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**Feasibility of Decommissioned Urban Schools:
Emphasis Private Involvement**

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By

George J. Spinaris, RA

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Committee Member

Approval Signature

Date

Daphene Koch, Ph.D. Chair

Handwritten signature of Daphene Koch in blue ink, written over a horizontal line.

12/7/12

Mark Shaurette, Ph.D.

Handwritten signature of Mark Shaurette in blue ink, written over a horizontal line.

12/6/12

Joseph Orczyk, Ph.D.

Handwritten signature of Joseph Orczyk in blue ink, written over a horizontal line.

11/26/2012

Feasibility of Reconstructing Decommissioned Urban Schools:

Emphasis Private Involvement

Purdue University

George J. Spinaris, RA

December 07, 2012

Dr. Daphene Koch, Chair
Building Construction

Dr. Joseph Orczyk
Building Construction

Dr. Mark Shaurette
Building Construction

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Abstract

Decommissioned urban schools in the United States have become a problem despite well-intentioned efforts of federal, state and local authorities to reconstruct them. The challenge to school districts, superintendants, local and state authorities is threefold – one arising from the education policy and declining student enrollment. The second challenge is due to inadequate funds for maintenance and renovation of existing facilities. The third from the architectural point of view stemming from an architectural and technological modernity to avoid not so much the possibility of *urban sprawl* but possible clash of community interests. *Urban Sprawl* is defined as “The unplanned, uncontrolled spreading of urban development into areas adjoining the edge of a city” (The American, 2009). Thus the feasibility of reconstructing decommissioned urban schools and the subsequent challenge to the architect are associated with avoiding *urban sprawl*, spatial mismatch, technological modernity, and to enhance community interest and concerns.

The literature will review three case studies, (Boston, Georgia & Nevada, and Buffalo, NY). In 1997, Boston faced challenges in decreasing student enrollment, decommissioned urban schools, building abandonment, lack of public housing and related land use and sought creative alternatives. The second in Georgia and Nevada were compelled toward privatization due to unavailability of funds to abandon schools that are increasingly being supplanted by a system of accepting schools. The third, Buffalo Public School, (NY) No. 60 was identified by private investors as a prime candidate to create new urban senior housing. The directed project will provide the results of a literature review, case study development, conclusions and recommendations. The project identified areas of interest in articulating a strategic framework of

analysis for the reconstruction of decommissioned urban schools in the United States utilizing the Buffalo NY School model.

1. Introduction

The phenomenon of suburban living during a time of wealth and prosperity in the United States precipitated a decline in urban living. Buffalo, NY, and other regions where a prosperous growing economy coupled with large tracts of land created feasible ways for families to move further away from cities thus creating urban sprawl. The innovation of mass producing automobiles in an inexpensive manner along with expanding commuter rail systems gave families mobility. The exodus of the population from urban areas has created challenges to cities. Shrinking populations are affecting cities by causing abandonment within city communities. In the past, the stabilizing factor in an urban area has been the school; the main hub of the community.

“Public schools are intimately linked with communities. They serve as centers of learning. They employ and connect neighbors with one another. As place-based institutions, they are part of a neighborhood’s physical fabric, impacting local housing markets and influencing the aesthetic character of a community” (Chung, 2002).

These communities – stakeholders, due to a population decrease, tax cuts, and housing depletion, can no longer sustain the urban school however “the renovation and adaptive reuse of structures can serve as a symbol for the city’s rebirth, recovering the future from the past” (Gutierrez, Stock, and Turner, 2008).

All of these examples have an inherent commonality to keep the cities alive. The historic view point keeps a focal point of the city and the social benefits of adaptive reuse enhance the community as a whole. Adaptive reuses through privatization will positively affect urban economics through renewed urban growth. Spatial planning, Rational Decision Making Models (RDMM) are tools utilized create a logical paradigm for effective recognition of resource

limitations and the subsequent implications for the community and private developer. The following will outline the problem, purpose, research aim, research questions, definitions, and significance.

1.1 Statement of Problem

Buffalo, NY has abandoned schools which need a plan for adaptive reuse. Because of urban sprawl, diminished jobs and student population in the city, communities no longer have the need for many schools. City officials, school boards and other public organizations do not have the funds to support the maintenance and changing of these buildings for reuse. Therefore, research needs to be compiled to recommend solutions for these buildings.

1.2 Statement of Purpose

The purpose of this project is to recommend new opportunities for special planning for urban areas in Buffalo, NY, especially in the area of abandoned decommissioned schools. Urban structures; schools, churches, government buildings, office and apartment complexes, shopping malls, retail and manufacturing centers all have on aspect in common, viz. they are architectural dimensions of typically well planned out schemes that can be manipulated with the proper vision for adaptive reuse supporting an evolving community. As noted by Thompson (2010).

“Adaptive reuse is a superb sustainability strategy. The term simply means to repurpose a building from its original occupancy to another use that is more needed in the present market and location. Building reuse is an easy concept, but one that has huge potential to reuse the carbon footprint and solid waste inherent in demolition and new construction benefitting all communities” (Thompson, 2010).

The basis for this research is by applying case studies from research and applying what has been done in model a school in Buffalo, NY. The purpose is to develop recommended solutions for

the reuse of abandoned buildings in any city in the United States using the Buffalo school as a model.

1.3 Research Aim

Research aims of this study are based on the dynamic relationships among dependent and independent variables that assume a social, economic, political and architectural dimension.

1. To identify and investigate the causes associated with the decommissioning of urban schools and the effect of private investment to communities.
2. To present a coherent theoretical and conceptual framework of analysis on the feasibility of reconstructing the decommissioned urban schools through private interests.
3. To draw a set of conclusions / recommendations based on case study on the correlations between the current debate on reconstruction and private participation.
4. To make a set of recommendations on the feasibility of reconstructing decommissioned urban schools with added emphasis on private participation.

1.4 Research Questions

1. What are cases of that could prove to be feasible examples of reconstructing decommissioned buildings?
2. Where cases can be documented to develop recommendations?
3. Could the involvement of private enterprise in the reconstruction effort through adaptive reuse in decommissioned urban schools elevate the burdens of school boards to assist in preventing urban blight through reconstruction and investment?
4. What changes would need to be implemented within the current framework of school boards to perpetuate and encourage private investment?

1.5 Definitions

Urban areas are defined by locations with dense populations and high levels of business and consumer activities.

Urban revitalization is the process of rebuilding thriving economically, environmentally and socially sustainable urban areas and populations, in areas that have been in decline and in those urban areas that are stressed from the continuing influx of people to urban areas, retrieved from <http://www.wiserearth.org/aof/285>

Urban sprawl is the expansion of an urban area to accommodate its growing population or the unplanned, uncontrolled spreading of urban development into areas adjoining the edge of a city (The American, 2009).

1.6 Significance of the Problem

Decommissioned urban schools in the United States are increasing in number and creating urban blight. State, district education authorities, and school boards have been encouraged to decommission urban schools due to lack of funds and shrinking urban populations. Others areas have reused schools to become retail and housing spaces etc. It is important to give the public recommendations for feasible reuse of buildings.

Research has indicated that stakeholders have questioned the long term implications of continued abandonment of urban schools and are reluctant to call in private entrepreneurs to develop these abandoned properties. Without cohesiveness and clear direction of a communities needs private investors are forced to rethink their future strategy in adaptive reuse projects as not to incur financial lose. In Buffalo, NY, school boards are reluctant to give up property in urban settings and prefer a Leaseholds agreement. Leaseholds often discourage reconstruction projects since private developers are limited in negotiations with landowners/school boards. A

leaseholder only purchases the right to a property for a set time. Leaseholders usually have to pay ground rent annually and yearly service charges typically unsettling to private investors making a large capital improvement on property they do not own or control in other words, limited and controlled profitability with too much risk at stake.

2. Review of Literature

The feasibility of reconstructing decommissioned urban schools is essentially a nation wide problem. It has been suggested that instead of reconstructing the decommissioned urban schools they can be converted into other community uses or be disposed of to recover the cost (Thompson, 2009). Despite a spate of planning regulations in the past few decades there is still a considerable amount of misdirected planning, though the extent of variation in each micro-level locale is relatively insignificant. Overall the micro level analysis focuses on the architectural planning methodologies; infrastructure and structural dynamics intended to systematically predict population growth of a particular location. Such spatial planning activity necessitates national level efforts including organizational capabilities to face resource rationalization choices, i.e. how best to utilize a given amount of resources to maximize the benefits. Capacity utilization is another such effort. Research has indicated that through private enterprise with the assistance of local community stakeholders can be engaged to reconstruct abandoned urban schools without the government involvement. Through adaptive reuse, urban blight can be prevented in communities with the assistance of private investment.

Public school growth kept up with population growth until the early 1970's. After the oil embargo in 1973, a national recession, jobs were lost and people relocated in search for work. Urban sprawl was also on the rise with the exodus of families to suburban and rural areas. Not only were urban communities faced with schools being decommission, they were faces with additional entities evacuating their facilities; churches, apartment buildings, office structures, retail centers, manufacturing centers, housing complexes, etc. At this juncture, urban communities could no longer sustain their schools due to a shrinking population and loss of tax revenue. An example of such a problem is in Oakland, California where "the Oakland Unified

School District faces a massive eighty-five million dollar general fund budget deficit that required cutting its budget by twenty five percent. Administrative support services were cut twelve percent, school-site funding by five percent and discretionary spending by sixteen percent” (Johnson, 2010). District authorities in the US have been faced with the long term dilemma of having so many decommissioned urban schools that keep on rising in number with no end in sight (Cochrane, 1991). The problem facing communities is downsizing, consolidation of districts and abandonment of hubs in communities. The affect of the abandoned school is contributing to urban blight.

