



Memo

TO: Addressees
FROM: Mary Lacho
Estimates Engineer
DATE: May 16, 2016
SUBJECT: Cost Index – 2015 Fourth Quarter / Year End

Estimates Engineer – 4th Quarter 2015 Notes:

The 2015 Fourth Quarter Minnesota Highway Construction Composite Cost Index was not computed due the absence of the structural steel indicator item.

Fourth Quarter - 2015

The fourth quarter index was based on \$64.49 million of work considered from 24 projects. Fourth quarter 2015 cost information is compared to fourth quarter 2014 below.

- The average Excavation cost was \$6.59/CY, up \$2.84/CY from the fourth quarter of 2014. 6 projects were considered this quarter.
- The average Reinforcing Steel cost was \$1.26/LB, up \$0.03/LB from the fourth quarter of 2014. 5 projects were considered this quarter.
- The average Structural Steel indicator item was absent of data.
- The average Structural Concrete cost was \$589.95/CY, down \$146.67/CY from the fourth quarter of 2014. 2 projects were considered this quarter.
- The average Concrete Pavement cost was \$140.66/CY, up \$18.43/CY from the fourth quarter of 2014. 4 projects were considered this quarter.
- The average Plant Mixed Bituminous cost was \$49.60/TON, down \$7.60/TON from the fourth quarter of 2014. 20 projects were considered this quarter.

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Indicator Costs								
Item	Fourth Quarter 2014				Fourth Quarter 2015			
	Quantity		Cost *	Unit Cost	Quantity		Cost *	Unit Cost
Excavation	1,193,925	CY	\$4.47	\$3.75	1,099,815	CY	\$7.25	\$6.59
Reinforcing Steel	1,211,750	LB	\$1.49	\$1.23	570,070	LB	\$0.72	\$1.26
Structural Steel	**	LB	**	**	**	LB	**	**
Structural Concrete	4250	CY	\$3.13	\$736.62	3164	CY	\$1.87	\$589.95
Concrete Pavement	69,238	CY	\$8.46	\$122.23	182,778	CY	\$25.71	\$140.66
Plant-Mixed Bituminous	625,788	TON	\$35.79	\$57.20	583,674	TON	\$28.95	\$49.60
Total			\$53.35				\$64.50	

* Millions of dollars

** Not computed due to the absence of data.

Project information and cost indices from the fourth quarter of 2015 are compared to the fourth quarter of 2014 below.

Minnesota Highway Construction Project Summary		
	2014 Q4	2015 Q4
Number of Projects Awarded	53	45
Awarded Amount (\$ million)	\$157.91	\$352.51
Total Number of Bidders	177	166
Average No. of Bidders	3.34	3.69
Number of Cost Index Projects	21	24
Cost Index Amount (\$ million)	\$53.35	\$64.50
Excavation Index	186.92	328.75
Structures Index	***	***
Surfacing Index	307.97	279.88
Composite Cost Index (CI)	***	***

*** Not computed due to the absence of data for associated indicator items.

The average number of bidders per project was 3.69 for the fourth quarter of 2015. In comparison, the average number of fourth quarter bidders in 2014 and 2013 were 3.34 and 3.68 respectively.

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Estimates Engineer – Year End 2015 Notes:

The 2015 year end Minnesota Highway Construction Composite Cost Index was not computed due the absence of the structural steel indicator item.

The cost index does not include CMGC, Design Build, IDIQ, ER, Urgent or negotiated projects.

Year End – 2015

The Year-End 2015 index was based on \$233.22 million of work considered from 80 Projects.

- The average Excavation cost was \$5.08/CY, up \$0.34/CY from Year-End 2014. 30 projects were considered in 2015.
- The average Reinforcing Steel cost was \$1.35/LB, up \$0.15/LB from Year-End 2014. 13 projects were considered in 2015.
- The average Structural Steel cost was not computed due to absence of data.
- The average Structural Concrete cost was \$680.56/CY, up \$104.19/CY from Year-End 2014. 10 projects were considered in 2015.
- The average Concrete Pavement cost was \$149.80/CY, up \$38.45/CY from Year-End 2014. 11 projects were considered in 2015.
- The average Plant Mixed Bituminous cost was \$54.30/TON, down \$2.67/TON from Year-End 2014. 69 projects were considered in 2015.

