

#### **Connecting Washington Bid Environment**

Kevin J. Dayton, P.E., Chief Engineer Assistant Secretary, Regional and Mega Programs

Chris Christopher, P.E., State Construction Engineer

Joint Transportation Committee July 20, 2017

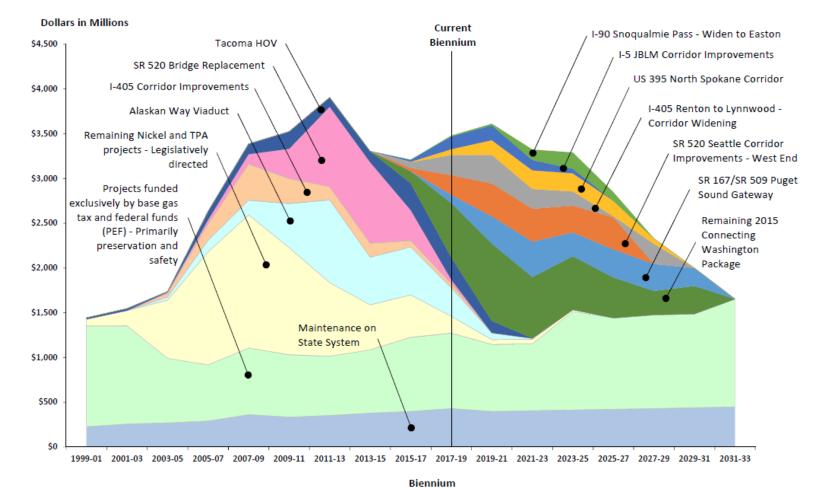
Roger Millar, Secretary of Transportation

Keith Metcalf, Deputy Secretary of Transportation

## **Current project delivery**

#### WSDOT Highway Maintenance and Construction Programs with Revenue Packages 2017 Legislative Final Budget

17LEGFIN (Excludes sub-programs I6 and I7)





# Challenges delivering the Nickel/TPA projects

- Escalation in global material costs during the mid-2000's led to an increase in project costs
- 2003 and 2005 fuel tax forecasts did not anticipate the economic recession
- Managing the growth and decline in the size of WSDOT's construction workforce
- Legislative project list baselines established with limited engineering completed
- On-going maintenance impacts of increasing the size of the state's transportation system



#### WSDOT's Construction Cost Index

#### Construction Cost Indices Washington State, FHWA, and Other States

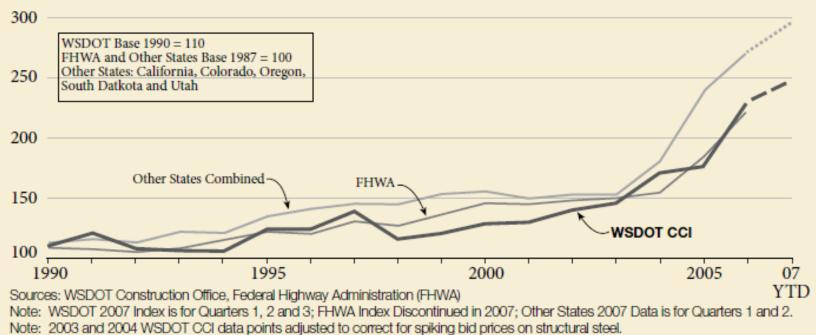
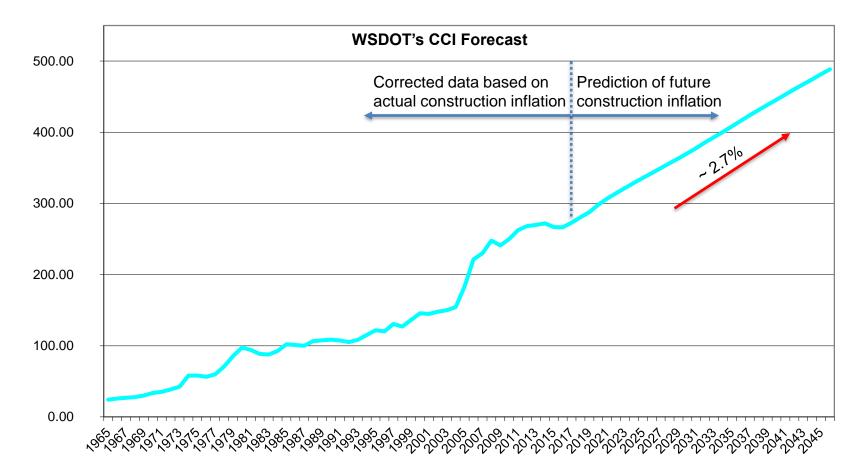