2.1 Stakeholders

While many stakeholders – internal and external – would show an equally great amount of interest in the successful outcome of the spatial planning process, there can still be countervailing interests that seek to prevail over the rest. The degree of influence that each stakeholder group has on the eventual outcome of the planning process is determined by a number of endogenous and exogenous factors such as the social, economic and political exigencies of each stakeholder group and a possible assessment of costs and benefits arising from the magnitude of planning (Taylor, 1998). Stakeholders such as citizens, private business organizations, contractors, suppliers, government concerns, property developers, foreigners working and residing in the district, condominium dwellers, local government authorities and so on all have a stake in such outcomes.

2.2 History of the Social Benefits

The human landscape of the early twenty-first century owes much of its present character to the production processes now referred to as Fordism and Post-Fordism (Holland, 2005). Under Fordism, mass consumption combined with mass production to produce sustained economic

growth and widespread material advancement (Thompson, 2009). Post Fordism created a movement. The production areas moved from the centre to the edges (periphery) of the city (vanBeek, Buwald and Stoop). Post-Fordist influences can be seen to a certain extent where a monocentric urban model of singularly-patterned spatial structure that Alonso, Muth and Mills advocated in the 1960's is visible throughout communities. In other words monasticism "cities can be thought of as the absence of physical space between people and firms. In the 21st century, the dominant form of city living is based on the automobile and this form is sometimes called sprawl" (Glaeser & Kahn, 2003).

Polycentricity does not have the same kind of appeal though. Polycentricity argues for the neighborhood as a unit of practice mapped by field-specific relations in other words streets, shops, public health centers, schools, and bars all function as 'centers' in the neighborhood, but each one of them allows for or invites different interactional regimes (Blommaert, Collins, and Slembrouck, 2005).

Social benefits that are assumed to flow from positive and regenerative planning are many and they necessarily generate productive outcomes elsewhere through repetition. However the theoretical postulates of modern architectural planning are not of great interest as much as the purpose for which it is adopted and is able to stand the test of time and quality (Baofu, 2009). Such benefits basically accrue to the very people who are at the other end of the planning process. Thus what is important is the fact that a greater awareness among people in the expanding urban centers about the process of development would benefit the community as a whole.

2.3 Micro and Macro Parameters

A comprehensive delineation of the micro and macro level spatial planning parameters of decommissioned urban schools would require a strategic level focus of a property development and community needs. At the micro level there is a series of constituent activities such as service provision and preparation. As Van Nes and Lopez noted, “a method describing micro scale spatial variables in urban studies aims at defining the inter-relationship of buildings or private spaces and adjacent street segments” (Van Nes and Lopez, 2007). Therefore, a micro scale spatial analysis focuses on how dwellings relate to the street network, the way buildings' entrances integrate with streets, the degree of topological depth from private space to public space, and inter-visibility of doors and houses across streets. Micro scale spatial relationships between private and public space determinate to what extent individualistic life styles can interfere with street life and visa versa (Van Nes and Lopez, 2007).

At the macro level there is yet another set of activities including the changes and modifications to existing infrastructures. To Velibeyoglu, urban design within urban planning emerged as not necessarily emphasizing "design" as architects and landscape architects do but evolved by emphasizing the public sector involvement, i.e. the public realm and the public trust. Urban design at the macro level tries to merge particular aspects of architecture, urban planning, and landscape architecture to form a true field (Velibeyoglu, 1999). Decommissioned urban schools have at times been described as architectural misfits in their environments. This is indeed a vital challenge to the architect on the one hand and a commercial proposition to the private entrepreneur on the other.

2.4 Adaptive Reuse

The potential of urban blight by an exodus of community members, a decrease in student enrollment, and shrinking school budgets to maintain current facilities is all too prevalent in urban settings. Adaptive reuse of decommissioned urban schools is a superb sustainable strategy to create new hubs in communities and to promote new tax revenues along with construction employment opportunities. The adaptive use of structures with architects aware of sustainability issues as noted by Gerald Lee Marosco Architects, PC., “have endeavored to be very sensitive to the fabric of the existing building, look forward to the increase in property tax revenue from the project” (Sandler, 2006). So what is adaptive reuse? Adaptive reuse can be broken down into four areas; “preservation, which is the approach of doing very little renovation, and just keeping everything that’s there in the building, where it’s new or old or otherwise. Moving from there is Restoration which is taking the building back to a particular point in time. Rehabilitation is really the set of guidelines that we’re using when we do adaptive reuse, which are less stringent and then finally reconstruction. Adaptive reuse is really just keeping your resources in use as our needs change in terms of social needs” (Goodman, 2010). Adaptive reuse is an excellent way to create valuable community resources from unproductive property, substantially reduce land acquisition and building construction cost, reinforce existing neighborhoods, and help control sprawl opening other avenues of opportunity for learning and community growth” (Spector, 2003). As investors review projects for profitability, three fundamental considerations for adaptive reuse must be considered. The first is that the structure must be sound enough to reconstruct. The second is that the site will return profit for the capital investment; the third is that the building must be adaptable enough to support the proposed alteration. Community involvement and an understanding of the local needs and demographics play a vital roll in the

success of adaptive reuse projects. Another factor to consider is the constructability and “Green” approach to revitalizing older structures. Through adaptive reuse, or to repurpose a building from its original occupancy to another use that has more need in the present market, location, and community “decreases the carbon footprint and solid waste inherent in demolition and new construction” (Thompson, 2010). The “Green” approach benefits all.

2.5 Urban Economics

According to Arthur O’Sullivan urban economics can be divided into six sub-concepts – economic market forces in city centers, public policy related urban problems, local government budgets, urban transport, public policy related housing and land use in cities (O’Sullivan, 2002). Boston, Ma. in 1997 faced challenges in decreasing student enrollment, decommissioned urban schools, building abandonment, lack of public housing and related land use and sought creative alternatives. Mayor Thomas Menino launched Boston’s abandoned building survey. The program surveyed the city’s abandoned schools, commercial and residential properties. The city then works with private owners and developers to rehabilitate them into viable housing units. The survey found that “in the last decade, the number of abandoned residential properties in the city declined 77% as properties were reclaimed and abandonment was reduced. In 2006, the US Conference of Mayors recognized Boston’s Abandoned Housing Strategy as the ‘best practice’ (Unknown, 2007). To support these findings, Peck writes that “communities should have learned from our downtown that when land is vacant it becomes more attractive to developers” (Peck, 2000). Not only can developers prosper from such programs, communities will also reap the benefit of more stable environments, a newly created tax base, and preventing of urban blight.

2.6 Privatization

Privatization is a worldwide phenomenon. In recent years all levels of government, seeking to reduce costs, have begun turning to the private sector to provide some of the services that are ordinarily provided by government. The spread of the privatization movement is grounded in the fundamental belief that market competition in the private sector is a more efficient way to provide these services and allows for greater citizen choice (Warner and Hebdon, 2001). Public policy related urban problems can be multitudinous. But nevertheless decommissioned urban schools essentially attract the primary attention of all because they need to be renovated. Indeed the question whether an already overstretched federal budget would ever be able to absorb this extra cost is a big dilemma.

“The Council of the Great City Schools, the nation’s primary coalition of large urban public school districts, surveyed its 65 member school systems to determine the scope and scale of need to rehabilitate schools. The 50 major city school systems responding to the survey (response rate of 77 percent) comprise some 8,561 elementary and secondary schools and enroll 5,258,404 students. The results of the survey indicate that the responding city school districts have approximately \$15.3 billion in new construction needs; \$46.7 billion in repair, renovation, and modernization needs; and \$14.4 billion in deferred maintenance needs. The total facilities needs in these 50 major city public school districts amount to about \$76.5 billion or approximately \$8.9 million per school, including new school construction” (Casserly, Lachlan-Hache & Maik, 2011). Thus this researcher examines the feasibility of reconstruction through private participation. Further writings by Casserly, Lachlan-Hache and Maik in 2011 indicate that proponents argue that private firms are more efficient than government because of economies of scale, higher labor productivity, and fewer legal constraints. He faults government

service provision for its monopoly status and inability to be responsive to citizens' needs, resulting in inefficient, one-size-fits-all services.

Yet there is no answer to the question, *who would spend the money on such renovations?* One opinion is that private individuals or firms could be enlisted to carry out reconstruction so that the government would be free of an ever increasing burden on its finances. However the basis on which the private participation in the reconstruction effort is to be sought is not clear. Architectural planning implications have not been addressed yet and the cost benefit outcomes have not been defined properly. Another aspect of private involvement requires a stream of cash injections that would have to come from a reliable source. Finally, there is very little urban planning being carried out to factor in the phenomenon of urban schools being decommissioned on a rising scale. As noted by Gratz, “despite the many obstacles and the complexity of the process, tried-and-true strategies for regeneration exist, sometimes in the same cities where shrinkage by demolition is occurring” (Gratz, 2010). The characteristics of successful private involvement share a commonality within communities; a positive influence of an adaptive reuse building with the occasional abandoned building being removed from its site. When demolition does occur, it is strategically considered by individuals who know how to analyze their viability and potential for profit. The key is to add something new to a community. Where demolition creates a void; the addition of gardens, playgrounds, urban farms or something else that add value to the community may be created. Another entity often emerges in the renovation efforts in communities, the non-profit organization. These organizations such as ‘Habitat for Humanity’ retrieve and renovate abandoned structures where new investments become visible. “With the collapse of big industries, why not encourage with modest incentives the small, ad hoc trend of new artisanal producers, remembering the 85% of new jobs are created in businesses of 100

people or less. This is happening now in many regenerating neighborhoods even during the recession and it requires far fewer public dollars than the big, one shot deals” (Gratz, 2010). An example of new emerging companies includes salvage, repair and clean up companies. Existing residence may feel hope with a revitalized pride in their community and repair their own properties when seeing positive results from others. Other community events including neighborhood parties, street fairs and community watch groups allow residents to gain confidence and prosper.

