



Cement
Association
of Canada

Association
Canadienne
du Ciment



2020 YEAR *in* REVIEW



CONCRETE
Build for **life**™

LE BÉTON
Bâtir pour **l'avenir**™



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COVER

Top left: Marineland Polar Splash, Niagara Falls, ON. Architect: Studio tla. Recipient of the 2019 Ontario Concrete Award for Architectural Landscape.
 Bottom left: Samuel de Champlain Bridge, Montreal, QC. Architect: Provencher_Roy and Dissing + Weitling. Recipient of the 2020 ACI Excellence Award – Infrastructure (second place). Photo courtesy of Arup.
 Right: Vancouver House, Vancouver, BC. Architect: Bjarke Ingels, DIALOG and Janes K.M. Cheng Architects. Recipient of a 2015 Canadian Architect Award of Excellence.

NATIONAL HIGHLIGHTS

Left: 1 Yorkville Condominium, Toronto, ON. Architect: Rosario Varacalli. Recipient of the 2020 Ontario Concrete Award for Mid-to-High Rise Residential: Cast-in-Place.
 Top right: Lafarge-Lake Douglas Station, Evergreen Line, Coquitlam to Vancouver, BC. Architect: DIALOG. Photo credit: Brett Hitchins Studio.
 Bottom right: Simon Fraser University's Living Lab building, Surrey, BC. Architect: Revery Architecture.

REGIONAL HIGHLIGHTS

Top left: Samuel de Champlain Bridge, Montreal, QC. Architect: Provencher_Roy and Dissing + Weitling. Recipient of the 2020 ACI Excellence Award – Infrastructure (second place). Photo courtesy of BPDL.
 Middle right: BC Children's Hospital Teck Acute Care Centre, Vancouver, BC. Architect: HDR and ZGF Architects.
 Bottom: RBC Centre, Dartmouth, NS. Architect: Architecture49.





Message from the President and CEO



Dear Board Members and Colleagues,

It is my pleasure to report to you on the work we have done over the past twelve months and highlight some of our achievements. 2020 will make history as one of the most challenging years of our lives with COVID-19 upending so much of what we took for granted, but it also proved that we can be resilient and successfully adapt to adversity. The year brought significant changes and uncertainty, requiring us to reinvent ourselves and find new ways to conduct our businesses. Amidst all this change, we were able to count on one stable anchor as our Chair Filiberto Ruiz, from St Marys, volunteered to serve a second year until February 2021.

We were off to a good start in 2020. The first quarter of the year saw better-than-expected volumes of cement and concrete due to a number of reasons, good weather in many parts of the country along with a good construction outlook in housing and some infrastructure projects. The Canadian economy was growing at a relatively slow pace, just north of 1.7% in GDP growth, largely due to headwinds in international trade and other uncertainty. Then, COVID-19 struck.

Taking Action to Mitigate the Impact of Covid-19 on our Industry

Provincial governments began to address what was seen as the largest health crisis since the Spanish flu pandemic of the early 1900's.

Large segments of the economy began to be shuttered in March and April, which included prohibitions on some construction activity and the requirement in some places, like Quebec, to reduce most activities at cement and concrete facilities. Every province had its own rules, and it became clear that construction would become the focus of our industry, where to be deemed 'essential' in public safety orders would be critical to ongoing work.

It was a sudden and unexpected shock, but we struck back with a robust industry response. The CAC lobbied the federal and provincial governments to ensure they understood that cement is a strategic commodity, with 30-40 % of Canadian cement being exported to the U.S., it was crucial to keep supply lines open between our countries.

In collaboration with Members and Allies, we developed guidelines to help ensure the health and safety of the cement and concrete industry's employees, customers and communities. These guidelines were widely distributed as an evidence of our industry's commitment to implementing extraordinary measures to help mitigate the impacts of the pandemic while ensuring the economy could still function.

While governments across the country were taking measures at an unprecedented rate in order to address the pandemic, we worked relentlessly through our contacts in the federal and provincial governments to remain on top of all decisions and announcements and provide government officials with clear and convincing information about our industry's safety measures and reasons why our activities should be considered essential services and allowed to remain in operation.

"It was a sudden and unexpected shock, but we struck back with a robust industry response."



There was heavy engagement with government officials across Canada, and many hours of calls, emails and letter-writing campaigns to position our industry as an essential service. The CAC team held daily virtual meetings to coordinate our response across Canada, which allowed us to provide timely responses and valuable information to our Members and Allies during this crisis.

To their credit, provincial governments realized that critical infrastructure must continue and construction was key to keeping the economy afloat.

Construction activity fell off a cliff in March and April, but then began to rise as restrictions were lifted. In some areas, particularly Ontario, pent-up demand led to a robust demand for cement and concrete and by August/September construction activity had rebounded to almost normal levels.

All told, the devastating impacts on the economy were felt by the cement and concrete industry, but we fared better than some of the service industries that will take years to recover. We expect cement volumes to be between 5 - 6% lower in 2020 than our 2019 volumes, which will be better than the economy-wide hit of the pandemic on the economic activity of many other sectors.

It is also important to note the increasing importance of government-led investments in infrastructure. All provincial governments and the federal government committed this year to get existing budgets allocated but by and large any boost in funding missed the 2020 construction season window.

The CAC's continued advocacy throughout the pandemic has been to promote investment and funding through all levels of government, and this advocacy will continue into 2021 where it will be critical for funds to flow on a timely basis. In all our contacts with Ministers of Infrastructure and with municipalities we are constantly pushing "shovel ready" projects.

Internally, we have had our own challenges. We had to quickly adjust to the changing environment resulting from the pandemic. We immediately protected the CAC team by having them work from home to ensure their health and safety and have continued to work productively in this manner.

In addition, as the pandemic significantly changed the focus of our efforts and the way we operate, we promptly adjusted the budget to reflect those changes by reducing expenditures by almost \$800,000 and providing dues holidays, totaling \$832,000 in order to keep that money in the Member's accounts.

Since then we have focused on several strategies to ensure a strong financial performance. Eight months into the pandemic, we have been able to effectively manage our cash flow to ensure our operations continue to run smoothly. In addition, we were able to tap onto government financial support made available to not-for-profit organizations.



Pre-COVID-19: Meeting with Edmonton Mayor Don Iveson at the FCM Big City Mayors Council's reception in January 2020.

"The CAC's continued advocacy throughout the pandemic has been to promote investment and funding through all levels of government, and this advocacy will continue into 2021 where it will be critical for funds to flow on a timely basis."



Enhancing Communications & Collaboration with Members and Allies

Building stronger and more collaborative relations with our Allies became even more critical this year. We have engaged with our Allies on several fronts throughout the year and appreciate the many opportunities they have provided to leverage their channels and expand our collective reach.

An ongoing goal of the CAC is to provide relevant and timely updates to Members and concrete allies on government activities and politics across the country. To that end, I am proud of our efforts to produce a bi-weekly report to highlight the activities of governments across the country and developments in the areas of interest including the economy, jobs, infrastructure and construction, the environment, health & safety, and labour.

In addition to the biweekly report, a dedicated regular COVID-19 report was produced in 2020 to provide our partners with updates on infection numbers rates and announcements related to shutdowns and actions taken by governments across the country to address the pandemic.

Adopting a New Governance Structure

Recognizing that concrete is the end product of our industry, and in alignment with the Global Cement and Concrete Association (GCCA), the CAC Board of Directors had decided in 2019 to adopt a new governance structure to maximize the efficiency and effectiveness of our actions and our concrete Allies' actions using our collective resources. This involved developing four national committees with our Allies to replace the existing regional internal framework the CAC has employed for over a decade. We launched these new committees in 2020 and I am looking forward to full implementation in 2021.

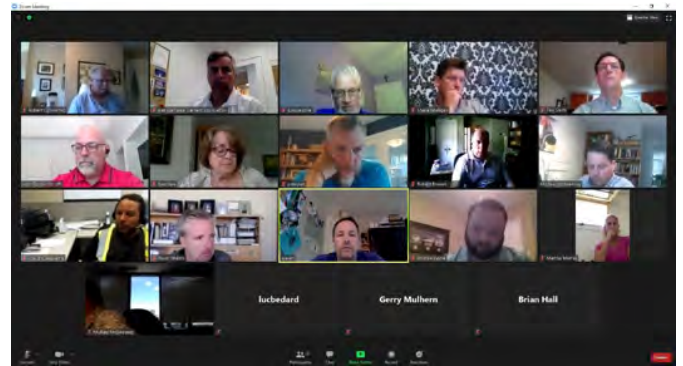
Championing the Industry's Path to Net-Zero

It is becoming abundantly clear that the challenges and opportunities we face as an industry in Canada are shared around the world.

It has been encouraging to see a coalescing of the cement and concrete industry at the international scale as the GCCA announced some bold policy goals in 2020. In its Climate Ambition, GCCA member companies agreed to commit themselves to driving down the CO₂ footprint of their operations and products and aspire to deliver a society with carbon neutral concrete by 2050.

Similarly, the Portland Cement Association (PCA) announced earlier this Fall an industry-wide ambition to reduce carbon emissions and further address the impacts of climate change. PCA will develop a roadmap by the end of 2021 to facilitate its member companies achieving carbon neutrality across the concrete value chain by 2050.

I am proud to say that work on the Canadian cement and concrete path to net-zero concrete started in 2019 and additional work on a roadmap was conducted this year. New materials were published in articles such as in *Construction Canada* and included in presentations to various forums. In October, our new Government Legislation and Regulatory Affairs (GLRA) Committee recommended further detailed work on Canada's roadmap to clearly articulate to all stakeholders the near-term achievable and aspirational technology solutions that are unique to Canada. Along with the GCCA and PCA, the CAC will be developing and promoting our Canada-specific roadmap in 2021.



Members of the CAC's Concrete as the Sustainable Building Material Committee meet via Zoom on July 29, 2020.

"...our new Government Legislation and Regulatory Affairs (GLRA) Committee recommended further detailed work on Canada's roadmap to clearly articulate to all stakeholders the near term achievable and aspirational technology solutions that are unique to Canada."



One of the most important tools our industry can use in its quest for carbon neutrality is the aggressive promotion of low-carbon cements.

We are working with governments across Canada to promote the mandatory use of PLC and other low-carbon cements in all infrastructure projects going through public procurement processes. In 2021, we will continue these efforts and target municipalities and their engineers.

Reacting to New Federal “Healthy Environment and Healthy Economy Plan”

On December 11, the eve of the 5th anniversary of the Paris Agreement, Prime Minister Trudeau announced the next phase in Canada’s efforts to tackle climate change. The [*“Healthy Environment and Healthy Economy Plan”*](#) commits to exceeding Canada’s current 2030 emissions reduction targets. Central to the Plan is increasing the federal carbon tax to \$170 per tonne by 2030, starting with an increase of \$15/tonne per year in 2023.

We are pleased to see the Plan’s emphasis on the importance of protecting the competitiveness of Canadian industrial sectors and avoiding carbon leakage – and its inclusion of cement as a target for federal low-carbon investment, signaling an opportunity to secure investment in our sector’s technology priorities. We are also pleased with the federal government’s commitment to *“Work with the building materials sector and other stakeholders to develop a robust, low-emission building materials supply chain to ensure Canadian, locally-sourced products are available, **including low-carbon cement.**”*

These actions signal the government’s commitment to **supporting large emitters like cement to enable near-term deployment of technologies to reduce emissions at the ‘megatonne’ scale.**

The Plan also narrows the scope of the Clean Fuel Standard (CFS) to liquid (transportation) fuels only, a move the CAC has consistently advocated for, reducing the risks and administrative burden that the CFS could have created for our sector.

All of these issues were key priorities and achievements that the CAC team delivered on in 2020. It will be important to stay on top of these federal commitments to ensure they come to fruition in 2021 and beyond.

