

# STATE OF COLORADO

---



**DEPARTMENT OF TRANSPORTATION**

4201 East Arkansas Avenue  
Denver, Colorado 80222  
(303) 757-9293

Feb. 12, 2003

**COLORADO CONSTRUCTION COST INDEX REPORT**  
Calendar year 2002  
Fourth Quarter

Prepared by  
Dino Sarganis  
Engineering Estimates and Market Analysis (EEMA) Unit of  
Contracts and Market Analysis Branch

Prepared for  
Tom Norton, Executive Director

# STATE OF COLORADO



## DEPARTMENT OF TRANSPORTATION

4201 East Arkansas Avenue  
Denver, Colorado 80222  
(303) 757-9293

### SUMMARY

#### CONSTRUCTION COST INDEX FOR SELECTED HIGHWAY CONSTRUCTION ITEMS

4th QUARTER ENDING Dec. 31, 2002

Index for 2002 (entire year)	150.1
Index for 2001 (entire year)	156.8
Point change	-6.7
Percent change	-4.3%

Index for this quarter.....	138.1
Index for last quarter.....	159.6
Point change from last quarter.....	- 21.5
Percentage change from last quarter.....	- 13.5%
Index for same quarter of last year.....	155.3
Point change from same quarter last year.....	- 17.2
Percentage change from this quarter last year.....	- 11.1 %

Average number of bidders this quarter.....	5.73
Change in number of bidders from last quarter.....	+ 14.6%

NOTE: All information shown in this publication was assembled using 1987 as the base year.

**Summary Report for all the projects awarded 10/1/2002 And 12/31/2002**

<i>Project Amount</i>	<i>No. of Projects</i>	<i>No. of Bidders</i>	<i>Total Contract Amt.</i>	<i>Avg.# of Bids</i>
<i>\$0.00 to \$49,999.99</i>	4	33	\$127,038.64	8.3
<i>\$50,000.00 to \$99,999.99</i>	3	12	\$272,425.62	4.0
<i>\$100,000.00 to \$249,999.99</i>	10	56	\$1,679,284.46	5.6
<i>\$250,000.00 to \$499,999.99</i>	6	28	\$2,182,301.55	4.7
<i>\$500,000.00 to \$999,999.99</i>	3	18	\$2,545,613.38	6.0
<i>1,000,000.00 to \$2,499,999.99</i>	5	32	\$7,689,973.76	6.4
<i>2,500,000.00 to \$4,999,999.99</i>	6	32	\$19,589,233.92	5.3
<i>5,000,000.00 to \$9,999,999.99</i>	0			
<i>10,000,000.00 to \$19,999,999.99</i>	2	10	\$26,491,751.08	5.0
<i>20,000,000.00 to \$49,499,999.99</i>	1	8	\$26,485,659.75	8.0
<i>50,000,000.00 or Greater</i>	0			
<b>Total</b>	<b>40</b>	<b>229</b>	<b>\$87,063,282.16</b>	

The number of bidders on all projects awards during this period **5.73 bidders per contract.**

Index items as a percent of the total construction cost:

4 <sup>th</sup> Quarter CCI Items:	\$30,440,130.52	
4 <sup>th</sup> Quarter All Construction Items:	\$87,063,282.16	= 35.0%