According to Gratz, “Cities, even the so-called shrinking ones, don't seem to have a problem spending public money for demolition and then giving incentives and tax breaks to developers to build new” (Gratz, 2010). Incentives and tax breaks should be provided to individuals willing reclaim their communities by committing to occupancy structures for a minimum number of years? Limitations could include that a recipient must commit to remain in their dwellings for a minimum number of years. Gratz also adds “another alternative that includes a provision to provide the resident or local business owner the vacant lot adjacent to their existing property, assuming there is one” (Gratz, 2010). This would provide the land owner the ability to use the property as open space, create an urban farm or expand on to an existing dwelling stabilizing a declining area. Small incentives seem to always exceed their expectations where large expectations rarely seem to meet their expectations.

Research has indicated that time and again that decommissioned urban schools need to be reconstructed with private participation. However, there is rarely a well planned suggestion put forward by those who claim the federal, state and district education authorities ought to take responsibility for the task. It is the writer’s experience and belief that government officials have little or no experience and limited knowledge pertaining to analyzing the potential of a structure

in adaptive rescue and regeneration projects. Renovation of decommissioned urban schools does not easily conform to today's building codes. Variables such as hazardous materials (asbestos abatement) come into play. Private investors motivated by profit typically have the expertise and understand how to deal with earlier constructed buildings providing a clearer understanding for adaptive reuse. Similarly, most contractors would rather build new than renovate an existing structure. "Money doesn't exist for just cleaning out, stabilizing, securing and land banking worthy structures and, sadly, remaining residents are under the illusion that demolition of the next door vacant nuisance solves crime, cleans up neighborhoods and improves the community" (Gratz, 2010).

The feasibility of enlisting private individuals or/and firms to reconstruct decommissioned urban schools can be investigated from a number of angles. In the first instance private participation in the reconstruction process would be more desirable if the legal, economic, social and architectural planning dimensions are addressed with priority and abandoned urban schools are restored accordingly. As noted by Gratz, "You are always penalized when you go to renovate. No one has to put up half the money for demolition. Money for stabilization and/or renovation has to be patched together from multiple sources. Lenders don't like the look of dilapidated old buildings, even if they are historic and architecturally beautiful. They do, however, understand demolition and formulaic building projects" (Gratz, 2010).

2.7 Districts and Reconstruction

Decommissioning of urban schools has been going on unabated for the last few decades. Still federal, state and district authorities have not come up with a proper solution primarily due to a lack of funding to maintain these facilities. Thus it's only pertinent to investigate the feasibility of reconstructing abandoned urban schools at a variety of levels through private

participation. The current renovation efforts are haphazard and a few district authorities have begun reconstruction work on the baby boomer generation era schools due primarily to Post-Fordism. Research has indicated that a systematic urban renewal planning process would have to be implemented with a degree of focus on the possibility of reconstructing the decommissioned urban schools to avoid a state of total dilapidation and abandonment thus preventing the potential of urban blight. On the other hand decommissioned urban schools have the potential of being converted into alternate social infrastructures like hospitals and shopping malls. Through the adaptive reuse and reconstruction of public schools a new community hub may be created. The feasibility of reconstructing these facilities is not an all conclusive project or plan but a dynamic process of urban regeneration to be adopted in conformity with the social expectations of a community. The architectural and urban planning dimension of the process is all the more pervasive with the utilization of private financing.

2.8 Urban Growth through Fordism

The human landscape of the early twenty-first century owes much of its present character to the production processes now referred to as Fordism and Post-Fordism (Holland, 2005). Fordism refers to the system of mass production and consumption characteristic of highly developed economies during the 1940s-1960s. Under Fordism, mass consumption combined with mass production to produce sustained economic growth and widespread material advancement (Thompson, 2009). Fordism has variously been interpreted as a multi dimensional phenomenon in equally diverse and social settings. For instance its current evolutionary phase is centered on both the physical and aesthetic dimensions of regeneration of urban centers. Its economic aspectual framework of analysis is basically determined by such fast evolving changes including those directly related to economic booms (Goodwin, & Painter, 1996).

Fordism first acquired a larger degree of significance when its theoretical bases were nuanced with the economic and social regenerative principles that bordered on an otherwise development oriented progressive concern for changes in the sphere of spatial planning and economic welfare. The social and scholastic dimension was equally influenced by the planning administrator's desire to keep up with parallel changes that were fast taking place elsewhere in urban city centers. Fordism related social phenomena can also be seen in respect of a tendency on the part of both the planner and the main stakeholders to move away from rural city centers to urban locations where regeneration policy is much stronger than anywhere else (Gough, & Eisenschitz, 1996). It is this particular development that has led to the current perception of ideology based spatial planning and urban regeneration. Thus Fordism creates large areas of houses and factories but it also creates social classes.

2.9 Post Fordism Movement

Unlike Fordism, Post Fordism created a movement. The production areas moved from the centre to the edges (periphery) of the city (vanBeek, Buwald and Stoop). The transformation in production, facilitated largely by advances in transportation and information technology, forced the disintegration of Fordism in manufacturing and social organization (Holland, 2005). As populations decreased in urban areas the sustainability of these structures is no longer warranted supporting the need of private funding to reutilize existing structures for other societal purposes. Fordism creates large areas of houses and factories but it also creates social classes. Post Fordism, on the other hand, created a movement. The production areas moved from the centre to the edges (periphery) of the city (vanBeek, Buwald and Stoop).

Post Fordism is characterized by the application of production methods, considered to be more flexible than those of the Fordist area. The period is also called the age of Flexibility. The

transition from Fordism to Post Fordism had some spatial effect on the cities. In the time of Fordism, raw material and labor were the main location factors for companies. The main location factor in Post Fordism age was *attainability*. The industrial activities in cities, which needed good infrastructure for there *attainability*, were sometimes replaced from the centre of the city to the periphery. At the edge of the cities factories formed some kind of clustering areas. Agglomerations became a new phenomenon. In the old centre, were old Fordist factories moved, the open spots got new functions (vanBeek, Buwald and Stoop). Since the 1970s, the rise of transnational corporations, information technologies, and flexible production has marked a transition to Post-Fordism as a social regime. Disequilibria in the existing systems can only be corrected through will of the people and community for change. Thus the attitudinal perspectives that surround planning in the post-Fordist environment frequently emphasize practical solutions and not theoretical arguments (Urban Economics, 2011). Excessive urbanization and urban sprawl in the current decade have changed many theoretical assumptions about planning, especially in the government and local authorities' ability to intervene in the process of planning to produce politically motivated outcomes (Campbell and Fainstein, 2003). Urban economics also identifies spatial planning related decision making as one of the most important aspects, both by individual firms in seeking to locate their businesses and city authorities in planning to develop the existing facilities (Geertman & Stillwell, 2010). Positive correlations between national policy formulation and economic growth strategies have not been made clear except in relation to fostering a local development policy.

2.10 Strategic Spatial Planning

Spatial planning perspectives have to be delineated against the backdrop of an evolving policy formulation process in the locality of concern. Strategic spatial planning and architectural

dimensions require education authorities to put in place a number of initiatives such as design, planning and implementation strategies that lead to focus of attention on regeneration and reconstruction. At the beginning of the 1990s, many experiences from all over the continent caught the interest of theorists and practitioners and started a long debate on the revival of strategic spatial planning (Salet and Faludi, eds., 2000). The reasons to return to strategic planning were similar to those of the previous decade, a lack of public money and entrepreneurial approaches to urban management. Patsy Healey (Healey 1997; Healey 1998; Healey 2003a; Healey 2003b) describes strategic spatial planning as a social process through which local communities answer to endogenous and exogenous challenges relating to territorial governance. The positive planning environment demands that attention be paid to such variables. Policy decisions on spatial planning by private and government interests would basically have an impact on outcomes related to the reconstruction of decommissioned urban schools (Longley, 2005). On one side, tools used by private enterprises seemed adequate to respond and stop the decline of cities, and, a new type of strategic planning entered the scene. On the other side, the rhetoric of competition started among cities. Those years see not only the beginning of a phase when the state got involved as a private actor with its own interests and stakes in the process, but also witnesses the official entrance of private investors as the first nongovernmental actors within the planning process (Sartorio, 2005). As such the current level of spatial planning would be influenced by the future demand patterns for such services as education in urban centers. Banking and financial services occupy the most important place while insurance, auto dealerships, retailing, oil futures, transport, aviation and consultancy services come closer. Spatial planning thus goes along with service industries. Location decisions of private firms here are very important. Most of them are directly related to the

administrative apparatus of the local district. Property development firms are just one such category. Apart from the government's massive infrastructure building projects, private builders have been engaged in a flurry of construction activities. Service providers such as communication, banking & finance, transport, hotel accommodation, medical services, air lines and the food & beverage industry all would be geared to meet the new demand generated by the inflow of foreign tourists. The spatial planner's task is to identify these demand related pressures and carry out the spatial planning process accordingly (Davoudi & Strange, 2008). How best to meet this competitive pressure depends on the planner's ability to absorb excess demand through capacity creation. Here conflict of interests decisively places some limitations on the planner's ability to meet this extra demand. According to this model the planning process is tentatively designed as a process of continuity with separate logical phases. However it also has some shortcomings. For example starting from the design phase the process continues up to analysis. Thus its growth path is just illustrated by a few phases that can best be described as *intermittent*. Structural design in city centers can be described as constrained by inadequate space or economically the relative higher cost of available limited space. Urban reconstruction is as much an arduous process as is the rebuilding effort of decommissioned schools. The space planning dynamics have acquired an added significance against the backdrop of shift in policy that is directly related to architectural liberty in planning.

