



# Safety Edge

Marion County, FL  
Office of the County Engineer

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# Marion County Safety Edge

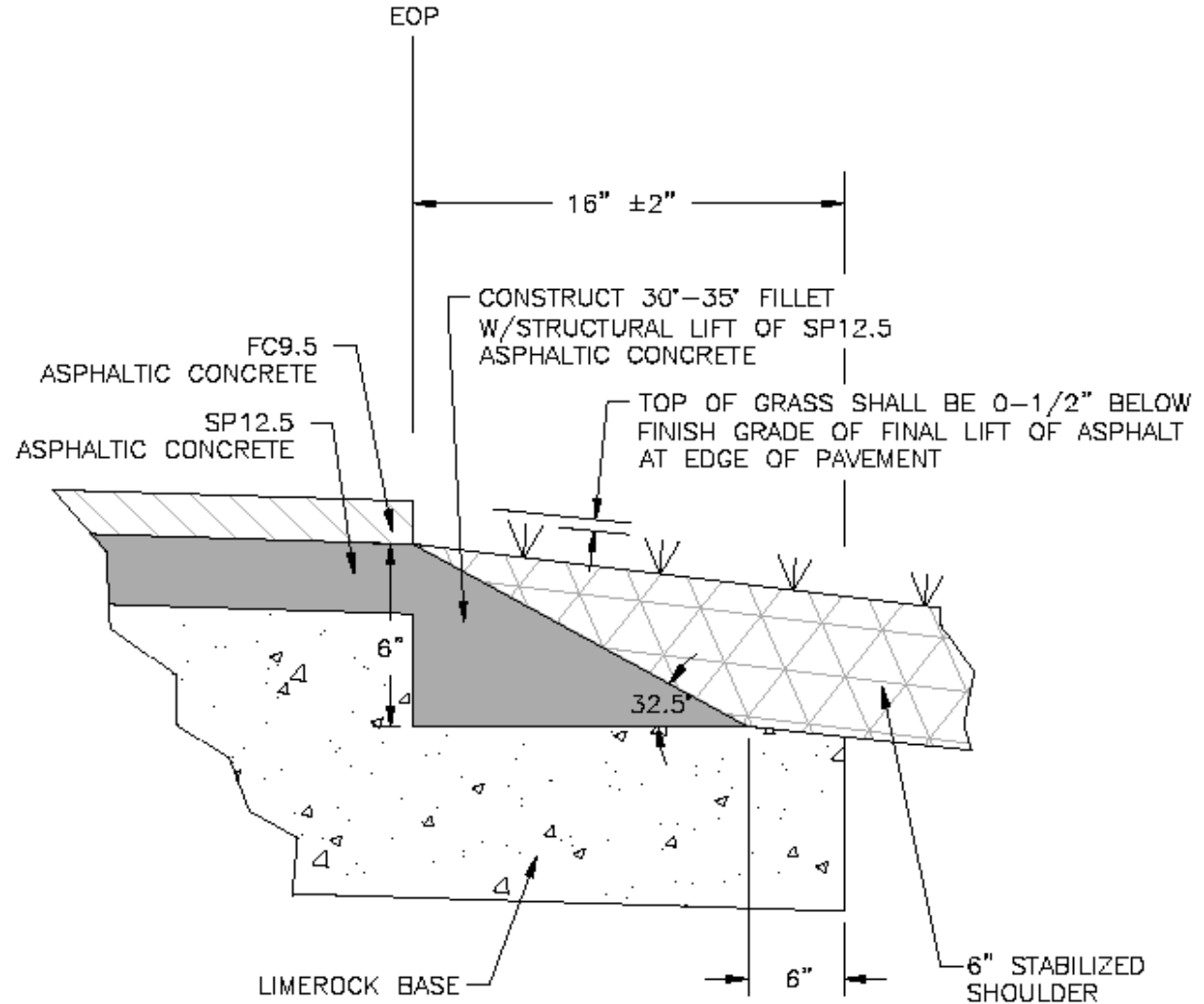
- What is it?
- Why is it used?
- How does Marion County use it?



# Safety Edge Design Detail

Sharp pavement edge conditions (drop-off's) make vehicular recovery movements difficult.

The safety edge shapes the edge condition of the road from a vertical drop-off to a sloped edge of about 30°-35°.