## CCI ITEMS USED FROM 10/1/2002 TO 12/31/2002

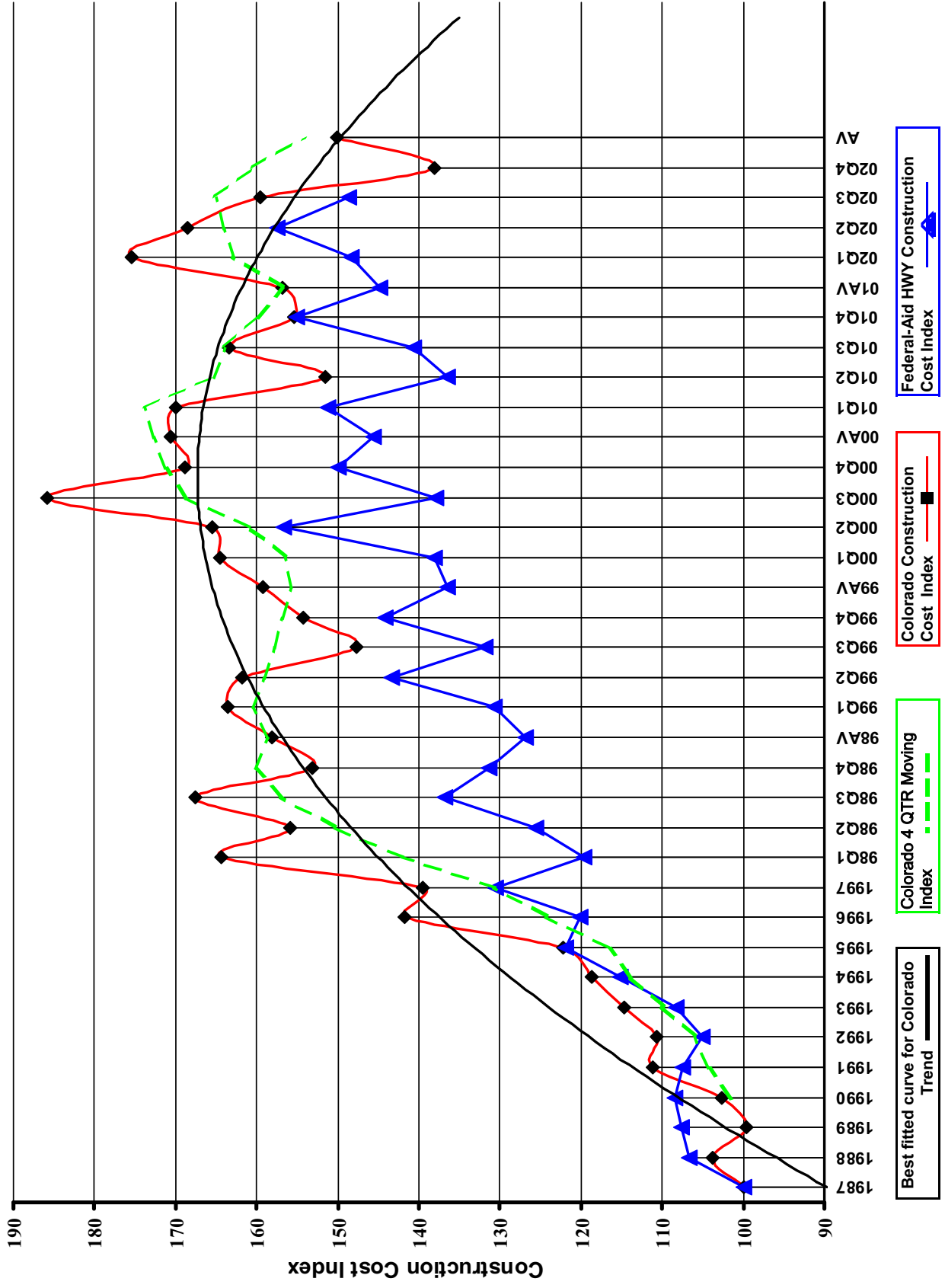
ITEM CODE	# OF ITEM	QUANTITY	PRICE	UNIT PRICE	INDEX
203-00000 To 203-00060 203-00062 To 203-00210 203-00400 To 203-00500	17	English (CY) 3,165,631.00	\$7,297,422.10	\$2.31	
203-01020 To 203-01030 209-00000 To 209-00050	0	Metric (CM) 0.00	\$0.00	\$0.00	
<b>UNCLASSIFIED EXCAV (CIP)</b>	<b>17</b>	<b>3,165,631.00<sup>CY</sup></b>	<b>\$7,297,422.10</b>	<b>\$2.31</b>	<b>93.3</b>
403-00720, 403-01000, 403-01010, 403-02000, 403-09121 To 403-09500 403-31300 To 403 36447 403-91401 To 403-95353 411-03100 To 411-03355 411-10010 To 411-90010 (Gal/Lit) Gallon & Liter are converted to Ton	52	English (TON) 223,673.20	\$8,657,707.11	\$38.71	
	0	Metric (MT) 0.00	\$0.00	\$0.00	
<b>HOT BIT. PAVEMENT (H_A)</b>	<b>52</b>	<b>223,673.20<sup>T</sup></b>	<b>\$8,657,707.11</b>	<b>\$38.71</b>	<b>167.5</b>
412-00000 To 412-00050 412-00700 To 412-01352 412-03000 To 412-03000	10	English (SY) 366,241.95	\$7,787,448.42	\$21.26	
	0	Metric (SM) 0.00	\$0.00	\$0.00	
<b>CONCRETE PAVEMENT (9")</b>	<b>10</b>	<b>366,241.95<sup>SY</sup></b>	<b>\$7,787,448.42</b>	<b>\$21.26</b>	<b>159.2</b>
<b>SURFACING TOTAL INDEX</b>					<b>166.2</b>
509-00000 To 509-00000	2	English (LB) 2,303,539.00	\$1,867,764.52	\$0.81	
	0	Metric (KG) 0.00	\$0.00	\$0.00	
<b>STRUCTURAL STEEL</b>	<b>2</b>	<b>2,303,539.00<sup>LB</sup></b>	<b>\$1,867,764.52</b>	<b>\$0.81</b>	<b>95.0</b>
601-01022 To 601-01022 601-01030 To 601-01060 601-03030 To 601-05064	11	English (CY) 12,593.00	\$3,241,118.16	\$257.37	
	0	Metric (CM) 0.00	\$0.00	\$0.00	
<b>STRUCTURAL CONCRETE</b>	<b>11</b>	<b>12,593.00<sup>CY</sup></b>	<b>\$3,241,118.16</b>	<b>\$257.37</b>	<b>118.4</b>
602-00000 To 602-00000 602-00020 To 602-00020	16	English (LB) 3,210,119.00	\$1,588,670.21	\$0.49	
	0	Metric (KG) 0.00	\$0.00	\$0.00	
<b>REINFORCING STEEL</b>	<b>16</b>	<b>3,210,119.00<sup>LB</sup></b>	<b>\$1,588,670.21</b>	<b>\$0.49</b>	<b>120.7</b>
<b>STRUCTURAL TOTAL INDEX</b>					<b>114.1</b>
<b>COMPOSITE INDEX =</b>					<b>138.1</b>

