

April 24, 2018

Mayor and Council  
City of Victoria  
City Hall, 1 Centennial Square  
Victoria, BC V8W 1P6

**Re: City of Victoria – Adoption of the BC Energy Step Code**

This letter is in regard to the City of Victoria's proposed adoption of the new BC Energy Step Code. As an actively practicing Professional Engineer and member of the local design and development community, I appreciate this opportunity to share my perspective on the new code in general, and its specific application within the City of Victoria and the greater Capital Regional District area.

Integral Group is an international engineering consulting firm, focused on the design of mechanical and electrical services for high-performance buildings and projects with sustainability and energy-efficiency goals. Our organization includes offices in Canada, the USA, the United Kingdom, and Australia – locally, our focus is on “Part 3” buildings, which include multi-unit residential buildings, commercial developments, and institutional projects. I have had the privilege of being involved with the design of many significant projects in Victoria, and am familiar with the local industry conventions and design approach for both code-minimum buildings and those pushing the envelope of high performance.

I have also enjoyed the opportunity to be involved with some of the industry engagement workshops jointly hosted by Victoria and Saanich between November 2017 and March 2018. I applaud the efforts of your staff in making a genuine and concerted effort to reach out and garner candid feedback from all areas of the industry including building owners, contractors, architects, engineers, and even building officials from adjacent jurisdictions.

The BC Energy Step Code is a practical and transparent approach to achieving an aggressive but necessary improvement over the current code-minimum energy performance. The provincial BC Climate Action Plan proposes that all new buildings be “net zero energy ready” by 2032, representing a 50% increase in energy performance in less than 14 years from now. I believe that the level of design sophistication, available products, and technology exist to achieve this level of performance today. However, a change in the code-mandated baseline performance of this magnitude (i.e. from today's current code-minimum directly to a net-zero-energy-ready level of performance) would not be realistic to suddenly enforce in a single discrete code change. This is why I support the Step Code as a practical, transparent, and methodical approach to foster the adoption of more energy-efficient practices and technologies, with a schedule that will afford municipalities time to equip themselves to properly interpret and enforce energy performance as part of the building code.

Further, I support the recommended adoption schedule proposed for Victoria: for all Part 3 buildings to conform with Step 1 of the new code by November 2018, and Step 2 by January 2020. Step 1 does not involve mandatory maximum energy thresholds, but does require project owners to conduct energy modeling and construction air tightness testing, and disclose their results. In my view, this is a grace period that will introduce these valuable tools to project teams not already using them, and can be implemented immediately.

In our experience, Step 2 for large and complex buildings can be achieved with current best practices and judicious application of high-quality building materials and systems, and does not impose an unrealistic burden for conventional projects. I believe Step 2 can be implemented immediately, or in the very near future. Further, I believe that Step 3 for commercial and MURB projects is also achievable now, however the highest levels of building energy performance require careful and deliberate planning, including adequate notice to long-term projects to incorporate these goals in their overall design. With this in mind, I also support the adoption of Step 2 for these buildings starting in January 2020, with a recommendation that adoption of Step 3 be considered to follow soon after, with substantial advance notice to local builders, developers, and design professionals.

To accompany my general support of the Step Code, I also predict that its adoption will introduce new challenges and dilemmas that will require thoughtful and clear guidance from the Province of BC alongside local municipalities:

1. As the authority having jurisdiction, the City of Victoria must be prepared to understand, interpret, and enforce the new code requirements. While Part 3 buildings will continue to require the use of Registered Professional Architects and Engineers for building design, the preparation of energy modeling and conducting of air tightness testing must also be performed by qualified persons who are held to a similar level of scrutiny and integrity. Municipalities requiring compliance with the Step Code must be prepared to employ building officials who are qualified to review and interrogate energy and air-tightness results, and ensure that all projects are being held to the same standard of accountability.
2. Resolve uncertainty in application of the Step Code to certain projects, and room for interpretation in general. Evaluation of building energy performance is a science and industry in itself, and municipalities will be put in a position of arbitrating interpretations, precedents, and special cases within a code developed by the province. Measures must be taken to ensure clear, fair, and consistent application of the Step Code throughout BC.

In closing, I reemphasize my general support of the proposed adoption of the Step Code by the City of Victoria, particularly as it will apply to large and complex residential and commercial projects. Advancement of code-minimum energy performance is an important local step and broader gesture toward improving the sustainability of our built environment and slowing global climate change. Please accept my gratitude for the opportunity to be involved with the industry engagement process, and my acknowledgement for the leadership demonstrated by advancing this progressive policy change.