Continuing to Advocate for a Well-Designed Clean Fuel Standard

The other major federal climate file that continued to receive significant CAC attention in 2020 was the federal Clean Fuel Standard (CFS). While we believe the cement sector was relatively well positioned to mitigate CFS costs and perhaps benefit from CFS credits for fuel switching, we had consistently advocated that the extension of the CFS to gaseous and solid industrial fuels was ill advised and that ECCC should consider limiting its scope to liquid transportation fuels (consistent with every other jurisdiction in the world.) On December 11, 2020, the federal government announced it had come to the same conclusion, formally reducing the scope of the CFS to liquid transportation fuels only. This welcomed decision reduces the risks and administrative burden that the CFS could have created for our sector and will allow the industry to consolidate its advocacy on other climate policy priorities.

“Equally gratifying is the [the Plan’s] inclusion of cement as a target for federal low-carbon investment, signaling an opportunity to secure investment in our sector’s technology priorities.”



The CAC’s Adam Auer speaks with the Honourable Catherine McKenna, Minister of Infrastructure and Communities, in support of the “Greening of Government” strategy.



Getting Ready for Provincial Climate Policies

No major change in the political landscape was observed in Canada in 2020. The incumbent governments in British Columbia, New Brunswick and Saskatchewan were all re-elected as majority governments.

The political battle between the federal government and some Provinces on the federal carbon pricing backstop has continued in 2020 with all sides being heard by the Supreme Court in the Fall. Whatever the Supreme Court ruling ends up being, this issue has contributed to an increasingly divided Canada, with a West-East divide stronger than ever.

Recognizing its vulnerability as a minority government, the Trudeau government made some concessions and in a somewhat surprising move, declared the Ontario and New Brunswick climate plans as equivalent to the federal plan. For our industry, this means that the federal OBPS backstop will no longer apply to Ontario cement plants and as a result, all cement plants in Canada will become subject to provincial climate policies. We expect the transition to take effect in 2021.

However, with the federal government's release of the new "Healthy Environment and a Healthy Economy Plan" which commits to increasing the federal carbon pricing backstop price to \$170 by 2030, there will be pressure on provincial systems to follow suit, or lose their "equivalent" status. Ensuring provincial systems continue and enhance their protections for EITE sectors like cement will again be a priority focus in 2021.

Continuing to Advocate Science-Based Decision-Making

The CAC is proud to be an Association that promotes science-based decision-making. We have taken a highly targeted approach to correcting misleading and factually incorrect claims about the carbon benefits of mass timber construction.

We have reached out to news media like The Guardian, The Globe and Mail, The Vancouver Sun and the Kingston Whig Standard in response to misinformed stories and have amplified via social media countless news reports that brought additional factual information to the conversation, drawing attention to the "carbon accounting loopholes" being ignored by both the wood industry and governments.

We also continued to dedicate time and effort to advocating a "three-screen approach" to infrastructure funding and promoting this approach to federal, provincial and municipal governments.

This three-screen approach is designed to ensure that government-funded infrastructure projects will be built once, built right and built to last. Simply put, the approach advocates for applying three screens — lifecycle costing, lifecycle greenhouse gas emissions and a "best available technology" — during the infrastructure decision-making and procurement process.

One of the CAC's most significant federal policy successes in 2020 was achieving meaningful progress with both the National Research Council of Canada (NRC) and the Treasury Board Secretariat (TBS) to modernize the Government of Canada's procurement practices through the integration of lifecycle assessment into procurement analysis and decisions. In 2020, TBS took the extra step to formally propose something the CAC has been advocating for many years — mandated use of Portland-limestone cements (including Portland-limestone blended cements) for all federal infrastructure projects.



"These initiatives are a key indicator of the success of CAC efforts to elevate the cement and concrete sector as priority stakeholders and influencers in the implementation of Canada's climate change agenda."



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Continuing Critical Work on Codes and Standards

Throughout the year, we also continued our tireless work on the development and amendments of codes and standards, which are at the foundation of our work. If we cannot influence the development of codes and standards that the federal, provincial and municipal governments use, then we lose part of the battle.

The CAC places a huge emphasis on the participation in codes and standards committees by CAC staff, Members and Allies. Our presence on these committees allows us to question the initiatives put forward by others, including the wood industry, and to explain and promote the benefits of concrete.

Looking to 2021

As you can see, we have many achievements to celebrate and be proud of. However, we need to redouble our efforts to protect our social license to operate, enhance the visibility and credibility of the cement and concrete industry and create a culture of concrete across the country.

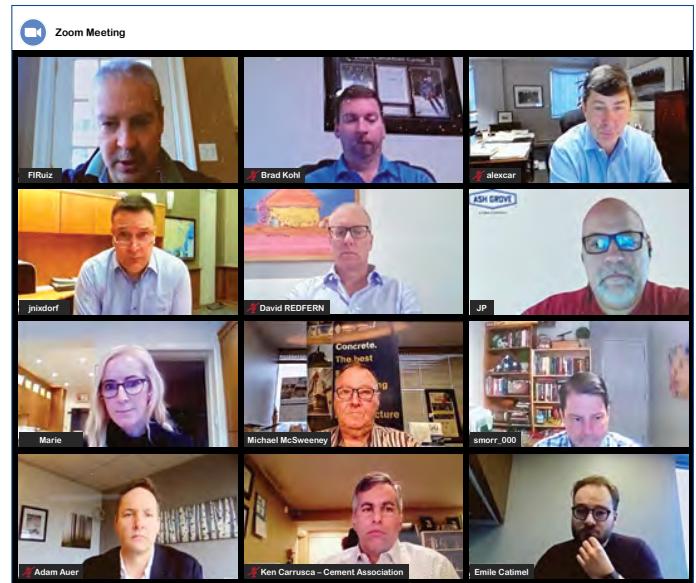
The coming year will bring its own unique set of challenges and opportunities, as the federal and provincial governments continue to address the COVID-19 pandemic and work on an economic recovery. We will continue to advocate that infrastructure projects should be central to the economic recovery and that the cement and concrete industry is a key player for a strong and green recovery.

One of our biggest challenges remains the well-funded campaigns conducted by the wood industry across Canada. In 2021, we will continue to provide science-based information to governments and the media showing that the environmental claims of the wood industry are not always supported by sound data. We will also continue to push on the building code front, challenging changes as needed, so that building codes are supported by scientific facts.

As always, we will invest significant efforts in engaging with all relevant provincial governments across the country and at the federal level as governments struggle to get out of the pandemic-induced economic slump. This coming year will be critical for the cement and concrete industry to position itself as a key partner in this unprecedented challenge.

In my role as President, my priority is to ensure that our Members' financial contribution to the CAC is fully optimized. We need to understand their priorities and economic pressures and adapt accordingly. The CAC Members are the shareholders of this association and we must be mindful to always ensure we are in step with their collective vision for the cement and concrete industry in Canada.

It is our goal to continue to leverage and maximize the financial commitment of the CAC Members and Allies to drive a culture of concrete across the country. Our challenge in 2021 will be to ensure that our new committee structure is aligned to execute on priority areas and that the CAC remains engaged with Members and Allies to get the new committees rolling and productive and to support the Members in these challenging times.



CAC December Board meeting via Zoom with St Mary's Filiberto Ruiz (CAC Chair), Lafarge Canada's Brad Kohl, Lehigh Hanson's Alex Car, Lehigh Hanson's Joerg Nixdorf, Lafarge Canada's David Redfern, Ash Grove's John Pontarollo, Ash Grove's Marie Glenn, CAC's Michael McSweeney, Steve Morrissey, Adam Auer and Ken Carrusca and McMillan LLP's Emile Catimel-Marchand.

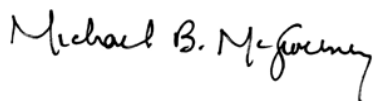


I am blessed to be surrounded by a committed and talented team at the CAC, who work tirelessly for our Members. I am proud to say that our staff adapted seamlessly to their new virtual work environment in 2020 and I have no doubt it will continue to be as effective and efficient in the coming year.

The team experienced a few changes over the course of the year. Kerri McNamara left the team after eight years with us. I am thankful for the great support she provided during all these years and I wish her all the best in her new life close to her family in southern Ontario. Peter Wallace, who had joined the team through an Interchange Agreement with Infrastructure Canada in 2018, has retired from the federal public service in November and our Director of Communications Lyse Teasdale will also transition to retirement in the early months of 2021. After 10 years with the Association we are tremendously saddened to lose the incredible resource that Lyse has provided the CAC over the past decade; we wish her a long and healthy retirement. We recently hired Marie-Josée Lapointe on a contract basis to help with the communications transition and to develop a renewed communications strategy which will help us determine the key skills and abilities needed in our next Director of Communications. We will be reaching out to Members and Allies to seek your input into how we structure communications in 2021 and beyond in the new era of digital communications.

The prospects and challenges are immense for our industry in 2021 but I know we will continue to provide the services that our Members and Allies value and expect from us, seizing the opportunities and tackling the challenges that lay ahead of us.

Thank you for your support, collaboration and work and best wishes for a Happy, Healthy and Prosperous New Year in 2021!



Michael McSweeney
President and CEO
Cement Association of Canada

"We will continue to advocate that ... the cement and concrete industry is a key player for a strong and green recovery."





NATIONAL HIGHLIGHTS



Industry Affairs

CAC staff continued to participate in air quality policy development in 2020. We are involved in several aspects of the national Air Quality Management System (AQMS), in particular as it relates to the development of ambient air quality standards. The CAC also sits on the AQMS Stakeholder Advisory Group, which provides us with an opportunity to ensure our sector's competitiveness is always top of mind as new policies or approaches are designed and implemented. Work on various aspects of the AQMS was put on hold in 2020 because of other government priorities related to the COVID-19 pandemic but we will be ready to contribute again when these initiatives are back on track in the coming months.

This year was the first year of compliance for SO₂ and NO_x emission limits applying to cement manufacturing facilities under the federal *Multi-sector Air Pollutants Regulations* (MSAPR). The CAC provided support to Members to make sure that regulatory obligations were well understood and liaison with government officials was facilitated by CAC officials as needed.

Cement manufacturing facilities continue to report their releases to the environment through the National Pollutant Inventory Release (NPRI) administered by ECCC. A CAC representative sits on the NPRI multi-stakeholder Work Group, which provides advice to the federal government on the implementation of the NPRI program. After several industry reporters, including some cement plants, experienced serious problems with the online reporting tool in 2019, we successfully requested, through the Work Group, a major revamping of the online tool. ECCC recognized the problem and an improved reporting platform will be ready for the 2021 reporting exercise.

This year was the first year of compliance for SO₂ and NO_x emission limits applying to cement manufacturing facilities under the federal *Multi-sector Air Pollutants Regulations* (MSAPR).



From the left: Ash Grove Cement Mississauga plant; Lafarge Canada Exshaw plant (top) Lehigh Hanson Delta plant (bottom) and St Marys Cement Bowmanville plant.





Sustainability and ENGO Strategy

Federal Climate Policy

The Covid-19 pandemic forced the federal government to hit pause on its legislative agenda, delaying a suite of planned and in process climate change related policies and regulations. At the same time, pressure on government to not only deliver on its climate commitments but to in fact increase its ambition grew significantly. 2020 was marked with uncertainties regarding the future of the federal carbon pricing system, the Clean Fuel Standard, a rumoured Climate Accountability Act and new sectoral targets to achieve carbon neutrality by 2050.

While the government's attention has been seized with COVID-19 since March, the CAC worked throughout 2020 to remain in the minds of government officials as a sector with an important role to play in Canada's economic recovery and as a solutions provider to the government's stated ambition for a "green" and "low-carbon" re-tooling of the Canadian economy. This work included ongoing formal and informal communications as well as virtual meetings with key ministers, such as the Minister Wilkinson (Environment and Climate Change), McKenna (Infrastructure and Communities), Lefebvre (Parliamentary Secretary for Natural Resources) among others.