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Year 2015 cost information is compared to year 2014 below.

Indicator Costs								
Year 2014					Year 2015			
Item	Quantity		Cost *	Unit Cost	Quantity		Cost *	Unit Cost
Excavation	4,510,044	CY	\$21.38	\$4.74	5,502,674	CY	\$27.98	\$5.08
Reinforcing Steel	4,692,418	LB	\$5.64	\$1.20	3,312,337	LB	\$4.46	\$1.35
Structural Steel	2,183,800	LB	\$3.85	\$1.76	0	LB	\$0	\$0
Structural Concrete	33,350	CY	\$19.22	\$576.37	28,419	CY	\$19.34	\$680.56
Concrete Pavement	492,099	CY	\$54.79	\$111.35	414,287	CY	\$62.06	\$149.80
Plant-Mixed Bit.	2,509,503	TON	\$142.97	\$56.97	2,198,517	TON	\$119.38	\$54.30
Total			\$247.85				\$233.22	

*Millions of dollars

The following tables summarize the quarterly and year-end project information and indices for 2015.

2015 Minnesota Highway Construction Project Summary					
	Q1	Q2	Q3	Q4	Year 2015
No. of Projects Awarded	70	81	26	45	222
Awarded Amount (\$ million)	\$362.23	\$290.30	\$24.93	\$352.51	\$1029.97
Total No. of Bidders	227	208	64	166	665
Average No. of Bidders	3.24	2.6	2.5	3.7	3.0
No. of CI Projects	23	29	4	24	80
CI Amount (\$ million)	\$83.31	\$81.55	\$3.86	\$64.50	\$233.22
Excavation Index	221.14	246.97	**	328.75	253.63
Structures Index	**	**	**	**	**
Surfacing Index	311.49	320.27	**	279.88	304.86
Composite Cost Index	**	**	**	**	**

** Not computed due to the absence of data for associated indicator items.

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Project information and cost indices from 2015 are compared to 2014 below.

Minnesota Highway Construction Project Summary		
	Year 2014	Year 2015
No. of Projects Awarded	241	222
Awarded Amount (\$ million)	\$802.16	\$1029.94
Total No. of Bidders	779	665
Average No. of Bidders	3.2	3.0
No. of CI Projects	88	80
CI Amount (\$ million)	\$247.85	\$233.22
Excavation Index	236.40	253.63
Structures Index	271.34	**
Surfacing Index	302.92	304.86
Composite Cost Index	283.58	**

**** Not computed due to the absence of data for associated indicator items**

The average number of bidders per project for the year 2015 was 3.0. In comparison, the average number of bidders in 2014 and 2013 were 3.2 and 3.3 respectively.

Attached is an explanation of the derivation of the Minnesota Cost index, charts of quarterly and annual Minnesota highway construction cost trends and a table and chart comparing the yearly Minnesota Composite Cost Index with the latest yearly FHWA index.

Attachments
 cc: File

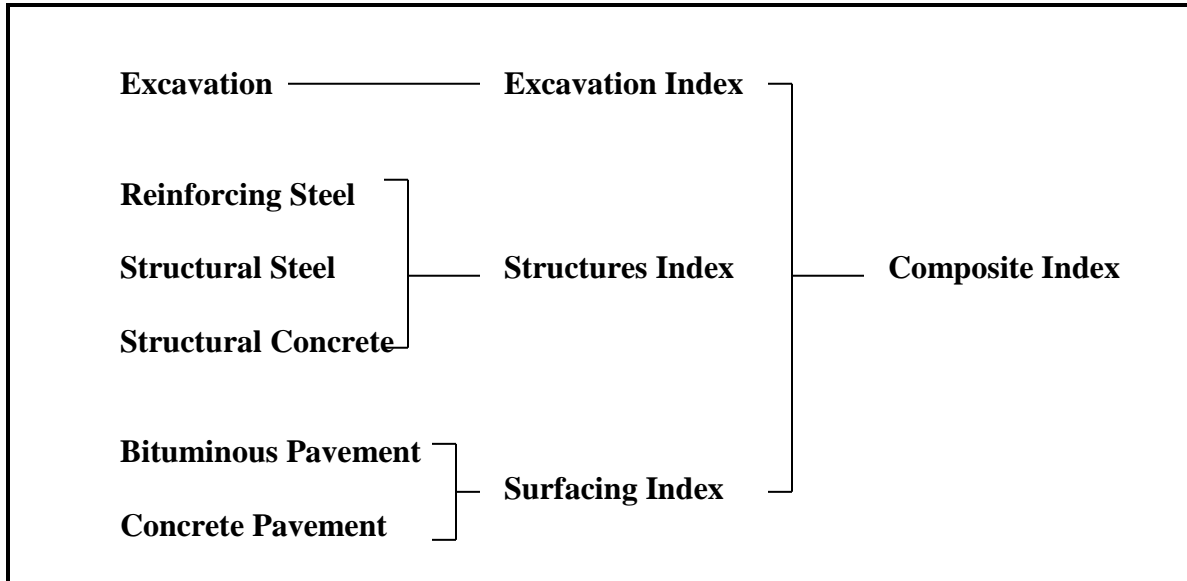
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Minnesota Construction Cost Index

