# STATE OF COLORADO

CDOT COLORAD Department of Transportation

DEPARTMENT OF TRANSPORTATION Division of Project Support Contracts and Market Analysis Branch 4201 East Arkansas Avenue, 4<sup>th</sup> Floor Denver, Colorado 80222 (303) 757-9736

## COLORADO CONSTRUCTION COST INDEX REPORT Calendar Year 2016 Third Quarter

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## CCI REPORT SUMMARY

## 3<sup>rd</sup> QUARTER ENDING September 30, 2016

| Relative change from last quarter, quarterly data*             | 35.00%   |
|--|----------|
| Cumulative change from same quarter last year, quarterly data* | 31.23%   |
|  | 01120 /0 |
| Relative change from last year, annual data**                  | -2.85%   |
| returne enange nom nøst jeur, unnaar dutu                      | 2.05 /0  |

<sup>\*</sup> Calculations based on quarterly data may vary significantly due to strong seasonality in Colorado.

<sup>\*\*</sup> Calculations derived from the most recent four consecutive quarters of data compared to the previous four consecutive quarters of data.

#### Summary for all Design-Bid-Build projects awarded between 7/1/2016 and 9/30/2016

| Project Amount                    | Number of<br>Projects | Number of<br>Bidders | Biddable Items<br>Total Amount | Average<br>Number of<br>Bidders |
|-----------------------------------|-----------------------|----------------------|--------------------------------|---------------------------------|
| \$0.00 to \$999,999.99            | 8                     | 20                   | \$5,244,330.33                 | 2.50                            |
| \$1,000,000.00 to \$4,999,999.99  | 15                    | 43                   | \$27,638,689.73                | 2.87                            |
| \$5,000,000.00 to \$19,999,999.99 | 7                     | 21                   | \$62,921,884.86                | 3.00                            |
| \$20,000,000.00 or Greater        | 1                     | 8                    | \$21,544,006.09                | 8.00                            |
| Total                             | 31                    | 92                   | \$117,348,911.01               | 2.97                            |

Average number of bidders per project increased to 2.97 this quarter from 2.88 the previous quarter. Average cost per Design-Bid-Build project was \$3,785,448.74.

