



# Memo

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September 21, 2004

To: Addressees

From: Nancy Sannes  
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Subject: Cost Index – 2004 Second Quarter

The Minnesota Highway Construction Composite Cost Index for the second quarter of 2004 is 146.23, down 4.13 from the first quarter index of 2004. The second quarter index was based on \$46.84 million of work considered from 35 projects.

### Second Quarter 2004 Indicator Costs

Item	Quantity	Cost	Unit Cost
Excavation	2,960,239 CY	\$6,049,671.79	\$2.04/CY
Reinforcing Steel	2,852,003 lb	\$2,416,892.30	\$0.85/lb
Structural Steel	lb		/lb
Structural Concrete	28,152 CY	\$7,963,099.58	\$282.86/CY
Concrete Pavement	37,602 CY	\$3,211,998.36	\$85.42/CY
Plant-Mixed Bituminous	1,002,545 ton	\$27,194,972.55	\$27.13/ton
<b>Total</b>		<b>\$46,836,634.58</b>	

The Composite Cost Index for the second quarter of 2004 is down 8.34 from second quarter 2003.

Second quarter, 2004 project information is compared to second quarter 2003 below.

## Minnesota Highway Construction Project Summary

	<b>2003 Q2</b>	<b>2004 Q2</b>
<b>Number of Projects Awarded</b>	73	84 <sup>1</sup>
<b>Awarded Amount (\$ million)</b>	\$122.14	\$247.4 <sup>1</sup>
<b>Total Number of Bidders</b>	279	302 <sup>1</sup>
<b>Average Number of Bidders</b>	3.8	3.6 <sup>1</sup>
<b>Number of Cost Index Projects</b>	28	35
<b>Cost Index Amount (\$ million)</b>	\$46.99	\$46.84
<b>Excavation Index</b>	149.11	101.93
<b>Structures Index</b>	134.34	149.83
<b>Surfacing Index</b>	167.44	156.21
<b>Composite Cost Index (CI)</b>	154.57	146.23

<sup>1</sup> Includes S.P. 2785-304 Design Build, award amount \$110.8 million.

The average number of bidders per project was 3.6 for the second quarter of 2004. In comparison, the average number of second quarter bidders in 2003 and 2002 were 3.8 and 3.7 respectively

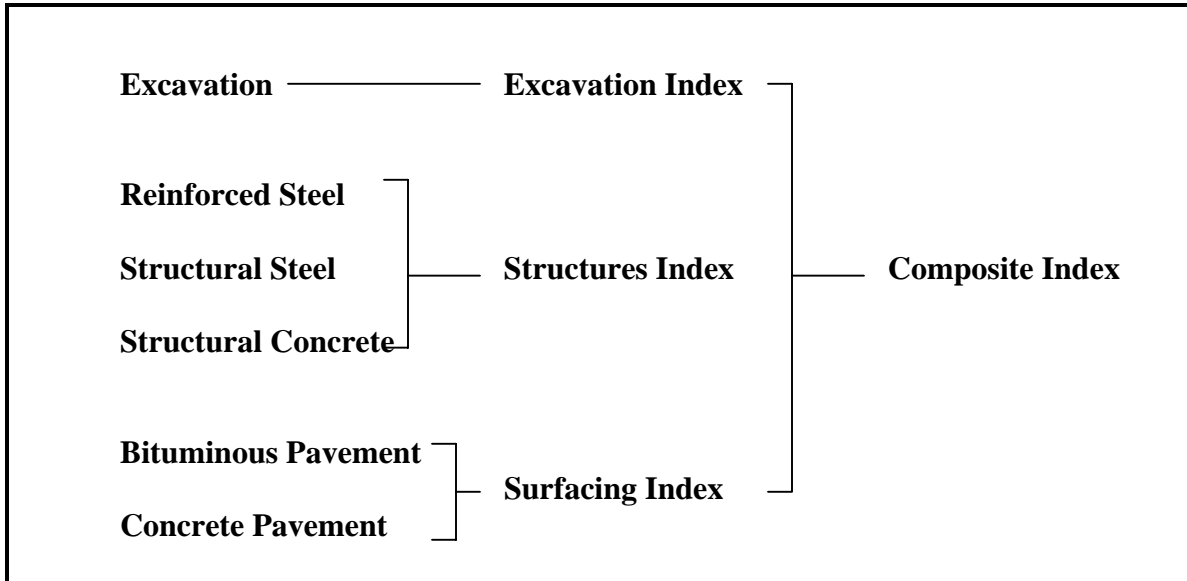
Attached is an explanation of the derivation of the Minnesota Cost index, charts of quarterly and annual Minnesota highway construction cost trends and a table and chart comparing the yearly Minnesota Composite Cost Index with the latest yearly FHWA index.