Importantly, the federal government had signalled throughout the year that it anticipated strategic federal investment, rather than new regulatory policy, to be the main instrument driving the next wave of climate progress. As such, the CAC worked closely with members and allies to identify how such investments could be deployed to accelerate the low-carbon transition in cement and concrete. In parallel, we aligned our marketing communication materials to promote our industry's "low carbon roadmap," leveraging and aligning with the important work emerging from the GCCA.

A New Climate Plan

On December 11, 2020 the federal government released an updated climate plan "[A Healthy Environment and a Healthy Economy](#)." The key feature of the new plan is an increase of the federal backstop carbon price of \$15/year beginning in 2023, rising to \$170/tonne CO₂e by 2030. The plan also commits to \$15 billion in new spending to support Canada's transition to a low carbon economy, including \$3 billion marked specifically for industry. Proof that our advocacy throughout the year had an impact, the cement sector was prominently highlighted throughout the plan as a priority target for federal investment – a major win for our sector that the CAC will work hard to see implemented in 2021.

The plan also reduces the scope of the Clean Fuel Standard to liquid transportation fuels only, eliminating the planned (and globally unique) expansion of the CFS to cover industrial gaseous and solid fuels (more below).

Carbon Pricing

2020 was the second year the federal *Output Based Carbon System* (OBPS) has been in effect and we witnessed a relative calming of the political rhetoric on carbon pricing. While the looming Supreme Court decision on the constitutionality of the Federal imposing carbon pricing on the provinces does present some uncertainty, there is little doubt that the industrial carbon pricing policies now in place across the country will continue.

"Proof that our advocacy throughout the year had an impact, the cement sector was prominently highlighted throughout the plan as a priority target for federal investment – a major win for our sector that the CAC will work hard to see implemented in 2021."



With the recent (and surprise) announcement that the Federal government would accept Ontario's proposed Environmental Performance System (EPS) as equivalent to the federal OBPS backstop (transition date still TBD), all cement facilities in Canada will now be covered under provincial carbon pricing systems, seemingly rendering the OBPS less relevant. However, as the OBPS was always meant to be a "backstop" to provincial carbon pricing approaches, it remains a crucial file for the CAC, particularly with the recent release of the *Healthy Environment and Healthy Economy Plan* committing the federal backstop to significant carbon price increases, up to \$170/tonne by 2030.

2021-2022 will witness negotiations between the federal and provincial governments about what the provinces will need to do vis-à-vis their own pricing system to remain "equivalent" in the eyes of the federal backstop. These negotiations will be critical to our sector as significant increases to the carbon price could represent equally significant increases to competitiveness and carbon leakage risks. We will have our work cut out for us to ensure that that increases to the carbon price are matched with equivalent measures to allow our sector to remain competitive.

In this vein, the federal government's new climate plan does contemplate more ambition with respect to protecting EITEs and preventing carbon leakage. In addition to significant transition investment support for heavy industry, the *Healthy Environment and a Healthy Economy* plan also confirms that the federal government has established an internal taskforce to consider new tools, such as a Border Carbon Adjustment (BCA), as part of it thinking on how to address the growing gaps between Canadian climate policy costs on industry compared to those in competing jurisdictions. The CAC first advocated that government explore BCAs as part of its climate toolbox more than 5 years ago, before the formalization of the Pan Canadian Framework on Climate Change and stands ready as an informed stakeholder to guide the government's thinking.

Clean Fuel Standard

While COVID-19 forced the federal government to delay the regulatory schedule for the Clean Fuel Standard (CFS), concerns over its potential impact on Canada's economy and competitiveness grew significantly. With a prescriptive mandate to realize 30 megatonnes of GHG reductions by 2030, some industrial sectors became more vocal in raising the alarm that the CFS will act as a *de facto* second "hidden" carbon tax with significant negative impacts on Canada's competitiveness.

In 2020 the CAC continued active engagement on the CFS, regularly communicating with government officials and participating as a member of both the CFS Technical Committee and sub-committee on EITE issues. We remained confident that the cement sector was relatively well positioned compared to other sectors given the proposed opportunities the CFS could provide to generate fungible credits for low-carbon fuel substitution as well as for certain carbon capture and utilization technologies. We continued to push ECCC for more transparency on how they were considering the cumulative cost, competitiveness and carbon leakage impacts on EITE sectors like cement. At the same time, we remained consistent in our advice that the CFS for gaseous and solid fuels would be unnecessarily complex and that the best outcome would be for ECCC to limit its scope to liquid fuels only, consistent with similar standards elsewhere in the world.



"At the same time, we remained consistent in our advice that the CFS for gaseous and solid fuels would be unnecessarily complex and that the best outcome would be for ECCC to limit its scope to liquid fuels only, consistent with similar standards elsewhere in the world."



We were therefore very pleased to see that the *Healthy Environment and Healthy Economy* plan reduces the scope of the CFS to liquid fuels only, reducing the risks and administrative burden that the CFS could have created for our sector and releasing us in 2021 to concentrate our advocacy on other climate policy priorities.

Publication of the draft liquid class regulations in Canada Gazette, Part I is still anticipated before the end of the year with final regulations in late 2021. If and when these regulations come into force in mid-2022, they are expected to increase the cost of liquid fuels, but by how much remains difficult to determine. In fact, one of the most important criticisms of the federal government's approach to developing the CFS is the lack of transparency around the economic modelling of cost and competitiveness impacts. The CAC will continue to work with other sectors to demand this transparency for both the CFS as well as the updated elements of the *Healthy Environment and Healthy Economy* plan.

Three-Screen Lifecycle Based Approach to Infrastructure

One of the CAC's most significant federal policy successes in 2019 was meaningful progress with both the National Research Council of Canada (NRC) and the Treasury Board of Canada Secretariat (TBS) to modernize the government of Canada's procurement practices through the integration of lifecycle assessment into procurement analysis and decisions. The CAC has for years been a tireless advocate for integrating lifecycle costing, lifecycle greenhouse gas emissions and "best available technology" screens into the procurement process (what we call a "Three-Screen Lifecycle Based Approach.") We believe more active consideration of these lifecycle considerations in government procurement (which represents a significant percentage of Canada's concrete consumption) is a key strategic element to increasing market penetration of our industry's low-carbon solutions, especially Portland-limestone Cements and blended cements, but also low-carbon fuels and emerging mineralization technologies. It's also an important strategy in getting governments to speak positively about our sector and our role in a low-carbon future (a benefit recently enjoyed almost exclusively by the wood industry).

Progress on this file began in 2018 with the introduction of the "Climate Lens" for all federally funded infrastructure projects over \$10 million. This was followed in 2019 with the initiation of a \$14 million dollar "Low-carbon Assets through Lifecycle Assessment" or LCA² initiative co-led by NRC and TBS to establish a definitive Canadian Lifecycle Assessment Inventory Database and procurement tools to integrate three-screen thinking into public and private procurement of buildings and other infrastructure. In 2020, TBS took the extra step to formally propose something the CAC has been advocating for many years – mandated use of Portland-limestone Cements (including Portland-limestone blended cements) for all federal infrastructure projects. TBS's work with cement and concrete has also made its way into a new "Greening of Government" strategy that adopts most elements of the CAC's Three-Screen proposal and, in fact, the CAC's Adam Auer was invited to help showcase the announcement in a video with Catherine McKenna, Minister of Infrastructure and Communities.

"We believe more active consideration of these lifecycle considerations in government procurement... is a key strategic element to increasing market penetration of our industry's low-carbon solutions, especially Portland-limestone cements (PLC) and blended cements, but also low-carbon fuels and emerging mineralization technologies."



The CAC's Adam Auer helps showcase the "Greening of Government" announcement in a video with Catherine McKenna, Minister of Infrastructure and Communities.





COVID-19 and unrelated staff changes at both NRC and TBS have delayed some aspects of both the LCA² and the TBS proposal on PLC. In particular, LCA²'s research agenda, which included focused research on areas of great interest to our sector (i.e. gaps in carbon accounting for wood products, concrete carbonation, etc.) has been delayed into 2021. These initiatives nonetheless remain a key indicator of the success of CAC efforts to elevate the cement and concrete sector as priority stakeholders and influencers in the implementation of Canada's climate change agenda. They also represent significant opportunities to leverage funding and related support for other cement and concrete sector initiatives, including data collection to update our industry average Environmental Product Declarations (EPDs) (which expire in 2021), as well as closer integration of tools under development by the Canadian government and the soon to be released GCCA EPD tool for cement and concrete.

Environmental Claims of the Wood Industry

The release of our International Institute for Sustainable Development (IISD) report *"Emissions Omissions: Carbon accounting gaps in the built environment"* in 2019, along with related collaboration with the Wildlands League on their "Logging Scars" project continued to bear significant fruit in 2020. For the first time, major media outlets, including the *Globe and Mail*, *The Guardian*, *Narwhal* and *National Observer* have begun to run significant articles challenging the narrative that wood is inherently more sustainable than other materials and drawing attention to the "carbon accounting loopholes" being ignored by both the wood industry and governments.

The CAC has continued to refine its messaging and advocacy on wood and has integrated a science-focused narrative into our engagements with architects, engineers and developers – including in recent webinar presentations through the Canada Green Building Council (CaGBC), Royal Architectural Institute of Canada (RAIC), and the Buildings Show. We have also been working to share and spread this message internally through presentations to allied associations in the concrete sector in Canada and internationally. It's an approach that simultaneously showcases the low-carbon innovation in our sector and challenges audiences to push proponents of wood to demand the same level of rigor that our industry lives up to.

As we all know, this is a marathon, not a sprint, but our patience and diligence are now demonstrably paying off as external parties, including prominent ENGOs, begin to push back against the wood industry's sustainability narrative. We have also observed some signs that the wood industry is less confident in the salability of their sustainability messaging as it has, in some instances, begun to speak in a more qualified manner about its own sustainability challenges and benefits. Even among certain architects, we have begun to see a shift from the language of "tall wood buildings" to "hybrid buildings" (subtly) acknowledging the important role that concrete plays in the future of low-carbon construction. There is more work to be done but our approach is working.

In 2021, the CAC will be looking to keep this momentum through its collaborative marketing and communications plan with concrete allies and, of course, through ongoing collaborations with ENGOs.



"...this is a marathon, not a sprint, but our patience and diligence are now demonstrably paying off as external parties, including prominent ENGOs, begin to push back against the wood industry's sustainability narrative."



CarbonStar Standard

In an effort to bring more accessibility to lifecycle-based carbon accounting tools for cement and concrete, the CAC worked to support a standards initiative by the Standards Council of Canada (SCC), the Canadian Standards Association (CSA) and BluePlanet, a company that makes synthetic aggregates that store captured carbon in concrete. Trademarked "CarbonStar" the new standard which is expected to be finalized before the end of the year, provides an easier and less costly pathway to calculate the embodied carbon in different concrete mixes without the complexity of current EPDs. Its benefits include more flexibility for designers and specifiers to examine low carbon concrete options at the design phase of their project, but also the capacity for cement and concrete manufacturers to more flexibly account for carbon saving strategies like low-carbon fuels and novel concrete mixes. CarbonStar could also yield marketing benefits as a rating system that is more intuitive to communicate.

To ensure a strong industry voice in the development of the standard, the CAC worked with members and allies to secure the position of Vice-Chair of the CSA Technical Committee as well as to ensure that key voices from our sector and stakeholder community (e.g. NRC's LCA² team) were represented and able to align the standards development process toward our priorities.



CarbonStar®

Our Environmental Group Partners

Developing strong relationships with the environment community has been one of the cornerstones of the CAC's strategy to establish the cement and concrete industry as a valued and respected voice on climate policy at the national, provincial and community level. In many ways, the timing of our efforts could not have been better as we face the twinned challenges of COVID-19 and rising ambition on climate change. With our current capacity to engage directly with ENGOs significantly diminished by COVID restrictions and budget constraints, we are extremely fortunate to have already established deep and resilient relationships within the environmental community. Through the COVID crisis, we have continued to benefit from partnerships with key ENGOs to advance mutual interests, especially on the "three-screen" procurement file as well as emerging discussions on what a smart and competitiveness protecting low-carbon industrial transition looks like for cement. Through 2021, it will be critical not to take these relationships for granted as we innovate new ways to maintain and strengthen our collaborations and reputation with these important groups.