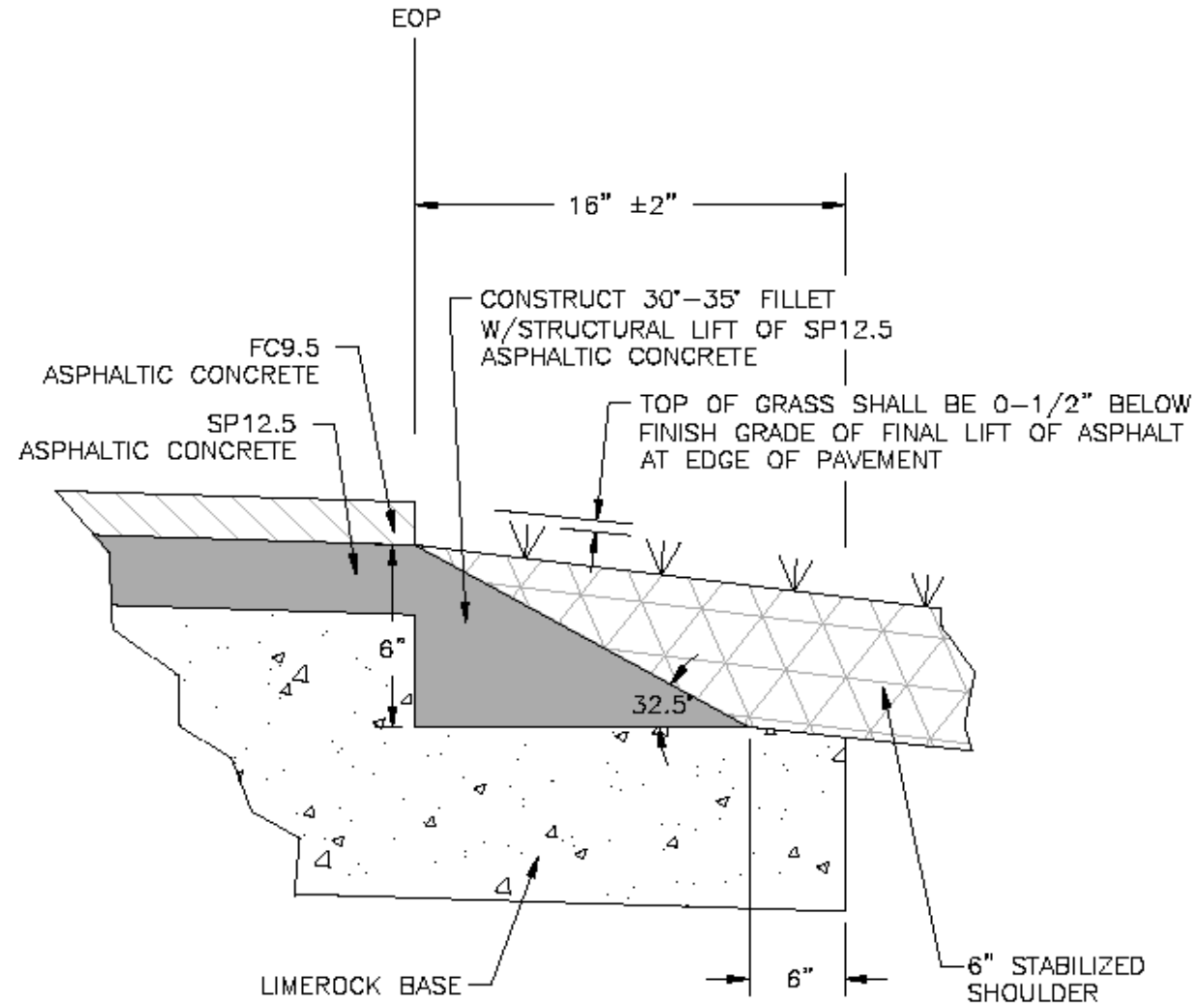




# Purpose of Safety Edge

This reduces drop-offs allowing vehicles to more safely return to the travel lane should they leave the pavement.

It also aids in preventing unraveling of the pavement edge on heavily traveled roads which extends the life of the road.





# Marion County Safety Edge

Marion County has been using Safety Edge since 2010 in 2 distinct processes:

- Rehabilitation projects (both overlays and reclamations) on major roads with speed limits of 45 mph and greater. Construction is done by general contractors. Completed about 60 miles to date.
- Maintenance related projects which widen shoulders on roads with drop-off issues. Construction in-house. Completed about 30 miles to date.



# Rehabilitation Projects with Safety Edge

The first Safety Edge Tool used by Marion County was fabricated by the contractor on a rehabilitation project.

Fitting the tool to a paver is the conventional use of it.







# Rehabilitation Projects with Safety Edge

The Safety Edge is constructed with the structural course of pavement.

The final friction course is added later.





# Rehabilitation Projects with Safety Edge

The shoulder is pulled over the Safety Edge prior to the final friction course being added.

The difference in height of the final lift is to help ensure road drainage.







# Shoulder Widening with Safety Edge

Marion County's road system includes a large number of rural, developing roads subject to shoulder drop-offs.

This safety concern prompted us to adapt the Safety Edge to our shoulder maintenance program and not wait for the road to be rehabilitated.