Sum of the 6 categories cost = \$30,440,130.52

HBP Unit Price per CY = \$76.64

Concrete Pavement Unit Price per CY = \$85.05

**Colorado Highway Construction Cost Index Graph and Tabulations (1987 Base Year)**



### Colorado Highway Construction Cost Index Graph and Tabulations (1987 Base Year)

YEAR	QTR.	Earthwork		Asph. Pavement		Concrete Pavement		Surfacing		Structural Concrete		Reinforcing Steel		Structural Steel		Composite	
		Bid Price	Index	Bid Price	Index	Bid Price	Index	Bid Price	Index	Bid Price	Index	Bid Price	Index	Bid Price	Index	Bid Price	Index
1987	1987	\$2.47	100.0	\$23.17	100.0	\$13.36	100.0	100.0	100.0	\$217.32	100.0	\$0.41	100.0	\$0.85	100.0	\$0.85	100.0
1988	1988	\$2.92	118.1	\$23.88	103.0	\$13.84	103.6	103.1	103.1	\$195.02	89.7	\$0.45	110.7	\$0.89	104.1	\$0.89	103.7
1989	1989	\$2.57	103.9	\$23.67	102.2	\$11.65	87.2	100.6	100.6	\$199.41	91.8	\$0.40	97.8	\$0.88	103.5	\$0.88	99.6
1990	1990	\$2.78	112.5	\$23.98	103.5	\$15.09	113.0	104.5	104.5	\$190.86	87.8	\$0.37	90.8	\$0.99	116.0	\$0.99	102.7
1991	1991	\$3.31	133.8	\$26.25	113.3	\$16.03	120.0	114.0	114.0	\$195.43	89.9	\$0.38	93.1	\$0.89	104.4	\$0.89	111.2
1992	1992	\$2.77	112.3	\$26.20	113.1	\$23.82	178.3	119.8	119.8	\$216.87	99.8	\$0.36	87.9	\$0.71	82.8	\$0.71	110.7
1993	1993	\$3.25	131.4	\$27.74	119.7	\$16.75	125.4	121.3	121.3	\$212.43	97.7	\$0.37	90.1	\$0.79	93.0	\$0.79	114.7
1994	1994	\$3.56	144.2	\$28.40	122.6	\$18.78	140.6	124.4	124.4	\$219.94	101.2	\$0.37	89.7	\$0.67	78.8	\$0.67	118.8
1995	1995	\$3.41	138.1	\$30.25	130.5	\$17.82	133.4	130.8	130.8	\$211.29	97.2	\$0.39	94.0	\$0.90	105.5	\$0.90	122.3
1996	1996	\$4.46	180.5	\$32.73	141.3	\$19.22	143.9	141.5	141.5	\$265.98	122.4	\$0.43	105.1	\$1.09	128.5	\$1.09	141.7
1997	1997	\$4.24	171.7	\$32.92	142.1	\$21.39	160.1	143.9	143.9	\$246.29	113.3	\$0.45	110.8	\$1.01	117.9	\$1.01	139.6
1998	98Q1	\$5.30	214.4	\$36.20	156.2	\$30.88	231.2	164.0	164.0	\$292.00	134.4	\$0.48	116.2	(\$1.00)	-1.0	129.9	164.4
1998	98Q2	\$4.76	192.6	\$36.52	157.6	\$24.23	181.4	160.1	160.1	\$264.38	121.7	\$0.48	116.0	(\$1.00)	-1.0	120.3	155.8
1998	98Q3	\$2.69	230.4	\$35.21	141.9	\$34.18	255.9	162.6	162.6	\$295.21	135.8	\$0.22	126.6	(\$1.00)	-1.0	133.6	167.5
1998	98Q4	\$4.33	175.0	\$34.53	149.0	\$28.64	214.4	155.8	155.8	\$291.27	134.0	\$0.51	125.1	(\$1.00)	-1.0	131.9	153.1
1998	98AV	\$4.89	198.0	\$35.72	154.2	\$26.54	198.7	158.7	158.7	\$283.01	130.2	\$0.50	122.0	(\$1.00)	-1.0	128.2	158.1
