



MANITOBA HEAVY CONSTRUCTION ASSOCIATION (MHCA)
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February 8, 2022

Memo to: Chair and Members
Standing Policy Committee on Infrastructure Renewal and Public Works (IRPW)

From: Chris Lorenc, B.A., LL.B., President, MHCA

Subject: Use of Reclaimed Concrete Aggregate in Street Design - Report No. 3 for the Period Ending December 1, 2021 (Report 4)

Introduction

The reason we are here today is to address the following areas:

- Project overview
- Status of project
- Costs and Durability
- Conclusion - Next steps direction

This intended overview should be of interest to

- all members of Council,
- anyone who seeks to be elected Mayor or to Council in October 2022; and
- the public. This IS a critical environmental issue:
 - It involves the productive reuse of up to 100,000 tonnes, on average, of crushed concrete removed from Winnipeg streets in construction projects annually and
 - Reuse of this material is a key element of sustainable development principles and moving towards a circular economy.

Project Overview

On September 16, 2020 the Standing Policy Committee on Infrastructure Renewal and Public Works (IRPW) - this committee - "*directed the Winnipeg Public Service*":

1. To continue to work with industry stakeholders including the Specification Review Committee, and Dr. Shalaby of the University of Manitoba, through the 2021 construction season, and report back within 410 days on a review of best practices and recommendations, including a cross-jurisdictional analysis, for increased use of Reclaimed Concrete Aggregate (RCA) and include the following:

The motion then provided some specific review area guideposts in subsections A to F inclusive.

- A. Develop a report within which the City will provide recommendations on how to increase the use of RCA in its road base design, including consideration of suggested targets;
- B. Conduct laboratory testing of market-available RCA to assess performance characteristics and any associated technical issues that impact the use of RCA;
- C. Based upon the above, recommend design inputs and specifications for RCA to reach performance objectives that are the equivalent to those achieved by virgin materials;
- D. Through appropriate analysis, identify and quantify the cost and economic, environmental and resource-management benefits associated with the use of RCA;
- E. Identify accompanying policy instruments and measures related to the collection and disposal of construction debris (including demolished street surface concrete) in support of the above objectives; and
- F. Consider such other ancillary matters as may be required. (Highlighting and emphasis added mine)

Status of project

On July 7, 2021, this committee directed those matters addressed in sub-paragraphs 1.D. - cost and economic , environmental and resource management benefits - and 1.E. – proposed policy instruments in support of the objectives - of the main motion be laid over until the results of the 2021 construction season are: “thoroughly reviewed including research and material testing that will lead to proposed versions of the RCA material specification, economic analysis and development of proposed uses.”

A review of these two areas has not to our knowledge begun. If it has, it has not been presented to, nor discussed with, or considered by, the SRC. Completion of this work is material to completing the directions given by IRPW.

Therefore, mindful of the July 7, 2021, IRPW motion, these matters have not yet been completed.

Further, you are being advised by the Public Service in its January 13 report that:

- as to costs, the figures cited are estimates and require further review in field; and
- as to performance and durability, research is not expected to be completed until July 2022.

The conclusion to draw clearly, is that whether related to cost or performance, what has been presented are preliminary - they cannot be considered final indicators and administration, is not asking you to accept them as final indicators.

They certainly cannot be used to make any informed decision on project outcomes. The January 13 report should only be received as information and the project allowed to work to its completion.

In summary, the two resolutions instructed administration to work with industry stakeholders, the Spec Review Committee (SRC) and U of M to ultimately develop recommendations to increase the use of RCAs as road base materials mindful of other jurisdictional practices, environmental and resource management impacts, supportive policy instruments and related information. Final decisions on the recommendations made, remain within the purview of this committee to assess, and decide upon.

There is no ambiguity here. IRPW’s two resolutions could not have been clearer.

The project is not yet complete.

Costs & Durability

There was some concerning discussion at the January 13 IRPW meeting suggesting that, on the basis of preliminary guesstimates on cost, and estimates of durability, there should now be direction to cease any further use of RCAs.

To fully appreciate the issue of cost, how and if it is an issue, and if so to what overall extent, the following matters have yet to be researched, assessed and/or considered by the Public Service, as directed, “working with” industry, SRC and Dr. Shalaby:

- When was the last study conducted to provide an estimate of aggregates in close proximity to Winnipeg to support vertical and horizontal construction requirements each of which affect the city?
- How many more years of readily available access to virgin material close to Winnipeg are left?
- What may happen to prices as we approach that time?
 - To limestone
 - To RCAs
- Going forward, what will happen to the growing annual tonnes of crushed concrete removed as waste from vertical/horizontal city projects - Public Works, Water & Waste, and private sector.
 - Keep in mind that as we progress, RCAs will continue to improve in quality and utility
 - Do we simply want it to be diverted to landfills?
 - Given its improving value, is assessing the application and durability of RCAs not a factor for consideration?

- What have the price trends been for virgin limestone over the last five years and where are they projected to go over the next 5-10 years?
 - At present, virgin aggregates compete in the market with RCAs;
 - What happens if the city all but eliminates the use of RCAs in streets projects
 - 32,000 tonnes of RCAs were used in 2020;
 - projections are for further reduction to 21,000 tonnes of RCAs for 2022
 - and this....in the context of an average of 100,000 tonnes taken up annually by Public Works, excluding Water & Waste department contracts (average annually per Public Works estimate in October 2020, which number does not account for Water & Waste department contracts).

An equally important consideration to the above is Council's Climate Action Plan and the respect it will or won't be afforded. Mindful of available resources and proximity to the city:

- how can the report's recommendations temper and manage costs of long-term hauling of aggregate materials from the Belair-Agassiz-Sandilands Forest reserve and adjacent areas, which are the next closest to the city?
- what impact will there be on GHG emissions if this is not considered?

Conclusion

Councillors, respectfully, given the amount of work that remains, and its impact on cost, durability, resource management, sustainability principles, the environment, and Climate Action Plan consistency, it is *illogical* to suggest this work be stopped mid-stream.

Council has invested in green programs and policies in many areas: Climate Action Plan; investment in active transportation and bike paths; transitioning to electric buses; you promote recycling.

Does this committee want to be seen to vote against responsible, environmentally sustainable management of its waste, and the finite natural resources associated with the construction and maintenance of its transportation system?

I urge your clear political direction today to ensure that the project, at its end, reflects the clear directions to the Public Service to work with industry, the SRC, U of M, and that its recommendations align with what you have so clearly directed.

Respectfully I submit that proceeding to project completion is also what the public expects.

Thank you.



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President MHCA