

Oklahoma City, OK

STIC Meeting

September 29, 2016

## Update on STIC Funding to ODOT - Development of Standard Drawings of Precast Concrete Drainage Structures

On June 9, 2016, ODOT's Roadway Design Division submitted their proposal for the \$100,000 Grant awarded under FHWA's STIC Incentive Program. The proposal is for the development of standard drawings of precast concrete non-structural drainage structures.

*Currently, Roadway Design has standard drawings for these drainage structures, but the design is for those which are to be cast-in-place. More and more often on ODOT projects, contractors are opting for precast concrete structures, instead of those made on-site. Roadway Design does not have standard drawings for these type of structures; therefore, each structure's design has to be submitted as a shop drawing for review and approval before it can be used on an ODOT project.*

*One of the savings in having these standard drawings is faster project development. Often times, large construction projects may have 40 or more of these shop drawings submitted for review. Review of these structures takes a lot of time. If standard drawings were made of these structures, there would be no waiting of the contractor for the manufacturer to make these drawings and for Roadway to review them. The contractor could just order them from the manufacturer without the need to review shop drawings.*

*In addition, the construction of cast-in-place structures is dependent upon the weather; they cannot be built if there is inclement weather. Therefore, there are delays in constructing them.*

*Another savings involves safety safety for the contracting workers and safety for the travelling public. Cast-in-place structures have the potential of worker accidents when setting up the forms, pouring the concrete, and removal of the forms. Whereas the precast structures do not; they are poured in a secure, stable environment.*

*In addition, when casting in place, the concrete poured into the forms may become lower quality due to the fluctuating air temperatures and humidity. This lower quality concrete could cause failure of the structure, thereby risking the safety of the travelling public. Precast structures are made of concrete in a controlled environment at the plant.*

The Oklahoma office of the FHWA has been told of available STIC funds in FY 2016. Because of this, this office has sent in their approval to the federal office in Washington, D.C. on September 14, 2016.