

# **STRATEGIC INFRASTRUCTURE REINVESTMENT POLICY SUSTAINABLE INFRASTRUCTURE DEVELOPMENT POLICY OPTIONS**

## **SUB COMMITTEE FINAL REPORT**

### **1.0 INTRODUCTION**

#### **1.1 Context**

In 1994, the Manitoba Round Table on Environment and Economy developed principles and guidelines for sustainable development. These guidelines and principles form the basis of sustainable infrastructure as defined within the Strategic Infrastructure Reinvestment Policy. Within this context, policy options addressing sustainable development have been proposed with the intent of having a positive long term affect on infrastructure deterioration within the City of Winnipeg as well as providing guidelines and assessment criteria for the consideration of new infrastructure proposals.

#### **1.2 Interests of Others**

Consideration of sustainable infrastructure alternatives is not limited to the City of Winnipeg. Decisions made in Winnipeg have impact on the Capital region and funding is often required from senior levels of government in order to have a significant long term impact on the City. There must be a recognition of other stakeholders goals, plans and interests in the consideration and assessment of projects.

#### **1.3 Planning framework**

Sustainable infrastructure plans and projects cannot be considered in isolation. They are a means of taking advantage of opportunities to address problems or deficiencies that currently exist or are projected to be a future issue. In assessing project ideas, other planning tools such as Plan Winnipeg, Council Priorities, the Corporate Plan and Departmental Business Plans must be considered. Similarly, sustainability considerations must be recognized in the Capital budget planning process.

#### **1.4 Social Considerations**

The affects of infrastructure renewal go beyond the physical benefits derived by a community. Projects often offer an opportunity for long term social impacts, economic development, employment, environmental benefits and enhanced community spirit. Analysis of infrastructure options must take into account the full range of impacts including so called “soft” benefits that can have a significant long term affect on a community.

## **2.0 SUSTAINABLE INFRASTRUCTURE DEVELOPMENT POLICY OPTIONS REVIEW**

Policy options that result in sustainable solutions to infrastructure deterioration include:

i. Employment Training Program

Cost shared infrastructure renewal programs can be targeted to stimulate employment and provide long term job skills to target populations while at the same time replacing deteriorated infrastructure. The 1994 Canada Infrastructure Works Program demonstrated that these goals can be achieved. Future programs can further improve infrastructure while addressing job training and employment strategies.

ii. Capital Region Infrastructure Strategy

Development outside the City boundaries has implications for Winnipeg in a similar way that development in Winnipeg affects outlying areas. Infrastructure investments must take into consideration the needs of Capital region through effective strategic planning. The City must be an active proponent of all aspects of development, expansion, land use and infrastructure planning as it relates to the Capital Region Review Committee and its strategy to support sustainable infrastructure development in the region.

iii. Cost Benefit Analysis

Construction of new facilities versus rehabilitation of existing facilities is critical in considering sustainability of infrastructure options. Cost / benefit analysis tools are required that can establish the need and sustainability of new infrastructure.

iv. Sustainable Infrastructure Development Policy

Infrastructure decisions should be premised upon sustainability. The Manitoba Round Table on the Environment and Economy (MRTEE) adopted a set of principles and guidelines for sustainable development. Similarly, the SIRP Task Force identified 10 Principles for Sustainable Infrastructure Development. Together these principles and guidelines form the basis for long term sustainable infrastructure decisions.

### **3.0 EMPLOYMENT TRAINING PROGRAM**

#### **3.1 Infrastructure Renewal Demonstration Project**

In 1994 the City of Winnipeg participated in an Infrastructure Renewal Demonstration Project. Results of the project as reported in a 1995 Social Services Department report were quite positive when taken within the context of the project itself. The major failure was the inability to sustain the momentum generated by the program. Participants demonstrated a healthy work ethic that was a key to the program's success. Follow up interviews with participants revealed that the greatest disappointment was the lack of future job opportunities and no meaningful commitment to further skill development training.