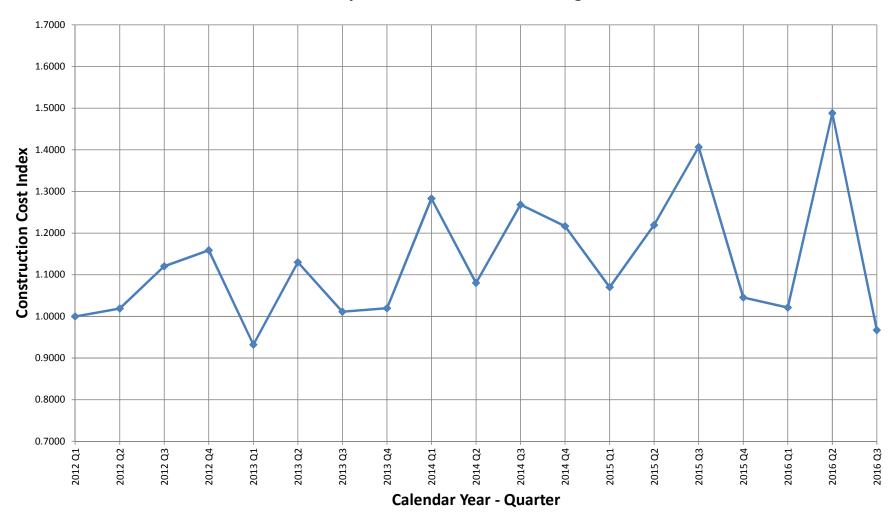
|              | Earth         | work       | Hot Mix        | ot Mix Asphalt Concrete Pavement* Structural Concrete |               | Concrete   | Reinforcing Steel |           | Fisher Ideal Index |              |          |            |
|--------------|---------------|------------|----------------|---|---------------|------------|-------------------|-----------|--------------------|--------------|----------|------------|
| Year Quarter | Price (\$/CY) | Qty (CY)   | Price (\$/TON) | Qty (TON)   | Price (\$/SY) | Qty (SY)   | Price (\$/CY)     | Qty (CY)  | Price (\$/LB)      | Qty (LB)     | Relative | Cumulative |
| 2012 Q1      | 9.32          | 295,331.00 | 83.52          | 611,829.00  | 29.47         | 459,695.83 | 433.44            | 7,636.00  | 0.88               | 1,956,874.00 |          | 1.0000     |
| 2012 Q2      | 10.61         | 367,636.10 | 82.65          | 328,357.21  | 31.18         | 264,194.31 | 472.96            | 5,910.00  | 0.97               | 833,101.00   | 1.0190   | 1.0190     |
| 2012 Q3      | 11.92         | 212,117.00 | 90.76          | 59,799.23   | 34.76         | 107,643.81 | 487.93            | 2,388.20  | 1.04               | 485,586.00   | 1.0995   | 1.1204     |
| 2012 Q4      | 9.49          | 246,805.00 | 102.24         | 146,197.04  | n/a**         | n/a**      | 527.68            | 1,772.00  | 0.94               | 310,307.00   | 1.0344   | 1.1590     |
| 2013 Q1      | 8.08          | 659,125.00 | 76.07          | 393,759.56  | 31.81         | 549,580.81 | 487.00            | 9,019.00  | 0.87               | 1,929,721.00 | 0.8044   | 0.9323     |
| 2013 Q2      | 12.75         | 316,498.00 | 84.37          | 501,946.32  | 52.18         | 60,482.78  | 427.09            | 6,857.00  | 0.91               | 1,048,761.00 | 1.2121   | 1.1300     |
| 2013 Q3      | 8.72          | 419,967.00 | 85.00          | 147,064.84  | 35.57         | 170,833.67 | 372.83            | 9,917.00  | 0.77               | 2,350,291.00 | 0.8947   | 1.0111     |
| 2013 Q4      | 10.00         | 75,520.00  | 80.78          | 198,528.45  | 42.64         | 92,749.00  | 309.40            | 1,752.00  | 0.85               | 486,791.00   | 1.0086   | 1.0197     |
| 2014 Q1      | 20.16         | 99,605.00  | 92.28          | 433,692.17  | 76.84         | 57,552.78  | 476.21            | 3,265.00  | 0.98               | 629,246.00   | 1.2581   | 1.2830     |
| 2014 Q2      | 12.88         | 610,731.00 | 88.13          | 548,253.70  | 34.34         | 302,520.17 | 517.01            | 8,249.90  | 0.90               | 1,468,195.00 | 0.8421   | 1.0804     |
| 2014 Q3      | 13.30         | 708,794.00 | 100.07         | 102,680.99  | 52.39         | 147,911.17 | 592.26            | 16,294.30 | 1.01               | 2,949,114.00 | 1.1740   | 1.2684     |
| 2014 Q4      | 10.73         | 695,288.00 | 113.42         | 141,154.23  | 46.12         | 156,635.11 | 549.86            | 6,657.10  | 1.03               | 948,029.00   | 0.9591   | 1.2166     |
| 2015 Q1      | 16.60         | 301,494.80 | 83.80          | 736,968.84  | 34.36         | 311,378.67 | 744.81            | 1,994.30  | 1.66               | 368,665.00   | 0.8798   | 1.0703     |
| 2015 Q2      | 15.12         | 167,066.00 | 94.22          | 311,989.59  | 46.36         | 219,498.00 | 577.73            | 1,119.00  | 1.64               | 205,245.00   | 1.1391   | 1.2193     |
| 2015 Q3      | 20.32         | 40,649.00  | 98.61          | 89,024.05   | 75.70         | 12,880.78  | 739.20            | 706.90    | 1.33               | 86,854.00    | 1.1536   | 1.4065     |
| 2015 Q4      | 12.16         | 309,414.10 | 81.21          | 66,957.40   | 47.46         | 128,174.06 | 598.73            | 3,702.00  | 1.42               | 366,651.00   | 0.7434   | 1.0456     |
| 2016 Q1      | 12.27         | 939,477.00 | 84.03          | 1,078,315.35  | 39.18         | 243,518.78 | 617.10            | 6,507.71  | 1.02               | 1,627,487.00 | 0.9767   | 1.0213     |
| 2016 Q2      | 31.34         | 14,104.00  | 110.17         | 118,434.28  | 104.99        | 1,936.89   | 1,028.57          | 126.00    | 2.79               | 12,189.00    | 1.4571   | 1.4881     |
| 2016 Q3      | 10.66         | 503,305.00 | 83.55          | 286,987.61  | 52.59         | 275,462.06 | 606.80            | 1,952.80  | 0.94               | 331,788.70   | 0.6500   | 0.9672     |

#### Colorado Construction Cost Index Tabulations: Quarterly Data

Weighted average prices and quantities are calculated after outliers (< 5% and > 95%) are removed in the preceding 7 years for a given quarter.

\* Concrete Pavement is normalized to 9 inches thick.

\*\* Assuming same price and quantity as previous quarter for index calculations, due to insufficient data of this sub group.