Quest for Carbon-Neutrality by 2050

The pandemic interrupted efforts both domestically and abroad to introduce more robust efforts to reduce CO₂ emissions. In Canada, the federal government noted early in the year that its legislative plans would be delayed. However, on November 19th the federal government introduced to Parliament the "Canadian Net-Zero Emissions Accountability Act". The legislation fulfils a promise in the 2019 election to be more aggressive at cutting greenhouse gas emissions by 2030 and get Canada to net-zero emissions by 2050, in line with the Paris agreement. The framework legislation does not set out the 'how' to get to the targets, but it is expected that every sector of the economy will be asked to do more in the coming years.

Earlier in 2020, the CAC was deeply involved in the Global Cement and Concrete Association's (GCCA) efforts to position the global industry on emissions reductions targets. In its *Climate Ambition*, GCCA member companies agreed to commit themselves to driving down the CO₂ footprint of their operations and products and aspire to deliver a society with carbon neutral concrete by 2050. The pathway to this

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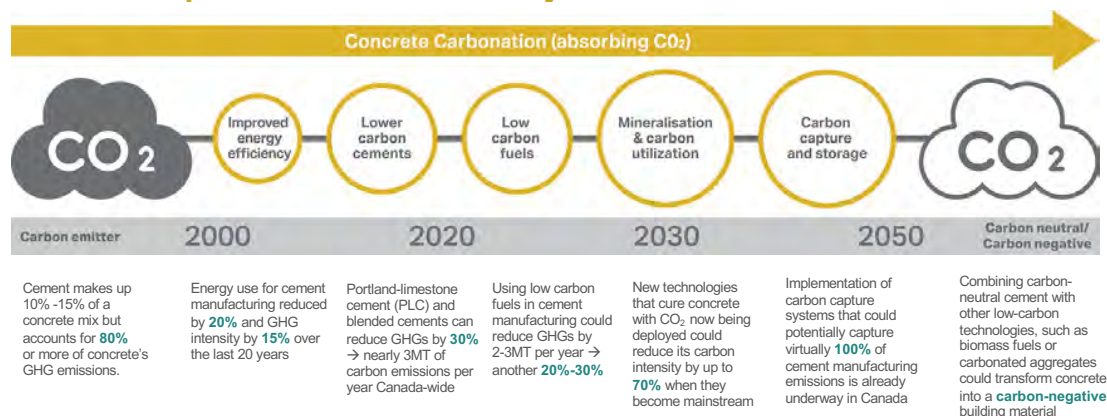


low-carbon built environment will be laid out in the GCCA's Roadmap 2050. Nine regions of the world will provide their input, which will then be aggregated to a global GCCA 2050 roadmap. Similarly, on November 17th the Portland Cement Association (PCA) announced an industry-wide ambition to reduce carbon emissions and further address the impacts of climate change. As PCA members continue to drive down the carbon intensity of their operations and products, PCA will develop a roadmap by the end of 2021 to facilitate its member companies achieving carbon neutrality across the concrete value chain by 2050.

For CAC's part, work on the Canadian industry path to net-zero concrete started in 2019 with various communications products being developed. Throughout 2020, additional work on the roadmap was conducted and new materials were published in various articles in *Construction Canada* and included in presentations to RAIC and other forums. In October the new Government Legislation and Regulatory Affairs (GLRA) Committee recommended further detailed work on Canada's roadmap to clearly articulate to all stakeholders the near-term achievable and aspiration technology solutions that are unique to Canada. Along with the GCCA and PCA, the CAC will be promoting our Canada-specific roadmap in 2021.

"Throughout 2020, additional work on the [Canadian] roadmap was conducted and new materials were published in various articles in *Construction Canada* and included in presentations to RAIC and other forums."

Concrete's path to carbon neutrality



Marketing Communications

Our marketing communications activities this year have continued to focus on positioning concrete as the low carbon, sustainable building material of choice, establishing its essential role in decarbonizing the built environment and educating our target audiences on the industry's path to carbon neutrality.

Responding to the COVID-19 Pandemic

The first order of the day was to develop rigorous [COVID-19 guidelines](#) in collaboration with Members and Allies to help ensure the health and safety of the cement and concrete industry's employees, customers and communities. These guidelines were widely used within the industry and posted on social media, to ensure broader dissemination and as evidence of our industry's commitment to implementing extraordinary measures to help mitigate the health impact of the pandemic.

With these measures in place, we worked to gain the confidence of all levels of government in our industry's ability to mitigate the risk of spread within our field of operation, as we urged them to recognize the construction sector's vital role in the economic recovery of their municipality, province and the country at large and asked them to place time-sensitive strategic infrastructure projects at the heart of their recovery plans. The [Joint Declaration](#) signed by CEOs of the Canadian cement and concrete industry amplified this message, articulating our commitment to playing our part in building a successful economic recovery for Canada. The Declaration was sent to the Prime Minister, Premiers and relevant federal and provincial Ministers.

Extending our Message's Narrative Arc

Our core message remains laser-focused on conveying the cement and concrete industry's path to carbon neutrality and concrete's role in reducing the carbon footprint of our built environment.

This is an admittedly complex message that we are refining over time and in alignment with emerging messages and communication products developed by the GCCA. We have also developed a new infographic to help communicate it as simply as possible.

Importantly, we have also extended our narrative to foster more engagement from building professionals, inviting them to consider their role in optimizing concrete choices to secure further GHG reductions from their projects.

The latest iteration of our flagship presentation ***Taking Concrete Steps to a Carbon Neutral Future*** is perhaps the best example, providing as complete a narrative arc as any as it explains:

- The central role of cement and concrete in facing the embodied carbon challenge.
- Cement and concrete industry strategies to decarbonize concrete and its path to carbon neutrality.
- Strategies architects, designers and specifiers of concrete can use to help lower the carbon footprint of their projects, providing several project examples.

CONCRETE | Build for life™

COVID-19 Best Practice Health and Safety Guidelines for Employees in the Cement and Concrete Industry

COVID-19 is a virus with serious complications, possibly fatal, especially in older people or those with compromised immune systems. It can be contagious for up to 14 days, even if the infected person has no symptoms. The virus is transmitted either through close personal contact with an infected person – through respiratory droplets generated by talking, coughing or sneezing – or by touching contaminated objects or surfaces and then touching your mouth, nose or eyes. Current evidence suggests person-to-person spread is most prevalent when there is close contact with other people.

The following guidelines are to keep employees of cement and concrete product manufacturers safe and to help stop the spread of COVID-19. They are based on advice and directives from Canada's health authorities (Federal and Provincial).

We encourage you to read, follow and discuss these guidelines with your co-workers and family. It is through rigorous adherence to these guidelines that we can "plank the curve" of the COVID-19 virus.

Please note that federal and provincial guidelines will evolve over the course of the pandemic. Please be sure to consult national and provincial health authorities listed in this document for the latest information.



- Key considerations when thinking about material substitution and lifecycle assessment, including our critical research (and growing body of third-party work) challenging assumptions about the carbon footprint of wood.

A new piece titled **Building Green with Concrete | Walking the Talk** hones in on the menu of strategies architects and specifiers can use to lower the footprint of their projects, offering examples for each strategy. This new piece will be released early in the new year, along with a more detailed companion piece on **5 Ways to Reduce Concrete's Carbon Footprint**, adapted from a similar NRMCA piece with the help of Concrete Ontario and Concrete Alberta.

Conveying much the same message while also expanding on concrete's advantage in reducing operational energy use was an in-depth article published by Construction Canada as the cover story of its November issue, titled **Concrete's Path to Net Zero**.



Setting the Record Straight on the Carbon Performance of Building Materials

The CAC has taken a highly targeted and proactive approach to correcting misleading and factually incorrect claims about the carbon benefits of mass timber construction. We have reached out to news media like The Guardian, The Globe and Mail, The Vancouver Sun and the Kingston Whig Standard in response to misinformed stories and have amplified via social media countless news reports that brought additional factual information to the conversation.

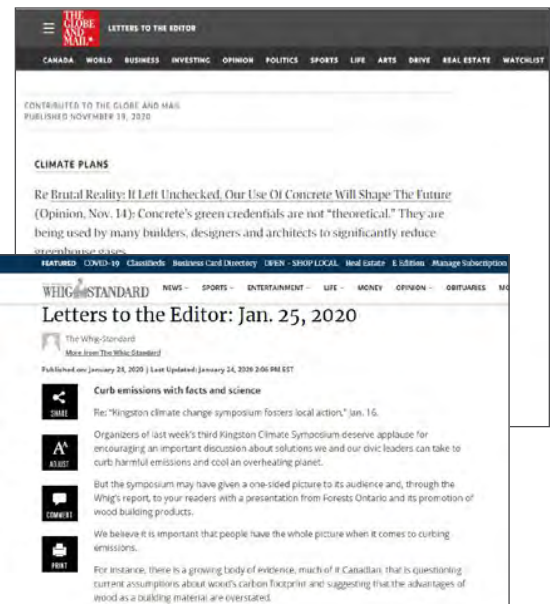
We have also started to connect directly with senior decision makers at several organizations that were reported to be planning to add tall wood buildings to their portfolio, such as Waterfront Toronto, the University of Toronto, George Brown College, and others.

Our interventions opened the door to a dialogue about the green credentials of concrete with these institutions, providing a serious educational moment on the significant carbon accounting gaps of building materials, including the real carbon impact of forestry and forest products. A [Sources and References](#) document was included in our information package listing recent research and key articles on the matter and underscoring the mounting body of evidence. This living document has grown steadily over the last several months to incorporate relevant new reports and news stories as they are published.

Collaborating on a National and International Level

The CAC has long championed industry-wide collaboration to help increase our collective effectiveness in establishing concrete's strong sustainability credentials with policy makers, influencers and key decision makers in the building sector.

This past year has brought several rewarding opportunities for collaboration with colleagues across the industry in Canada, North America and globally to help drive a clear, compelling and consistent message. A few highlights follow on the next page.

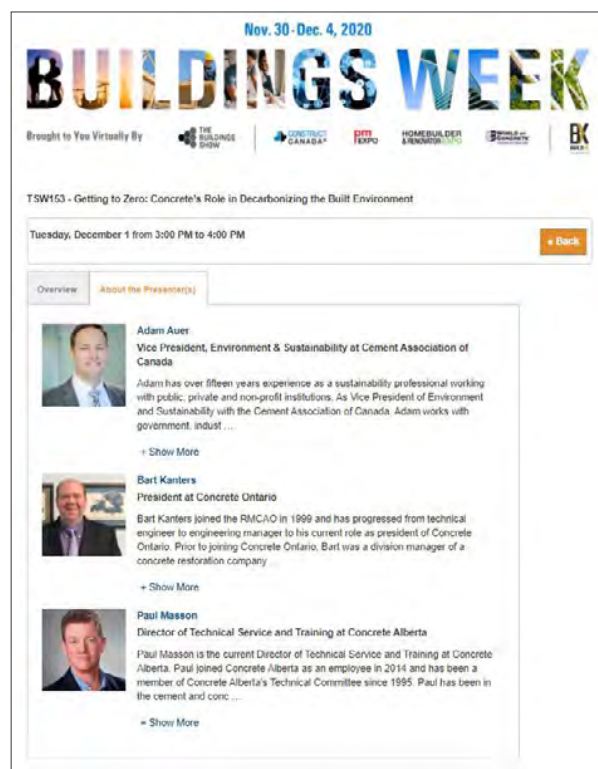


Nationally:

- Joint outreach by the CAC and provincial Ready Mixed Concrete Associations to municipal and provincial decision makers on the importance of supporting "shovel-ready, shovel-worthy" infrastructure projects as part of COVID-19 economic recovery efforts.
- Joint CAC – Concrete Ontario outreach to Ontario architects with our piece titled "Concrete steps to a carbon neutral future".
- CPCI-organized webinar for architects and other building professionals, also on "Concrete steps to a carbon neutral built environment".
- Concrete Council of Canada participation in RAIC 2020 Industry Knowledge Hub – a CAC, CCMPA, Concrete Ontario and CPCI collaboration extending the reach of our message on low carbon concrete strategies in the architectural community.
- Collaboration with Concrete Ontario, Concrete Alberta and the Atlantic Concrete Association in developing project examples that validate our low carbon concrete strategies message.
- Joint presentations with Concrete Ontario and Concrete Alberta at the Buildings Show as well as between CAC and the National Research Council of Canada.