1999	99Q1	\$5.91	239.4	\$36.57	157.8	\$18.57	139.0	155.9	155.9	\$335.29	154.3	\$0.59	144.9	\$0.54	63.8	134.1	163.5
1999	99Q2	\$5.34	216.0	\$35.09	151.4	\$21.90	163.9	152.7	152.7	\$326.59	150.3	\$0.61	149.8	\$1.15	135.3	147.1	161.8
1999	99Q3	\$4.42	178.8	\$36.62	158.1	\$24.59	184.1	160.7	160.7	\$298.62	137.4	\$0.52	125.5	(\$1.00)	-1.0	107.2	147.7
1999	99Q4	\$4.11	166.5	\$33.96	146.6	\$33.04	247.3	156.9	156.9	\$305.27	140.5	\$0.50	121.1	\$1.46	171.1	143.0	154.3
1999	99AV	\$4.94	199.8	\$35.23	152.0	\$22.78	170.5	153.9	153.9	\$310.56	142.9	\$0.54	132.0	\$1.41	165.3	145.3	159.2
2000	00Q1	\$5.11	206.9	\$36.84	159.0	\$21.73	162.7	159.4	159.4	\$341.22	157.0	\$0.45	110.2	(\$1.00)	-1.0	145.7	164.5
2000	00Q2	\$4.41	178.5	\$40.71	175.7	\$11.84	88.6	166.8	166.8	\$374.75	172.5	\$0.47	114.7	\$1.25	146.2	155.9	165.5
2000	00Q3	\$6.42	259.7	\$43.57	188.0	\$22.69	169.8	186.2	186.2	\$355.44	163.6	\$0.47	114.0	\$0.96	111.9	143.5	185.8
2000	00Q4	\$4.77	193.0	\$38.42	166.0	\$43.65	326.8	182.4	182.4	\$288.39	132.7	\$0.51	123.3	\$1.16	136.3	131.6	168.9
2000	00AV	\$5.25	212.6	\$40.02	173.0	\$20.56	153.9	170.8	170.8	\$346.82	159.6	\$0.47	115.2	\$1.18	138.8	146.8	170.7
2001	01Q1	\$4.14	167.6	\$40.40	175.5	\$37.17	278.2	185.0	185.0	\$311.48	143.3	\$0.51	123.8	\$0.00	0.0	138.6	170.0
2001	01Q2	\$4.78	193.6	\$35.62	154.0	\$13.66	102.3	148.5	148.5	\$282.89	130.2	\$0.50	122.6	\$0.00	0.0	128.3	151.5
2001	01Q3	\$4.29	173.6	\$41.20	177.9	\$20.63	154.5	175.4	175.4	\$297.55	136.9	\$0.50	120.8	\$1.29	151.5	136.8	163.4
2001	01Q4	\$3.13	126.6	\$34.33	147.6	\$47.93	358.8	169.8	169.8	\$335.74	154.5	\$0.45	110.2	\$0.00	0.0	143.7	155.3
2001	01AV	\$4.19	169.5	\$38.67	167.4	\$17.45	130.6	163.2	163.2	\$303.22	139.5	\$0.50	120.9	\$1.29	151.5	138.4	156.8
2002	02Q1	\$6.25	252.9	\$37.53	163.1	\$31.12	233.0	169.3	169.3	\$293.38	135.0	\$0.53	129.6	\$0.00	0.0	133.7	175.4
2002	02Q2	\$5.69	230.3	\$39.67	171.5	\$28.33	212.1	175.4	175.4	\$294.41	135.5	\$0.50	121.3	\$0.70	82.4	121.9	168.6
2002	02Q3	\$4.42	178.8	\$34.98	151.4	\$25.51	190.9	155.1	155.1	\$299.12	137.7	\$0.49	120.5	\$2.11	247.3	156.6	159.6
2002	02Q4	\$2.31	93.3	\$38.71	167.5	\$21.26	159.2	166.2	166.2	\$257.37	118.4	\$0.49	120.7	\$0.81	95.0	114.1	138.1
2002	AV	\$3.74	151.2	\$37.99	164.7	\$24.81	185.7	166.2	166.2	\$285.35	131.3	\$0.50	121.3	\$0.78	91.9	121.4	150.1