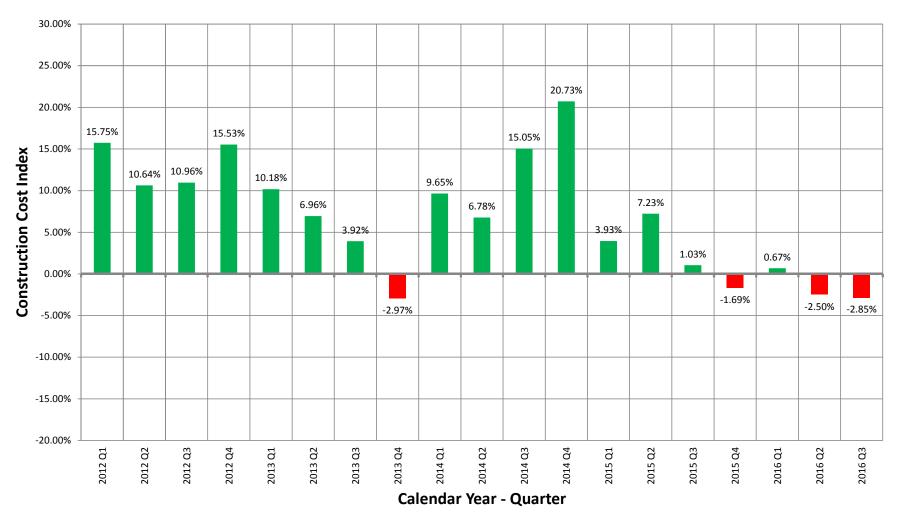
Colorado CCI - Quarterly Data, Cumulative Assuming 2012 Q1 = 1.0000

|      | [       | Earth         | work         | Hot Mix        | Asphalt      | Concrete P    | avement*     | Structural Concrete |           | Reinforcing Steel |               | Fisher Ideal Index |
|------|---------|---------------|--------------|----------------|--------------|---------------|--------------|---------------------|-----------|-------------------|---------------|--------------------|
| Year | Quarter | Price (\$/CY) | Qty (CY)     | Price (\$/TON) | Qty (TON)    | Price (\$/SY) | Qty (SY)     | Price (\$/CY)       | Qty (CY)  | Price (\$/LB)     | Qty (LB)      | Annual Change      |
| 2012 | Q1      | 7.48          | 3,751,697.00 | 74.46          | 2,382,261.64 | 34.23         | 900,143.46   | 422.36              | 73,783.53 | 0.85              | 13,569,678.00 | 15.75%             |
| 2012 | Q2      | 8.23          | 1,880,505.10 | 80.96          | 1,363,144.44 | 30.16         | 816,743.88   | 443.62              | 23,011.23 | 0.90              | 4,772,701.00  | 10.64%             |
| 2012 | Q3      | 8.48          | 1,846,077.10 | 81.66          | 1,287,260.97 | 31.05         | 843,073.00   | 452.94              | 22,476.20 | 0.91              | 4,787,809.00  | 10.96%             |
| 2012 | Q4      | 10.27         | 1,121,889.10 | 86.04          | 1,146,182.48 | 31.16         | 939,177.75   | 463.41              | 17,706.20 | 0.93              | 3,585,868.00  | 15.53%             |
| 2013 | Q1      | 9.49          | 1,485,683.10 | 83.47          | 928,113.04   | 32.27         | 1,029,062.73 | 486.55              | 19,089.20 | 0.92              | 3,558,715.00  | 10.18%             |
| 2013 | Q2      | 9.92          | 1,434,545.00 | 84.12          | 1,101,702.15 | 34.07         | 825,351.20   | 470.21              | 20,036.20 | 0.91              | 3,774,375.00  | 6.96%              |
| 2013 | Q3      | 9.36          | 1,642,395.00 | 83.90          | 1,188,967.76 | 34.28         | 888,541.07   | 433.64              | 27,565.00 | 0.84              | 5,639,080.00  | 3.92%              |
| 2013 | Q4      | 9.37          | 1,471,110.00 | 81.24          | 1,241,299.17 | 35.11         | 873,646.26   | 419.69              | 27,545.00 | 0.84              | 5,815,564.00  | -2.97%             |
| 2014 | Q1      | 11.48         | 911,590.00   | 86.56          | 1,281,231.78 | 46.14         | 381,618.23   | 400.29              | 21,791.00 | 0.84              | 4,515,089.00  | 9.65%              |
| 2014 | Q2      | 11.85         | 1,205,823.00 | 88.04          | 1,327,539.16 | 39.83         | 623,655.62   | 433.90              | 23,183.90 | 0.84              | 4,934,523.00  | 6.78%              |
| 2014 | Q3      | 13.42         | 1,494,650.00 | 89.35          | 1,283,155.31 | 44.14         | 600,733.12   | 541.68              | 29,561.20 | 0.96              | 5,533,346.00  | 15.05%             |
| 2014 | Q4      | 12.66         | 2,114,418.00 | 93.51          | 1,225,781.09 | 44.81         | 664,619.23   | 555.07              | 34,466.30 | 0.98              | 5,994,584.00  | 20.73%             |
| 2015 | Q1      | 12.85         | 2,316,307.80 | 89.18          | 1,529,057.76 | 39.26         | 918,445.12   | 574.22              | 33,195.60 | 1.03              | 5,734,003.00  | 3.93%              |
| 2015 | Q2      | 13.04         | 1,872,642.80 | 90.84          | 1,292,793.65 | 42.91         | 835,422.95   | 592.48              | 26,064.70 | 1.10              | 4,471,053.00  | 7.23%              |
| 2015 | Q3      | 13.13         | 1,204,497.80 | 90.64          | 1,279,136.71 | 41.51         | 700,392.56   | 602.72              | 10,477.30 | 1.27              | 1,608,793.00  | 1.03%              |
| 2015 | Q4      | 14.80         | 818,623.90   | 87.45          | 1,204,939.88 | 41.57         | 671,931.51   | 647.54              | 7,522.20  | 1.54              | 1,027,415.00  | -1.69%             |
| 2016 | Q1      | 12.80         | 1,456,606.10 | 86.80          | 1,546,286.39 | 44.32         | 604,071.62   | 614.96              | 12,035.61 | 1.15              | 2,286,237.00  | 0.67%              |
| 2016 | Q2      | 12.70         | 1,303,644.10 | 87.14          | 1,352,731.08 | 43.47         | 386,510.51   | 623.45              | 11,042.61 | 1.11              | 2,093,181.00  | -2.50%             |
| 2016 | Q3      | 11.94         | 1,766,300.10 | 85.82          | 1,550,694.64 | 46.70         | 649,091.79   | 614.15              | 12,288.51 | 1.08              | 2,338,115.70  | -2.85%             |

