

Maryland Ready Mix Concrete Association (MRMCA) comments regarding HB0261 and SB0424 Public Projects - Global Warming Potential of Materials (Buy Clean Maryland Act) and additional resources for written testimony opposing the Bills:  
2-17-2023

**GENERAL POSITION STATEMENT** - The Maryland cement and concrete industry welcomes the conversation and wants to meet with you to discuss this Bill and other legislation that aims to lower the carbon footprint of construction materials. Local concrete producers are at the forefront of innovation and technology to optimize concrete mixtures for the betterment of all Marylanders. The Maryland Ready Mix Concrete Association (MRMCA) agrees with the intent of the legislature to curb greenhouse gas (GHG) emissions of our public infrastructure projects. However, green building initiatives need to focus on more than one aspect beyond simply embodied carbon. The most effective strategy for ensuring a sustainable, built community is to consider the full life cycle of the project.

**All aspects of sustainability including resilience, energy usage, operating costs, safety, water, biodiversity, and the quality of life should be considered when planning / designing the built environment.** (See attached document given to the Maryland Dept. of General Services in September of 2022.)

**EMBODIED CARBON EMISSIONS - MAXIMUM ACCEPTABLE GLOBAL WARMING POTENTIAL - ELIGIBLE MATERIALS - EPDs**  
This Buy Clean Maryland Bill initiative emphasizes reducing a material's Global Warming Potential (GWP) impact by identifying embodied carbon emissions in "**eligible materials**". However, this Bill only identifies "**cement or concrete mixture**" as "eligible material".

**Only addressing cement and concrete in the legislation is short-sighted.** Without addressing carbon footprint reduction of all building materials and more importantly, their use, maintenance, and ultimate replacement, the legislature's effort to reduce carbon footprint misses large opportunities to make the built environment more sustainable. The limited application of this mandate to only certain building materials, placing a burden on some manufacturers and not others, is government picking winners and losers and will only increase cost to taxpayers.

#### IMPACTS OF ARBITRARY LIMITS ON HOW AN INDUSTRY MANUFACTURES ITS PRODUCTS

This proposed law appears to have no consideration of the impact of this rule on public safety, serviceability, and service life of concrete structures and other applications. Industry ingenuity and **innovation** has and will continue to move towards green construction as it aligns with the industry's internal financial incentives.

#### Additional Impacts:

- **Fast track construction** of high-rise **buildings** and **transportation projects** – roads, airport runways, bridges, may be severely constrained and can cause **significant traffic congestion** while increasing construction costs. Traffic management and user costs might increase as a result.
- Project **construction schedules** for moving formwork and opening to service loads or involving post-tensioned concrete may be delayed or additional resources could be required, thereby **increasing the cost of construction**.

#### ELIGIBLE PROJECT and Section 3-602 OF THIS ARTICLE:

- The selection of which materials are used in buildings occurs **during the DESIGN process**, which is **not typically controlled during the PROCUREMENT process**.
- In the case of concrete, **EPDs usually only list one performance metric**: 28-day strength. Since concrete mixes are created to meet numerous performance metrics—exposure, cure time, stiffness, density, constructability, etc.—it is inappropriate to compare them purely based on strength.
- The main determinant for GWP reduction is SCHEDULE. At the project bidding stage, the schedule for a project is not yet established. For concrete projects, the **optimization of all the mix designs with the schedule** (i.e., when to pull forms) is the **key to achieve carbon reduction goals**. The most sustainable design decisions using **whole building life cycle assessments (LCAs)** that include impacts from materials production, construction, operation, end-of-life **should be used by architects and engineers**.

#### Additional comments:

- Any numbers or limits established for a material should be based on **real data from local suppliers**.
- This Bill is focusing solely on CO2 and not on the **broader issues of sustainability**.
- Need to consider CO2 emissions for **operation, maintenance, and the longevity** of the structure.
- If limits are set for concrete, the whole structure should have a maximum not a category maximum. Some high strength mixes in critical areas may **lower the total emissions** of the structure.
- **Incentivize additional environmental performance**. There is currently no benefit to exceeding the minimum standard.
- This Bill only pertains to certain "**public**" projects (read public funds used for construction) and apparently does not affect **private sector projects** at this time.
- How does this Bill tie into the **Climate Solutions Now Act of 2022?**
- There are several "waivers or escapes" from the legislation mentioned in 4-904(E), that are not well defined.
- All industries, agencies, and associations involved with the construction of "public" projects will be impacted by this Bill and those industry organizations should **oppose this Bill** or at least **request amendments**.