2.11 Regulationist Approach in Regeneration Policy

The regulationist conceptual framework emphasizes the socioeconomic patterns, labor relations, supportive institutions and politics in a region. This conceptual framework for regional studies gives key importance to the regions' institutional resources and the differentiation of regional systems of regulation (Krätke, 1999). A regulationist approach is characterized by a

system of rules and regulations that imposes certain constraints on the spatial planning process. The US regulationist approach has many elements from regional planning bodies. The spatial planning process in the US has not been regulated to extent that the federal and local authority intervention in the spatial planning process and its selectivity has some deterministic regulatory parameters that are sought to be explained in academic and non-academic situations (Aglietta, 1987). In other words the situational parameters of spatial planning and the regulationist approach have been more or less determined by the architectural model building exigencies of time and space, thus leaving little or no freedom to the planner. This constraint has persistently impacted on any genuine efforts made by spatial planners to integrate tractable divergences seen in the regeneration of the urban planning process. The Figure 1 illustrates an urban school floor plan.

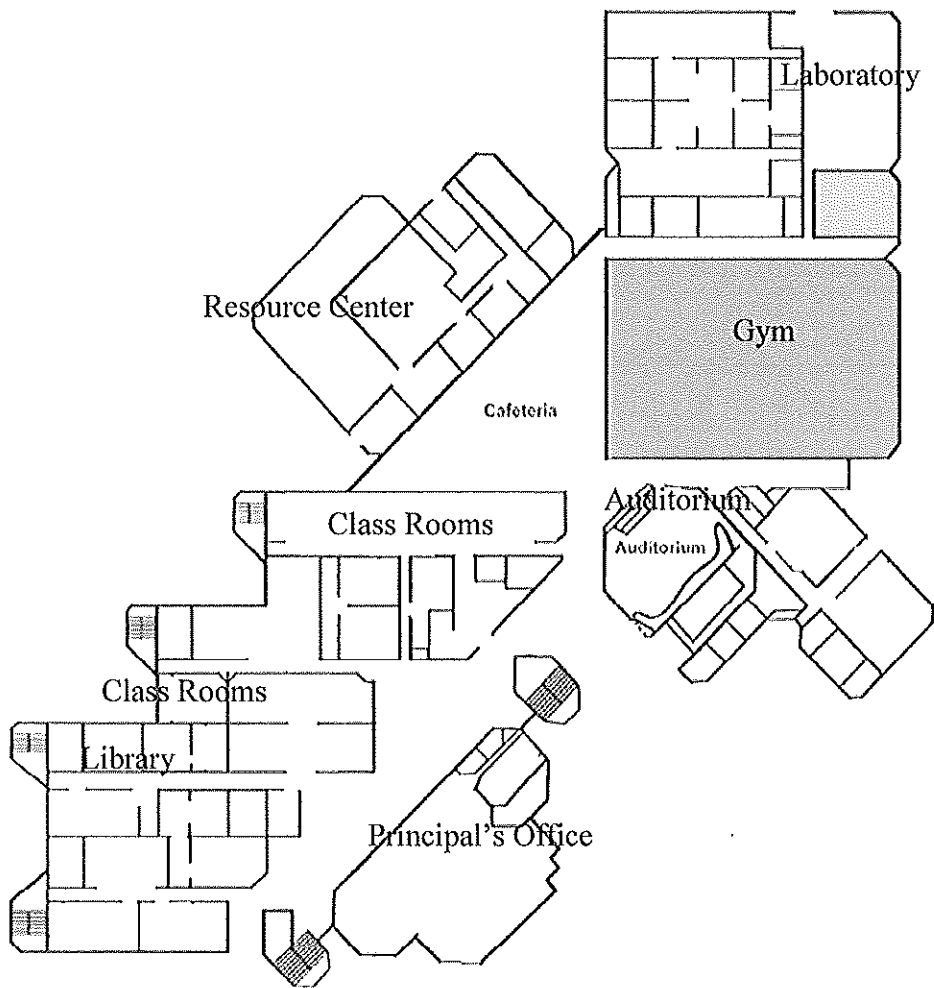


Figure 1: An Urban School Floor Plan, (developed by author)

There are additional variables facing spatial planning, the communities input and developer's visions of privatization in adaptive reuse of the decommissioned schools in order to profit. Communities and developers must provide direction to spatial planners to develop schemes that will integrate floor plans within any given community. The floor plan significantly saves space in the urban setting to achieve economies of space such as low rent/price and ease-

of-planning. The diversity and complexity of floor planning that is usually associated with structures need not be a characteristic of the modern urban school floor planning process; neither is it necessary to generate space constraints *vis-à-vis* mobility of pupils. Post-Fordist approaches couldn't accomplish some of the far advanced outcomes that regulationist approaches would have successfully accomplished (Jessop, 1997). This is despite the fact that the existing regulationist approaches are seemingly unable to impress urban planners on the need for seamless integration of rules and regulations into the architectural environment that presumably does not help the spatial planning process to overcome exogenous hindrances.

At federal level, regulationist approaches in urban spatial planning and reconstruction of schools could be seen. Local authorities – in states like California, New York and Georgia - do have problems associated with regulationist approach in planning reconstruction of decommissioned schools it would be better to identify the level of private involvement as a barometer to determine the extent to which popular support for privatization would go (Eisenschitz, & Gough, 1998). Also, regeneration policy would provide opportunity for unskilled and low-skilled people to earn. Urban spatial planning may lead to developments in social and economical infrastructure in communities; this in turn may increase local authorities' revenue. The area surrounding the housing market, transnational corporations and technologies may develop, and more people may come and settle in the area.

However the aesthetics of the urban locations could be improved due to the setting up of urban spatial planning projects. Preserving the architectural modernity should be of high priority. Due to the increase of traffic and the development of commercial infrastructure there would be additional sound and air pollution. These undesirable developments could cause further problems in the process of designing and planning reconstruction projects. For example

both in Kansas and Illinois many decommissioned schools were left to dilapidate despite the local populations' objections. "Instead accepting schools were persuaded to accommodate pupils from the decommissioned schools" (Peck, 2000). One of the major and immediate economic effects of the reconstruction work would be on the city by way of regular traffic to the reconstructed school.

The greatest strength of the regulationist approach lies in its degree of predictability associated with regional and sub regional systems of regulatory governance (Goodwin, Duncan, & Halford, 1993). For example at the county level the regulationist approaches have successfully been implemented through a system of cross functional integration. On the other hands its greatest weakness lies in a fact that the process lacks dynamism and therefore a capacity to percolate down to the bottom layers of the system. In other words regulationist rigidities in the spatial planning system within the locality have compelled urban planning authorities to abandon some of the most practical and revolutionary aspects of the spatial planning adopted by those seeking to reconstruct decommissioned schools.

2.12 Rational Decision Making Models (RDMM)

Rational Decision Making Models (RDMM) identify bounded rationality principle as a logical paradigm for effective recognition of resource limitations and the subsequent implications for the decision maker *vis-à-vis* the community and developer. The construction firm reviewing the possibility of funding a project is compelled to adopt strategic decision making approaches in order to optimize resource use. In the context of reconstructing decommissioned urban schools construction industry such a paradigm is inevitable.

RDMM is highly feasible in the construction industry because even if contractors are not compelled to recognize the existence of resource limitation, there is an equal degree of

compulsion on them to adopt frugal resource management strategies when clients cannot be persuaded to pay for calibrated expenditures. Industry related innovation and efficiency related to management strategy have enabled construction firms / developers to adopt cost saving measures and therefore currently the industry is oriented towards achieving scale economies. If there is disequilibrium at all between the availability of resources and the demand for them it is the small construction firms that have increasingly been affected by investment capital limitations.

Infrastructure development has been considered as a major instrument in sustainable development and economic competitiveness of the country or community. Despite the argument that societies have been more focused on sustainable development there has been a counterargument that sustainable development cannot be sustained without reconstructing the abandoned structures, especially schools (Imbroscio & David, 1997). Thus this report focuses attention on the spatial planning constraints associated with infrastructure building projects along with the diverse and complex causes and consequences of the congestion in districts.

Rational decision making models are a cognitive process where certain things follow in a logical orderly manner. This is a process of identifying the alternatives and coming up with the best potential result. There are a number of different rational models having different number of steps and the steps will also vary from one model to the other. According to David McDermott (2006), there are a number of steps involved in developing a rational decision making model.

1. Describe the situation
2. Find out the vital criteria for the process and result
3. Look into all possible alternative solutions
4. Consider the results of these solutions against the probability of satisfying the criteria

5. Select the most suitable option

The comparison is done most of the time by filling out forms or charts that have a variety of names. Decision matrix, decision grid and criteria rating form and so on are used. A relative importance is provided to each criterion and options are scored in front of each criterion and the one having the most 'wins' would be chosen. One best possible outcome is anticipated in a rational decision making model. This is also known as an optimizing decision making model due to this reason. Looking for this perfection is often a factor in delaying a decision. A model of this nature also assumes that it is plausible to take into account every option and also to realize the future results of each. The criteria in itself maybe subjective and might be difficult to compare. These models need lots of time and data. A rational decision making model tries to cancel out the role of emotions in decision making (McDermott, 2006).