The Minnesota Construction Cost Index is an indicator of price trends for highway construction.

It is composed of six indicator items: roadway excavation, to indicate the price trends for all roadway excavation; concrete pavement and plant-mixed bituminous, to indicate the price trend for all surfacing types; and reinforcing steel, structural steel, and structural concrete, to indicate the price trend for structures.

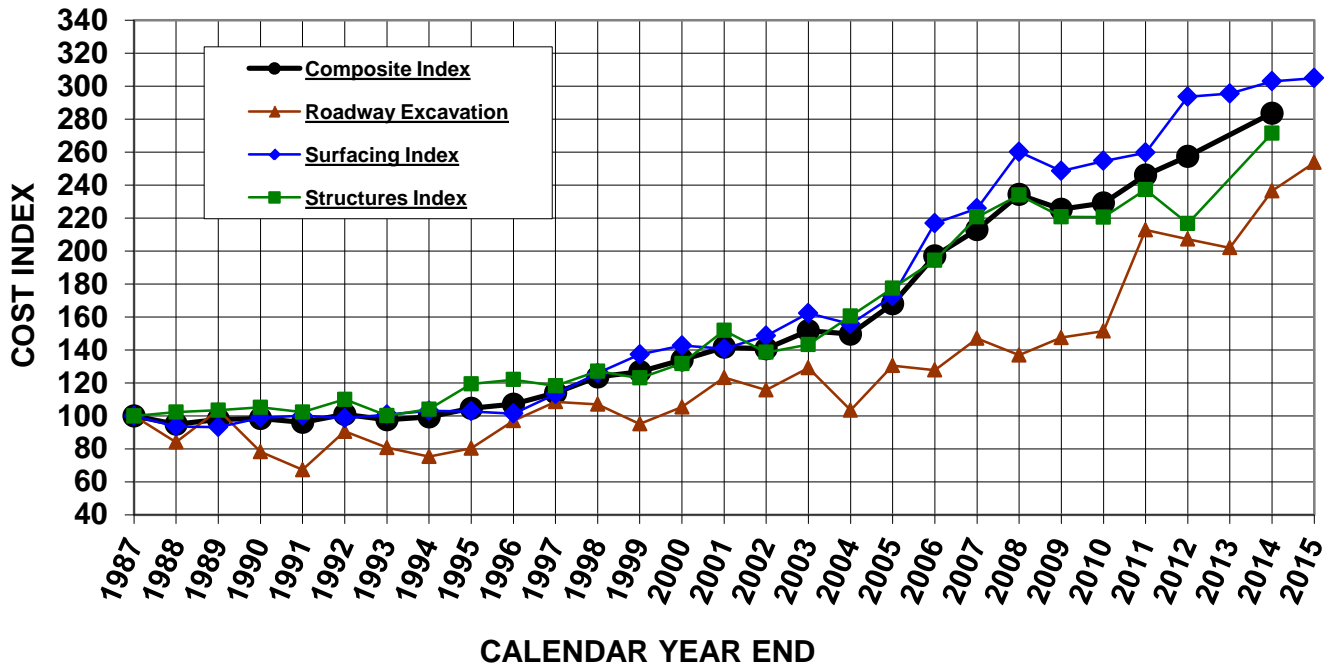


Each quarter, an average unit price is computed for each indicator item. The unit price is based upon the actual bids from projects **excluding Design Build projects**, costing more than \$100,000, and let during that quarter. These unit prices include the cost of material, labor, equipment, overhead and profit.

