**RESOLUTION NO.**

**WHEREAS**, the City of Austin has long been at the forefront of combating climate crisis by creating policies that reduce carbon emissions, and improve the environment and quality of life for residents; and

**WHEREAS**, the City, as a leader in innovation, routinely identifies and tests solutions to complex challenges facing the City; and

**WHEREAS**, the Austin Climate Equity Plan includes goals of equitably reaching net-zero community-wide greenhouse gas emissions by 2040; and

**WHEREAS**, in 2019 the Environmental Commission passed Motion 20190619-007c related to piloting low-carbon concrete; and

**WHEREAS**, Austin Energy's Green Building Program has encouraged the use of Environmental Product Declarations to increase understanding of the environmental impact of the products and materials used by the City; and

**WHEREAS**, the federal government has defined concrete as one of the four highest contributing construction materials to greenhouse gas (GHG) emissions along with asphalt, steel, and sheet glass; and

**WHEREAS**, concrete plays a vital role in our daily lives in shaping the built environment around us, from schools, hospitals, and housing, to roads, bridges, tunnels, runways, and sewage systems; and

**WHEREAS**, if concrete were a country, it would be the third largest emitter of greenhouse gases on earth, behind China and the United States; and

**WHEREAS**, concrete is a complex recipe of materials with a diverse set of uses and applications; and

**WHEREAS**, cement, the key ingredient that gives concrete its strength is produced by baking limestone in kilns, a process that typically uses coal or natural gas as fuel and consumes a large amount of energy while releasing carbon dioxide ($CO_2$) from the combustion; and

**WHEREAS**, cement production accounts for seven percent of all global carbon emissions, more than three times the emissions produced by aviation; and

**WHEREAS**, technology exists to enhance the sustainability of concrete mixtures that will enable concrete producers to effectively reduce GHG emissions resulting in economic and climate benefits; and

**WHEREAS,** the transition to more sustainable concrete has already begun in Austin with more than 1,000,000 cubic yards of lower carbon concrete used since 2019 with no net additional cost to the marketplace and reducing the carbon footprint of these materials by thousands of tons of $CO_2$; **NOW, THEREFORE,**

**BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:**

The City Manager is directed to explore a plan to transition all future City contracts and projects to low-embodied-carbon concrete. The plan should address the following:

1. Create procedures for tracking concrete that:
    - Identify how much concrete is used on City projects, and projects that will be owned and maintained by the City to better understand Austin's environmental footprint and influence our future designs, specifications, and decisions;

- Require submittal of Environmental Product Declarations by concrete producers to encourage and influence more sustainable concrete production; and
- Develop a strategy, process, and schedule for City staff to review, comment, pilot, and approve alternative mix designs proposed by local concrete producers.

2. Establish a standard and/or definition for low-embodied-carbon concrete that may include one or more of the following strategies, but not limited to $CO_2$-injected concrete allowing for reduced cement use, reducing cement used in concrete by limiting the concrete specified to having only the characteristics needed for a reliable design life and performance, extensive use of more blended cement and Supplementary Cementitious Materials, and potential for using Performance Engineered Mixtures.
3. Provide City Council with an annual report on the progress of alternative mix designs.

**BE IT FURTHER RESOLVED:**

The City Manager is directed to return to Council with a plan and implementation schedule no later than November 30, 2023.

**ADOPTED:** _____, 2023 **ATTEST:** _____

Myrna Rios
City Clerk