

Highway Construction Economics



Distribution of Costs

- Equipment, Overhead, Profit 36.8%
- Wages 18.7%
- Other 17%
- Steel 3.9%
- Butimen (asphalt cement) 8.0%
- Portland Cement 0.6%
- Aggregates 15.0%

Source: Office of Program Administration & Office of Infrastructure, FHWA

Recent Causes of Bidding Trends in Highway Construction Contracts

- Caltrans contract requirements of avoiding lane closures during peak periods
- Dramatic rise and unpredictability of material prices (steel, Portland cement, and aggregates).
- Environmental considerations and risks
- Department of Industrial / Industrial Welfare Commission prevailing wage interpretations
- CPM schedule specifications
- Insurance companies decreased willingness to provide contract bonds
- Higher workers compensation
- Shortages of qualified project managers and trade labor skilled in highway construction
- Liquidated damage amounts are required to be revised biannually.

Source: California Construction Market Analysis, Caltrans, 2005

Transportation Projects Take Many Years to Complete

It is not uncommon for Caltrans to take over ten years to design, conduct environmental review, and advertise a project for construction (assuming highway project using federal funds):

Most project delay occurs during the environmental phase, particularly on large projects. This leads to higher project costs and inflationary pressure on construction materials, right of way acquisition, and labor costs.

Project Delivery Phases	Year												
	1	2	3	4	5	6	7	8	9	10	11	12	
Environmental Review													
Design													
Right of Way Acquisition													
Utility Relocation													
Start Construction													

Source: California Legislative Analysts Office