2.13 Design and Planning

This directed project also focuses on the constraints associated with design, planning and construction activities that have been going on for a number of years. The related issues are architectural and engineering in nature as much as they are political, economic and social. Here the architect's role is factored into the equation with emphasis on redesign and structural change to meet a communities needs. Spatial design professionals' ability to redesign and incorporate metro space into the whole network of infrastructure development has gone a long way in enhancing the space utilization. This factor has served the communities well in designing and planning for the future. The existing infrastructure and its quality serve as a barometer for further expansion. In whatever the direction that secondary development takes place, there is a greater degree of flexibility and orientation in achieving economic goals of the country when such highly advanced infrastructures exist at the time of planning for new developments.

Industry related innovation and efficiency related to management strategy have enabled private construction firms to adopt cost saving measures and therefore currently the industry is oriented towards achieving scale economies. If there is disequilibrium at all between the availability of resources and the demand for them it is the small construction firms that have increasingly been affected by these new developments. However this position cannot be accepted because sustainability issues have surfaced in this context too, in fact sustainability issues such as resource utilization and rationalization often come to the fore in decision making process of construction projects (Grant, 2005).

Decommissioned urban schools come into focus due to the fact that reconstruction funding options are limited and private participation is determined by a host of external factors. For instance according to (Ceaser, 2000) private enterprise demands a corresponding amount of compensation for participation. As the Figure 2 illustrates the design is the first step in the spatial planning process. Assuming that the design process constitutes some very complex structural planning tasks then the next step of implementation would be delayed. Thus in reconstruction projects such delays are sought to be avoided on the understanding that cost factor outweighs everything else in importance in other words, cost will dictate the viability of a project. Maintenance, planning and analysis respectively of the project continue next once cost considerations are studied and accepted.

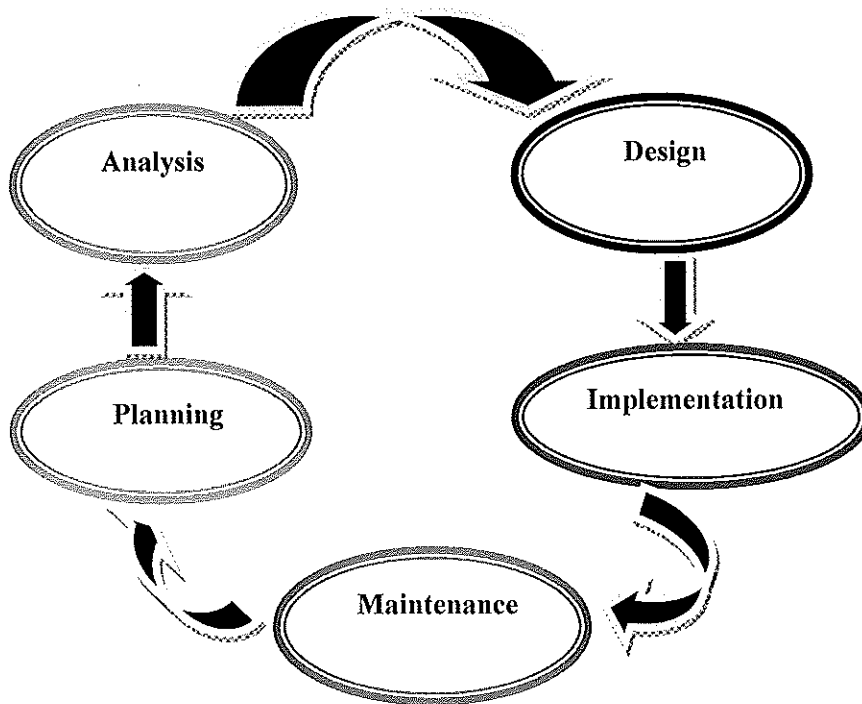


Figure 2: The Typical Model of Spatial Planning, (developed by author)

The social cost and economic cost of reconstruction have to be separated from each other to understand the impact of each on the stakeholders. Spatial planning is primarily determined by education authorities' rapid transition from government service provision to private participation. In the process spatial planning has acquired a very significant level of acceptance within the city to privatize a decommissioned urban school. Vehicular traffic is the other considerable factor that has received much greater attention by all stakeholders. Vehicular traffic increases due to rapid development but nonetheless the authorities' desire to reconstruct decommissioned schools should serve as a barometer for private investors to take part in the process (Hagerman, 2007). As the Figure 3 below demonstrates the city development process acquires an equally significant place when the reconstruction planning process becomes an integral part of the whole. Here customers are none other than the developers themselves such as clients or stakeholders who call

on the private firms to perform the task. Next the zoning review and the site plan would enable the stakeholders to familiarize themselves with the project’s evolutionary process. City regeneration process is never complete without systematic development of abandoned properties. The private participation is already a foregone conclusion though reconstructing decommissioned urban schools by private developers has not received the level of attention that it should have a long time ago.

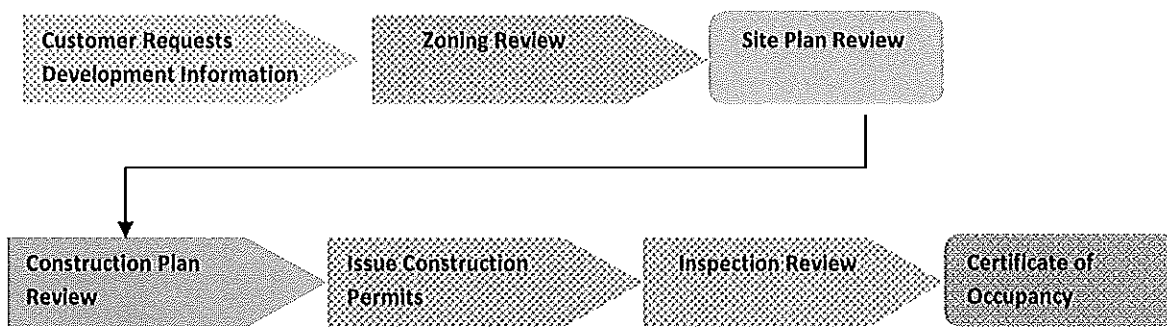


Figure 3: City Development Process Overview, (City of Phoenix, 2012)

Reconstruction involves some Environment Impact Analysis (EIA) as well. Such analyses must be carried out to assess the environmental impact of development planning on the existing eco-system. Thus the natural eco-system of the locality requires attention.

The extent to which spatial planning activity takes place on the overall project planning level within the stipulated time interval is something that can only be determined with reference to resource mobility. The demand factor for space – housing, education and commercial – has been cited as one of the most decisive in changing the architectural planning aspects. For instance education authorities have been engaged in a more comprehensive planning initiative involving both public and private properties.

2.14 Project Life Cycle Theories (PLC)

Project life cycle or life span is defined as “the sequence of phases through which the project will evolve” (Wideman, 2004). The project life cycle matters in design planning and final execution phases. The time cycle is directly associated with the life span of the project so that from the time of design the project until its final phase of full implementation the life cycle will evolve from one phase to the other. However the life cycle is directly related to the structure of the project and therefore some projects require approval at the end of each phase. Planned sequences or phases involve corporate operations and therefore project life cycle management literature focuses on the significance of skills, resources and organizational controls in managing the project.

The origin of Systems Development Life Cycle (SDLC) can be traced back to the 1960’s when project designers and developers initiated a series of steps in projects in order to track down the progress of a project. As early as in 1976 Archibald first wrote a comprehensive text book on project life cycle management (Archibald, 1976). He came closest to the modern sequence of phases given in SDLC. After Archibald a number of other scholars developed the concept of SDLC so that any project including engineering and Information Technology (IT) can be represented. In 1981 Stuckenbruck developed a very formal sequence of phases to represent the project life cycle (Stuckenbruck, 1981). According to Stuckenbruck, Project Life Cycle (PLC) is essential to adequately represent the various phases of a project from initiation to finish.

Stuckenbruck was the first author to discuss budgeting and resource mapping for PLC. According to him there are just four phases in the life cycle of a project; “Initiation, Growth, Production and Shutdown” (Tinnirello, 1999). The subsequent developments in the PLC literature were focused on modifying the above theoretical and conceptual models. In the process many new features were included though these changes did not substantially alter the original

frameworks. Since 1980's a series of new developments took place and these developments went on till the traditional SDLC models were replaced with new ones (Westland, 2007). These new models are not only complex but also highly technical because many projects are designed and planned according to these models. Thus this directed project would focus attention on three historical phases of SDLC development. Figure 4 illustrates Archibald's visual representation of the sequence of phases in a project.