Internationally:

- Support of the GCCA's *Climate Ambition* launch, an important first that signaled to the world our industry's historic commitment to carbon neutrality by 2050 on a global scale. The CAC issued a public statement, which it amplified on social media, highlighting the leadership and achievements of the Canadian cement and concrete industry in reducing carbon from our processes and our products.
- Collaboration with the Portland Cement Association (PCA) to support and leverage PCA's *Shaped by Concrete* marketing campaign on cement.ca, ConcreteBuildForLife.ca and via social media.
- Support of the development of PCA's marketing materials on Portland-limestone cement by sharing our content and project examples.
- Support from the U.S. National Ready Mixed Concrete Association (NRMCA) to adapt NRMCA's educational piece "Top Ten Ways to Reduce Concrete's Carbon Footprint" for the Canadian market.
- Social media support for the GCCA's Concrete in Life global photography competition, as an opportunity to engage with architects and architectural photographers.





Accelerating our Shift to Digital

The pandemic has profoundly altered the way most of us work. At least for the time being and the near future, meetings, conferences and events are mostly online, dramatically accelerating a trend that was already underway. In response, the CAC has pivoted its marketing communications activities, turning to virtual events to bring its message to our key audiences.

Versions of our flagship presentation Taking Concrete Steps to a Carbon Neutral Future, tailored for the respective audiences, have been delivered to CaGBC green building professionals, RAIC's architectural community (under the Concrete Council of Canada banner), and audiences of the Buildings/Buildex Show (in collaboration with Concrete Ontario and Concrete Alberta), to name just a few.

Perhaps most exciting on this front is our plan to make the 9th Edition of the Design and Control Concrete Mixtures publication available both online and in hard copy format in 2021!

Looking to the Next 24 Months

In the midst of this accelerated shift to digital, we are taking the opportunity to have a fresh look at our marketing communications plan and adjust our course as needed. Especially in the time of COVID which is expected to last well into 2021, our new strategy and push toward digitization will be important to maximize our communications impact while respecting the need for safety measures and budget constraints. Specifically, we are looking to optimize our digital presence, enhance the relevance and appeal of our communications products for digital and traditional platforms, better leverage the breadth and depth of expertise our industry is fortunate to possess and work within the CAC's new Committee system to facilitate synergies of efforts and capacity to work collaboratively, so that we can all benefit. This refresh of the plan will be completed in the first quarter of 2021.

NEW!

Your first ever advertising opportunity in digital and print versions of upcoming Design and Control of Concrete Mixtures 9th Edition!

Dear Lyse,

Over the last one hundred years, the **Design and Control of Concrete Mixtures** book, published by the Cement Association of Canada, has become the primary reference on concrete technology – a concise and current guide on applications, methods and materials concerning cement and concrete.



The publication is widely used by concrete producers, field technicians, specifying engineers and students. Upwards of 3,000 copies are sold annually, providing ongoing support to concrete design and construction projects across Canada.

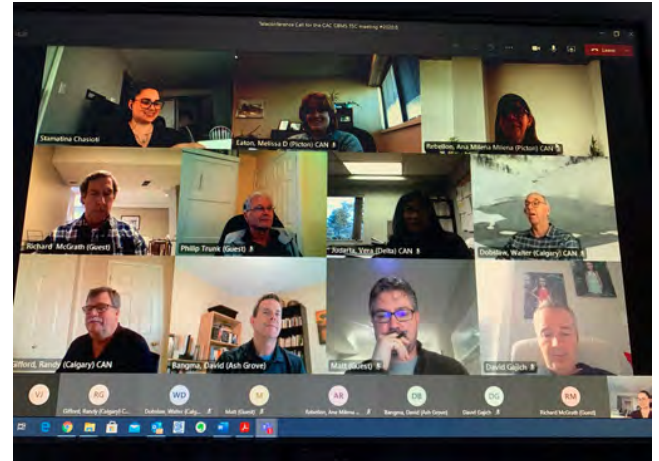
Now, in an exciting new development, the **Design and Control of Concrete Mixtures is going digital with its Ninth Edition**, in addition to also being available in hard copy.



Codes and Standards

Codes and Standards operate at the core of the CAC mandate to serve the best interests of our members. Technical expertise supports our advocacy with governments and provides the framework for the industry's market share. Four key pillars form the strategy of our Codes and Standards work, with the goal to increase market penetration and competitiveness. The pillars are as follows:

- Develop and/or improve the acceptance criteria for our products.
- Improve the design standards for the end product, that is reinforced concrete. Improved design guidelines make reinforced concrete structures a more attractive solution in terms of economy, safety, resiliency, sustainability, and versatility.
- Advocate for concrete as the material of choice compared to other competing industries, such as wood and steel. Develop an allied network of academics and consultants to improve our influence in code committees.
- Support and propose research projects that provide the scientific evidence to support our advocacy.



CAC's Director of Codes and Standards Stamatina Chasioti and members of the CAC's Competing Building Materials and Systems ("CBMS") Technical Support Committee

National Building and Fire Code of Canada (NBCC)

The CAC holds active memberships on three NBCC Standing Committees (Fire Protection, Structural Design and Earthquake Design) and also participates as required on the Standing Committee on Housing and Small Buildings. The publication of the 2020 NBCC was delayed to December 2021 because all meetings are now virtual and there were a large number of comments received after public review. Key NBCC issues currently being addressed by the CAC include:

NBCC New Governance Model – The RCT Agreement

The Regulatory Reconciliation and Cooperation Table (RCT) is a federal-provincial-territorial body established by the Canadian Free Trade Agreement (CFTA) to oversee the regulatory reconciliation process and promote regulatory cooperation across Canada. A new governance model for the National Code Development System was drafted in collaboration with Provinces and Territories and the agreement was signed by all parties this last Summer. As captured in the agreement, Canada (NRC) will support the work of all Parties within the National Code Development System to execute change from the current National Code Development System into a more inclusive, agile, responsive governance model to achieve a desired system performance that includes collective and effective decision-making by all Parties, integration of all Parties' code development activities and the engagement of stakeholders and the Public. This means that the NBCC will be the de facto building code for all Canada adopted in a timely manner and it will replace all provincial building codes. A provincial jurisdiction may still maintain a limited number of exceptions to the National Model Code, but these exceptions would be applicable to that particular province only.

This initiative aims at reducing red tape and inconsistencies across federal and provincial government. The CAC supported the addition of a new ministerial body that will provide the technical priorities stemming from government policy for each new Code cycle.

This agreement is of great benefit to the industry because our participation in the NBCC will be even more critical to influence decisions made across Canada. The NBCC adopts the CSA concrete standards as is, which means that it will be more difficult for Provinces, for example, to exclude the use of PLC in sulphate environments without the use of SCMs.



NBCC Public Review

Proposed changes for the 2020 NBCC were available for public review last winter through the NRC website. CAC alerted its members and all allied industries of important developments and provided a list of changes that benefit the concrete industry. Specifically, the new provisions in farm buildings and the changes in the seismicity zones in Canada were supported by members and Allies, and they voted in favour during the public review.

Wildfire-Urban Interface Guide (NRC)

This is a new guide developed by the NRC under the climate change adaptation program following the wildfire in Fort McMurray. It provides guidance for building fire safe structures. Buildings located within ten meters from forests are now required to use non-combustible materials such as concrete. The CAC has consulted with the Canadian Association of Fire Chiefs to extend the distance from forests. The wood industry is disadvantaged in this market because of the lack of fire hydrants in these areas.

CSA Standards - Cement and Concrete Activities

CAC officials participate in a variety of CSA standards, including CSA A3000 Cement; CSA A23.1 Concrete; CSA A23.3 Design of Concrete Structures (as Secretary of the committee); CSA S413 Parking Structures and the CSA S6 Bridge Code. Current issues that the CAC is addressing through the CSA with relevance to the cement and concrete industry are described below.

NEW AMENDMENT IN A3000- PLC AND HARVESTED FLY ASH

Several changes have been approved by the Technical Committee and the document is at the public review phase until December 13, 2020. The new CSA A3000 Amendment will be published in 2021. PLC has been accepted for use in sulphate environments without the use of SCMs. New provisions for the acceptance of harvested fly ash for use in concrete have also been accepted. Coal fired power plants in Canada are currently being retired or converted to natural gas at a rapid rate and will all be phased out by 2030. Without inclusion of harvested fly ash in the standard, critical shortages were anticipated imminently.

CARBON SEQUESTRATION IN CONCRETE AND RECYCLED AGGREGATE

A new Annex on Carbon Additions has been adopted as an amendment to the existing CSA A23.1-14 Concrete standard and in the 2019 edition as well. This technology reduces the carbon footprint of concrete without affecting its plastic properties or performance and provides the concrete industry with its own carbon sequestration mechanism to combat climate change.

ULTRA-HIGH-PERFORMANCE CONCRETE

For the first time since its inception, Ultra High Performance Concrete (UHPC) has been adopted in CSA Standards. A UHPC annex now appears in the CSA A23.1-19 Concrete Standard and also in the 2019 CSA S6 Bridge Design Code. These new Annexes will provide guidance to the ready mixed concrete industry and designers alike in the design, testing and utilization of UHPC.

CONCRETE DESIGN

The CSA A23.3-19 Design of Concrete Structures Standard has now been published and will be referenced in the 2020 NBCC. A new code cycle is underway. Important updates on seismic design and anchorage will be available in the next edition in 2024. High strength reinforcement will be introduced for the first time which will reduce reinforcement congestion and improve the constructability of reinforced concrete structures.



PARKING STRUCTURES

S413 Committee received pressure for allowing wood to be used in parking structures. The CAC has successfully defended the use of concrete and the committee rejected the proposal to allow wood due to durability concerns. New provisions will permit the use of corrosion-resistant rebar.

CANADIAN HIGHWAY BRIDGE DESIGN CODE S6 (CHBDC)

The CSA S6-19 was recently published and a new edition of the Code is underway. CAC's Director of Codes and Standards is the chair of two working groups: concrete columns and concrete materials. An important objective for this cycle in collaboration with the seismic subcommittee is to reduce the minimum reinforcement in columns. The CAC is also working to respond to the request by regulators to replace the acceptance of a concrete batch by cast cylinders to cores taken from the structure. CAC prepared a response paper to caution regulators that concrete cores can vary in strength based on the structure geometry and placement, something that the supplier is not responsible for.

Research and Development

The CAC continues to work with the NRC in developing a research roadmap to carbon neutral concrete. We are anticipating holding four workshops in 2021. The Low Carbon Concrete initiative will provide critical outputs in the following four areas:

- Assessment and development of new substitution materials for use in concrete;
- New technologies to enable structures to be built with lesser amounts of higher performance concrete;
- Carbon capture and utilization;
- Support for the use of alternative fuels in cement kilns.

Following the workshops, NRC will support CAC in seeking funding from the federal government. The CAC is also putting forward a proposal for the NSERC Alliance Grant II with York University. The proposed research aims at demonstrating the benefits of building with concrete in wildfire-prone areas. A concrete house will be tested next to timber and masonry houses on the outskirts of Toronto under real fire scenarios.

