



MANITOBA HEAVY CONSTRUCTION ASSOCIATION (MHCA)
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June 7, 2021

To: **Property & Development, Heritage and Downtown Development**

From: Chris Lorenc, B.A., LL.B.,
President, Manitoba Heavy Construction Association (MHCA)

Subject: **Recycling of CRD waste (Item #33, June 8, 2021)**

Madam Chair and Committee Councillors

The MHCA, which represents some 400 members from the heavy civil construction industry and related sectors, is pleased to see the matter of recycling construction waste (Item #33) on the June 8, 2021, agenda. The motion, relating to management of construction waste, is a welcome first step towards broader consideration of how recycling of waste materials from construction, recycling and demolition (CRD) projects can contribute to environmental and social goals through resource stewardship.

Manitoba's heavy construction industry advocates for greater effort and initiatives, including through public policies and programs, for increasing reclamation and reuse of CRD materials from public and private infrastructure projects.

Context

The recycling and reprocessing of construction and demolition waste materials is rapidly developing as an area of global public policy, as national and sub-national governments work to divert waste from landfills, reduce greenhouse gas emissions and therefore their carbon footprints. For example, in the Manitoba context, the Winnipeg Metropolitan Region is leading a review of waste mitigation and reduction strategies for the capital region.

The construction/demolition sector is one of the largest resource consumers and waste producers in society, using up to 40% of the total raw materials extracted globally and generating about 35% of the world's waste¹.

¹Deloitte (2017) Study on Resource Efficient Use of Mixed Wastes, Improving management of construction and demolition waste – Final Report. Prepared for the European Commission, DG ENV.

In response to various pressures, including finite or, in some jurisdictions, scarce natural resources, and the need to reduce the carbon footprint, sustainable waste-management strategies have become a priority:

- The EU in 2008 set a target for average 70% recycling rate by 2020²
 - Belgium, Switzerland and Austria reached the 70% target in 2013
 - Some EU jurisdictions had a 90% average recycling rate in 2010; The Netherlands reached 97% recycled rate in 2018
- In the United States, in 2018, almost 456 million tons of construction and demolition waste were recycled, the bulk of which was concrete (334 million tons)³
- Japan passed its Construction Waste Act (2000), mandating recycling of concrete and wood. More than 93% of regulated construction waste (98% asphalt concrete) is recycled.⁴

Discussion

The recycling rate of CRD waste in Canada is just 16%⁵. However, some jurisdictions have moved to adopt policies and practices for reclaiming and reusing construction and demolition waste.

Edmonton, for example, has reused crushed concrete since 1978, having developed an aggressive policy for recycling construction waste materials. The city actively encourages households to bring concrete removed during construction or renovations to its civic construction-materials recycling plant. In the past three years, Edmonton has produced a total of 642,753 tonnes of recycled aggregate, used mainly for city road base construction.

In Manitoba, recycling of heavy civil construction waste is minimal and largely the result of industry initiative in business development and environmental stewardship. For example, the use of recycled concrete aggregate on public works projects – primarily within the City of Winnipeg – was introduced in the late 1990s by the heavy construction industry which saw value in re-processing and repurposing the base and sub-base materials (aggregates) torn up in street rehab and reconstruction projects.

Similarly, the recycling of asphalt, including asphalt shingles, has been industry led. The City of Winnipeg permits 15% of recycled asphalt product in pavement and 3% of “RAS” – the end product of re-processed asphalt shingles.

Since the late 1990s, recycled concrete aggregates have been used within City of Winnipeg street-renewal program. However, as of 2020 the City of Winnipeg Public Works department has applied new road-building specifications (CW3110- 21) with new requirements for road base and sub-base, significantly limiting the opportunity to use recycled aggregate materials. (The heavy construction, development and engineering sectors are discussing these challenges with the City, at present.)

MHCA regards the reuse of recycled concrete aggregates (RCA) as a pressing concern; hundreds of thousands of tonnes of recycled concrete aggregate are pulled up from public and private-sector infrastructure works in Winnipeg and the immediate capital region annually – their automatic diversion to landfills would grossly conflict with sustainable finite resource management.

²https://link.springer.com/chapter/10.1007/978-3-319-66981-6_24, Designing Sustainable Technologies, Products and Policies, (pp. 211-221)

³https://www.epa.gov/sites/production/files/2021-01/documents/2018_ff_fact_sheet_dec_2020_fnl_508.pdf U.S. Environmental Protection Agency, Office of Land and Emergency Management, December 2020

⁴<https://www.env.go.jp/en/recycle/smcs/attach/hcswm.pdf> Ministry of the Environment Minister's Secretariat, Waste Management and Recycling Department, 2014

⁵ https://www.ccme.ca/files/Resources/waste/wst_mgmt/CRD%20Guidance%20-%20secured.pdf, 2019, CCME Guide for identifying, evaluating and selecting policies for influencing construction, renovation and demolition waste management

Conclusion

The reuse of the significant volumes of waste materials generated by construction, renovation and demolition projects is a necessary element for environmental stewardship and responsible resource management, and fundamental to pursuing the goal of a circular economy.

Municipal engagement is key to realizing the full potential of this environmental objective.

Municipalities can exert considerable influence to encourage recycling and reuse of CRD waste materials, through their waste management services and policies, landfill tipping fees, recycling programs, procurement policies, public tenders and construction contract documents. In this context, procurement practices should consider the environmental attributes of a product to mitigate environmental impacts such as GHG emissions, energy consumption, waste generation or accelerated depletion of finite natural resources.

Further, we submit that, as with the goal to coordinate for efficient waste management services, there is greater opportunity and immediate and legacy benefit to municipalities in collaborating regionally on recycling of CRD materials.

The MHCA is working with the Winnipeg Metropolitan Region, and in discussion with relevant provincial department officials, to promote public policy encouraging a provincial and regional approach to recycling of CRD materials.

We encourage your Committee to recommend to your Council colleagues the development of broad CRD materials recycling policy.

Further, we respectfully recommend that Winnipeg join in discussions with Manitoba, the WMR, MHCA and interested stakeholders to develop a provincial-municipal approach to recycling of CRD waste materials.

We look forward to the opportunity of more direct conversations with you on this topic area in the near future. Please don't hesitate to contact me should you have questions or need more details.

Sincerely,



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Cc Mayor Brian Bowman
Matt Dryburgh, Economic Development Office
Mike Ruta, Acting CAO
Jim Berezowsky, Director of Public Works
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