Chart from September 30, 2007 WSDOT Gray Notebook



#### WSDOT's Construction Cost Forecast





## The New Challenges affecting Connecting Washington

- Indicators are pointing to another period of increasing construction costs.
- Appears to be driven by local/regional effects rather than the global effects. For example:
  - A booming Puget Sound economy
  - Competition with other public Owners (Sound Transit, Port of Seattle, City of Seattle, etc.)
  - Significant private infrastructure projects
  - Very low unemployment and potential labor shortages
  - Shortage of subcontractors



#### **Competitive bidding results**

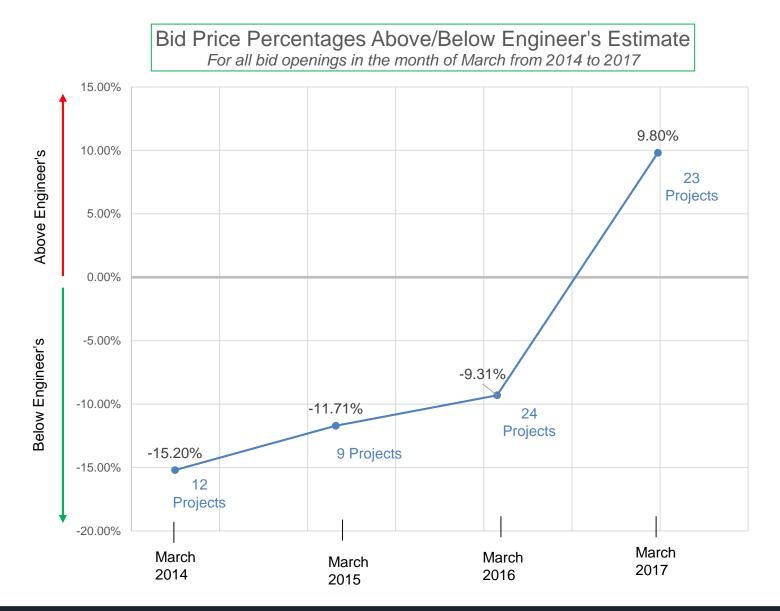
6 5.5 5.1 4.9 5 4.5 4.4 4.3 4.1 4 3.9 4 3.8 3.6 3.6 3.6 3.6 3.5 3.5 3.1 3 2.5 \* 2 1 0 2008 2009 2010 2000 2001 2002 2003 2004 2005 2006 2007 2011 2012 2013 2014 2015 2016 2017 Calendar Year

Average Number of Bidders on WSDOT Contracts

\* 2017 data through June 30 (56 projects)