Publications

The *Concrete Design Handbook* will be updated in 2022 following the release of the 2020 NBCC to reflect the new requirements and revised specifications of the CSA cement and concrete materials standards and the CSA concrete design standard. More specifically, the current CAC Concrete Design Handbook references the 2014 edition of CSA A23.3 and must be updated for the 2019 edition of that Standard as it contains the Explanatory Notes to the A23.3 Standard that educators and practitioners use in applying the Standard to reinforced concrete design in Canada.

The *Design and Control of Concrete Mixtures* (EB101) is currently under revision and will be published in 2021. Prof. Doug Hooton (University of Toronto) has been engaged for this new edition. The revision will include updates on PLC, sustainability, aggregate pyrrhotite, UHPC and cracking. It will be the first time the EB101 will be available in electronic format. In addition, the CAC has agreed with the publisher to include access to a digital platform with online educational videos on concrete materials. The new online platform was offered to the CAC at no additional cost. This publication is the main educational material produced by the CAC.

"The CAC continues to work with the NRC in developing a research roadmap to carbon neutral concrete. We are anticipating holding four workshops in 2021. The Low Carbon Concrete initiative will provide critical outputs in...four areas."



Markets and Technical Affairs

Economics Program/Market Intelligence

From the beginning of the pandemic in March it became clear to the CAC that rapidly changing information provided by different levels of government would be key to operational decisions of our members and our allies' members. At first, public health orders and designations of 'essential' services were being declared very rapidly and the CAC responded by publishing special editions of *The Monitor* and bi-weekly reports to keep our Members and Allies informed.

Tracking cement consumption appeared to be difficult and forecasting consumption even more of a challenge as every sector of the economy was taking its own path from destitution to some form of recovery. The first priority of CAC's market intelligence was tracking 'allowed' activity, and the federal and provincial government's responses to infrastructure investments, as this would be an essential part of our industry advocacy. After the initial stages of re-opening, the focus of information in CAC's updates turned to economic impacts of COVID-19 and the province-by-province impacts on the construction activity, as well as providing regular updates on our advocacy activity.

Throughout the pandemic, *The Monitor* tracked various economic indicators and public and private forecasts as they were published. CAC also provided Member and Allies with information on the impacts across provinces for their own use and gave presentations to Concrete Ontario and Association Béton Québec (ABQ). Most importantly, the introduction by all levels of government of differing financial programs to assist businesses was a critical part of the response to the pandemic and remains so. CAC was active in providing Members, Allies and other companies with up-to-date information on these programs. It is clear that federal aid programs in particular have been critical for keeping many firms afloat in the construction sector and how these programs evolve to keep the construction industry's ability to continue infrastructure activity in 2021 will be a CAC advocacy priority. *The Monitor* has also provided key intelligence on such topics as the impacts of the U.S. election, political movements through the pandemic and policy activity on climate files.

As the second wave of COVID-19 is felt across Canada, the CAC has turned back to watching the potential impacts of new restrictions on activity, with renewed advocacy to keep cement, concrete and construction activity essential.



A quarterly analysis of trends in the Canadian Construction and Cement Industries

***** Special Edition #32 *****

Federal Government Fall Economic Statement 2020
November 30, 2020

Summary:

- Today, Chrystia Freeland, Deputy Prime Minister and Minister of Finance, released [Supporting Canadians and Fighting COVID-19: Fall Economic Statement 2020](#)

DEBT TO GDP RATIO					
*AS PER BEST CASE SCENARIO					
2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
50.7%	52.6%	52.1%	51.6%	50.6%	49.6%

"After the initial stages of re-opening, the focus of information in CAC's updates turned to economic impacts of COVID-19 and the province-by-province impacts on the construction activity, as well as providing regular updates on our advocacy activity."



Concrete Pavements

EDUCATION AND TRAINING

Part of the CAC's role is to help educate public / private owners, engineering / architect consultants, and contractors of the many benefits of cement and concrete products used in roadway applications. To assist in this process CAC staff have been involved in several webinars and courses throughout the year, including the following:

- **Scott McKay Concrete Technology Course Presentations on February 11th and 13th** – CAC Staff gave presentations on Concrete Roundabouts and Concrete Innovations.
- **Municipal Concrete Pavement Webinar Series** - The CAC partnered with Concrete Ontario to host a series of six Municipal Concrete Paving Webinars which were attended by 60 to 90 people from government agencies, cement companies and consulting firms from across Canada. Webinar topics included: Introduction to Municipal Concrete Paving; Municipal Concrete Pavement Construction; Municipal Concrete Paving Case Study #1 Harwood and Bayly Intersection, Ajax, Ontario; Case Study #2: Jamestown Avenue Overlay, Hamilton, Ontario; Case Study #3: County of Essex Roundabout, Lakeshore, Ontario; Thickness Design of Municipal Concrete Pavement Using PavementDesigner.org.
- **University of Waterloo Research Day and Brainstorming Session** – The University of Waterloo and CAC teamed up to host a Research Day and Brainstorming session to have the students present their research on cement and concrete related projects and have a brainstorming session on research requirements in cement and concrete industry. The event was attended by several different municipalities, MTO, contractors and consultants.
- **Presentation Critiquing Winnipeg Pavement Type Selection Document** – CAC staff presented a critique of the numerous issues with the draft Pavement Type Selection report which helped in having the report being rejected and the University of Manitoba deciding to redo the work with more industry input.
- **University of Manitoba Lecture on Concrete Pavements** – CAC staff were a guest lecturer at the University of Manitoba presenting on the basics of concrete pavement design and construction.
- **Building Sustainable Roads: An Introduction to Concrete Paving in Alberta** – CAC Staff organized an information / training day to promote the use of concrete pavement in the municipality of Lac La Biche.
- **Presentations at TAC Construction Committee Meeting** – CAC staff were a guest lecturer at the TAC Construction Standing Committee giving a presentation entitled *Transitioning to a Low Carbon Economy with Cement and Concrete*.

With limited ability to travel, and those limitations expected to continue deep into 2021, the CAC has adapted to virtually participate in events like the Transportation Association of Canada's conference and technical meetings, as well as promote educational webinar events from allies like the NRMCA, PCA, CP Tech Centre and MIT Concrete Sustainability Hub to our network of regulators and specifiers. The CAC has recently begun to develop its own webinar content for concrete pavement promotion. The continued development of online resources will be a priority in the New Year, including items such as the recently completed Concrete Pavement Key Technical Resources Directory, which will be available on the new CAC website in 2021.



"The continued development of online resources will be a priority in the New Year, including items such as the recently completed Concrete Pavement Key Technical Resources Directory..."



Technical Committee Involvement

Acting as representative for the cement and concrete industry, the CAC promotes the many benefits of concrete pavements, cement-based roadway solutions and use of PLC to various organizations and technical committees, such as TAC committees, Ontario Road Builders Association (ORBA) Structures and Concrete Paving Committee, American Concrete Institute committees, OGRA Concrete Liaison, Concrete Ontario Technical Committee and Canadian Airfield Pavement Technical Group (CAPTG).

CAC's Tim Smith is the secretary for the CAC Ontario Technical Committee which held three meetings in 2020. The key function of this group is to discuss Ontario's Cement and Concrete Industries technical issues and liaison with MTO and Ontario municipalities on specification, certification, and testing issues. Other areas of discussion are marketing and promotional topics, research needs for the Industry and liaison with other organizations such as OGRA Concrete Liaison Committee and Concrete Ontario. Key accomplishments of the Committee in 2020 included the MOT acceptance of GUL, an approved change to OPSS.PROV 1350 GHG Reduction, Cement and Concrete Reference Laboratory (CCRL) acceptance for MTO Sulphate Testing, comments on MTO OPSS and OPSD documents, Greater Toronto Airport Authority (GTAA) Concrete Pavement Specification Review, and Municipal Exterior Flatwork Certification Document.

Technical Assistance

Another key role of the CAC is to respond to numerous technical inquiries from government agencies, consultants and contractors on concrete pavement and cement-based roadway solutions. This includes providing current and relevant documentation on LCCA, LCA, PLC, low carbon concrete, concrete pavement repair and specification reviews. Design assistance for conventional concrete pavement and roller compacted concrete (RCC) is another important function of the technical staff, helping to ensure equivalent concrete and asphalt designs are being compared. This year's key accomplishments are as follows:

- **Alternative Concrete Pavement Design for Highway 107 in Halifax, Nova Scotia** – CAC staff worked with Nova Scotia Transportation and Infrastructure Renewal (NSTIR) staff to ensure equivalent concrete and asphalt structures were tendered and provided input on the LCCA component of the tender documents. The concrete option ends up having a \$1 M dollar LCCA cost advantage. Unfortunately, no concrete pavement bids were received.
- **Member of TAC Project Steering Committee Member for Best Practice for Evaluating Soil and Material** – CAC provided detailed input on this document which is expected to be released shortly in early 2021. The document identifies several cementitious-based solutions for soil and material including a chapter on cementitious stabilization and summary sheets, written by CAC staff. The document also identifies six mechanical stabilization techniques which utilize cement as part of the solution, as well as identification of foamed asphalt with cement as a commonly used stabilization technique for asphalt road rehabilitation.
- **Boblo Island Development RCC Conversion Project** – The CAC worked with some AMICO staff to teach them on RCC construction and assist with the development of presentation material for review with key Town of Amherstburg personnel. The goal was to convince the Township to use RCC as the pavement type for the roadway network in the new development on Boblo Island instead of asphalt pavement. A decision on the use of RCC instead of asphalt is pending.

"Another key role of the CAC is to respond to numerous technical inquiries from government agencies, consultants and contractors on concrete pavement and cement-based roadway solutions."





REGIONAL HIGHLIGHTS



Western Region Highlights

With a significant lead in the opinion polls, Premier John Horgan called an early election for October 24th. While the Premier took criticism for calling the election during a pandemic, and ahead of the fixed election date in 2021, this was quickly forgotten with the opposition BC Liberals taking significant missteps. The [final election results](#) resulted in the BC NDP forming government with a significant majority and having been elected in 57 seats; the BC Liberals forming opposition with 28 seats; and the BC Green Party with 2 seats out of a total of 87 seats in the BC Legislature. The opposition Liberal party announced that they would carry out a process to find a new leader to replace Andrew Wilkinson.

In Saskatchewan, Premier Scott Moe led the Saskatchewan Party to an easy win during the October 26 general election. With 48 of the 61 seats, the Saskatchewan Party formed a majority government.

Government Relations

BRITISH COLUMBIA

The first two months of the year began with the BC government's Throne Speech on February 11, 2020 and presentation of the 2020 Budget on February 18th. The CAC attended the budget lock-up to preview and receive a detailed briefing. Key features of the budget included \$23 billion over three years identified for infrastructure funding; \$56 million for Clean BC's funding of industrial GHG reduction projects; and a scheduled increase in the BC Carbon Tax from \$40 to \$45 per tonne of carbon dioxide.

COVID-19 resulted in a hold on the carbon tax increase (it was initially paused, and then deferred until April 2021) as it did for much of normal life, with rapidly evolving measures starting with declaration of a BC state-of-emergency on March 17, 2020. As shops, restaurants and many other businesses closed, resulting in nearly 400,000 jobs lost within two months, the CAC worked with its allies to issue information supporting social distancing and hygiene measures that allowed construction activity to continue during the pandemic.