cc: File

# Minnesota Construction Cost Index

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

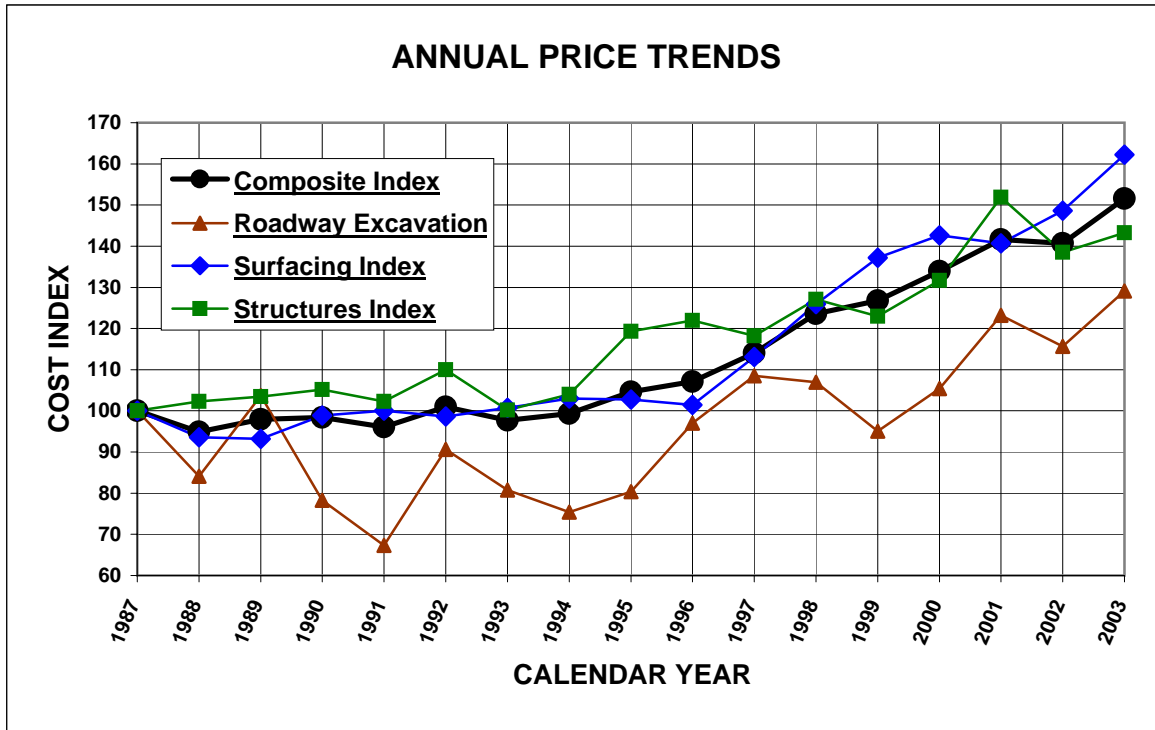
It is composed of six indicator items: roadway excavation, to indicate the price trends for all roadway excavation; concrete pavement and plant-mixed bituminous, to indicate the price trend for all surfacing types; and reinforcing steel, structural steel, and structural concrete, to indicate the price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