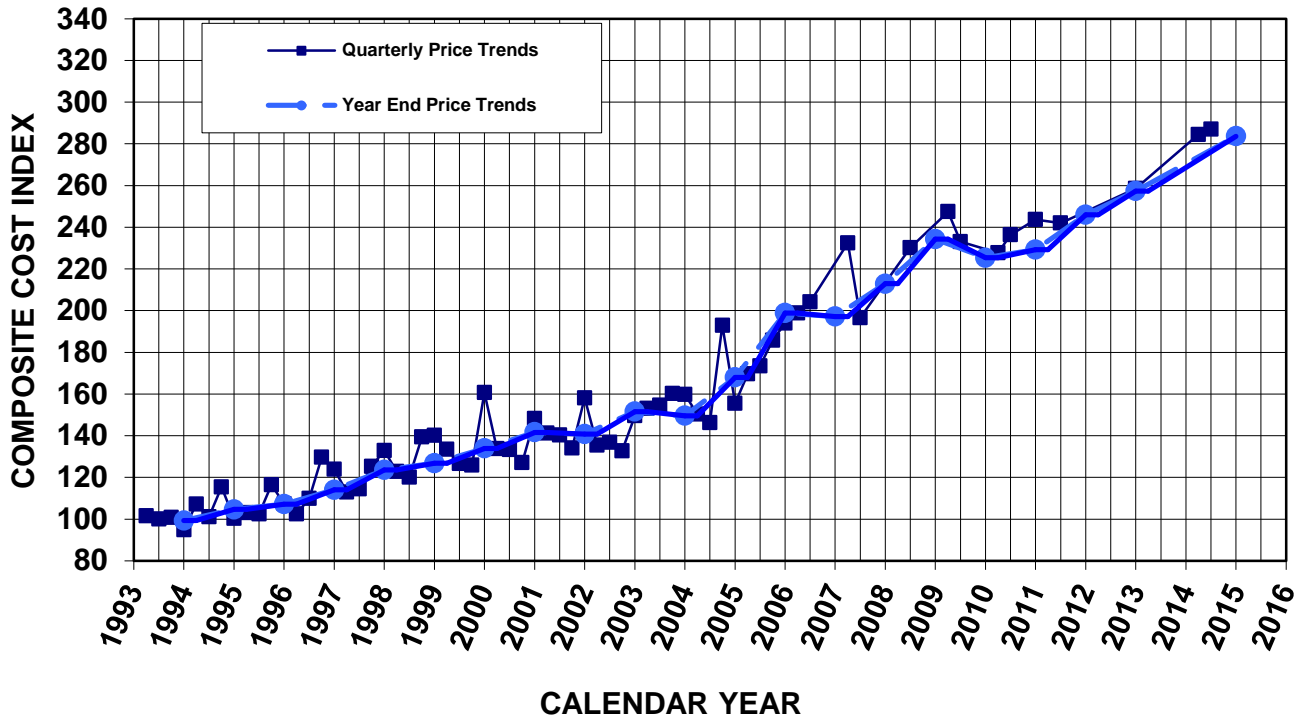
These unit prices along with the 1987 base unit prices and quantities are used to compute the Excavation, Surfacing, Structures and Composite Index.