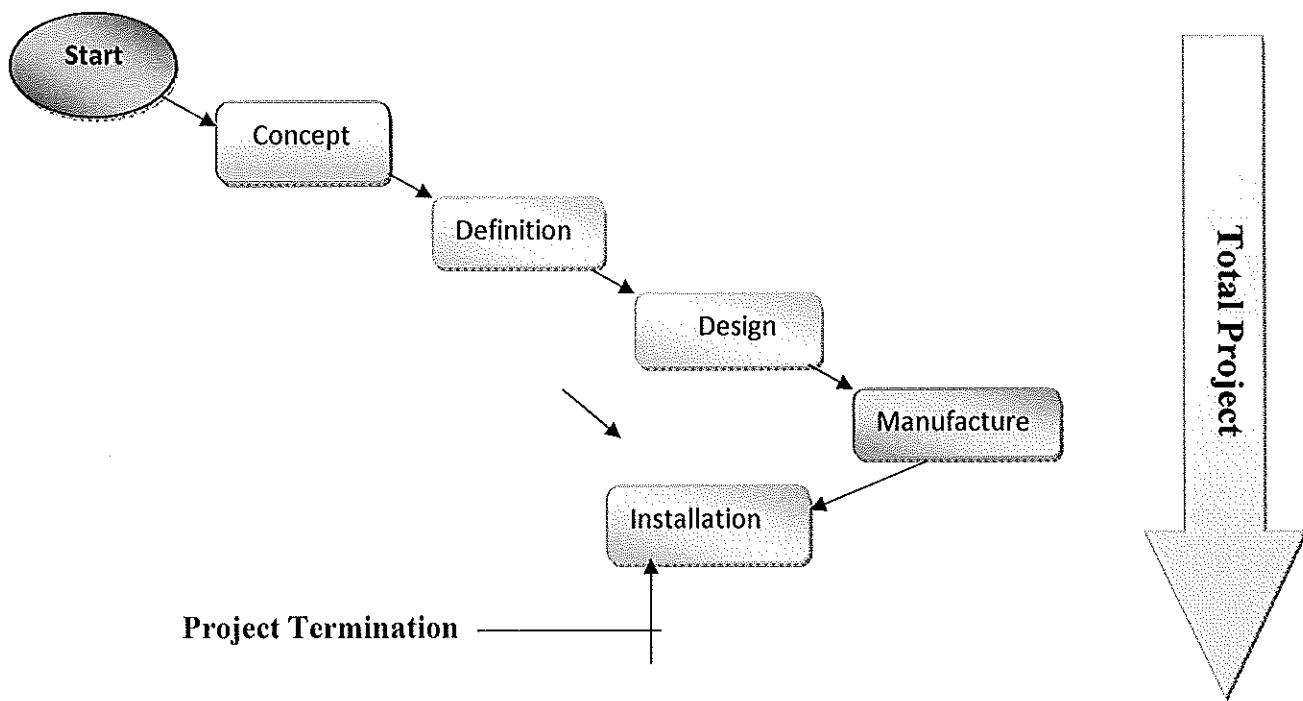


Figure 4: Archibald's Project Life Span, (Managing High-Technology Programs & Projects, 1976)

According to Archibald the initiation phase of the project begins with its start and both the concept and definition continue with this phase. Assuming that the process of conceptualization of the project begins with designing the diverse parameters of the project, then it is possible that the subsequent definition will involve an outline of project outcomes. Next comes the design phase. Yet again Archibald did not elaborate how best to make use of diverse

skills and tools to carry out the design phase of the project successfully. However he laid the foundation for a structural feasibility design framework that encompassed a range of issues such as the social dimension of the project and the corporate governance parameters (PMI, 2004).

The phase of manufacture according to Archibald is identical to execution of a project. For instance there is a possibility that project execution might involve networking efforts as in the case of modern school reconstruction projects. The extent to which project execution would include such complex processes was not anticipated in the 1960's and the 1970's. This was primarily due to the fact that SDLC process was characterized by independent less coordinated series of efforts by individual heads of departments. Finally Archibald refers to installation of the project. This phase too comes under project execution and its finish. As a result when installation is completed project must acquire a high value of social and economic significance. However every project life cycle has basically four main phases. According to Stuckenbruck, initiation involves project design and planning phases and the growth process includes both execution and process continuity. The unimodal histogram does not adequately represent the various constraints of the project. For instance there can be a number of drawbacks to the project as it evolves. Next Stuckenbruck refers to production. This is shown by the declining curve and as such there can be little progress after this. However these standard models have been replaced by more revolutionary PLC models.

2.15 Constraints

Time

Time-cost analysis is an important element of project scheduling, especially for lengthy and costly construction projects, as it evaluates alternative schedules and establishes an optimum one considering any project completion deadline (Chassiakos and akellaropoulos, 2005). Any

project can be delayed and the time constraints relate to the sequence in which project activities must be completed. A project is classified as time constrained in situations where the critical path is delayed and the addition of resources can bring the project back on schedule and the project completed by the required date. The focus of scheduling in these situations is to prioritize and allocate resource in such a manner that there is minimal project delay.

Costs

Any project can be cost constrained if the level of money availability cannot be exceeded. In those situations where budgeted money is inadequate, project delay is acceptable, but the delay should be minimal. However, it is also important to ensure that the budget limit is not exceeded and the technical relationships in the project network are not altered. In general, projects with a shorter duration are less expensive. The longer the duration of the project, the higher will be overall project cost due to the increase in fixed costs such as overheads.

Quality

The definition of quality goes beyond merely conforming to technical requirements and catching errors/oversights; it is a commitment to preventing substandard completed products and diligent pursuit of excellence in every facet of the project (KPRS Construction Services. Inc., 2011). Lack of resources along with limited manpower in the project activity can have an adverse effect on the quality of the whole project. Thus to improve the quality of the project, undertakers of the project need to have special knowledge and experience in the relevant field.

Stakeholder Interest

With the launching of International Manual of Planning Practice (IMPP) in 2008 (http://www.isocarp.org/pub/projects/impp_demo/), governments and local authorities increasingly began to look at new environment sustainability practices. Spatial planners might

belong to both private and public institutions. In this context architects are called upon to play a very positive role in both shaping and reshaping the built environment. Property development companies have been known for most of the strategic spatial planning related activities though most of them have been acting as collaborators in local projects. Designers, operators, suppliers, builders including plumbers, trade contractors, masons, roofers and electricians are the most important stakeholders in this process. The responsibilities shift through these levels.

Segmented processes are finance, construction, operation, procurement, planning and designing, engineering, and maintenance. Planners, developers and investors play a very critical role here.

3. Methodology

The research methodology for this project included the application of the review of literature and case studies. The research information collected was applied to Buffalo NY School 60 as a model for feasibility of reuse. The developed model was used to engage discussions with municipalities and private investors. Through this process conclusions and recommendations were developed.

3.1. Research Methods

This Methodology gives both a theoretical and conceptual outline first. Next it dwells on the practical aspects of the research methodology utilized to analyse the research data. This directed project is based on a structured approach that makes it variable-independent in respect of learning outcomes. Thus the deductive research methodology approach adopted here would specifically delineate correlations based on premises. Exploratory research approach is characterised by three elements;

- a. Independence
- b. Deductive logic
- c. Pioneering approach

An independent approach to research essentially presumes that the writer has a greater degree of freedom in deciding the choice of variables and their scope of applications. Thus the writer would adopt a free style of inquiry that seeks to establish correlations among variables based on available premises of facts. Deductive logic or reasoning process in this research methodology would be functionality oriented. This directed project research methodology of this paper and the associated methodology are intertwined to produce an authoritative and original conclusions.

3.2. Secondary Research

Secondary data was collected through an extensive research effort conducted by literature review regarding adaptive reuse principals to develop decommissioned urban schools and to analyze and give recommendations for the development of such facilities. Various sources are used to implement the objective. The uses of secondary data were textbooks, professional journals, and various university publications to analyze and provide relievable and accurate inferences regarding adaptive reuse and reconstruction principals.

This theoretical secondary data sources are providing an extensive understandings in relating to adaptive reuse and its various implications of the directed project. Various textbooks and publications were used to build and draw a reliable theoretical inference and a background for the detailed study.

3.3 Case Study Method

The relevant case studies were studied to carry out the secondary data analysis in order to provide greater credibility to the findings of the directed project. Various case studies relating to the advantages of the feasibility of enlisting private enterprise in the reconstruction of decommissioned urban schools have been investigated for the better understanding of the analysis. Completed contract projects done in the US relating to reconstruction of schools were taken to analyze the developments. References were taken from most of the research material available in the field.

Theoretical analysis is much well facilitated than primary material which is basically limited to responses in the questions asked by the writer to different entities. The available literature has been analyzed with specific focus on the adaptive reuse of decommissioned urban schools. Also there is considerable reflection on the state and relevance of current research,

relevance web sites and official documents links have been attached to provide more credibility to the study and for further reference. After individual analysis, the different analyses would combine together and would help in compiling a list of all the identified issues and themes. Overall, this entire process ensures that the analytical process will be adequate and capture the most prevalent issues and themes as observed in the directed project.

3.4 Urban School Reconstruction and Model Development

Reconstruction of decommissioned urban schools plays a significant role in the development of the economy of the district. A case study in Boston, Ma. in 1997, has a good model to apply to Buffalo, NY. Boston faced challenges in decreasing student enrollment, decommissioned urban schools, building abandonment, lack of public housing and related land use and sought creative alternatives. Mayor Thomas Menino launched Boston's abandoned building survey. The program consisted of a survey of abandoned schools, commercial and residential properties then collaborating with private owners and developers to rehabilitate. One feasible use was to develop viable housing units. The success of this process awarded Boston with a best practice award in 2006 to recognized Boston's Abandoned Housing Strategy as the 'best practice' (Unknown, 2007). To support these findings, Peck writes that "communities should have learned from our downtown that when land is vacant it becomes more attractive to developers" (Peck, 2000). Not only can developers prosper from such programs, communities will also reap the benefit of more stable environments, a newly created tax base, and preventing of urban blight.

Another example used to develop the model is in Oakland, CA where "the Oakland Unified School District faced a massive eighty-five million dollar general fund budget deficit that required cutting its budget by twenty five percent. Administrative support services were cut

twelve percent, school-site funding by five percent and discretionary spending by sixteen percent” (Johnson, 2010). The school district also had to cut its total budget by 25 percent. The district necessitated by its financial crisis elected to close and consolidate some of its 103 schools. In lieu of the districts financial plight the Oakland schools Superintendent Tony Smith decided to reinvent the public school district to serve the general public through private development of decommissioned schools. His philosophy is simple; “schools will have to become more than just schools in order to survive” (Johnson, 2010). Using this philosophy as his template, Smith solicited assistance through private investors to develop long-term goals to combat urban blight in spite of district downsizing. “California has had very extensive experience in inviting private investors to take part in the reconstruction and reparation of schools (Palermo & Ponzini, 2010). Reinventing some school sites through privatization and adaptive reuse of decommissioned schools, jobs, training and social programs were developed. The district through Smith’s leadership was able to successfully partner with community-based organizations with private investors to support communities’ needs.