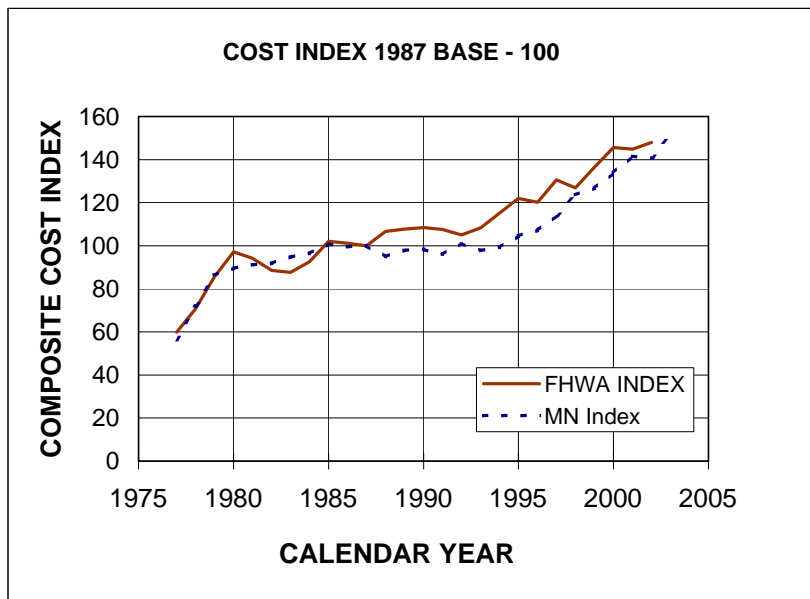
These unit prices along with the 1987 base unit prices are used to compute the Construction Cost Index. Additionally, the 1987 quantities are used to combine these indices as shown above into an excavation index, a surfacing index, a structures index and a composite index.

# Minnesota Highway Construction Cost Trends



**HIGHWAY CONSTRUCTION COST INDEX 1987 BASE-100**

<u>Year</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		151.60
2004		
2005		



