Attachment #13

Incentive/Disincentive in SDDOT Contracts

Info

Informational Item for 8/26/2021 SDDOT Commission Meeting

- Background
 - Competition for contracts is <u>Critical</u>
 - Specifications define the general who, what, when, where, why, & how.
 - Material specifications (placement, timing, etc.) are specific in nature but provide a "range" for contractors.
 - **•** 1990, 1999, 2014
 - Incentives help foster bidding competition allowing for a large number of bidders
 - Incentivizing high quality work
 - Disincentivizing lower quality work

- Background
 - By incentivizing better quality
 - Less variability. Variability causes decreased asset life.
 - Generally higher in the "range" usually costs the contractor more time, effort, dollars
 - Some contractors plan on earning the incentive when compiling their bid.
 - Increase Customer Satisfaction
 - Decreased Maintenance
 - Shorter Construction Timeframes

Types

- Asphalt Concrete Mix Quality (Air Voids & Density)
- Asphalt Concrete Pavement Smoothness
- Portland Cement Concrete Pavement Smoothness
- Contract Time
- Bridge Deck and Approach Smoothness
 - Coming Soon (October 2021)

- Asphalt Concrete Mix Quality
 - Large asphalt paving projects
 - Based on laboratory tests for air voids and density
 - Max incentive = 5% of unit price
 - Max disincentive = remove and replace

Asphalt Concrete Mix Quality

Year	Incentive	Disincentive	Net
2016	\$292,153.69	(\$343,623.36)	(\$51,469.67)
2017	\$253,695.18	(\$92,301.00)	\$161,394.18
2018	\$215,016.49	(\$115,357.55)	\$99,658.94
2019	\$460,960.68	(\$490,308.03)	(\$29,347.35)
2020	\$730,282.03	(\$276,399.62)	\$453,882.41

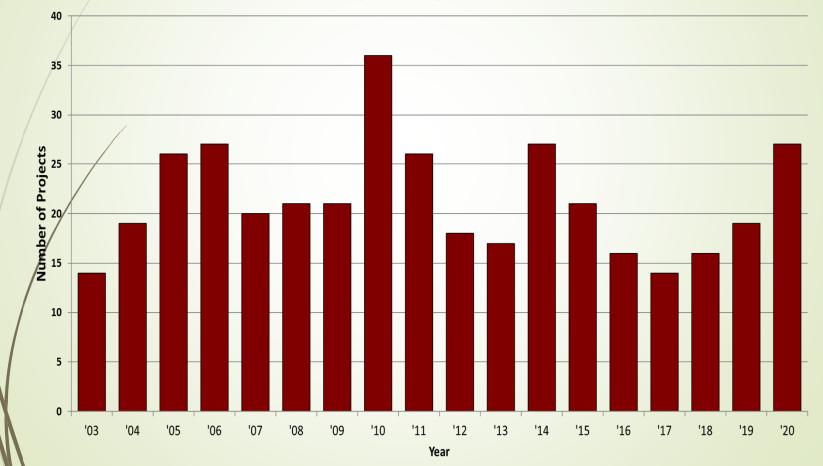
Pavement Smoothness

 International Roughness Index (IRI) high speed inertial profiler used on AC and PCCP pavements



- Pavement Smoothness (cont.)
 - Department Use Criteria
 - Asphalt & Concrete Pavements
 - Large rural paving projects at least 3 miles in length
 - Defined \$ amount Incentive/Disincentive for each .1-mile segment
 - Corrective Grinding and remove & replace in addition to defined disincentive

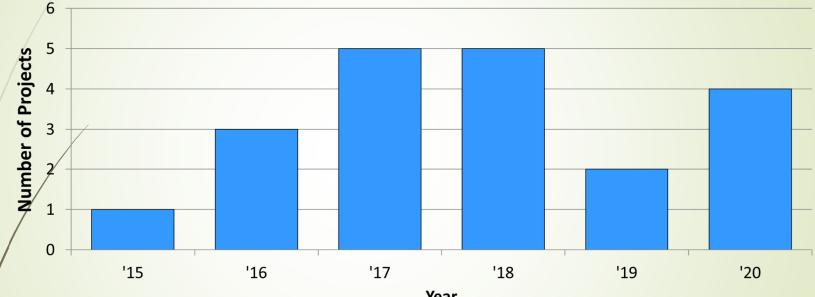
Total Asphalt Projects Profiled



Asphalt Concrete Ride Quality

Year	Incentive	Disincentive	Net
2016	\$547,005.00	(\$11,822.00)	\$535,183.00
2017	\$858,876.00	(\$38,957.00)	\$819,919.00
2018	\$545,017.00	(\$47,647.00)	\$497,370.00
2019	\$668,735.00	(\$116,460.00)	\$552,275.00
2020	\$849,362.00	(\$107,978.00)	\$741,384.00

Total Concrete Projects Profiled



Year

Incentive/Disincentive ClausesConcrete Ride Quality

Year	Incentive	Disincentive	Net
2016	\$61,530.00	(\$14,701.00)	\$46,829.00
2017	\$164,786.00	(\$49,451.00)	\$115,335.00
2018	\$204,092.00	(\$5 <i>,</i> 680.00)	\$198,412.00
2019	\$77 <i>,</i> 918.00	(\$2,180.00)	\$75,738.00
2020	\$7,156.00	(\$152,200.00)	(\$145,044.00)

Incentive/Disincentive ClausesContract Time

- A+B, Lane Rental, Block Rental, I/D
 - Use based on project specific items
 - Sequence of construction
 - Traffic control
 - Area office recommendations
 - Timeframes available for construction

Frequently specified as only disincentive by other types of contract time clauses