#### Colorado Construction Cost Index Tabulations: Annual Percentage Change

Weighted average prices and quantities are calculated after outliers (< 5% and > 95%) are removed in the preceding 7 years for a given quarter.

\* Concrete Pavement is normalized to 9 inches thick.



## **Colorado CCI - Annual Percentage Change**

Calculations derived from the most recent four consecutive quarters of data compared to the previous four consecutive quarters of data.

#### Comments:

The methodology for preparing the CCI is documented in a brief report attached to the '2012 CCI Q2' report at the following link <u>http://www.coloradodot.info/business/eema</u>, under the 'Construction Cost Index' heading and '2012 CCI Q2' report.

Starting with 2016 Q3, this quarterly CCI report includes calculations based on annual data. The annual data calculations are less volatile than the quarterly data calculations, partially due to the strong seasonal nature of transportation construction in Colorado.

For the current quarter, price changes for the five sub groups, as shown in the 'Colorado Construction Cost Index Tabulations: Quarterly Data', are listed as follows:

#### Earthwork (Excavation and Embankment):

The average price was \$10.66/CY which is down \$20.68/CY, with more than 35 times the quantity, from the previous quarter.

#### Hot Mix Asphalt:

The average price was \$83.55/TON which is down \$26.62/TON, with more than 2 times the quantity, from the previous quarter.

#### Concrete Pavement:

The average price was \$52.59/SY which is down \$52.40/SY, with more than 140 times the quantity, from the previous quarter.

#### Structural Concrete:

The average price was \$606.80/CY which is down \$421.77/CY, with more than 15 times the quantity, from the previous quarter.

#### Reinforcing Steel:

The average price was \$0.94/LB which is down \$1.85/LB, with more than 27 times the quantity, from the previous quarter.

#### ADDITIONAL INFORMATION:

This quarter, based on preceding quarter data, all five sub groups, Earthwork, Hot Mix Asphalt, Concrete Pavement, Structural Concrete and Reinforcing Steel showed a decrease in price. This quarter, 31 Design-Bid-Build projects for a total of \$117,348,911.01 were bid and awarded. The five categories for CCI items totaled \$45,326,436.27 which is 38.6% of total Design-Bid-Build awarded amount. By comparison, last quarter, 26 Design-Bid-Build projects were bid and awarded.

| Project Type                                 | Number of<br>Projects | Biddable Items<br>Total Amount |  |  |
|--|-----------------------|--------------------------------|--|--|
| Design-Build                                 | 0                     | \$0.00                         |  |  |
| Hybrid / Modified / Streamlined Design-Build | 0                     | \$0.00                         |  |  |
| Construction Manager / General Contractor    | 1                     | \$42,720,522.15                |  |  |
| Emergency                                    | 0                     | \$0.00                         |  |  |
| Sub Total                                    | 1                     | \$42,720,522.15                |  |  |

#### Projects Awarded this Quarter and Not Used in the CCI Calculations