Case-in-Point 2023

BUILDING SUSTAINABILITY INTO INDUSTRIAL AREAS

Encouraging Sustainable Development Through Zoning in CentrePort

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Abstract

Inland ports play an important role in the development of economies, including the provision of both direct and indirect job opportunities, and economic growth (Field, n.d.; Wu et al., 2022). Despite the benefits of inland ports, their development has impacts on climate change, wellbeing, land uses and ecosystems, such as loss of biodiversity, pollution and habitat destruction (Ansah et al., 2020, p.8). One way that local governments can build in mitigative measures is by requiring new development to incorporate sustainable development practices in their site and building designs. CentrePort is North America's largest tri-modal (rail, truck and air cargo) inland port with approximately 20,000 acres of industrial land (CentrePort Canada, n.d.). Within CentrePort, the Inland Port Special Planning Area's (IPSPA) planning framework has encouraged various sustainable development practices in site and building design such as energy efficiency features, active transportation modes and heat island reduction strategies. This case-in-point reports on how the IPSPA planning framework encourages sustainable development, how sustainable development has been incorporated into the development of CentrePort, and points to some initial successes, challenges, and opportunities for improvement.

1.0 Background & Context

Established in 2008, CentrePort is an inland port situated partly within the boundaries of Winnipeg (CentrePort South) and partly in the Rural Municipality of Rosser (CentrePort North; Inland Port Special Planning Area). Located at the longitudinal center of Canada and only an hour's drive to the north of the United States, CentrePort is the biggest inland port and Foreign Trade Zone in North America that offers three modes of transportation (CentrePort Canada, n.d.) including Canadian National, Canadian Pacific and BNSF railways, a 24/7 cargo airport and an international trucking hub (Province of Manitoba, n.d.). The land in CentrePort is primarily used for industrial and commercial purposes, including manufacturing, distribution, warehousing, and transportation. Figure 1 represents the development and land use in the inland port.

Figure 1: Land Use and Development Map of CentrePort showing current and proposed development

In 2014, the Rural Municipality of Rosser adopted a secondary plan and zoning by-law for the portion of the inland port located within their municipality. The new planning framework included requirements to incorporate sustainable development practices at the planning and development stages of development. In 2016, CentrePort North was designated as a special planning area under Manitoba's Planning Act. The Special Planning Area Regulation (49/2016) and the Inland Port Special Planning Area Regulation (MR 48/2016) were adopted in 2016. The regulations set out procedural and administrative matters, and the planning framework (development plan and zoning by-law), respectively, for the portion of the inland port located in the RM of Rosser. All three levels of government play a role in regulating land use in CentrePort.

At the provincial level, planning and development within the inland port is regulated and guided by the Inland Port Special Planning Area regulation (MR 48/201). The Minister of Municipal Relations is responsible for the adoption or amendment of development plans and zoning by-laws and all other by-laws respecting land use in a special planning area, as well as the administration and enforcement of such by-laws, and provision of general advisory services related to land use planning. Under section 12.2 (1) of The Planning Act, the special planning authority holds hearings to consider the adoption of, or an amendment to, a development plan by-law, a secondary plan by-law and subdivision applications. After holding a hearing about proposals, the special planning area authority mut provide the Minister with a report. The IPSPA Board is made up of representatives from the RM of Rosser, City of Winnipeg, CentrePort Canada Inc., Winnipeg Airports Authority, and the Province of Manitoba.

Rosser and the South Interlake Planning District are responsible for a number of local government functions including reviewing and issuing permits and negotiating development agreements. The Federal

Government, through the Winnipeg Airports Authority, ensures nearby development is not incompatible with safe and efficient airport operations (Winnipeg Airports Authority, 2020). CentrePort Canada Inc. which was established in 2008 by the CentrePort Canada Act also plays a role in leading development of, investment in, and promotion of the inland port.

2.0 Facts of the Case

The inland port special planning area development plan establishes sustainability as a priority for the plan area. The objective of the development plan on sustainability is "to develop the plan area as a model area for sustainability and as an area for encouraging sustainable practices in site and building design, and to demonstrate leadership and innovation in energy conservation, ecological protection and sustainable transportation" (Province of Manitoba, 2021, p.5). Also, section 1.3 of the inland port special planning area development plan contains environmental protection policies that seek to minimize the impact of development on natural waterways, riparian habitats, ecologically sensitive land, and heritage resources within the inland port area.

In addition, the regulation aims to ensure that development activities are conducted in a way that preserves and enhances the natural features of the planning area, rather than causing harm or degradation (Province of Manitoba, 2021, p.5). The policy on environmental protection focuses on minimizing the impact on areas that have ecological significance, respecting, protecting, and preserving heritage sites located in the inland port such as Little Mountain Park and supporting proposed developments that have impacts with a natural resource management plan.