Other jointly funded employment programs have provided the opportunity for ongoing employment (full time and seasonal) as well as skill enhancement. Most notably, the joint City / Province Dutch Elm Disease Program has been operational for a number of years providing repeated seasonal employment to participants, some of whom have secured full time positions in other areas of parks maintenance.

From the City's perspective the benefits of investing in an infrastructure renewal program must be carefully considered. There is a demonstrated need for infrastructure renewal in the city. The long term benefit of physical improvements related to such a program must be weighed against the cost of the City's contribution. The employment benefits derived from the 1994 demonstration project would not be as easily measurable now that the City has turned over Social Assistance to the Province. The City's proportionate share of a joint program should be carefully considered in light of the diminished direct benefit of the employment factor.

To propose to senior levels of government the delivery of infrastructure programs is reasonable if the cost benefit to the City is positive. The physical improvement of infrastructure has a positive long term impact. Attrition in the construction industry is projected to be high in upcoming years. Training of replacement workers is critical to sustaining a reasonable skill level within the industry. On the job skill enhancement to supplement technical training will ensure a qualified future workforce. The 1994 Canada Infrastructure Works Program demonstrated that these goals are achievable. Future programs can further improve infrastructure while addressing job training and employment strategies. If employment creation is a major consideration, target groups should be identified. Given the projected increase in the Aboriginal population in Winnipeg, this would be a priority group to consider. Going in, there should be a strategy for continued employment and further skill training for individuals who have

demonstrated the desire and capability to be productive in the workforce.

### 3.2 Critical Success Factors

- negotiate an acceptable cost sharing arrangement with one or both senior levels of government
- have meaningful infrastructure work suited to the skill level of the participants of the program
- have a plan in place to ensure a high probability of ongoing employment for participants which will capitalize on their skill acquisition
- arrange for further training opportunities that will provide enhanced job skills leading to longer term employment
- target unemployed sectors of the community that have the greatest opportunity to succeed in the program and over the long term as well as relieve the social service system
- explore opportunities for an Aboriginal target group program

### 3.3 Recommendation

That the City of Winnipeg, in partnership with the Province of Manitoba, pursue an aggressive lobby of the Federal Government to fund infrastructure renewal programs that focus in part on skill training for target groups and individuals with the intent of providing long term employment.

## **4.0 CAPITAL REGION INFRASTRUCTURE STRATEGY**

### 4.1 Capital Region Review

The Capital Region Review Panel Discussion Document speaks to the importance of environmentally responsible and sustainable infrastructure. Land use planning for Winnipeg and municipalities immediately surrounding the City that make up the Capital region must be integrated to ensure compatibility, avoid duplication and unintentional competition and capitalize on opportunity. The Province assumes planning authority through the City of Winnipeg Act and ultimately Plan Winnipeg for the City and through The Planning Act for municipalities outside the City. Cooperative land use planning is encouraged through the formation of planning districts. However, no formal mechanism exists for planning outside of the optional planning districts. This can create problems for the city in long term planning efforts.

Recent trends in development, in particular housing, has seen a migration to municipalities outside Winnipeg. People are making lifestyle choices that are drawing them out of the City for reasons of rural values, lower taxes, economic value and

perceived safety. Others for reasons of convenience, accessibility and level of service choose to live within the city. Infrastructure decisions must take into consideration these choices being made both by individuals and industry.

Sustainable development can be maximized if integrated planning is achieved and long term costs and environmental impacts are minimized to the benefit of all concerned.

Similarly, service levels vary within the Capital region. As development occurs, the pressure for improved services increases. Services taken for granted in Winnipeg (water supply; waste collection / disposal; public transportation; emergency services; recreation / sport facilities; etc.) are either not available or not fully developed in outlying areas. This is especially true of services that require substantial tax base support for capital construction or ongoing operation and maintenance.

