be of a magnitude which can not be accommodated in the present structural configuration. There may be a need for basic and/or specialized spaces that can not be achieved within the existing flexibility of spaces.

Conversion of space, then, challenges the capability of the facility to be physically altered, or adapted to new needs. A serious misconception is that relocatable partitions is the key to adaptability. However, as the OECD (1976) noted, this is an over-simplification of space needs, where attention to, for example, acoustics, lighting, proximity of supplemental facilities, floor covering and tactile finishes, is necessary for successful use of space.

Moreover, attention by the designers to the "infrastructure" of a facility will go a long way to accommodating future change. Provision of services such as lighting, ventilation, plumbing, drainage, electricity, all require that where they are located, and what they are fixed to, is considered in light of future change - change that can be achieved without unreasonable cost. Perhaps this necessitates a facility where some elements are permanently fixed in place, while other elements can be added, removed, or replaced as need arises. The OECD (1976) pointed out that an obvious starting point would be "the use of structural frames rather than load-bearing walls (p. 98). However, they also noted that "uniformly long floor or roof spans contribute little to adaptability and can prove expensive (p. 108). . . What is needed is a less regular (structural) grid that offers variation or choice in structural spans. . ." (p. 98), thus providing greater diversity of space.

In general, three key points can be summarized regarding the capacity for structural change: the extent to which any part of the structure is removable, without sacrificing physical stability; the ability of structural materials - concrete, fibreglass, steel, to support change; and, the amount of clearance around the structure (i.e. "crawl" spaces) to allow easy installation of any changes OECD (1976).

The OECD also indicated that there is no need for higher initial capital program costs to support the potential for changing needs. If initial attention is given to how and where money is spent, as indicated above, accommodating future change can be achieved without increasing original capital outlays. Although, in order to take advantage of space by adaptive reuse, a "pay-as-you-go" strategy requires that when capital improvements are needed to accommodate additional/alternative uses, a cooperative funding mechanism must be established.

The decisions related to considerations of flexibility and adaptability will vary with particular circumstances, and impact upon associated first, and future, costs. Decision-makers will have to weigh the immediate benefits against unknown events. This activity will necessitate the establishment of priorities at the outset of the building program. The priority put forth in this thesis is that school facilities must be planned and developed to meet both present and future needs, to be continuing community resources regardless of the level of school-age children in their catchment areas. Moreover, the development of schools must be considered as one element in the overall development of a community; development should be carried out in a coordinated fashion.

APPENDIX 10

Achieving "Dynamic Integration"

A number of conditions must be met in order to plan new school facilities to meet changing needs in their surrounding communities. Such school facilities need an initial *ability* to integrate with additional uses, and (if necessary) capability to continue to change in use over the long term. To this end, a school facility planned and developed in a new subdivision, in the absence of any other identified community needs, may initially only be utilized as a typical grade school. Although, upon further maturation of a local community, needs may arise necessitating additional and/or alternative use of existing spaces. Moreover, if a school is planned and developed in an established community area, and a need for space has been articulated, a stronger possibility exists that such a facility may be a multi-use facility at its inception. Although, again, upon further maturation of that community, demands for space may change.

Each scenario illustrates that planning and development of school facilities, in any context (an already built-up area or "greenfield" situation), requires established structural and functional capacities from the beginning. This concept makes no attempt to pre-determine the entire structure and function of school facilities insofar as they relate to existing and potential user groups; instead seeking to plan facilities that readily meet multiple needs. Moreover, any desire to use school space is predicated by the identification of community priorities and availability of appropriate space.

A scenario can be offered as a possible example. When a need for space such as a Health Clinic is identified, this need would be determined through the Community Needs Inventory. Depending on the level of priority that this particular need is assigned by the community, and the characteristics of the available space, a decision would be made. If the

community decides that the Health Clinic is a priority given the available space, relevant Health authorities would be brought into the process. The next step would be to carry out any necessary improvements to integrate the Clinic. If this need were to exist in the absence of vacant space, the need for a Clinic may, if to be integrated with a school, become part of a school division's Development Plan. Decision-making in this regard must corroborate the vision articulated by the community. Clearly, the structural considerations for such flexibility are integral.

It is possible that a community needs, for example, a self-help home maintenance program, and a youth counselling drop-in centre, while a local church group has expressed a need for space to distribute gardening tips and community-use gardening supplies. The community will have to decide whether they wish to pursue their prioritized needs, and risk not utilizing the available space, or enter into a contract with the church group. In either case, once a decision has been made to utilize space, the community will be responsible for what may prove to be a "good" or "bad" decision - not the province or anyone else.

Implicated above is the need for the operational activities, or function, of a school facility to have the potential to facilitate ongoing change. Also noted above, is that there must be involvement of community agencies from initial planning and throughout the entire life-span of a school facility. It is noted in Chapter 4 that, at present, the most advanced concept for maximizing the utilization of school facilities over the long term is the Community/School concept.

It should be recalled that this multi-use facility concept identifies specific types of uses, then plans and designs a facility to meet them. The potential for developing alternative/additional uses in such a facility (although conceptually being quite high) is limited by its original intent to house *predetermined* types of spaces, while not considering

the ability to readily serve multiple needs. The Community/School does not consider concepts of ongoing, or dynamic, integration. Therefore, being discussed here is not simply a revised Community/School concept, but a concept fundamentally beyond the Community/School. Perhaps new terminology would help to differentiate the Community/School concept from a new approach. Perhaps an educational and community-related facility (centre) which seeks to optimize facility use, considering the long-term economic and ecological benefits, could aptly be called an "ED-CO Centre."

APPENDIX 11

Cost-Sharing

The extent of cost-sharing for initial capital outlay will be determined, in most instances, through Inter-departmental cooperation supporting Annual Capital Grant allocations. At the local level, cost-sharing for day-to-day operations and maintenance must also be determined. More specifically, for example, if a health clinic was the only need identified (other than a school) during initial planning and development, Health authorities would be notified by the Facilities Use Committee to specifically become involved. However, as a result of Department of Health involvement, this would not necessitate that they pay a larger share of the initial capital program. Financing the capital program must be cost-shared through a formula which apportions the largest amount to the jurisdiction with greatest utilization (real and potential), and prorates equally the remaining initially identified jurisdictions (i.e. both those agencies being initially planned for, and those public agencies of potential). To this end, the PSFB will likely hold the largest capital share. While those departments responsible for community and human-related services/programs, whether or not they are initially specifically planned for, would pay a "one-time" prorated, fixed capital share for construction of the facility.

Regarding day-to-day operations, staffing and maintenance, a cost-shared formula should also be utilized. Levels of financial commitment should be based on a share of standard operating costs relative to the annual extent of space utilized by, and special operating features of, each particular jurisdiction. Annual financial commitments of each agency should be adjusted at each year end to accurately reflect the actual operating costs for that year. Moreover, to use the example offered above, the Department of Health and the school would pay relative shares of the total operating and maintenance costs. Furthermore, when space is available and a community need is identified, any new

"tenant(s)" would be serve along side facility planners to access the Annual Capital Grant or the Capital Support Program.