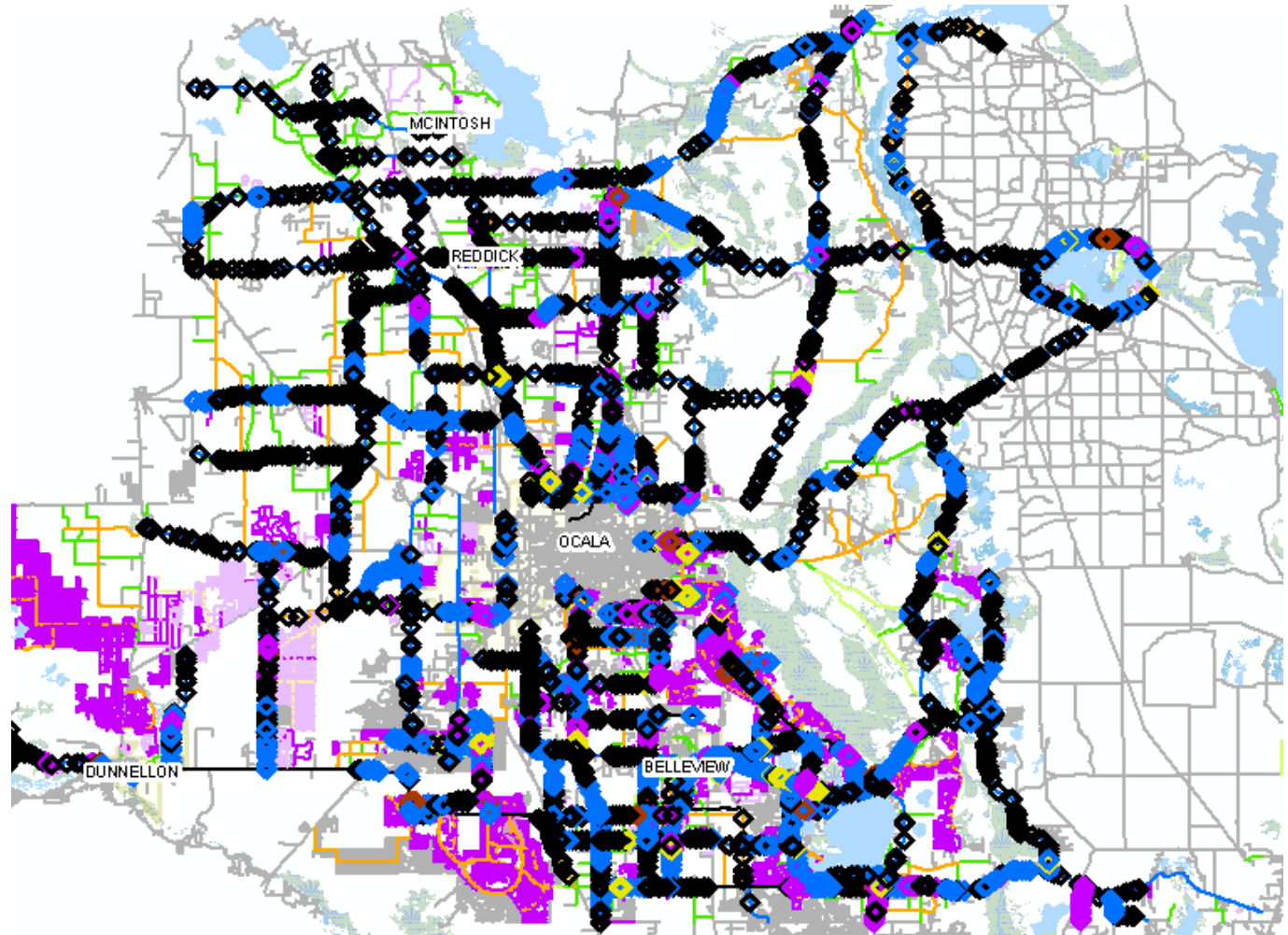




# Shoulder Widening with Safety Edge

Marion County conducts surveys of the shoulder drop-off conditions on the major county road network.

This information is used to identify the necessary response and prioritize a Safety Edge shoulder widening schedule.







# Shoulder Widening with Safety Edge

Marion County adapted a mechanism used typically for full road construction or rehabilitation and applied it to our maintenance operation.

The tool was fabricated to fit onto our widening equipment, creating a Safety Edge.







# FACERS 2012 Team Project of the Year

Shoulder widening with Safety Edge was part of a demonstration in June 2011 by Marion County to the Federal Highway Administration (FHWA) and may have been one of the first instances where the Safety Edge was used with a widener instead of a conventional paver.

The County did incur a modest cost for the equipment fabrication and initial testing, but has continued to use the device without additional costs.