Minnesota Highway Construction Cost Trends

ANNUAL PRICE TRENDS



YEARLY & QUARTERLY PRICE TRENDS

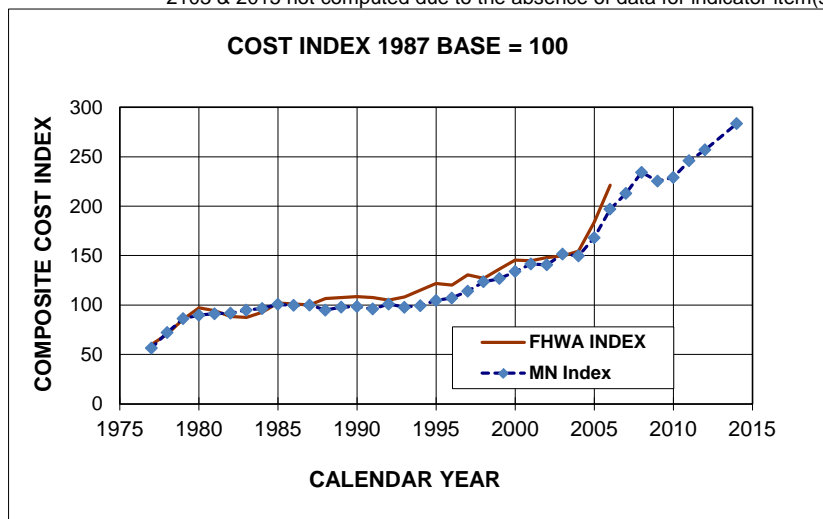


NOTE: In 2007, the FHWA stopped collecting Price Trend data,
and no longer provide the reports necessary to complete the comparison graphs.

HIGHWAY CONSTRUCTION COST INDEX 1987 BASE-100

<u>Year End</u>	<u>FHWA Index</u>	<u>MN Index</u>
1975		
1976		
1977	59.80	56.40
1978	70.70	72.10
1979	85.50	86.30
1980	97.20	89.60
1981	94.20	91.20
1982	88.50	91.80
1983	87.60	94.80
1984	92.60	96.40
1985	102.00	100.70
1986	101.10	99.60
1987	100.00	100.00
1988	106.60	94.90
1989	107.70	97.90
1990	108.50	98.40
1991	107.50	96.00
1992	105.10	101.00
1993	108.30	97.70
1994	115.10	99.30
1995	121.90	104.60
1996	120.20	107.10
1997	130.60	114.00
1998	126.90	123.58
1999	136.50	126.75
2000	145.60	133.91
2001	144.80	141.61
2002	147.90	140.73
2003	149.80	151.60
2004	154.40	149.61
2005	183.60	167.97
2006	221.30	197.10
2007		212.88
2008		234.22
2009		225.32
2010		229.17
2011		245.95
2012		256.94
2013		
2014		283.58
2015		