A final case used to develop the model is in Georgia and Nevada. These states have abandoned schools that are increasingly growing in numbers due to no funding available. Private funding options have been put forward by some school districts. Georgia and Nevada utilized the same principals of adaptive reuse of decommissioned schools as in Oakland. Private participation is not only motivated by profit but by acceptance of communities; a willingness to give back to a community to make it better through community programs and job creation.

Many states have current plans to use urban lands more efficiently thus going beyond the traditional system of land use planning and integrating policies and regulations as have been necessitated by sustainable development and sustainable communities. Thus urban spatial

planning assumes a very complex dimension against the backdrop of rising uncertainties in the external environment. It's here that education authorities need to revamp the existing archaic practice of utilizing scarce public funds for reconstruction of decommissioned urban schools. However, there is rarely a well planned suggestion put forward by those who claim the federal, state and district education authorities ought to take responsibility for the task. The theoretical and conceptual framework of the directed project would comprehensively delineate the diversity and complexity of the economic planning and design process to build up a case-specific contingency model on reconstruction of decommissioned urban schools (Kelly, 2006). The feasibility of enlisting private individuals or/and firms to reconstruct them can be investigated from a number of angles. In the first instance private participation in the reconstruction process would be more desirable if the legal, economic, social and architectural planning dimensions are addressed with priority and abandoned urban schools are restored accordingly.

Aesthetics of the urban locations could be improved due to the setting up of urban spatial planning projects. Preserving the architectural modernity should be of high priority. Due to the increase of traffic and the development of commercial infrastructure such as airports and offices there would be sound and air pollution. These undesirable developments could cause further problems in the process of designing and planning reconstruction projects. For example both in Kansas and Illinois many decommissioned schools were left to dilapidate despite the local populations' objections. Instead accepting schools were persuaded to accommodate pupils from the decommissioned schools (Peck, 2000). One of the major and immediate economic effects of the reconstruction work would be on the city by way of regular traffic to the reconstructed school.

3.5 Buffalo Model

An example of such an adaptive reuse project is Buffalo Public School (BPS) No. 60 as viewed in Figure 5.

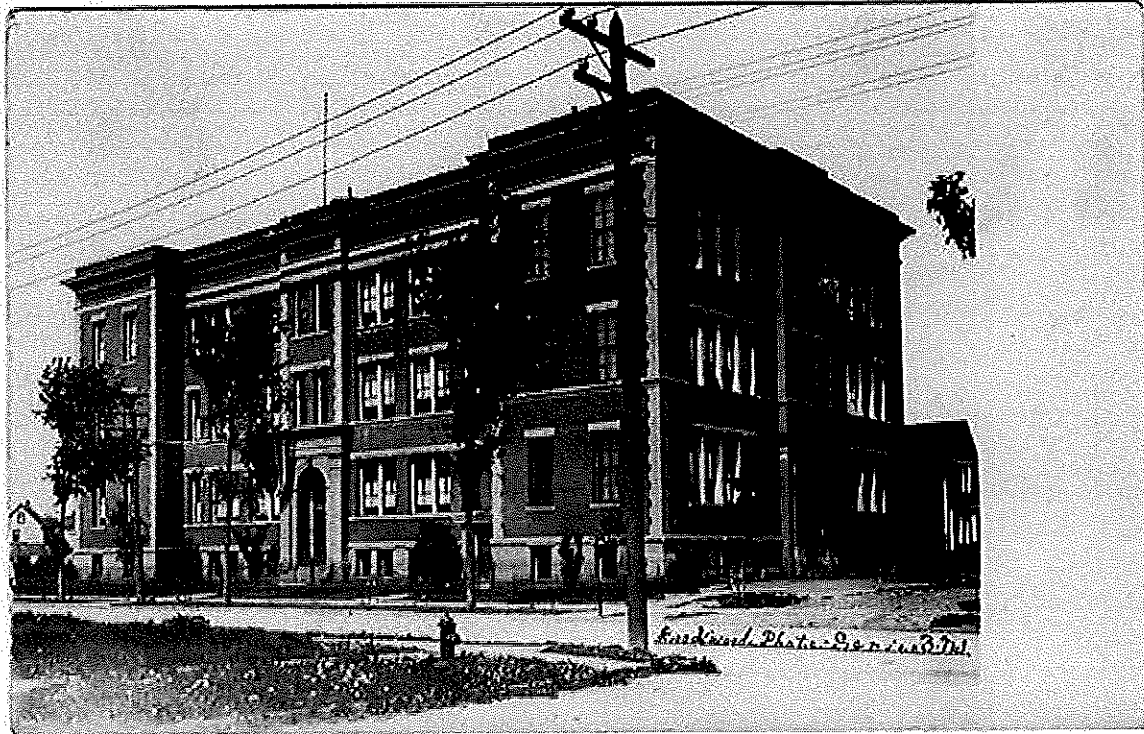


Figure 5: Buffalo Public School No. 60 (Private Source, 1896)

BPS #60 is a decommissioned school that will be altered in 2013 through a private non profit organization to be readapted into a new senior housing facility. In an interview, Darryl C. Towns, Commissioner/CEO of New York State Homes and Community Renewal stated,

"Riverside Apartments puts a vacant historic property back to use as a vibrant home for Buffalo residents that will spark growth and revitalize the Riverside neighborhood.

Awards made through Governor Cuomo's Regional Economic Development Councils are stimulating local economies throughout New York as more and more projects come to life around the state".

The Riverside Apartments will be constructed to transform the vacant, historic Buffalo Public School No. 60 in Riverside neighborhood into affordable, energy-efficient apartments for low-income people and those with special needs. Forty five units will house NYS Office of Mental Health consumers and will receive ongoing support services creating public sector jobs. This becomes available due to private funding. Buffalo Mayor Byron Brown said,

"This \$20 million renovation will not only provide much needed housing for Riverside residents, but will also create many good construction jobs for our community. We worked closely with residents in the neighborhood to secure \$1.5 million in city HOME funds, enabling this important affordable housing project, located in the heart of a vibrant residential neighborhood, to leverage the additional funding needed to move forward, including an award from New York State Homes and Community Renewal and Governor Cuomo's Western New York Regional Economic Development Council" (The New NY Works of Western New York (2012).

The project will create affordable housing, while creating over 350 local construction jobs and 40 new, permanent jobs. The funds awarded by Western New York Regional Economic Development Council (WNYREDC) will generate more than \$21 million in economic activity for the region.

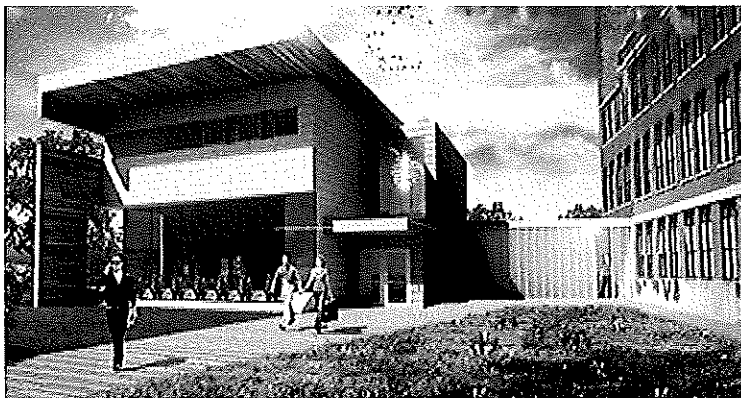


Figure 6: Rendering of School Conversion Project in Riverside, (DePaul Properties, 2012)

The transformation of former PS #60 into affordable housing brings needed housing along with jobs and economic development into a neighborhood that has a committed and active community. Bringing this beautiful building back to life in this community is an excellent example of reinvestment and commitment to city of Buffalo and New Yorkers everywhere. Last year, a total of \$785 million was awarded through the Consolidated Funding Application (CFA) for job creation and community development projects consistent with each region's strategic plans. As part of that process, Riverside Apartments was awarded \$3.25 million from New York State Homes and Community Renewal. In addition to an award from the WNYREDC, funding is provided by the New York State Office of Mental Health, Community Preservation Corporation, and the City of Buffalo.

Buffalo North District Council Member Joseph Golombek, Jr. said in an interview, "It is projects such as these that speak to the continued viability and future resurgence of our neighborhood. My hope is that a project such as this will act as a catalyst for future developments."

Mary Ann Kedron, President of Black Rock Riverside Alliance said,

"School 60 has been an important part of the Riverside Community for over 100 years. We are so pleased that through our hard work we could make others see this beautiful building as an ongoing community asset. We could not be more pleased that this building will once again house individuals from our community in a new progressive way. We have learned that it takes strong partnerships to build strong communities."

Construction efforts such as the one described in Buffalo has marked interactions with other areas in the economy as the multiplier effect acts in setting off a chain reaction of new developments across a number of sectors. The construction industry is often utilized as a tool by

district authorities to redefine contours of local development. The environment is of paramount importance in attaining sustainability. Unfortunately, schools in impoverished neighborhoods are often part of the problem rather than part of the solution. As Dupper and Poertner (1997) note, too often these schools have become as impoverished as their surrounding communities. According to Tam, Tam, & Shen (2002) setting up of new infrastructure has a drastic impact on the environment. The economic impact on society can be saved and a decreases the carbon footprint of rebuilding. Grants are available to provide green solutions or historic preservations that can revitalize the communities.