While much of our regular face-to-face advocacy work was put on hold, we quickly adapted with remote virtual meetings. With government's consultation on the 2021 BC budget also going virtual, CAC presented to the **BC Standing Committee on Finance and Government Services** on June 12, 2020. [The Budget 2021 Consultation report](#) released on August 21st featured our industry input on the use of waste-based fuels and the carbon tax:

*The **Cement Association of Canada** discussed opportunities to use combustible waste, such as tires and shingles to create alternative fuel. They stated that these materials often end up in the landfill but have an energy value that could be leveraged. They noted that a new category of combustible waste was added in the last budget which extends the carbon tax to wastes that could be used as alternative fuels. They recommended removing this application as waste-based fuels present an alternative to coal and natural gas, and therefore an additional opportunity to reduce the impact of greenhouse gas emissions. The **Cement Association of Canada** also highlighted issues with the application of the carbon tax on cement. They pointed out that imported cement is not subject to the tax, putting domestic suppliers at a disadvantage and resulting in a leakage of carbon, cement production, and tax revenue.*



"The Cement Association of Canada ... pointed out that imported cement is not subject to the tax, putting domestic suppliers at a disadvantage and resulting in a leakage of carbon, cement production, and tax revenue."

BC GOVERNMENT'S BUDGET 2021 CONSULTATION REPORT



In the summer, following the appointment of MLA **Ravi Kahlon**, Parliamentary Secretary for Forests, Lands, Natural Resource Operations and Rural Development to promote wood buildings in BC (he has since been appointed as Minister of Jobs, Economic Recovery and Innovation), CAC representatives had a virtual meeting, expressing their concerns. At the time, MLA Kahlon acknowledged that the “mass timber” buildings we have observed are in fact hybrid buildings that require significant amounts of other building materials, including concrete, in addition to wood. While MLA Kahlon has moved on to a new role, dialogue with government’s new Assistant Deputy Minister on this issue is expected to continue with CAC, as well as Concrete BC.

CAC participated in a virtual meeting hosted by the Business Council of BC’s Environment and Energy Committee on October 2, 2020, featuring Federal Minister Jonathan Wilkinson. During the question and answer period, he acknowledged and recognized the challenges with large final emitters, identifying cement as well as other industries and spoke to some of the carbon capture and utilization technologies under development. He also accepted that US imports of cement are a concern but noted the challenge in imposing a Border Carbon Adjustment on US imports.

PRAIRIES

In February, the CAC held a series of industry advocacy meetings in partnership with Concrete Alberta. Meetings included audiences with the Deputy Minister of Transportation; Associate Minister of Red Tape Reduction; Principal Secretary to the Premier; and the Chiefs of Staff for Municipal Affairs and Economic Development and Trade. The messaging for these meetings was largely focused on raising awareness around lower carbon cements and low carbon fuels, while highlighting concrete’s climate resilience and lifecycle benefits in relation to procurement policies.

With the onset of COVID-19, the CAC was active with the government in encouraging economic stimulus spending and maintaining the status of cement, concrete and the broader construction industry as essential business in Alberta. Together with Concrete Alberta, we also corresponded with government on addressing the economic crisis, including recommendations relating to the protection of workers, debt relief for business, ensuring payment for work done, maintaining supply chains and open transportation networks, and delaying regulatory compliance and reporting requirements. We also voiced our support for investment in municipalities and infrastructure, and prepared joint industry response to the Ministry of Infrastructure’s development of the *Alberta Infrastructure Act* and 20-year Strategic Capital Plan.

Other advocacy work in Alberta has included an outreach to urban and rural municipalities with Concrete Alberta, which included suggestions on stimulating local construction activity using concrete (such as concrete pavements), and a virtual presentation to the UCP North Rural Caucus, comprised of MLA representatives from geographies north of Edmonton, including Fort McMurray, Spruce Grove, and Grande Prairie.





Additionally, as part of the Alberta government's continued emphasis on reducing red tape, representatives from the CAC and Concrete Alberta were invited to participate in a newly formed Red Tape Reduction Industrial Manufacturing panel. The panel was mandated to identify regulatory and administrative burdens that hold back the sector and provide ideas and advice for red tape reduction, with recommendations to be incorporated into a Red Tape Reduction report that is submitted to caucus annually in August. Over the course of several panel sessions, the cement and concrete industry have brought forward a number of red tape reduction, including low carbon fuels, lower carbon cements (specifically adoption of CSA-approved cements), speed of permitting for aggregate operations, and prompt payment legislation.

On the Low Carbon Fuels front, CAC members have made progress in Alberta toward the future use of select waste materials at their facilities, while work continues on streamlining the approvals process with the Ministries of Red Tape Reduction and Environment and Parks. The CAC has met with Mark Cameron, Deputy Minister within the Premier's Policy Coordination Office in advancing this initiative, leveraging the parallel work that is underway in Ontario and the regulatory reviews commissioned from Golder Associates. An information package is currently under review with the Ministry of Environment and Parks, with discussions expected to continue into 2021.

In Saskatchewan, meanwhile, we saw a reversal on an important construction project that will help the local economy in 2020 and beyond. Early in the summer, the City of Yorkton had canceled its plans to construct a City Operations Centre, but after an outpouring of local support, including a letter from the CAC, a special advisory meeting with council was called to overturn the decision.

Markets and Technical Affairs

BRITISH COLUMBIA

CAC has continued to support its long-term relationships with Metro Vancouver and the Capital Regional District. Metro Vancouver is carrying a further review of a business case and its options for the diversion of waste materials for use as alternative fuels in the cement sector. And the Capital Regional District is expected to begin supplying dried biosolids from its new wastewater treatment plant for use as a zero-carbon fuel.

PRAIRIES

The CAC has been active in the Prairies, working on concrete pavement opportunities with provincial concrete associations. In Manitoba there have been some developments of particular concern to our industry. In September, the University of Manitoba, working at the direction of the City of Winnipeg, released a report comparing rigid and flexible roadways in very limited applications. The results were not favorable to concrete and the report was met with several formal responses from Concrete Manitoba and the CAC, detailing the technical inaccuracies of the report and the cost saving opportunities available with concrete pavements. Concurrently, the CAC assisted Concrete Manitoba in finalizing its own equivalent pavement study with Thurber Engineering. This report, modeled after similar documents for BC, Alberta, and Saskatchewan in previous years, highlights the life cycle benefits of concrete and its suitability for a variety of traffic volumes and subgrade conditions.

Also in Winnipeg, Michael McSweeney was provided the opportunity to speak to the Infrastructure Renewal and Public Works Committee in February 2020 regarding construction specifications and the use of recycled aggregate in transportation infrastructure, as well as pavements and climate change. In addition to promoting the benefits of concrete pavements, he also took the opportunity to address sustainability and the importance of acknowledging life cycle benefits in municipal procurement practices, both in terms of cost and through a climate lens.

"On the Low Carbon Fuels front, CAC members have made progress in Alberta toward the future use of select waste materials at their facilities, while work continues on streamlining the approvals process with the Ministries of Red Tape Reduction and Environment and Parks."



Ontario Region Highlights

Industry Affairs

This year marked the halfway in the Ford government's mandate. After a difficult first year in government, the Premier turned the corner beginning in the Fall 2019 and has received both praise and high approval ratings for his handling of the COVID-19 pandemic throughout the Spring and Summer. While his popularity remains high, as the pandemic continues to impact jobs and the economy, the Premier and his government is coming under increasing pressure to balance additional COVID restrictions with the economy and mental health of Ontarians.

Interactions with government changed drastically in March when everything went online. Despite the lack of physical interaction, the CAC was able to continue to interact regularly with both elected and Ministry officials and to advance key initiatives through virtual meetings.

Government Relations Activities

After a year and a half of developing relationships with the Ford government and staff, those efforts became particularly productive when interactions became virtual in March. At the beginning of the pandemic, the CAC wrote to the Premier and key Ministers to assure the government of the priority our companies put on the health and safety of our employees and our workplaces and urged the government to keep construction open. These efforts were successful and avoided for the most part any largescale shutdown of construction activities in Ontario. The CAC and Concrete Ontario also wrote to members of the Jobs and Economic Recovery Ministerial Committee stressing the importance for all levels of government to stimulate local economic activity by proceeding with infrastructure projects to get construction businesses back in operation and employees back to work. This initial correspondence was followed up in May with a joint letter from the CAC and Concrete Ontario to all provincial MPPs in Ontario again urging the government to invest in infrastructure to stimulate the economy from the effects of the pandemic.

Throughout the year, we emphasized our willingness to work with the government to stimulate local economies and bring Ontario back to economic prosperity. We continue to have ongoing discussions and outreach with Ministerial staff in our targeted Ministries of Environment, Infrastructure, Natural Resources, Labour and Transportation.

While our government relations strategy evolved slightly over the past year, we remained focused on: delivering solutions that stimulate the economy, create jobs and protect taxpayer investment; pursuing innovation to enhance competitiveness and attract investment to Ontario facilities resulting in Ontario jobs; protecting the environment for future generations by embracing innovation and focusing on initiatives that deliver results and build climate-resilient communities; and assisting the government during this unprecedented time to ensure that our province's workers and residents are safe, our businesses return to profitability, and Ontario's economy recovers quickly.



Our key priorities remained:

1. Facilitating the use of low carbon fuels to reduce emissions;
2. Reinforcing the role Portland-Limestone cement could play to reduce GHGs at no cost to the taxpayer if mandated on all publicly funded infrastructure;
3. Promoting our red tape and regulatory burden reduction ideas;
4. Advocating for the exemption of fee increases for aggregate used in cement manufacturing and aggregate that does not travel using any public infrastructure;
5. Advocating for the use of the 'three-screen' lifecycle approach on all publicly funded infrastructure; and
6. Educating decision makers on the resiliency features of concrete infrastructure.

While traditionally we host a large lobby day in the Fall, this year we held a successful virtual scaled-down version on November 23rd focused on the following Ministries: Environment, Economic Development, Infrastructure, Natural Resources, and Transportation. With government currently focused on the post-pandemic economic recovery, our messages focused on the positive role cement and concrete can contribute.

CLIMATE POLICY: THE USE OF LOW CARBON FUELS

This year the CAC put a focus on facilitating the use of low-carbon fuels by our industry. To assist in our efforts, the CAC hired Golder and Associates to do a comparison of the regulatory approval processes in Alberta and Ontario to the streamlined process currently in place in British Columbia. Our goal was to provide the Ministry of Environment, Conservation and Parks with the exact wording changes for both the regulation and the operating terms and conditions to facilitate the use of low-carbon fuels.

We have advanced this goal significantly with productive meetings with the Ministry over the past several months. We were pleased to have the Minister indicate his support for this initiative at our recent Lobby Day as well as highlighting it in a recent news release as a key priority moving forward for the Ministry's Made-in-Ontario Environment Plan. In response, the CAC issued our own news release commending the government for their support of our low-carbon fuel initiative that will allow us to reduce our carbon footprint. Our goal is to have the changes implemented in the first half of 2021.

EMISSIONS PERFORMANCE SYSTEM

In 2019, the Ontario government proposed its own Emissions Performance Standard (EPS) with the goal of achieving equivalency with the federal Output-Based Pricing System (OBPS). The CAC participated in sector specific negotiations on the EPS in early 2019 and made a formal submission where we expressed support for Ontario's approach. The final EPS was published in the summer of 2019. To the surprise of many, in October of this year the federal government announced that it would grant the Ontario EPS equivalency. To date, few details have been provided while the federal and Ontario governments work together on the specifics of the transition. The CAC continues to follow-up with the Ministry to ensure a smooth transition for our members to the new Ontario EPS program.

RED TAPE AND REGULATORY BURDEN REFORM

This government initiative continued to be a priority in 2020 and the CAC has promoted its submission in several meetings with the Premier's office, the Deputy Minister responsible for Red Tape and Regulatory Burden Reduction, and the Chief of Staff to the Minister responsible for Red Tape Reduction. The top three

"In response, the CAC issued our own news release commending the government for their support of our low-carbon initiative that will allow us to reduce our carbon footprint."



items in our submission continue to be: facilitating the use of low carbon fuels, mandating of Portland-Limestone Cement on all publicly funded infrastructure investments, and the adoption of the three-screen approach to lifecycle costing. We also continue to work with the Ministry of Natural Resources on the removal of fees on aggregate used in cement manufacturing or that does not ship using any public infrastructure.