Respectfully submitted,

INTEGRAL GROUP

A handwritten signature in black ink, appearing to be 'AC', written in a cursive style.

Andy Chong, PEng, BScE, LEED AP  
Principal



April 25, 2018

Mayor and Council  
City of Victoria - City Hall, 1 Centennial Square  
Victoria, BC V8W 1P6

**Re: The City of Victoria's Adoption of the BC Energy Step Code**

It is our pleasure and privilege to submit our comments on the City of Victoria's proposed adoption of the BC Energy Step Code. As members of the building design and construction industry, we are very pleased to have the opportunity to support the City and ensure that the Step Code's application will benefit members of the community of Victoria and the greater Capital Regional District.

The BC Energy Step Code was introduced in order to allow local governments to require "better than building code" levels of performance as a means of pursuing their energy use and emission reduction targets. It shifts the industry away from a more prescriptive approach to building design, towards one that uses energy use intensity metrics as a means of measuring and requiring higher levels of building performance. The Step Code has been welcomed across the building industry as a means of improving consistency between local governments, as well as the flexibility with which they can meet provincial building code requirements. The Step Code also provides the industry with much-needed clarity and transparency in terms of future building code updates. For these reasons, BC's largest homebuilding and development associations have supported the development and implementation of the Step Code. In our work with clients all over North America, Europe and Australia, the BC Energy Step Code is recognized as a world-leading standard and unique market transformation tool.

Research on the impact of the BC Energy Step Code has also shown that the current state of the industry is well within their ability to meet Steps 1 and 2, and have the skills and materials necessary to meet Step 3, regardless of building type. Conventional construction practices are already sufficient to meet these tiers of the Step Code, without the need for high cost building components or special technologies. Indeed, 23 local governments have already expressed a willingness to adopt the Step Code itself, with several of these committing to setting Step 3 as their baseline starting point for building performance, in part in recognition of the ease with which these levels can be achieved.

This is why we would like to offer our strong support to the City of Victoria in adopting the Step Code, and applaud the City's decision to adopt Step 1 in November of this year. However, we would like to encourage the City to join other neighbouring municipalities in adopting Step 3 across all building types by 2020 in order to demonstrate the City's commitment to reducing greenhouse gas emissions and reducing the community's contribution to climate change. We also would like to recommend that the City consider the adoption of an associated greenhouse gas intensity metric of 6kg/m<sup>2</sup>/yr. alongside the energy use intensity metrics of the Step Code itself. This is because while the Step Code targets energy use as a means of reducing greenhouse gas emissions, our work with leading governments has shown that a focus specifically on the greenhouse gas emissions intensity is the most cost effective, efficient and meaningful ways to reduce GHG's. Leading cities such as Toronto and Vancouver and countries including France, the UK, and Spain all have GHG metrics and requirements in their building codes.

In closing, we want to say that it is truly inspiring to see the leadership Victoria and other Island local governments are taking with the Step Code, and we want you to know that the design industry, as represented by firms such as ours, supports you completely in this courageous and important work.

Respectfully,

Dave Ramslie  
Principal, Integral Group

Lisa Westerhoff  
Associate, Integral Group



April 25<sup>th</sup>, 2018

Dear Mayor and Council:

On behalf of the Canadian Home Builders' Association Vancouver Island, I am writing to offer our thanks to the City of Victoria for providing this opportunity for industry engagement on the BC Energy Step Code.

In partnership with the UDI and VICA, the CHBA Vancouver Island participated in all of the consultation events. It is our belief that these consultations were very thorough and produced a fair assessment of the industry position.

We would like to commend the city staff for their effort and willingness to work with the industry to deliver the best possible results. We would also like to express our appreciation for the City's readiness to work with other regional partners and municipalities. This regional cooperation will provide the industry with a consistent process that will benefit all involved.

As the region moves to higher performance levels, builder education will become more critical. The CHBA currently has ongoing education programs for this purpose. We look forward to any opportunities to partner with the city to help raise the level of knowledge and professionalism within the industry.

As the Step Code process is implemented, we remain committed to continuing this dialogue and participating as an active partner in in this process.

Sincerely,

Mark Bernhardt B.Sc.  
President,  
On behalf of CHBA Vancouver Island  
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