

Standing Committee on Construction, Maintenance & Materials
STIC Meeting
September 29, 2016

e-Construction

Nothing new to report. This was an EDC3 initiative that ODOT felt had been already adequate addressed.

3D Modeling

There have been meetings held with designers (ODOT and consultants) and ODOT construction and construction contractors to identify improvements that can be made in the design files that are provided at the time of the bidding of projects. And ways to improve the special provision for AMG use on projects. The full implementation of the results of those meetings is still pending. The purchase of the GPS equipment for the ODOT residencies has been completed and the equipment is in use. The purchase was partially funded with previously approved STIC funds.

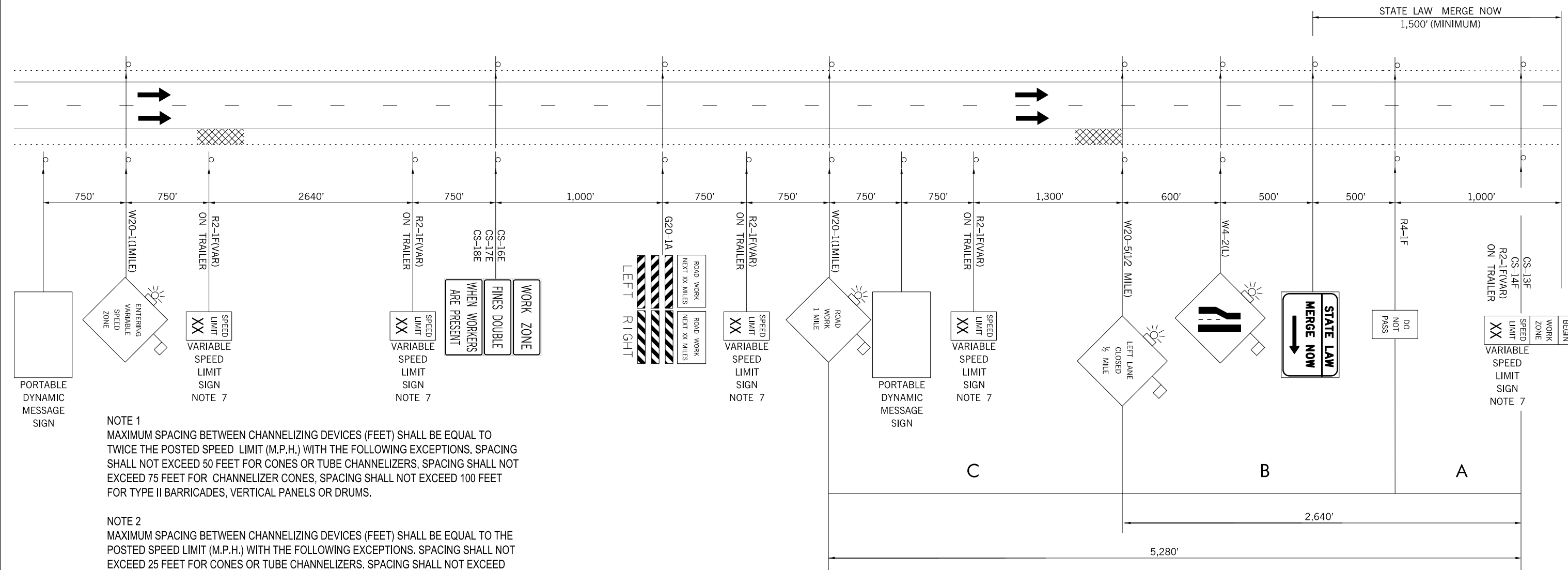
Standing Committee on Safety, Mobility & Technology
STIC Meeting
September 29, 2016

Smart Work Zone Committee

The following is a summary of the Smart Work Zone activities done by this subcommittee:

- Collected a list of all the current smart work zones in the state (I-35 and E SH-9, I-35 and I-240, I-44 and I-235)
- Still working on Evaluation of Lite and Full Smart Work Zones
- Still Determining the appropriate Methodology of selection for SWZs (Queue, WISE)
- We have determined we do not have a good estimate for property, injury or fatality accidents in work zones
- Due to the passage of legislation concerning Variable Speed Limits, our focus has turned to implementing VSL on SWZ first before rolling out permanent installation. Please see the attached proposed typical for the VSL-SWZ.

Jared Schwennesen, P.E.
ODOT - Maintenance Division
ITS and Fiber Optic



NOTE 1
 MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS, SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES, SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 2
 MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 3
 A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 4
 DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 5
 A LONGITUDINAL BUFFER AREA, TO ALLOW WORKERS TIME TO EVACUATE THE WORK AREA, SHOULD BE PROVIDED. FOR GUIDELINES ON SETTING THE LENGTH OF THIS BUFFER, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION). ACTUAL LENGTH SHALL BE DETERMINED BY FIELD CONDITIONS AND THE JUDGEMENT OF THE ENGINEER.

NOTE 6
 TYPE III BARRICADES WITH SIGNS READING "LANE CLOSED" (R11-2) SHALL BE PLACED EVERY 2,000 FEET THROUGH ACTIVITY AREA. THESE TYPE III BARRICADES AND SIGNS MAY BE OMITTED ON MOVING OPERATIONS AND SHORT DURATION PROJECTS.

NOTE 7
 CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION).

C

B

A

EXPRESSWAY/FREEWAY APPLICATION
 *(CHART DISTANCES ARE RECOMMENDED BUT NOT REQUIRED)

*

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)	100FT	100FT	100FT
URBAN (HIGH SPEED)	350FT	350FT	350FT
RURAL	500FT	500FT	500FT
EXPRESSWAY/FREEWAY	1,000FT	1,500FT	2,640FT

KEY:
 ○ SIGN
 → TRAFFIC FLOW
 [Cross-hatched] SHOULDER

NOT TO SCALE

DESIGN	XXX	XXX	OKLAHOMA DEPARTMENT OF TRANSPORTATION MAINTENANCE DIVISION - ITS BRANCH PLAN SHEETS STATE JOB NO. XXXXX(XX) SHEET NO. XX DIVISION X XXXXX COUNTY
DRAWN	XXX	XXX	
CHECKED	XXX	XXX	
MAINTENANCE DIV. JARED SCHWENNESEN			

Oklahoma City, OK

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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.

Standing Committee on Special Initiatives
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Membership Review

No activity on this topic since the last meeting. Currently have 3 people who have offered to assist with this effort.

Recommendation

Enhance this effort to review STIC membership/participation and provide vision/process recommendations addressing support of on-going STIC initiatives and activity fostering innovation outreach to STIC base and Oklahoma's transportation industry. The Office of Research & Implementation will provide foundation support for this effort.