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INDIANAPOLIS, IN 46204

January 10, 2024

Roland Fegan  
Deputy Commissioner, Construction  
Indiana Department of Transportation  
100 N. Senate Ave  
Indianapolis IN 46204

Dear Roland,

On December 17, 2024, a representative group of subject matter experts met to discuss and coalesce on recommendations addressing the IN concrete bridge deck situation. Individuals in attendance were members of the Indiana Chapter of the American Concrete Paving Association, Indiana Mineral Aggregates Association, Indiana Ready Mix Concrete Association and Indiana Constructors Inc.

First, we would like to thank you for including the private sector in your deliberations about how to approach the challenges of this issue with regard to work that has already been performed and projects slated for the future. Each organization values its relationship with the Department and strives to be a good and trusted partner.

As you know, we find ourselves in a unique position: one where work has been performed and bridge decks have been poured, all to Indiana Department of Transportation (INDOT) specification with INDOT-approved materials. But changes in these materials, and a fairly rapid series of changes in the “means and methods” of project delivery, have contributed to questionable results in some select bridge decks.

The following are our recommendations for a road map of how to tackle this challenge:

**1) Get a better handle on how broad and/or deep this situation is and develop measures of correction.**

We were encouraged to hear that INDOT has already shrunk the believed number of impacted jobs and are hopeful the number continues to decrease. Once the inventory is complete, industry believes we have a lot of expertise we can bring to the table to help you analyze the data you gather and come up with a gameplan addressing those documented projects. We are happy to assist in bringing the right people to that table. Given the right level of detail, these experts will assist both industry and INDOT in quickly understanding the extent of the concerns related to the completed work.

**2) For the near term, make a few targeted changes where there is broad consensus.**

The worst thing we could do is over-correct when we don't yet have a full understanding of why problems are occurring. We have already had several years of specification changes that helped get us where we are today and we don't need to adopt a new, sweeping specification when not enough research has been completed.

Here are a few things we would like for INDOT to consider ahead of the 2025 construction season that we are confident won't create further problems while we work on the longer-term solutions:

- Reinstate water curing concrete bridge decks and overlays;
- Define acceptance of ready-mix concrete by molding and testing lab-cured beams at 28 days. Field-cured beams can be used to determine when to open to traffic;
- Add a pay item to seal all concrete decks and overlays prior to the conclusion of the construction season;
- Review Gen1 surface best practices to determine if any particular surface distress is caused by age of pavement and the timing/equipment used in grinding and grooving.

**3) Take advantage of industry bandwidth and involve a select group of subject matter experts in finding long-term fixes.**

Of course, none of these things tackle the “why” part of this situation. The pullout/aggregate adhesion issue is particularly concerning. With all of the acknowledged moving parts of this equation (including but not limited to 1L v Type 1, nanosilicates, fines migration) there are a lot of variables at play. The private sector is willing and able to assist the Department in its research through professional consulting and/or laboratory services. We would be happy to assist you in putting the right people in the right roles so that everyone concerned is on the same page, moving forward as a team. All of us want to find the right answers but they need to be found while we are still putting work out the door. We believe an all-hands-on-deck solution process is imperative.

Further consideration could be given to a second, more contractor-centric group that could help develop more defined Best Practices when it comes to implementation. Curing, handling, placing, finishing, sealing – all of these things need to be done in a consistent manner with cross-checks and accountability along the way. Development of a comprehensive document, perhaps even with some localized training, would go a long way.

We want to emphasize again our appreciation for you reaching out and asking us to be involved in helping develop solutions. We are confident that with a commitment to trust and transparency by everyone involved, we can wrap our arms around this challenge, helping you meet your desired outcomes in the most common-sense way possible.

Sincerely,



Richard Hedgecock  
President