View Annual/Qtr

View Tabular Report

**Summary Report for all the projects awarded**

**1/1/2002 And 12/31/2002**

<b># of Bids</b>	<b>Project Amount</b>	<b>No. of Projects</b>	<b>No. of Bidders</b>	<b>Total Contract Amt.</b>	<b>Avg.</b>
	<i>\$0.00 to \$49,999.99</i>	13	68	\$372,589.54	5.2
	<i>\$50,000.00 to \$99,999.99</i>	10	43	\$796,239.07	4.3
	<i>\$100,000.00 to \$249,999.99</i>	28	137	\$5,220,205.72	4.9
	<i>\$250,000.00 to \$499,999.99</i>	34	147	\$12,363,168.20	4.3
	<i>\$500,000.00 to \$999,999.99</i>	28	136	\$20,526,432.36	4.9
	<i>1,000,000.00 to \$2,499,999.99</i>	40	227	\$69,919,076.41	5.7
	<i>2,500,000.00 to \$4,999,999.99</i>	25	129	\$85,533,002.06	5.2
	<i>5,000,000.00 to \$9,999,999.99</i>	8	48	\$57,726,491.25	6.0
	<i>10,000,000.00 to \$19,999,999.99</i>	4	27	\$57,503,765.32	6.8
	<i>20,000,000.00 to \$49,499,999.99</i>	1	8	\$26,485,659.75	8.0
	<i>50,000,000.00 or Greater</i>	0			
	<b>Total</b>	<b>191</b>	<b>970</b>	<b>\$336,446,629.68</b>	

The number of bidders on all projects awards during this period **5.08** bidders per contract.