> *Planned as a complete community, the overarching vision for the area is to: encourage sustainable and innovative building practices; protect ecological areas; implement sustainable transportation options.....*
>
> *-CentrePort Canada Inc. (n.d)*

Subdivisions and planning applications that require an amendment to the inland port zoning by-law may be approved if the proposed development achieves at least five points from one, or more, of the sustainable development (SD) measures set out in Table 3 of the inland port special planning area zoning by-law. The SD measures include measures such as active transportation, energy efficiency, water efficient landscaping, green infrastructure, heat island reduction, and minimizing pollution.

Active transportation is encouraged in CentrePort through various measures including an active transportation corridor, bike paths and amenities, and walkable streets, to promote alternative modes of transportation in the inland port. To ensure these measures are implemented, construction plans are required to show bike storage, parking, and paths, and location of proposed developments along walkable streets and active transportation corridors.

Planning frameworks in the inland port support **energy efficiency** by requiring developers to enroll in the Canadian Energy Start program, provide proof that new developments will have 10% improvement over Manitoba Energy code standard, demonstrate compliance with Green Building

rating system, produce green products, qualify for hydro smart commercial and industrial incentives, and affirm a feasibility study that show on-site solar and wind energy generation.

Green infrastructure is incorporated into the inland port through green buildings, industries, roofs, and landscaping features. Development proposals submitted for approval must include proof of eligibility for certification by Green Building Council of Canada, show vegetated roof on 50% minimum of total roof area, and landscaping plans showing xeriscape plant materials.

Heat island reduction is another sustainable measure that has been set out in CentrePort to regulate the temperatures in the area. Permeable pavements and vegetation are encouraged in areas with hard surfaces such as sidewalks, parking lots, driveways, and plazas to help in reducing the impacts of heat.

Green transport is encouraged in the inland port through promoting the use of rail in transporting raw and finished goods. Developers with proposals to create developments that will be used for activities that involve the use of railway score extra points that will help them achieve the minimum points for their proposals to satisfy SD provisions.


Active Transportation


Energy Efficiency


Green Infrastructure


Green Transport


Heat Island Reduction

In relation to section 12.2(5) of The Planning Act, IPSPA is required to act in accordance with the applicable regulations, which includes ensuring land use planning proposals such as rezonings and subdivisions presented by developers incorporate sustainable practices. Applications involving subdivisions and zoning amendments according to the inland port planning framework may only be approved if the proposed development achieves at least five points or more of the SD measures.

Development and building permits in CentrePort North are reviewed and issued by the South Interlake Planning District (SIPD). In addition to standard application requirements, permit applications in the inland port must include landscaping and documentation demonstrating compliance with a minimum of five (5) points on the Sustainable Development Measures Checklist. The sustainable development measures are integrated into the development of CentrePort through a points system prescribed under the inland port special planning area zoning by-law. To ensure developers easily understand and apply the SD measures, a checklist is available on the Province's CentrePort web page that elaborates on what documentation is required for verification of sustainable measures.

3.0 Outcomes

This section includes the successes, challenges, and opportunities of incorporating sustainable development measures (SD measures) into CentrePort.

3.1 Successes

Incorporating sustainable development measures in CentrePort has led to numerous outcomes which are evident in the developments that have been completed in the inland port. Completed developments such as Brookport Business Park, National

Research Council of Canada (Figure 2), Brookport Industrial Park and Transolutions Truck Centre (Figure 3) have incorporated landscaping around their buildings which contribute to stormwater management and reduction in urban heat island in the area (CentrePort Canada, n.d.).

Figure 2: Landscaping around the National Research Council of Canada Building in CentrePort

Figure 3: Transolutions Truck Centre in CentrePort

Additionally, a number of new buildings in CentrePort have qualified for Energy Manitoba Performance Path and Energy Modelling Programs. This means that these buildings have met the energy performance standards set by the province, which helps reduce energy consumption and carbon emissions. In addition, bicycle amenities have been incorporated into proposals expected to be constructed in the inland port. This will encourage cycling as a mode of transportation, reduce greenhouse gas emissions from vehicles and promote healthier lifestyles among workers in the area.

Furthermore, the construction of the new rail park is expected to bring in a number of operations that rely heavily on rail. The development of the rail park will enhance the usage of rail for transporting goods in the inland port thereby reducing transportation by trucks, traffic congestion and greenhouse gas emissions.

An active transportation path has been established along Red Fife Road (Figure 4), with the intention to eventually extend it further to the west. This path is designed to encourage and facilitate sustainable modes of transportation such as walking and cycling. It provides a safe and dedicated route for individuals who prefer to travel using these modes, and reduces the reliance on cars and other motor vehicles. In addition to the path along Red Fife, a walking path has been constructed along Brookside Boulevard leading towards a coffee shop. This path serves as a convenient and enjoyable way for people to access the coffee shop on foot, rather than having to rely on driving or other modes of transportation. This path may be particularly beneficial for individuals working in the CentrePort area, providing a nearby and accessible destination for a quick coffee break or lunchtime stroll.

