



# Safety Program

*Fact Finding Staff Meeting*

February 14, 2011

Study location	SR 80 from Mile Post 0.000 to 18.210
Prepared by	AECOM
Managed by	Safety Office, FDOT District Four

## **Summary of Safety Improvements**

1. Install guardrails along the south side and north side of SR 80 (see attached Tech. Memo dated 9-2-2010 for details). It is our understanding that this guardrail project is being designed by the District Design Office under project number FM# 429246.01.
2. Install Curve signs facing the eastbound and westbound traffic approaching the curves located at approximately milepost 9.000, 11.000, 14.000 and 17.500.
3. Install high retro-reflective chevron signs (facing both the eastbound and westbound traffic) at the horizontal curves located in the vicinity of milepost 14.000 and 17.500.
4. Install closely spaced RPMS at all horizontal curves along the lane lines in both the eastbound and westbound directions.
5. Install appropriate signs at all median crossovers per the current MUTCD and FDOT standards.
6. Clear paved shoulders of grass to help improve drainage and thus reduce the potential for standing water and associated run-off-road (ROR) crashes.
7. Mill and resurface roadway to eliminate rutting and cracking at mile posts 1.500, 4.900, 7.500 & 14.400, and other areas wherever pavement deficiencies are present.
8. Install new signal lenses and back plates (with yellow retro-reflective material) facing the eastbound and westbound traffic at the intersection of SR 700.
9. Modify all-red clearance intervals at the intersection of SR 700 to meet the PBCTED guidelines.
10. Widen shoulders along SR 80 in both the eastbound and westbound directions from milepost 4.943 to 14.656, so that the inside paved shoulder is 8 feet wide and the outside paved shoulder is 10 feet wide. These limits were selected based on ROR crash history. The designer should determine logical begin and end limits for shoulder widening based on utilities, R/W, wetlands, geometric features and other applicable considerations.
11. Extend the guardrail in the northeast quadrant of the bridge located approximately at milepost 13.467 to cover a front slope and verify if the height and placement of guardrail at mileposts at 8.169 and 13.467 are in accordance with current FDOT standards.

12. Install "Audible Inverted Profile Pavement Markings" in both eastbound and westbound directions to alert drowsy or otherwise inattentive drivers that their vehicles are encroaching upon the edge line through tactile and auditory stimulation.
13. Install a Fog Detection and Warning System. The purpose of the system is to identify conditions of low visibility and notify approaching drivers of the limited visibility before they encounter it. This will be accomplished through the installation of visibility sensors installed along SR 80. When conditions of low visibility are encountered, the detection system will activate warning signs with flashing beacons that will be installed in advance of the identified problem area and on the approaching roadways. It is anticipated that the detectors would be placed at approximately 2 mile spacing with a height of 15 ft. The exact location, type and number of detectors are to be determined during the design phase based on a survey, right-of-way, utilities, an evaluation of other relevant issues and applicable FDOT design standards and coordination with the ITS Section of the District Traffic Operations office. Final placement of sensors and signs should be placed in a way that ensures there will be no gap in coverage within the project area.
14. Install a Detection Control System on the eastbound and westbound approaches to the intersection of SR 80 and SR 700. The designer should coordinate with the Palm Beach County Traffic Engineering Division to make sure their needs related to signal controller and the cabinet are considered as part of the design.
15. Upgrade the lighting in the vicinity of SR 700. The exact location, type and number of light poles are to be determined during the design phase based on a lighting analysis, survey, right-of-way, utilities, an evaluation of other relevant issues and applicable FDOT standards.
16. A total of 11 median crossover crashes occurred during the 5-year period from 2004 and 2008. While no formal surveys were performed (which is beyond the scope of this study), median slopes and approach grades to the median u-turns appear to be steep. A formal survey should be conducted during the design phase and an evaluation should be conducted to determine appropriate improvements such as the installation of a median guardrail or regrading the medians to meet FDOT design standards.
17. Standing water was mentioned as a roadway condition for a total 6 crashes (at mileposts 0.038, 1.966, 4.966, 8.969, 14.372, and 15.246). It is suggested that pavement rutting, cross slopes and superelevation transitions and drainage be reviewed during design phase and appropriate improvements be implemented to reduce the potential for crashes associated with standing water. Also, the use of a PG 76-22 binder within the asphalt mix should be considered to reduce future rutting.
18. The existing railroad crossing at milepost 3.447 is somewhat rough, and should be considered for replacement. In addition, pavement grades approaching the crossing should be re-evaluated to see if the roadway profile over the crossing can be smoothed on this high speed facility.