**2103 & 2015 not computed due to the absence of data for indicator item(s).



1987 Base Year = 100
FHWA Index includes projects > \$500,000
Mn/DOT Index includes projects > \$100,000

MN/DOT COST INDEX

<u>Year</u>	<u>Roadway Excavation</u>	<u>Bituminous Surfacing</u>	<u>Concrete Surfacing</u>	<u>Surfacing Index</u>	<u>Reinforce. Steel</u>	<u>Structural Steel</u>	<u>Structural Concrete</u>	<u>Structures Index</u>	<u>Composite Index</u>
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988									
1st Quarter	66.35	92.87	76.99	89.60	108.25	113.11	91.18	98.44	88.98
2nd Quarter	111.84	96.02	107.04	98.29	107.22	103.87	95.60	99.37	100.58
3rd Quarter	87.81	94.14	104.76	96.33	110.27	110.57	110.45	110.43	99.46
4th Quarter	89.72	103.63		103.63	115.44	107.04	94.37	100.80	100.39
Year End	84.08	95.68	85.55	93.59	109.73	109.34	97.90	102.26	94.90
1989									
1st Quarter	121.34	88.57	92.72	89.42	120.87	141.72	101.41	112.36	101.11
137.56	70.45	90.06	87.63	89.56	108.73	102.24	98.24	101.04	90.35
3rd Quarter	137.56	107.54	135.39	113.28	116.66	107.48	94.73	101.34	113.09
4th Quarter		91.13		91.13	138.53	121.78	146.33	140.47	111.64
Year End	103.72	92.01	94.50	93.23	115.99	111.15	97.29	103.45	97.90
1990									
1st Quarter	75.54	100.19	81.67	96.37	115.62	140.73	102.05	111.55	98.06
2nd Quarter	67.71	96.79	104.57	98.39	122.11	105.43	110.57	111.97	98.17
3rd Quarter	97.07	122.17	102.13	118.04	117.17	112.70	92.03	100.67	109.65
4th Quarter	66.99	106.72	148.85	115.41	118.55	108.99	133.76	126.38	111.83
Year End	78.30	100.58	97.24	98.89	117.48	112.81	99.09	105.17	98.41
1991									
1st Quarter	86.48	103.02	111.23	104.71	115.23	123.22	91.37	101.72	101.16
2nd Quarter	67.72	96.75	105.58	98.57	110.99	128.81	103.22	109.27	97.43
3rd Quarter	105.04				122.95		110.48	113.49	110.44
4th Quarter	47.98	81.65	111.81	87.87	106.38	84.44	80.29	86.22	81.62
Year End	67.31	97.72	109.11	100.07	111.54	121.31	93.98	102.28	96.04
1992									
1st Quarter	134.20	110.24	90.36	106.14	106.10	96.66	92.71	96.07	107.07
2nd Quarter	84.69	95.94	103.65	97.53	119.25	109.95	112.93	113.67	100.67
3rd Quarter	90.06	102.36	92.40	100.31	99.53	108.35	131.75	121.22	105.29
4th Quarter	99.54	105.41		105.41	105.69	91.58	116.35	109.83	106.01
Year End	90.60	99.05	97.07	98.64	106.37	105.54	112.38	109.98	100.98
1993									
1st Quarter	81.02	104.73	87.06	101.08	118.06	139.75	102.08	111.88	101.53
2nd Quarter	81.51	101.97	101.79	101.93	109.83	128.78	97.52	105.46	100.08
3rd Quarter		117.01		117.01	97.06		65.66	73.25	100.83
4th Quarter	73.97	94.47	84.12	92.33	119.80	112.58	104.90	109.22	94.91
Year End	80.75	101.91	96.30	100.75	108.13	127.30	90.07	100.21	97.70
1994									
1st Quarter	115.56	97.54	95.57	97.13	115.00	95.98	123.67	120.83	107.11
2nd Quarter	75.92	102.90	104.22	103.17	114.87		109.55	110.84	101.09