To ensure native plant species are used in the area to support water efficient landscaping, applicants have worked with the RM of Rosser to identify plants with lower watering needs. By identifying and incorporating native plants into landscaping plans, applicants may be able to conserve water resources and promote sustainable practices in CentrePort. Other outcomes include the potential attraction of green businesses who produce goods that have less impact on the environment and human health.

Figure 4: Active transportation path along the National Research Council of Canada on Red Fife Roadw

3.2 Challenges and Opportunities

Certain SD measures are better suited to be addressed at the larger plan area level, rather than on an individual lot level during the development permit process. For instance, plans for sidewalks and active transportation corridors can have a significant impact on the overall livability and sustainability of an area. Therefore, it is important to consider these measures holistically, taking into account the needs of the entire community and the surrounding environment.

Additionally, some of the SD measures have seen less uptake than others. For example, the implementation of green roofs and energy performance benchmarking and disclosure have been slower than expected. While these measures have the potential to greatly improve the sustainability of buildings and the environment, there may be various reasons for the slower uptake. One of such reasons could be associated with the number of options available which allows applicants to be flexible.

The effectiveness of some of the measures that are applicable to nodes/walkable streets cannot be fully assessed. This is due to the fact that none of these areas have been developed yet. However, it is anticipated that these measures will be implemented as the inland port continues to expand and develop.

The map showing active transportation corridors have not been updated since the regulation was enacted in 2016. This challenge is due to changes in road upgrade plans which might potentially influence how the corridors will be constructed. It is important to identify the specific changes that have taken place in the road upgrades and update the map of the active transportation corridors.

Anecdotally, some applicants appear interested in being able to utilize alternative sustainable development measures not currently listed in the regulation, which is currently not permitted. Allowing the implementation of alternative SD measures would provide greater flexibility to applicants. However, this option may create at the same

time greater complexity as the effectiveness or suitability of these alternative SD measures would have to be verified on a case-by-case basis.

One of the overarching goals of the inland port is to implement sustainable transportation options (CentrePort Canada, n.d.). Although the majority of the workforce live in the City of Winnipeg (Shindico, n.d.), there is currently no access to public transit in the area. This means workers have to drive everyday to the area to work. Transit services could be extended into the area to encourage people to use public transportation instead of driving. Moreover, instead of only allowing developers to incorporate bike paths into their development proposals, an Active Transportation Master Plan could be developed to guide the construction of paths at a broader scale. This will allow developers to know where bike paths should be situated and incorporate them into development applications.

4.0 Lessons Learned

The IPSPA Regulation requires development proposals to include sustainable development measures such as green roofs and active transportation components (bike paths, bike storage and walkable streets). While this is important for enhancing sustainability, the measures imposed by the regulation limits the ability of developers to adopt other sustainable practices that could contribute to sustainable development. Therefore, provisions could be made for the SD measures in the regulation to be flexible to allow the adoption of other sustainable practices in the inland port area.

Under the IPSPA Regulation - Schedule B s. 44.1, an applicant for a subdivision or a planning application is required to identify which measures will be incorporated into their proposal. However, it is challenging to determine how measures that are site/ building design related will be incorporated into a proposal at early stages of a development such as when applying for a subdivision application or an amendment to the zoning by-law. As a result, development agreements have been utilized to ensure that SD measures are successfully implemented if/when the land is eventually developed. Nonetheless, the use of the development agreements requires strong oversight to ensure that the provisions of the Development Agreement are applied accordingly.

Some SD measures are more effective when they are addressed at a larger planning level than on an individual property level. For example, some infrastructure such as sidewalks benefit an entire area. As such, certain SD measures require close coordination with an overarching plan or vison to yield the best results. Therefore, developing an Active Transportation Plan for the entire IPSPA can help ensure active transportation infrastructure is well designed and implemented in a coordinated and efficient manner.

The lack of access to public transit in the inland port can pose significant challenges to the environment, employees, and businesses. Hence, liaising with the City of Winnipeg to coordinate the extension of transit services to the inland port could help reduce traffic congestion, improve air quality, increase transportation options, and support the economic growth of the area.

In conclusion, the successes, including promoting sustainable transportation options and site design, and providing safe and accessible active transportation routes, demonstrate the commitment of stakeholders to promoting SD measures in CentrePort. By prioritizing SD measures, stakeholders in CentrePort have taken important steps towards building a more environmentally friendly and socially inclusive community. This has involved collaboration

and engagement with various groups, including developers to ensure that the needs of all are considered. Moving forward, it is important for stakeholders in CentrePort to continue to prioritize SD measures and consider all stakeholders in order to build on the successes achieved to date. By doing so, CentrePort can set an example for other communities and regions, demonstrating that sustainable development is not only possible but essential for creating a better future for all.

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