Index items as a percent of the total construction cost:

2002 Annual CCI Items:	<b>\$146,516,550.98</b>	
	<b>-----</b>	<b>=</b>
2002 Annual All Construction Items:	<b>\$336,446,629.68</b>	<b>43.6%</b>

**CCI ITEMS USED FROM 1/1/2002 TO 12/31/2002**

ITEM CODE	# OF ITEM	QUANTITY	PRICE	UNIT PRICE	INDEX
203-00000 To 203-00060 203-00062 To 203-00210 203-00400 To 203-00500	<b>106</b>	English (CY) <b>5,340,577.00</b>	<b>\$20,056,087.09</b>	<b>\$3.76</b>	
203-01020 To 203-01030 209-00000 To 209-00050	<b>4</b>	Metric (CM) <b>477,240.00</b>	<b>\$2,228,539.37</b>	<b>\$4.67</b>	
<b>UNCLASSIFIED EXCAV (CIP)</b>	<b>110</b>	<b>5,964,806.92<sup>CY</sup></b>	<b>\$22,284,626.46</b>	<b>\$3.74</b>	<b>151.2</b>
403-00720, 403-01000, 403-01010, 403-02000, 403-09121 To 403-09500 403-31300 To 403 36447 403-91401 To 403-95353 411-03100 To 411-03355 411-10010 To 411-90010 (Gal/Lit) Gallon & Liter are converted to Ton	<b>325</b>	English (TON) <b>2,205,551.05</b>	<b>\$83,785,041.25</b>	<b>\$37.99</b>	
	<b>0</b>	Metric (MT) <b>0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	
<b>HOT BIT. PAVEMENT (H_A)</b>	<b>325</b>	<b>2,205,551.05 T</b>	<b>\$83,785,041.25</b>	<b>\$37.99</b>	<b>164.7</b>
412-00000 To 412-00050 412-00700 To 412-01352 412-03000 To 412-03000	<b>38</b>	English (SY) <b>661,337.09</b>	<b>\$15,843,842.62</b>	<b>\$23.96</b>	
	<b>4</b>	Metric (SM) <b>139,845.63</b>	<b>\$4,712,034.83</b>	<b>\$33.69</b>	
<b>CONCRETE PAVEMENT (9")</b>	<b>42</b>	<b>828,591.07<sup>SY</sup></b>	<b>\$20,555,877.45</b>	<b>\$24.81</b>	<b>185.7</b>
<b>SURFACING TOTAL INDEX</b>					<b>166.2</b>
509-00000 To 509-00000	<b>3</b>	English (LB) <b>2,306,703.00</b>	<b>\$1,874,440.56</b>	<b>\$0.81</b>	
	<b>1</b>	Metric (KG) <b>368,343.00</b>	<b>\$570,931.65</b>	<b>\$1.55</b>	
<b>STRUCTURAL STEEL</b>	<b>4</b>	<b>3,118,899.32<sup>LB</sup></b>	<b>\$2,445,372.21</b>	<b>\$0.78</b>	<b>91.9</b>
601-01022 To 601-01022 601-01030 To 601-01060 601-03030 To 601-05064	<b>74</b>	English (CY) <b>37,687.30</b>	<b>\$10,765,198.03</b>	<b>\$285.65</b>	
	<b>6</b>	Metric (CM) <b>5,043.83</b>	<b>\$1,871,370.91</b>	<b>\$371.02</b>	
<b>STRUCTURAL CONCRETE</b>	<b>80</b>	<b>44,284.63<sup>CY</sup></b>	<b>\$12,636,568.94</b>	<b>\$285.35</b>	<b>131.3</b>
602-00000 To 602-00000 602-00020 To 602-00020	<b>69</b>	English (LB) <b>8,299,963.00</b>	<b>\$4,176,658.88</b>	<b>\$0.50</b>	
	<b>3</b>	Metric (KG) <b>621,565.00</b>	<b>\$632,405.79</b>	<b>\$1.02</b>	
<b>REINFORCING STEEL</b>	<b>72</b>	<b>9,670,513.83<sup>LB</sup></b>	<b>\$4,809,064.67</b>	<b>\$0.50</b>	<b>121.3</b>
<b>STRUCTURAL TOTAL INDEX</b>					<b>121.4</b>
<b>COMPOSITE INDEX =</b>					<b>150.1</b>