3rd Quarter	152.37	109.02	136.56	114.70	99.78	111.66	96.09	99.56	115.44
4th Quarter	65.52	110.42	103.89	109.08	109.23	98.51	98.97	100.93	100.29
Year End	75.38	102.48	104.96	102.99	105.52	110.88	101.55	103.98	99.32
1995									
1st Quarter	85.69	95.53	115.74	99.70	120.72	122.37	114.68	117.23	103.10
2nd Quarter	71.02	99.49		99.49	121.32	132.48	117.95	121.17	102.42
3rd Quarter	77.42	113.46	111.29	113.02	151.42		144.16	145.92	116.46
4th Quarter	92.70	107.55	109.43	107.93	121.52		111.82	114.16	107.29
Year End		99.81	113.94	102.73	121.47	126.83	116.53	119.32	104.63
1996									
1st Quarter	83.05	92.20	123.35	98.62	118.80	178.06	100.96	118.05	102.38
2nd Quarter	119.58	95.01	113.11	98.74	130.48		127.59	128.29	109.88
3rd Quarter	124.27	131.87	150.79	135.77	120.96		119.41	119.79	129.72
4th Quarter	95.12	124.66	113.40	122.34	141.02		144.36	143.55	123.91
Year End	97.01	97.12	117.89	101.40	120.85	178.06	106.59	121.98	107.13
1997									
1st Quarter	117.41	107.57	112.89	108.66	117.44	93.82	125.60	118.39	112.93
2nd Quarter	96.00	107.53	153.26	116.96	129.60	107.48	117.89	118.40	114.38
3rd Quarter	122.35	130.99		130.99	124.92	119.62	116.28	118.59	125.27
4th Quarter	127.75	134.59	0.00	134.59					132.88
Year End	108.51	109.84	125.63	113.10	122.08	99.44	122.32	118.25	114.03
1998									
1st Quarter	100.29	124.56	135.20	126.75	130.86		125.58	126.86	122.75
2nd Quarter	104.63	122.21	133.04	124.44	123.71		118.20	119.53	120.10
3rd Quarter	135.95	150.01	129.84	145.85	133.21		126.04	127.51	139.40
4th Quarter		155.16		155.16	122.66	146.08	110.58	119.22	140.22
Year End	106.99	124.06	132.22	125.95	127.70	146.08	121.58	127.10	123.58
1999									
1st Quarter	90.59	130.95	210.30	147.31	133.64		126.39	128.14	133.51
2nd Quarter	92.34	137.50	139.09	137.83	121.34		121.92	121.78	126.58
3rd Quarter	85.22	135.66		135.66	125.58	168.87	121.78	130.81	125.78
4th Quarter	182.25	143.08	202.56	155.34	132.10	107.12	183.75	160.00	160.66
Year End	95.07	135.87	142.46	137.23	124.73	114.64	124.72	122.95	126.75
2000									
1st Quarter	96.35	141.29	153.08	143.73	142.36	151.96	125.61	133.57	133.77
2nd Quarter	111.93	138.88	158.17	142.86	137.49	136.03	120.21	126.43	133.33
3rd Quarter	102.18	128.03		128.03	137.29		140.48	139.71	127.13
4th Quarter	115.61	136.47	170.73	143.53	149.27		185.41	176.66	148.21
Year End	105.38	138.87	157.19	142.65	139.49	137.59	127.59	131.71	133.91
2001									
1st Quarter	91.27	131.58	133.42	131.96	166.65		196.86	189.55	141.28
2nd Quarter	116.05	135.28	149.20	138.15	135.53	219.62	144.03	155.60	140.36
3rd Quarter	109.17	130.04	154.51	135.09	140.67	166.76	138.68	144.01	134.11
4th Quarter	157.83	160.90	185.56	165.98	149.31	86.82	158.62	144.16	158.06
Year End	123.17	137.25	153.92	140.69	142.53	171.70	149.25	151.85	141.61