COMMITTEE APPEARANCES

The CAC appeared before Committees three times over the past year:

- The first was in January 2020 where the CAC presented before the Minister of Finance's pre-budget consultation (in advance of the March 2020 budget) and stressed the need for investment in infrastructure, reducing red tape, and building smarter using the three-screen approach to investment.
- In July 2020, the CAC appeared before the Standing Committee on Finance and Economic Affairs studying the pandemic's impact on industry. This presentation also focused on the need for investment in infrastructure to stimulate economic activity, reduction of red tape and regulatory burden, and investments in value using a three-screen lifecycle approach.
- Finally, the CAC appeared before the Finance Minister's pre-budget consultations in October 2020, in advance of the November 20th budget. This submission focused on the post-pandemic recovery, the importance for the government to keep construction moving and concerns with the availability of certain trades. It also recommended to invest in value over cost by adopting a full lifecycle asset management perspective to maximize value for the taxpayer while realizing other policy objectives like reducing GHG emissions and fostering innovation, cut red tape for business, and encourage the promotion of women in the trades to address the 'she-cession' brought to light by COVID-19.

"With the help of a facilitator the group of cement and concrete allies were able to identify targeted Ontario Ministries where common interests could be advanced to promote cement and concrete with the government."

PARTNERSHIPS WITH CEMENT AND CONCRETE ALLIES

In late 2019, cement and concrete allies came together to discuss opportunities to work together to address common areas of concern and advocacy with the Ford government. With the help of a facilitator the group of cement and concrete allies were able to identify targeted Ontario Ministries where common interests could be advanced to promote cement and concrete with the government. The group aimed to identify at least one common goal in each Ministry to leverage our collective resources, expedite change and create a plan to achieve the goal. In 2020, the group met three additional times to review goals and achievements and identify new opportunities for collaboration. Several meetings with government have been held to advance these goals. We continue to look for opportunities to advance goals that will benefit the industry as a whole.



CONCRETE ONTARIO ADVOCACY

We also advanced specific issues for Concrete Ontario with the provincial government. This included Ministry specific meetings, committee appearances, budget submissions, and joint letters to the provincial government. We continue to build this relationship and look for opportunities to leverage the collective strength of our two organizations.



Quebec and Atlantic Region Highlights

Government Relations

The COVID-19 pandemic strongly affected how we do business and interact with government officials. In 2019, CAC officials had made good progress in making the cement and concrete industry better known to the recently elected Legault Government. In 2020, government priorities shifted to the management of the health crisis. As a result, opportunities for the CAC to interact with elected officials were somewhat limited.

The CAC worked relentlessly in the Spring to demonstrate to government officials that adequate health and safety measures were implemented by the industry, both in industrial settings and on construction sites. Several letters were sent to key Ministers (Economy and Innovation, Labour) and to the Premier to advocate for construction and cement production to be considered essential services. Numerous interactions with Ministries having regulatory responsibilities (Environment and Climate Change, Energy and Natural Resources) were also conducted in order to obtain flexibility on certain regulatory timelines and reporting requirements. These were necessary given the technical and administrative challenges associated with the sanitary measures across Quebec.

The CAC is planning to develop a renewed Government Relations strategy for Quebec in early 2021. The promotion of a life-cycle approach to procurement, the environmental and financial benefits of concrete pavements, the barriers to the use of low carbon fuels and the importance of science-based decisions to support the choice of construction materials will most likely be part of the strategy.

In Atlantic Canada, our activities have been limited in 2020 because of the pandemic crisis. The CAC will continue to follow the political scene in Nova Scotia, where the next general election is expected for Fall 2021 or early in 2022. CAC officials will also continue to monitor the implementation of Nova Scotia's cap-and-trade program and will support Members as needed.

Industry Affairs

Like in the preceding year, critical files for the cement industry in 2020 included the proposed elimination of thermal coal by 2030, the development of the rules for the cap-and-trade program beyond 2023 and the modernization of the provincial environmental authorization regime under the renewed *Environment Quality Act*.

Working with partners is equally important for the CAC. As a Board member of CPEQ (Québec Environmental Business Council), and a key player in CPEQ Air & Climate Change Committee, we took advantage of numerous meetings and opportunities throughout the year to discuss government programs and policies with other industry sectors, identify common concerns and develop joint strategies when appropriate.

"Numerous interactions with Ministries having regulatory responsibilities (Environment and Climate Change, Energy and Natural Resources) were also conducted in order to obtain flexibility on certain regulatory timelines and reporting requirements."

LE BÉTON

Bâtir pour l'avenir^{MC}

Guide des meilleures pratiques de santé et sécurité pour les employés de l'industrie du ciment et du béton pendant la pandémie COVID-19

COVID-19 est un virus aux complications graves, parfois même mortelles, en particulier chez les personnes âgées ou celles dont le système immunitaire est affaibli. Il peut être contagieux jusqu'à 14 jours, même si la personne infectée ne présente aucun symptôme. Le virus se transmet soit par contact personnel étroit avec une personne infectée – par des gouttes de salive lors de conversations rapprochées, d'éternuements ou de toux – ou en touchant des objets ou des surfaces contaminées, puis en touchant votre bouche, votre nez ou vos yeux. Les données actuelles suggèrent que la propagation de personne à personne se produit le plus souvent lorsqu'il y a un contact étroit avec d'autres personnes.

Les directives suivantes visent à assurer la sécurité des employés de l'industrie et à empêcher la propagation de COVID-19. Elles sont basées sur les conseils et directives actuels des autorités canadiennes en matière de santé publique (fédérales et provinciales). Nous vous encourageons à lire, suivre et discuter de ces directives avec vos collègues et votre famille. C'est grâce au respect rigoureux de ces directives que nous pouvons espérer la courbe du virus COVID-19.

Veuillez noter que les lignes directrices fédérales et provinciales vont évoluer au cours de la pandémie. Assurez-vous de consulter les agences de santé publique nationales et provinciales, incluses plus loin dans ce document, pour obtenir les dernières informations.


OPÉRATEURS DE BÉTONNIÈRES, VÉHICULES, ÉQUIPEMENT LOURD ET MOBILE



1 Si vous éprouvez des symptômes liés au COVID (fièvre, toux sèche ou difficultés respiratoires), ne venez pas au travail et contactez votre superviseur. Si l'un de ces symptômes survient pendant votre journée de travail, signalez-le immédiatement à votre supérieur immédiat et alertez les autorités de santé de votre région pour obtenir des instructions.



2 Si vous toussiez ou éternuez, couvrez votre bouche avec votre coude plié ou avec des mouchoirs jetables, même si vous êtes seul, car vous pouvez contaminer des surfaces, des objets ou du matériel que d'autres personnes peuvent ensuite utiliser. Jetez les mouchoirs utilisés et lavez-vous les mains pendant 20 secondes ou utilisez tout de suite un désinfectant pour les mains.





Along with our Members, we held a meeting of the CAC-MELCC Joint Committee in early December, in addition to other engagement activities on specific files throughout the year. This joint committee is critical in advocating to and educating government officials on our industry and how our sector can remain competitive in Québec.

QUEBEC'S CAP-AND-TRADE PROGRAM POST-2020

In September 2019, the Quebec Government had initiated discussions on the cap-and-trade program post-2023. Government officials presented an aggressive approach to reduce emissions, including significant reduction in the free allowances regime, while also ramping up funding programs to help the industry transition to a low-carbon economy. On the free allowances regime, they recognized the higher level of risk for sectors such as cement, lime and the production of silicium and ferrosilicium. For those sectors, the proposed reduction in free allowances would be 2.34% annually, while it would be 4% for everybody else. They introduced a new concept where out of the required reductions, one fraction would be paid in a special fund where the money from a facility would sit for a maximum of 5 years and would be available only to that very same facility to finance GHG reduction projects. If the facility does not use it, then the money would go to the Green Fund. They also suggested a factor that would influence the actual reduction of free allowances based on the evolution of carbon prices in the world. This means that the 2.34% reduction rate could actually be less (between 0 and 0.6% less). The CAC submitted written comments in November 2019, emphasizing the need for greater certainty, as the approach presented by the Government introduced new factors that bear great uncertainty, thereby providing a disincentive to investment and innovation.

In April 2020, Minister Charette announced that further consultations on the post-2023 regime were delayed until the Fall because of the COVID-19 pandemic. Some minor changes have been proposed to the *Regulation respecting a cap-and-trade system for greenhouse gas emission allowances* but these changes mainly involve administrative adjustments to ensure consistency between various regulations and certain adjustments made necessary following Ontario's withdrawal from the joint cap and trade system in 2018. There are no expected significant impacts on cement plants. The details of the proposed free allowances regime for the post-2023 period, which will be very relevant to cement manufacturing facilities, will be part of a separate consultation process expected in early 2021. The CAC continues to monitor the situation and will engage Members when this process is initiated.

ELIMINATION OF THERMAL COAL

Quebec's *Energy Policy 2030* was formally released in 2016. The specific targets to be achieved by 2030 are very ambitious and include the elimination of thermal coal in industry, with an exception where proven carbon capture, sequestration or utilization technology is applied. The CAQ Government has made it clear that the Government will not walk away from this objective but will seek to work with industry to create support programs as necessary to protect the industry's competitiveness. Following several discussions between the CAC and the Ministry of Energy and Natural Resources (MÉRN), bilateral meetings were held in Fall 2019 between individual plants and MÉRN officials, including the Associate Deputy Minister of Energy.

"Following several discussions between the CAC and the Ministry of Energy and Natural Resources (MÉRN), bilateral meetings were held in Fall 2019 between individual plants and MÉRN officials, including the Associate Deputy Minister of Energy."



Government officials showed a genuine interest in understanding the impact of the new policy on cement plants and committed to work towards solutions. It was expected that the Government would take a few weeks to develop potential avenues of solution and would reconvene industry players for more solution-focused discussions in early 2020. While the Government is still committed to continue this engagement process with the industry, no progress was made in 2020 because of the COVID-19 pandemic. The CAC is in contact with the Associate Deputy Minister and is waiting for further development in 2021. We believe that the Government would be willing to provide funding towards plant modernization initiatives and potential carbon capture, sequestration and utilization projects.

MODERNIZATION OF THE ENVIRONMENTAL AUTHORIZATION REGIME

The *Règlement sur l'encadrement d'activités en fonction de leur impact sur l'environnement* was published in its final version in the *Gazette officielle du Québec* on September 2, 2020. These regulations, along with amendments to 21 other regulations, represent the end result of a multi-year process to modernize the environmental authorization regime under the *Environment Quality Act*.

The new regime introduces a risk-based approach to the authorization process, adjusting the comprehensiveness of the process to the level of risk of the activity. Despite an inclusive process that provided several opportunities for the industry and other stakeholders to articulate their comments and concerns, the final regulations do not include significant gains for the cement industry. In short, the new regime brings some improvements but still falls short of fixing the main problem for the industry which is the length of the approval process for most projects, including the use of low-carbon fuels in cement kilns. The CAC continues to monitor the situation and we hope to identify opportunities for improvement during the implementation of this new regime.



Markets and Technical Affairs

An important part of our activities aims at promoting the sustainability and durability of concrete infrastructure. This is done through education on life cycle analysis and life cycle cost analysis. In recent years, the CAC commissioned AppEco, an economic consulting firm, to conduct a study on the cost-benefit analysis of pavement procurement policies in Quebec. The main objectives of the study were to summarize the state of knowledge of the economic performance of the two major types of road surfaces, asphalt and concrete, and assess the potential savings that would result from optimizing road surfaces in the future. The report concluded that concrete pavements are not only economically efficient over the lifecycle of the road infrastructure, but that in certain cases, even the initial cost is competitive. The study was presented to government officials in 2018 and 2019. We are planning to go back to various Ministries with this study in 2021. Our main goal is to influence government procurement policies and practices to allow for "alternative bids" for roads and highways construction and maintenance projects.