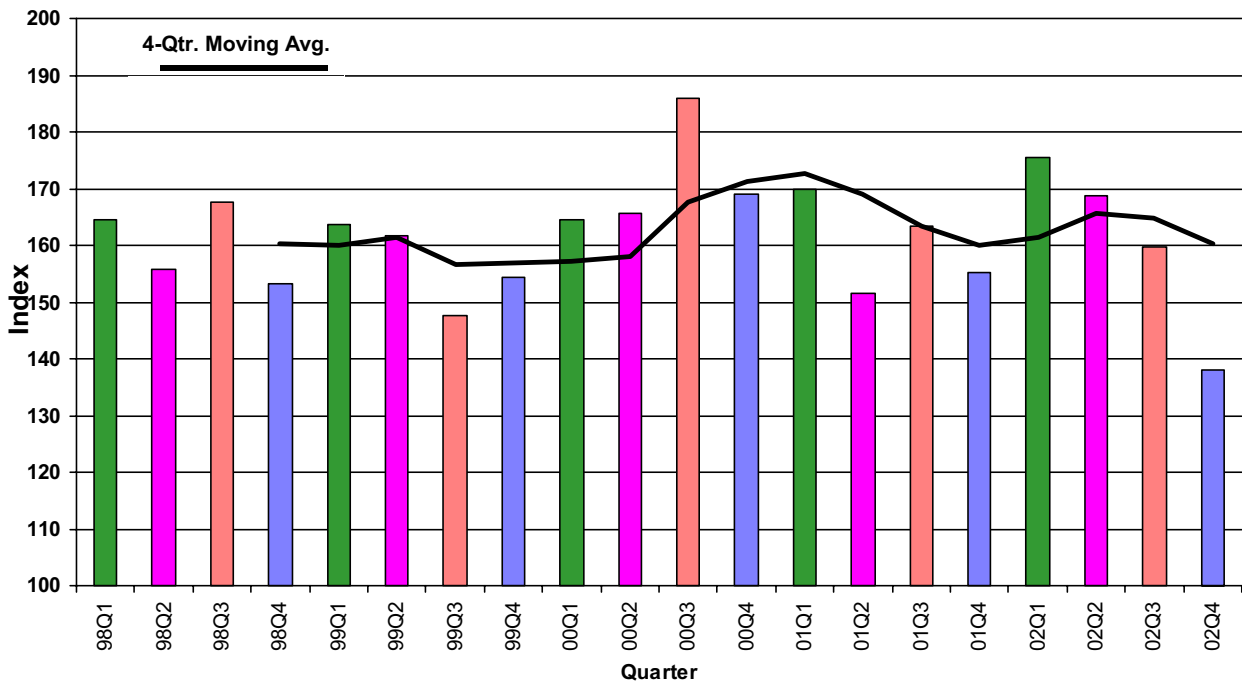
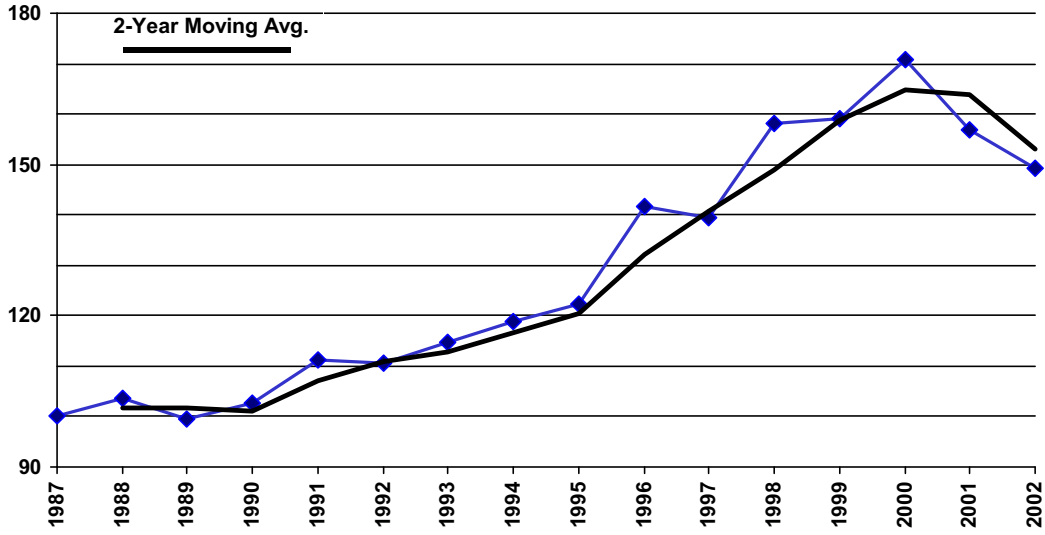
Sum of the 6 categories cost = \$146,516,550.98