MN/DOT COST INDEX
(CONTINUED)

Year	Roadway Excavation	Bituminous Surfacing	Concrete Surfacing	Surfacing Index	Reinforce. Steel	Structural Steel	Structural Concrete	Structures Index	Composite Index
2002									
1st Quarter	123.44	147.14	119.78	141.50	151.68	143.03	120.19	130.48	135.49
2nd Quarter	148.48	149.69	140.07	147.71	150.31	165.23	85.03	112.13	136.82
3rd Quarter		132.77		132.77					132.77
4th Quarter	95.26	157.12	161.93	158.12	167.64	154.74	158.85	159.88	149.61
Year End	115.64	150.27	142.16	148.60	159.74	157.32	126.43	138.49	140.73
2003									
1st Quarter	119.16	168.38	149.65	164.51	165.32	124.83	149.85	148.55	153.05
2nd Quarter	149.11	166.29	171.88	167.44	168.38	109.25	130.53	134.34	154.57
3rd Quarter	126.34	162.12	190.96	168.07	166.04		161.37	162.50	160.21
4th Quarter	142.18	144.11		144.11	162.08	139.53	213.05	189.98	159.77
Year End	129.12	163.83	156.17	162.25	166.37	116.91	143.23	143.23	151.60
2004									
1st Quarter	89.34	157.99	145.67	155.45	184.40	166.06	166.16	169.78	150.36
2nd Quarter	101.93	156.99	153.21	156.21	193.40		135.92	149.83	146.23
3rd Quarter	156.87	173.66	220.06	183.23	231.70	126.15	253.80	226.99	192.95
4th Quarter	171.37	153.88	126.70	148.28	175.45	195.43	146.69	160.98	155.53
Year End	103.48	159.35	141.15	155.60	191.19	162.96	150.02	160.50	149.61
2005									
1st Quarter	91.95	159.35	221.30	172.12	206.72	281.37	176.99	201.24	169.57
2nd Quarter	152.75	163.52	230.40	177.31	206.89	201.87	159.27	176.24	173.44
3rd Quarter	135.85	214.40	173.97	206.06	195.34	199.90	158.17	172.91	185.71
4th Quarter	131.93	211.41		211.41	219.49		192.75	199.22	193.94
Year End	130.43	169.66	183.55	172.53	202.26	201.13	162.78	177.39	167.97
2006									
1st Quarter	179.64	216.37	168.40	206.48	209.17	167.23	196.99	194.19	198.82
2nd Quarter	137.70	241.00	191.38	230.77	192.81	194.21	184.52	187.87	204.11
3rd Quarter	137.17	217.53	*	**	257.26	*	230.67	**	**
4th Quarter	95.01	228.13	*	**	247.81	*	212.00	**	**
Year End	127.80	228.04	173.91	216.88	205.99	183.53	193.74	194.39	197.10
2007									
1st Quarter	190.17	255.61	222.49	248.78	236.81	283.08	202.21	223.31	232.47
2nd Quarter	114.76	224.06	155.14	209.85	221.84	187.19	214.66	211.27	196.60
3rd Quarter	*/**	213.40	*	**	*	*	*	**	**
4th Quarter	117.03	209.36	*	**	*	*	*	**	**
Year End	147.02	232.91	198.59	225.84	233.69	262.24	204.79	220.64	212.88
2008									
1st Quarter	143.43	235.23	361.90	261.34	409.19	*	189.70	**	**
2nd Quarter	134.37	278.48	170.51	256.22	286.47	267.39	199.61	228.83	230.20
3rd Quarter	*/**	314.60	*	**	295.44	215.32	196.42	219.48	**
4th Quarter	217.71	350.82	*	**	242.71	*	187.20	**	**
Year End	136.85	282.00	175.62	260.06	349.63	239.92	195.24	233.87	234.22
2009									
1st Quarter	130.35	267.53	179.27	249.34	212.65	703.64	212.26	298.60	247.42
2nd Quarter	205.07	254.33	210.92	245.38	220.70	249.11	218.60	224.37	233.08
3rd Quarter	*/**	293.20	*	**	*	*	*	**	**
4th Quarter	255.96	266.65	174.42	247.63	202.59	*	211.65	**	**
Year End	147.46	265.08	184.33	248.43	213.94	252.12	214.03	220.70	225.32
2010									
1st Quarter	118.81	297.94	155.03	268.47	215.46	171.69	212.82	206.13	227.65
2nd Quarter	207.89	271.58	181.95	253.10	226.17	253.31	208.48	219.88	236.32
3rd Quarter	266.22	268.87	*	**	*	*	*	**	**
4th Quarter	263.08	260.16	186.16	244.90	222.91	197.32	245.20	232.35	243.64
Year End	151.35	277.15	167.66	254.58	222.32	197.81	226.24	220.47	229.17
2011									
1st Quarter	282.29	277.18	138.12	248.51	267.60	*	233.93	**	**
2nd Quarter	187.26	289.19	147.37	259.95	249.70	216.82	236.44	235.64	241.97
3rd Quarter	206.87	306.20	130.31	269.94	*	*	*	**	**
4th Quarter	290.62	311.17	161.76	280.36	253.69	*	261.73	**	**
Year End	212.74	289.32	145.22	259.61	254.49	216.82	237.48	237.25	245.95
2012									
1st Quarter	168.12	330.92	164.11	296.53	282.92	*	274.47	**	**
2nd Quarter	251.04	318.01	191.58	291.94	267.40	*	218.35	**	**
3rd Quarter	220.88	351.69	154.88	311.11	228.22	*	*	**	**
4th Quarter	206.53	308.84	260.42	298.86	260.22	221.19	193.13	211.43	258.54
Year End	207.23	322.38	182.48	293.54	261.73	221.19	201.04	257.36	257.36
2013									
1st Quarter	192.74	299.93	211.51	281.70	237.57	*	236.42	**	**
2nd Quarter	185.76	337.29	208.92	310.83	259.80	*	294.45	**	**
3rd Quarter	*	*	*	**	*	*	*	**	**
4th Quarter	304.08	329.32	181.06	298.75	284.22	*	304.71	**	**
Year End	201.96	320.88	197.83	295.51	277.52	*	285.73	**	**
2014									
1st Quarter	296.52	316.42	211.06	294.70	276.99	210.59	269.59	260.71	284.46
2nd Quarter	252.80	335.14	191.32	305.49	266.37	307.37	260.77	270.06	286.95
3rd Quarter	175.49	353.17	195.49	320.66	*	*	*	**	**
4th Quarter	186.92	331.02	219.23	307.97	280.50	*	353.97	**	**
Year End	236.40	329.72	199.71	302.92	274.37	247.88	276.96	271.34	283.58
2015									
1st Quarter	221.14	320.13	278.25	311.49	314.58	*	346.21	**	**
2nd Quarter	246.97	329.07	286.36	320.27	307.64	*	323.07	**	**
3rd Quarter	*	315.16	*	**	*	*	*	**	**
4th Quarter	328.75	287.05	252.29	279.88	286.55	*	283.49	**	**
Year End	253.63	314.25	268.68	304.86	307.10	*	327.03	**	**

* No information available

**Not computed due to the absence of data for indicator item(s).