



General Information and Guidelines for Concrete Overlays (non-technical)

Concrete Overlays can be used for a multitude of different applications. These overlays are designed to blend the high-performance service life with competitive installation and ongoing maintenance costs. Concrete overlays can be designed and installed on city/urban streets, county roads, highways interstates, and parking lots.

When considering a concrete overlay, there are a couple of questions that once answered will direct the specification and design of a concrete overlay. First, what is the condition of the existing pavement that the overlay is going over? Second, how long does the overlay need to perform? Let’s look at these two items.

Condition of the substrate

First, the existing pavement type does not matter for concrete overlays, they work very well on any substrate including both asphalt and concrete.

- If the existing road is in good or average condition, the overlay will strengthen the top or wearing surface providing years of great service
- If the current road is in fair or poor condition, the existing road generally will be part of the structural base and have the overlay be the key wearing surface, which will provide great service life too.

What kind of overlay performance (service life) is required

How long the overlay needs to be in place helps determine the type of overlay and thickness needed.

For example, does the overlay need to extend the road’s life for 6-8 years until a full road replacement is scheduled? Or does it need to perform for 40 years?

Often agencies will design with a 5-inch thick concrete overlay (which can last 15-25 years) to help extend until a road replacement. The extended use life provides the planners with a cushion (extra time) if there is a delay such as funding or other.

At the other end of the spectrum, a street or highway that needs resurfacing can have a 9-10 inch thick concrete overlay that can last 40-50 years.

And, concrete overlays are affordable, especially when you consider the minimal maintenance required once the paving system is installed.

Checklist for a successful project:

Every project will have its own check list. This is a great place to start. A proper list will ensure that all needs of the community, contractor, engineer and road planning group are met. When the community is positively engaged in a road project everyone wins.

Key Items		Ref. Pg.
Project Scope		
Plan/Proposal Developed		
Specifications and Contract Documents		
Timeline /Traffic & Assess Management		
Contractor Selected		
Community Engagement Plan Agreed		
Ribbon Cutting/ Community Celebration		

Additional Resources Available

ACPA partners with groups such as the National Concrete Pavement Tech Center to provide detailed specifications and other technical assistance to ensure a positive project.

This document is provided as a non-technical resource for ease of understanding for those not actively engaged in road building.



Visuals and Projects for Concrete Overlays (non-technical)

Concrete Overlays can be used for a variety of different applications. Below are a few projects to showcase range of applications



Cannelburg Road, Daviess Co., IN



US Highway 71, Clay County, IA



Interstate 35, Love County, OK



Ohio and Crawford Intersection, Salinas, KS

Before



After



St. Charles Convention Center Parking Lot, St. Charles, MO