The Capital Region Study focuses on sustainable growth and development that benefits the whole region. Some services can more appropriately and efficiently be delivered by individual jurisdictions. Some, however should be considered from an intermunicipal or regional base in order to reduce overall cost and provide a more consistent and higher quality service to the user.

In order to achieve improved infrastructure with a focus on sustainability and environmental considerations, intermunicipal cooperation and partnerships need to occur. The Capital Region Committee has a mandate in this regard and needs guidance, support and encouragement from the City of Winnipeg.

#### 4.2 Critical Success Factors

- Continued active representation on the Capital Region Committee by the City of Winnipeg
- Integrated planning with municipalities to maximize infrastructure efficiencies
- Assess infrastructure decisions against initial and long term costs and environmental impacts
- Continued Provincial participation in infrastructure issue identification and resolution in the Capital Region

#### 4.3 Recommendation

That City representatives on the Capital Region Committee and Committee of Mayors and Reeves continue to monitor implementation of strategies as put forward in the Capital Region Review and emphasize the importance of integrated infrastructure planning with a focus on long term cost effectiveness and environmental impacts.

## **5.0 NEW INFRASTRUCTURE COST / BENEFIT ANALYSIS**

### **5.1 Cost / Benefit Analysis Considerations**

New infrastructure plans and projects must be carefully considered within the context of their sustainability including initial capital cost, life expectancy, ongoing operation and preventative maintenance costs. These factors must be weighed against other alternatives to new infrastructure such as rehabilitation of existing, alternative methods of delivering the service, relative priority in comparison to other needs, environmental impacts, social demands and economic impacts. Clearly, decisions made that can have multi million dollar impacts on present and future budgets must be based on a clear understanding and proper evaluation of options.

New infrastructure decisions cannot be made in isolation. They are generally part of a greater corporate plan or direction and assessment factors must take into account other plans and projects that serve the City. There must, however be allowance for reacting quickly to unanticipated problems and the flexibility to take advantage of opportunities.

The first and possibly most critical step in an effective cost / benefit analysis is a clear understanding of the problem that needs to be solved followed by a range of options that can be considered and compared. Again, options must consider a range of possibilities including expansion or reengineering of existing capacities; alternative and new technologies; own / lease options; levelling peaks and reducing demand. Costs and benefits can not always be expressed in dollar or other quantifiable terms. Social factors such as customer service expectations, health and environment perceptions and aesthetic considerations must all be taken into account. This makes a truly objective assessment impossible.

Economic analysis must be weighed against or at very least be considered along with subjective criteria. In addition, the “hard” needs of roads, bridges, sewer and water infrastructure and industry requirements must be weighed against “softer” needs such as parks, recreational and cultural amenities and other quality of life considerations.

New infrastructure cost benefit analysis cannot be carried out in isolation of maintenance cost benefit. Infrastructure replacement or new infrastructure should only be considered after a thorough analysis of the life expectancy, upgrading costs and expansion capacity of present infrastructure is assessed. Analysis of new infrastructure becomes an extension of a maintenance / upgrading / expansion analysis.

## 5.2 Critical Success Factors

- Consider new infrastructure only after assessment of other less costly options
- Social, customer service and aesthetic considerations must be part of the assessment process
- Environmental factors, both real and perceived must be considered
- Integrate maintenance analysis with new infrastructure analysis

## 5.3 Recommendation

That cost/benefit analysis methods employed by other organizations and jurisdictions be assessed and that a single cost/benefit analysis tool be adopted for use by the City of Winnipeg to be used in conjunction with Life Cycle Costing in considering new infrastructure.

## **6.0 SUSTAINABLE INFRASTRUCTURE DEVELOPMENT POLICY**

Contained within the SIRP report adopted by Council on July 27, 1998 is the Manitoba Round Table on Environment and Economy Principles and Guidelines for Sustainable Development. Also included in the report is the "SIRP Task Force - 10 Principles for Sustainable Infrastructure Development". By virtue of Council adopting the SIRP report, the referenced principles and guidelines have been endorsed by the City. No further action is required.

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