




SUBJECT: Infrastructure Design Directive
IDD-2018-21
Alternative Bidding for Pavement Type Selection

DATE: July 9, 2018

TO: Office of Infrastructure Divisions
District Offices
Transportation Design Community

FROM: Armando Armendariz, P.E. 
Chief Engineer
Office of Infrastructure Divisions

FILE REFERENCE:
PSESHARE:Design Directives

The following IDD shall be used to ensure consistency in the development of all projects to be let by NMDOT in relation to Alternative Bidding for Pavement Type Selection. Effective December 16, 2014, Reconstruction and New Construction projects that meet the following criteria shall be let as Alternative Pavement Bids with the LCCA-determined Adjustment Bid Factor:

Criteria 1

All reconstruction or new construction federally funded NHS and non-NHS projects shall have alternate pavement designs with a life cycle cost analysis (LCCA) adjustment bid factor for construction equal to or greater than 2 lane-miles in length unless waived at the General Office level for documented reasons.

Criteria 2

For warm- and hot-mix asphalt cement pavements, the pavement structure shall be designed based on 20 year ESALs.

For Portland cement concrete pavements, the pavement structure shall be designed based on 20 year ESALs.

Life Cycle Cost Analysis Determination:

- FHWA RealCost 2.5 or current version Software will be utilized to determine the LCCA-based Adjustment Bid Factor.
- The Life Cycle Cost Analysis will be performed for a period of 45 years.
- Salvage Costs will not be considered.
- User Costs will not be considered.
- Deterministic analysis will be utilized.
- The Real Discount Rate will be determined by the 30-year maturity, 10 year Office of Management and Budget (OMB) circular A-94 moving average.
- Initial treatment cost will not be utilized in the Adjustment Bid Factor.

- The following pavement rehabilitation treatments and year intervals will be utilized in the Life Cycle Cost Analysis to determine the Adjustment Bid Factor with an assumption of a 1.93%/year inflation rate:
 - Asphalt Cement Pavement
 - At 16 years, Mill and Inlay OGFC (where applicable) and surface course to a depth of 2.5 inches in driving lanes.
 - At 33 years, Mill and Inlay OGFC (where applicable) and surface course to a depth of 2.5 inches in driving lanes.
 - Portland Cement Concrete Pavement
 - At 15 years, full depth repair of 1.5% of area in driving lanes and diamond grind driving lanes.
 - At 30 years, full depth repair of 1.5% of area in driving lanes and diamond grind driving lanes.
 - For the asphalt cement pavement rehabilitation, the Average Unit Bid (AUB) cost of the following bid items for each treatment will be utilized in the Life Cycle Cost Analysis to determine the Adjustment Bid Factor:
 - Milling operations
 - Tack Coat
 - 2.5 inch Inlay
 - The same type of asphalt cement pavement (HMA versus WMA) utilized in the initial construction will be used for rehabilitation costing.
 - OGFC (where applicable)
- For the portland cement concrete pavement, the Average Unit Bid (AUB) cost of the following bid items for each treatment will be utilized in the Life Cycle Cost Analysis to determine the Adjustment Bid Factor:
 - Concrete panel replacement - \$175/sy. Item includes:
 - Concrete Panel Removals
 - Concrete Panel Replacement – dowel and tie bars, concrete materials
 - Resealing of Concrete Pavement Joints
 - Grinding (An additional 1/4 inch of thickness will be added to the design thickness to accommodate future rehabilitation diamond grind treatment), \$4/sy.