HBP Unit Price per CY = \$75.22

Concrete Pavement Unit Price per CY = \$99.23



## Colorado Construction Cost Index



## **Comments:**

This Colorado Construction Cost Index is composed of six indicator items and based on bid prices relative to the unit prices of 1987 (unit index=100).

**Earthwork (Excavation and Embankment):** \$2.31 a cubic yard. Down \$2.11 from last quarter and down \$0.82 from the same quarter last year. This decrease can be attributed mostly to two large projects: The Phase II of Berthoud Bypass on US 287 and the new roadway construction project on Powers Boulevard in Colorado Springs.

**Bituminous Pavement:** \$38.71 a ton. Up \$3.73 from last quarter and up \$4.38 from the same quarter last year. Fewer projects with large HBP quantities contributed to the increase.

**Concrete Pavement:** \$21.26 a square yard. Down \$4.25 from last quarter and down \$26.67 from the same quarter last year. This decrease can be attributed mostly to the Phase II of Berthoud Bypass project on US 287.

**Structural Steel:** \$0.81 a pound. Down \$1.30 from last quarter and no structural steel items were bid the same quarter last year. This decrease can be attributed mostly to the new roadway construction project on Powers Boulevard in Colorado Springs.

**Structural Concrete:** \$257.37 a cubic yard. Down \$41.75 from last quarter and down \$78.37 from the same quarter last year. This decrease can be attributed mostly to two projects: The Phase II of Berthoud Bypass on US 287 and the new roadway construction project on Powers Boulevard in Colorado Springs.

**Reinforcing Steel:** \$0.49 a pound. The same as the last quarter and up \$0.04 from the same quarter last year. There were no major variations in price or quantities.

## **ADDITIONAL INFORMATION:**

For the 4<sup>th</sup> quarter, the category index showing an increase was Bituminous Pavement. The Index level decreased for Earthwork, Concrete Pavement, Structural Steel, and Structural Concrete. The Index level for Reinforcing Steel remained the same.

40 projects were bid and awarded this quarter for a total of \$87,063,282.16. The competition for projects increased from 5.0 to 5.73 bidders for each project on average. By comparison,

46 projects were bid last quarter and 20 in the same quarter last year.

20 maintenance contract projects were bid this quarter.

No metric projects were bid this quarter.

No Design/Build or Lump Sum projects were bid this quarter.

191 projects were bid and awarded for the year 2002 for a total of \$336,446,629.68. The competition for projects increased from 4.49 to 5.08 bidders per project on average for the year 2002 compared to prior year. By comparison, 147 projects were bid in year 2001.