
TDOT AERONAUTICS ENGINEERING UPDATE

Happy New Year!!!

This edition of the Engineering Update highlights:

- ❖ 2020 TAC Dates
- ❖ Bid Lettings and Bid Tabulation Requirements
- ❖ Environmental Reviews and Procedures
- ❖ Hangar Anchor Bolts/Slab Edge Failures

2020 TAC DATES

The February TAC is now scheduled for **10:30 AM on Tuesday, February 18th** and will held in the **Gassaway Building at BNA**.

A March TAC meeting has been added! The other TAC meeting dates are *tentatively* scheduled as follows:

In order to have a executed grant ¹ in...	The TAC ² meeting would occur on ³ ...	Aeronautics review completed by... ⁴	The request shall be submitted no later than ⁵ ...
March	2/18/2020	2/7/2020	1/17/2020
April	3/25/2020	3/13/2020	2/21/2020
May	4/23/2020	4/10/2020	3/20/2020
July	6/17/2020	6/5/2020	5/15/2020
September	8/20/2020	8/7/2020	7/17/2020
November	10/22/2020	10/9/2020	9/18/2020

BID LETTINGS AND BID TABULATION REQUIREMENTS

Another important change in 2020 is that **all bid tabulations must be received with the associated funding request by the published deadlines**. To meet this requirement, it is critical to ensure that bid lettings are scheduled on appropriate dates. The March TAC meeting was added to provide another bidding opportunity prior to the prime construction season.

NEPA ENVIRONMENTAL REVIEWS AND PROCEDURES

The TDOT Aeronautics Division has developed a new Environmental Standard Operating Procedure (SOP) that took effect on January 1, 2020. The TDOT Aeronautics Division now requires environmental documentation to be completed for all State and Federally-funded projects in order to comply with NEPA, FAA guidance, Memorandum of Agreement for State Block Grant Programs, and all special purpose laws. The Environmental SOP provides guidance for airport sponsors, consultants, and TDOT Aeronautics Division staff to ensure the proper level of environmental documentation is scoped, completed, and approved for all projects.

January 3, 2020

Projects cannot proceed without the proper level of environmental documentation being completed and approved. Any work conducted on a project that has not been environmentally approved may not be eligible for reimbursement or payment under a grant. Therefore, please take the environmental process into consideration when developing project timelines. If you have any questions about the new Environmental SOP, please email your questions to Aero.Environmental@tn.gov. Please be on the lookout for the first edition of the Environmental SOP next week.

HANGAR ANCHOR BOLTS/SLAB EDGE FAILURES

We have an important update concerning structural calculations used in box hangar designs. With the assistance of Richard C. Rinks & Associates, Inc., it has come to our attention that

“box hangar pre-engineered metal building frame base plates located close to the edge of the slab may present considerable horizontal thrust (shear) at the top of the floor slab which is transferred to the anchor bolts, which could cause the slab to fail via a break-out cone as discussed in ACI-318, Appendix D (Figure RD.4.4.4(b)), in the commentary).

Once the actual design thrust is known from the governing loading combinations from the shop drawings, the structural engineer should confirm that this thrust is properly handled to avoid a break-out cone slab failure.

The structural engineer should also ensure the soil bearing capacity and foundation design are appropriate for the shop drawing controlling load reactions.”

- Richard C. Rinks, PE, RRC, AIA, CEIFSI, CMA, RLS

For more information on this topic, please contact Richard C. Rinks at

Richard C. Rinks & Associates, Inc.
Engineers - Roof Consultants - Architects
Telephone: (931) 528-5543
Email richard@rinks-consulting.com

I look forward to a new year of development and investments into our aviation system. Working together, we can all be successful!

Sincerely,



John-Paul Saalwaechter [sawl véktər], P.E. | CE Manager 2