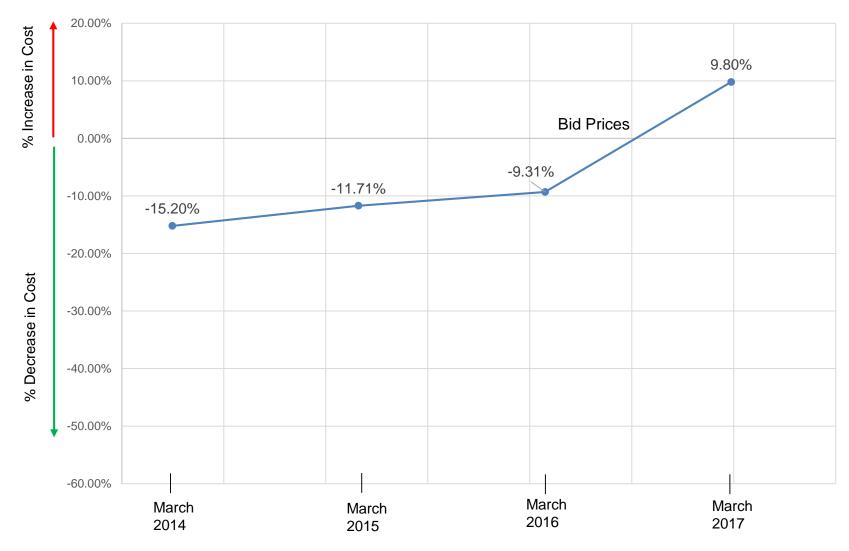


#### **Bid Prices vs. Engineers Est.**



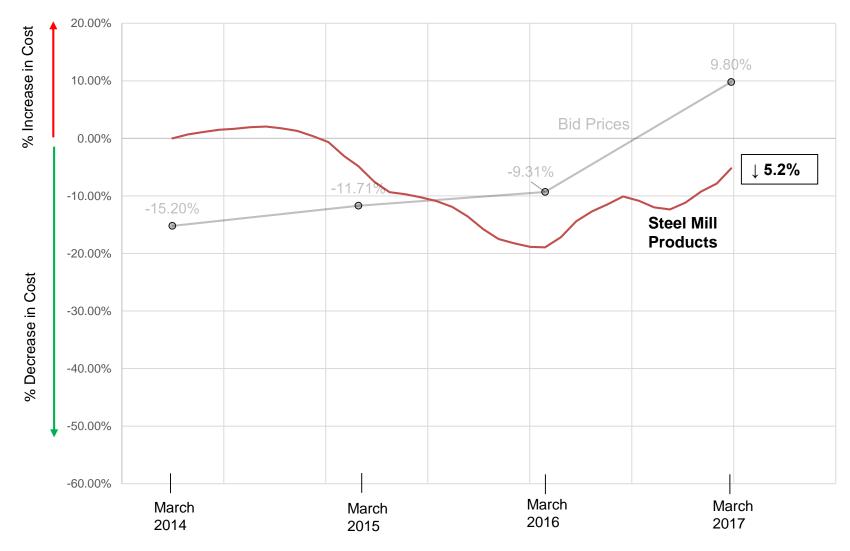


Change in the Price of Construction Commodities March 2014 to March 2017



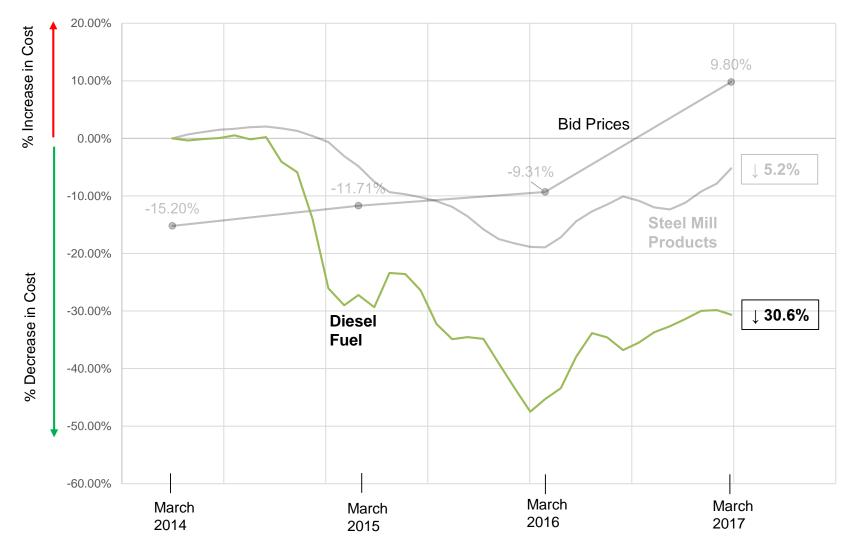


Change in the Price of Construction Commodities March 2014 to March 2017



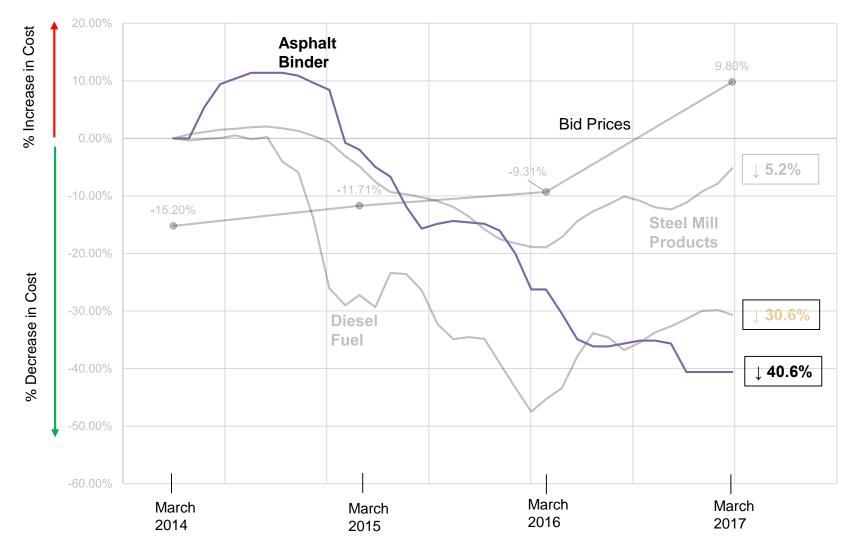


Change in the Price of Construction Commodities March 2014 to March 2017



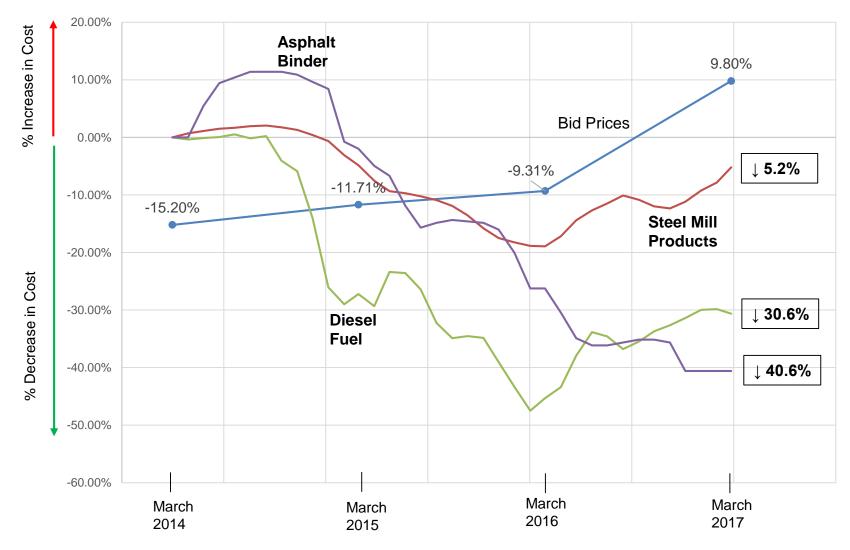


Change in the Price of Construction Commodities March 2014 to March 2017





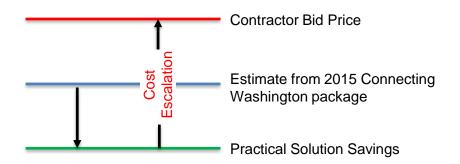
Change in the Price of Construction Commodities March 2014 to March 2017





#### What we're seeing

- Bid prices are averaging 11% above our engineer's estimate for January through June 2017 (55 projects totaling \$177M)
- Cost growth is exceeding what was anticipated when Connecting Washington was passed by the Legislature
- The buying power of Connecting Washington projects may be diminished by cost escalation





### What we're doing about it

- 1. Collaborating with our Contractors to fully understand the causes of the recent escalation
- 2. Two broad categories:
  - A. Factors outside of WSDOT's control
  - B. Factors within WSDOT's control



## **Examples of Factors Outside of WSDOT's Control**

- 1. Global economy
- 2. Regional economy
- 3. Western Washington construction market
- 4. Material prices
- 5. Contractor capacity in the Washington market
- 6. Labor supply

For these, we need to ensure our estimating practices reflect the influences these factors exert on bid prices



#### **Examples of Factors Within WSDOT's Control**

- Contract time
- Daily work windows
- Timing of project advertisements
- Using full closures rather than nightly lane closures
- How projects are packaged
- Delivery method (Design Bid Build vs. Design Build)

- Flexible contracting that allows innovation
- Risk allocation
- Quantity and complexity of Contractor reporting requirements (e.g. Apprenticeship, DBE)
- Cash flow constraints
- Other?

# But, implementation needs to carefully consider:

- Impacts to the travelling public
- Long-term performance of the system
- Local community impacts and commitments
- WSDOT workforce impacts
- Environmental impacts
- Safety
- Quality
- Availability of funds



## **Next Steps:**

- Continue to incorporate innovative practices and practical design
- Ongoing discussion with the contracting community
- Identify factors to move forward while considering the impacts
- Implementation in consultation with industry
- Come back with an update in January 2018





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