Another part of the Buffalo model was to keep the historic fabric of the facility. Paul Byard, the director of the Historic Preservation program and Columbia Graduate of Architecture, Preservation and Planning remarks, “You are putting it back so that the restored building will say something the original doesn’t say. After all, you are restoring in a different time and in a different way that addresses different conditions” (Stephens, 2005). The following quote states the essence of historical adaptive reuse. “Many historic restorations often involve an amalgam of strategies’ aims at preserving the past. Restoration may be coupled with extensive remodeling, renovation, adaptive reuse or adding onto the historic artifact” (Stephens, 2005). Developers must keep in mind that communities involvement in the development and reuse of decommissioned schools ensure that the proper project matches the communities’ revitalization goals (Stearman, 2010). Communities, spatial designers and government agencies should all have a concern with the commitment to maintain and preserve the characteristics of historic structures.

Another factor in the Buffalo model is to include community programs that link a number of services to schools, family resource centers and the private developers. The essence of a

family resource center facilitated by private funding is the pursuit of common goals with shared resources to potentially create new community hubs (Dupper & Poertner, 1997). The evolving strategic focus on the outcomes related to reconstructing abandoned schools in urban areas will outline in good measure the type of accommodation that enhances the land use performance paradigm of the locality, while location, the role of planners and other variables have a very clear impact on the land use planning. A dynamic feature of this aspect of the urban spatial planning is the particular locality's ability or inability to add value to existing land capability. Thus, it consists of a set of architectural planning activities along with different players and agencies which would drive the sustainable development in the area. In fact spatial and architectural planning in urban areas cannot be isolated from the public policies. They are entwined as an important instrument to identify market failures, minimize the negative externalities and maximize the positive externalities when providing the public goods and infrastructure facilities to the community.

4. Conclusions and Recommendations

4.1 Findings

Learning outcomes of this directed project are equally diverse and complex. This research effort has produced a number of learning outcomes. Many of these outcomes have been derived from the Buffalo model that can be utilized throughout the US. Commonalities through literature review and writers experience have drawn the following findings;

1. The participation of private enterprise in an adaptive reuse of decommissioned urban schools is effective in benefiting communities through the reduction of urban blight.
2. Privatization has provided local organizational settings the resources to potentially become new community hubs.
3. The strategically relevant research objectives of establishing correlations and regressions among endogenous and exogenous variables in the process of decommissioned urban school reconstruction have been fairly highly successful. Through private enterprise, governments and community concerns for modernization and diversification, school reconstruction development programs have significantly been proved to be positive.
4. The research has found that there is a substantial amount of evidence to support the fact that many school boards in a good number of states across the US have been willing to shift to privatization to lessen the districts fiscal burden.
5. Coupled with the above, education authorities past philosophy regarding private members sitting on school boards would curtail their decision making freedom has been reevaluated. School boards have come to the realization that through limited funds private investment is critical in the reconstruction and adaptive reuse efforts.

6. Research has demonstrated that the current level of private investment participation in the process of reconstruction of decommissioned schools is increasing. One of the stronger reasons for this transformation are the district and local education authorities' reevaluation of current policy and willingness to create partnerships to hand over decommissioned schools to private developers who would ultimately be entrusted with the task for running them for profit thereby benefiting local communities.
7. The architects and or design professionals effort for a realistic assessment of school reconstruction by private investors is hopefully viable and realizable against the backdrop of policy design, planning and execution at the district level. The ongoing reconstruction projects have particularly been focused on how best individual government or city authorities are able to conceptualize and implement projects with far-reaching consequences for the local population. This strategically significant learning outcome has obviously been associated with the private investors' ability to regenerate declining city centers with private equity participation.
8. Current reconstruction efforts are frustrated to a certain extent by a lack of coherent policy objectives from authorities. Due to fiscal problems facing most declining school districts, privatization for adaptive reuse programs is a viable option to prevent the decommissioning of schools.
9. Finally, the feasibility enlisting private investment in the reconstruction of decommissioned urban schools as in the case study presented in Buffalo, the fate of decommissioned urban schools is determined by the federal, state and local

authorities' willingness to define the necessary criteria for private involvement. Due to finite resources, privatization has become a viable sustainable alternative.

4.2 Recommendations

The following recommendations have been carefully weighed by this researcher against the backdrop of the reconstruction of abandoned schools.

- Private investment in education in general and in the reconstruction of decommissioned urban schools in particular requires a well developed community and district level plan for rehabilitation of all decommissioned schools in the district so that all stakeholders would be involved in the process of reconstruction.
- Community leaders and education authorities ought to work out a proper tendering process which in conformance with the community and education objectives would encourage private investors to be involved in reconstruction because the objectives are clear.
- Adequate representation for private investors on the decision making bodies like school boards must be adapted to diversify decision making policies.
- Such a guarantee needs to be worked out in conformance with the existing framework of private equity participation in the reconstruction of decommissioned schools.
- The existing structural bottlenecks such as the overarching district education administrative system must be overhauled to produce a more flexible and decentralized tendering process.
- The current reconstruction standards must be redefined so that architectural dimensions become more amenable to district level priorities and requirements.

- The existing plans for reconstruction of decommissioned urban schools must be revamped to include a system of rules and regulations that would encourage a higher level of private equity investment in the education sphere.
- While private participation in the reconstruction of schools has been limited there has been an increasing awareness among people for a city regenerative approach. However this is not feasible if district authorities fail to identify areas of investment and define the limits of private equity participation.
- Strategic architectural design and planning require a greater amount of infrastructure related investment before a particular project is initiated. This requires a huge process of resource mobilization both within the locality and outside.
- District or local level architectural design and planning feasibility reports must be prepared with the assistance of architectural, engineering, and urban planning firms.
- Financial planning and management of construction projects ought to be far more convincingly stronger than what it is now as in the case of many states. Persistent cost overruns have become a recurrent feature of school reconstruction and development projects in the US. However such cost overruns can be prevented by adopting proper costing and budgeting practices along with a tight control over contractor delivery schedules.
- Finally freehold properties are few and far between. Freehold property means that the owner has complete and absolute ownership of the land and all buildings that stand on the land and a freeholder owns the building and land outright and has control over its maintenance and day-to-day running. School boards, if reluctant to give up property in urban settings may prefer Leaseholds agreement rather than provide private investors

with freehold agreements. Leaseholds often discourage reconstruction projects since private developers are limited in negotiations with landowners/school boards. A leaseholder only purchases the right to a property for a set time. Leaseholders usually have to pay ground rent annually and yearly service charges typically unsettling to private investors making a large capital improvement on property they do not own or control in other words, limited and controlled profitability with too much risk at stake. School boards must work with private developers and remove the constraints of Leasehold agreements that will promote and encourage private investment.

4.3 Conclusion

Urban planning and the reconstruction of decommissioned urban schools have been subject to a series of changes and their process of transformation has come from a number of sources. For example from post-Fordism to regulationist approaches, they have brought about changes in the regeneration policies and environments. All these changes are based on the fast evolving architectural design and planning environment. Governments, communities and local authorities have played a crucial role in determining policy direction of decommissioned school reconstruction to such an extent that any regulationist approach tends to influence not only the decision making approaches but also the policy implementation process. Thus the need for the private investor's involvement in such projects has become a policy priority in the US now.

Private investment in reconstructing decommissioned schools in urban city centers and selectivity in urban planning have brought about assessable outcomes such as social and economic benefits with the creation of new community hubs. The current emphasis on private participation in reconstruction of abandoned urban schools is becoming increasing well known throughout the US. For instance it has been pointed out that parameters of urban city planning in

general and school reconstruction design and planning in particular have been aligned with the private investment. Through lack of financial recourses, education authorities have perpetuated an increase in private participation in a joint effort to reconstruction or through adaptive reuse efforts, to reinstate urban schools in the pursuit of salvaging communities. It must be noted that within the local district level context the federal, state and local authorities have infused an ideological variance into the urban planning process. This ideological shift has both a social and an economic influence on the ultimate outcomes of communities. For example the current debate on the regeneration policy in urban centers has been focused on setting a trend in urban planning efforts.

Urban schools have been abandoned for a variety of reasons. For instance the federal and state administrations have repeatedly shown their reluctance to renovate some urban schools because such investment is superfluous when there are other better schools within the same locality. Thus as long as the authorities believe that accepting schools would be able to solve the problem, it is unlikely that decommissioned schools would decrease in number. Private investors have been enlisted by education authorities to either renovate decommissioned schools or to create new facilities through adaptive reuse in urban city centers to counteract and solve their dilemma of accepting schools in an attempt to prevent urban blight and preserve communities.

Despite this predicament there is a substantial amount of self motivation on the part of stakeholders to enlist the support of private investors. Spiraling costs, industry related shortcomings, management process related variances and co-variances and positive and negative correlations between and among complex and diverse variables in an evolutionary process of the contract management environment in the US have all played a role in this process.

Strategic planning and design processes have been adopted as a precondition for efficient execution of construction projects by communities and district education authorities. Such planning must also be augmented by a desire to enlist private equity participation. As referenced earlier in this directed project, local education authorities have been compelled to give up decommissioned school reconstruction projects due to a lack of funds. While such abandonment is well underlined by subsequent transfer of students to accepting schools, there is very rarely a city regeneration effort to reconstruct these schools without private participation.

The urban school reconstruction process in the construction industry is inevitably influenced by economics. Therefore what is noticeable in this directed project is the fact that individual investors within the industry have a tendency to identify certain projects as reasonably profitable and others not. Communities and education authorities have to design and implement a series of measures including architectural design and planning standards to encourage private inventors' to be directly involved in the reconstruction or adaptive reuse of decommissioned schools in the US. Without private enterprise and infusion of private investment, too often these schools have become as impoverished as their surrounding communities. Private investment, as noted in Buffalo and other areas in the US, private investment in reconstruction of decommissioned urban schools is effective in benefiting communities through the reduction of urban blight.

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