



VILLAGE OF HASTINGS-ON-HUDSON

Municipal Building

7 Maple Avenue

Hastings-on-Hudson, New York 10706

RESOLUTION

On motion of Trustee Lambert, seconded by Trustee Fleisig the following Resolution was duly adopted on roll call vote:

50:20 RESOLUTION FOR LOW- EMBODIED CARBON CONCRETE FOR BUILDING AND INFRASTRUCTURE PROJECTS IN THE VILLAGE OF HASTINGS-ON-HUDSON

WHEREAS, there is scientific consensus regarding the reality of climate change and recognition that the emission of greenhouse gasses from human activity and the construction of the built environment are significant drivers of climate change; and

WHEREAS, the Intergovernmental Panel on Climate Change, an intergovernmental body of the United Nations that is dedicated to providing the world with an objective, scientific view of climate change, reported in 2013 that the last 30 years were the warmest since 1850 and likely the warmest in the past 1,400 years, and that the current decade is set to be the hottest on record; that carbon dioxide, methane, and nitrous oxide levels are at their highest levels in 800,000 years; and that global mean sea level rose 0.62 feet from 1901 to 2010 and continues to rise; and

WHEREAS, the Village of Hastings-on-Hudson is committed, through its Sustainability Action Plan, commitment to the Paris Climate Agreement and the Global Covenant of Mayors for Climate & Energy, and adoption of the New York State Climate Smart Communities pledge, to implement policies and undertake all possible measures to reduce its contribution to human caused climate change, including reducing greenhouse gas emissions; and

WHEREAS, embodied carbon refers to the carbon emissions generated as a result of the manufacturing and transportation of materials and the construction of building and infrastructure projects; and

WHEREAS, concrete is the most widely used construction material in the world because of its low cost, strength, and durability, among other factors, and is a significant component of all building and infrastructure projects, including those of municipalities; and

WHEREAS, cement, the critical ingredient that gives the concrete its strength, is responsible for up to seven percent of the world's carbon dioxide emissions, mainly through a chemical process called calcination, as well as through the use of energy in production derived from the combustion of fossil fuels; and

WHEREAS, low-embodied carbon concrete is defined as concrete that has been verified, as measured by a Global Warming Potential (GWP) metric, to embody lower carbon emissions as compared to the baseline embodied carbon emissions of conventional concrete; and

WHEREAS, lowering the embodied carbon emissions from concrete can be achieved through diverse methods and processes, including but not limited to: (A) using less cement in concrete mixes; (B) replacing or substituting cement with supplemental cementitious materials (SCMs) such as fly ash, blast furnace slag, or ground glass pozzolan; (C) using locally produced cement and other concrete components resulting in reduced emissions from transport; (D) the utilization and mineralization of carbon in concrete materials; and

WHEREAS, the quality of concrete may be improved through these techniques, the cost compared to traditional methods is offset by lower materials cost, and the use of low-embodied concrete is established in the construction sector and has been successfully utilized for the construction of building and infrastructure projects by several municipalities; and

WHEREAS, the annual benefits of the use of this concrete in New York State, if universally adopted would be the equivalent to the carbon sequestration for tens of thousands of acres of preserved forest; and

WHEREAS, the Village of Hastings-on-Hudson has the opportunity to be a leader in New York State in promoting the use of this technology; therefore, be it

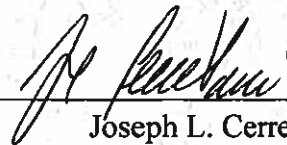
RESOLVED: that the Village of Hastings-on-Hudson encourages, and will work to promote, the use of low embodied carbon concrete products in building and infrastructure projects involving concrete, where the utilization of low embodied carbon concrete does not significantly increase the costs of or delay project completion, and where utilization does not compromise either construction integrity or public safety. Such promotion could include, but may not be limited to, identifying local low embodied carbon concrete product options, making embodied carbon concrete educational materials more accessible, recognizing local projects utilizing low embodied carbon concrete products, and sharing Hastings-on-Hudson's program successes and lessons learned with other towns and local governments in the state and region.

| ROLL CALL VOTE | AYE | NAY |
|------------------------|------------|------------|
| Trustee Mary Lambert | X | |
| Trustee Morgen Fleisig | X | |
| Trustee Georgia Lopez | X | |
| Trustee Marc Leaf | | (Absent) |
| Mayor Nicola Armacost | X | |

CERTIFICATION

I, Joseph L. Cerretani, Village Clerk of Hastings-on-Hudson, do hereby certify that I have compared the foregoing copy of the Resolution adopted at a Regular Meeting of the Board of Trustees on May 19, 2020 with the original now remaining on file at this office and that the same is a correct transcript therefrom and of the whole of said original.

IN WITNESS WHEREOF, I have hereunto set my hand and the official seal of the Village of Hastings-on-Hudson this 20th day of May 2020.

A handwritten signature in cursive script, appearing to read "J. Cerretani", is written over a horizontal line.

Joseph L. Cerretani
Village Clerk