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

**PRICE TRENDS FOR FEDERAL-AID HIGHWAY CONSTRUCTION**

1987 Base

Year	Common excavation		Surfacing					Structures							Composite index
	Average contract price (cu. yd.)	Index	Portland cement concrete <sup>2</sup>		Bituminous concrete		Surfacing index	Reinforcing steel		Structural steel		Structural concrete		Structures index	
			Average contract price (sq. yd.)	Index	Average contract price (ton)	Index		Average contract price (lb.)	Index	Average contract price (lb.)	Index	Average contract price (cu. yd.)	Index		
1972	.72	29.7	6.42	43.6	9.23	37.5	39.5	.181	41.1	.342	38.6	100.17	41.6	40.7	38.6
1973	.80	33.0	7.00	47.5	10.02	40.7	42.9	.207	47.0	.372	42.0	111.81	46.4	45.4	42.5
1974	1.00	41.2	8.88	60.3	14.74	59.8	60.0	.339	76.9	.551	62.3	136.80	56.8	61.7	57.9
1975	1.03	42.5	8.88	60.3	15.13	61.4	61.0	.297	67.4	.554	62.6	138.76	57.6	60.6	58.1
1976	1.03	42.5	8.92	60.6	14.83	60.2	60.3	.258	58.5	.484	54.7	139.59	58.0	57.2	56.3
1977	1.16	47.8	9.95	67.5	15.47	62.8	64.3	.272	61.7	.520	58.8	143.51	59.6	59.7	59.8
1978	1.54	63.5	11.90	80.8	17.16	69.6	73.3	.316	71.7	.603	68.1	172.41	71.6	70.7	70.7
1979	1.62	66.8	14.02	95.2	21.21	86.1	89.0	.421	95.5	.759	85.8	211.33	87.8	88.6	85.5
1980	1.83	75.5	14.92	101.3	25.29	102.6	102.2	.483	109.6	.941	106.3	226.68	94.1	100.0	97.2
1981	1.76	72.6	14.17	96.2	25.63	104.0	101.4	.438	99.4	.790	89.3	231.64	96.2	94.9	94.2
1982	1.59	65.6	13.03	88.5	24.33	98.7	95.3	.407	92.4	.762	86.1	219.63	91.2	90.0	88.5
1983	1.74	71.8	12.69	86.1	24.27	98.5	94.4	.398	90.3	.708	80.0	213.85	88.8	86.7	87.6
1984	1.90	78.4	13.64	92.6	26.52	107.6	102.7	.409	92.8	.709	80.1	218.02	90.5	88.2	92.6
1985	2.24	92.4	14.31	97.1	28.52	115.7	109.6	.444	100.7	.796	89.9	243.60	101.2	98.1	102.0
1986	2.28	94.0	15.63	106.1	26.48	107.4	107.0	.442	100.3	.850	96.0	236.37	98.2	98.0	101.1
1987	2.42	100.0	14.80	100.0	24.65	100.0	100.0	.441	100.0	.885	100.0	240.81	100.0	100.0	100.0
1988	2.72	112.2	14.33	97.3	24.91	101.1	99.8	.494	112.1	.924	104.4	274.12	113.8	111.0	106.6
1989	2.40	99.0	15.17	103.0	24.08	97.7	99.4	.556	126.2	1.018	115.0	283.40	117.7	118.4	107.7
1990	2.38	98.1	15.91	108.0	24.52	99.5	102.3	.529	120.0	1.010	114.1	286.18	118.8	117.8	108.5
1991	2.32	95.5	16.58	112.5	25.52	103.6	106.5	.505	114.6	1.030	116.4	264.98	110.0	112.5	107.5
1992	2.20	90.8	17.80	120.8	24.66	100.1	106.9	.520	117.9	.916	103.5	259.61	107.8	108.4	105.1
1993	2.50	103.2	18.81	127.7	26.26	106.6	113.5	.467	106.0	.861	97.3	261.89	108.7	105.3	108.3
1994	2.75	113.2	20.88	141.7	27.80	112.8	122.3	.515	116.8	.847	95.7	271.94	112.9	109.0	115.1
1995	2.73	112.8	22.07	149.8	28.87	117.1	127.9	.542	122.9	.922	104.2	302.66	125.7	119.5	121.9
1996	2.92	120.6	19.64	133.3	27.50	111.6	118.7	.581	121.5	1.068	120.7	293.85	122.0	121.6	120.2
1997	2.85	117.6	23.75	161.2	23.39	119.2	133.0	.567	128.7	1.186	134.0	320.90	133.2	132.7	130.6
1998	3.01	124.3	23.65	160.5	25.00	101.4	120.8	.544	123.4	1.111	125.5	337.25	140.0	133.4	126.9
1999	2.93	120.9	23.49	159.5	32.28	130.9	140.3	.554	125.7	1.224	138.3	342.24	142.1	138.3	136.5
2000:															
First quarter ...	2.71	111.8	25.17	170.9	32.65	132.5	145.1	.590	133.9	1.079	121.9	364.40	151.3	140.6	138.1
Second quarter	3.48	143.6	25.07	170.2	36.72	148.9	155.9	.662	150.2	1.432	161.9	396.92	164.8	161.5	156.6
Third quarter ..	2.94	121.2	24.65	167.4	34.55	140.2	149.1	.371	84.2	1.343	151.7	335.58	139.3	133.2	137.9
Fourth quarter	3.01	124.1	26.51	179.9	36.54	148.2	158.6	.589	133.6	1.427	161.3	362.70	150.6	150.5	149.9
Annual .....	3.01	124.1	25.30	171.7	35.15	142.6	152.2	.549	124.6	1.351	152.6	363.66	151.0	146.9	145.6
2001:															
First quarter ...	3.91	161.3	29.93	203.2	35.31	143.2	162.9	.576	130.7	1.461	165.1	302.70	125.7	136.9	151.2
Second quarter	3.29	135.8	21.42	145.4	34.42	139.6	141.5	.550	124.7	1.057	119.4	337.67	140.2	132.1	136.5
Third quarter ..	2.50	103.2	27.60	187.4	35.57	144.3	158.4	.545	123.7	1.176	132.8	343.27	142.5	136.8	140.6
Fourth quarter	3.27	135.1	29.09	197.5	35.87	145.5	162.6	.726	164.6	1.166	131.8	392.65	163.0	155.1	155.1
Annual .....	3.05	125.9	28.21	191.5	34.93	141.7	158.1	.601	136.4	1.201	135.8	339.44	140.9	138.8	144.8
2002:															
First quarter ...	3.05	125.7	24.26	164.7	31.00	125.8	138.5	.618	140.2	1.628	183.9	395.18	164.1	165.2	148.4
Second quarter	2.94	121.3	32.31	219.3	35.52	144.1	168.8	.631	143.2	1.427	161.2	393.88	163.6	159.5	157.5
Third quarter ..	3.05	125.6	23.66	160.6	36.16	146.7	151.3	.583	132.3	1.433	161.9	377.90	156.9	154.0	148.6
Fourth quarter	2.67	109.9	28.31	192.2	33.33	135.2	153.9	.620	140.8	.972	109.8	336.13	139.6	131.9	137.6
Annual .....	2.94	121.2	25.86	175.5	34.14	138.5	150.7	.610	138.4	1.436	162.2	374.96	155.7	154.5	147.9
2003:															
First quarter ...	5.15	212.2	23.55	159.8	32.35	131.3	140.6	0.647	146.7	1.177	133.0	441.81	183.5	163.8	161.6
Second quarter	3.23	133.1	24.33	165.1	33.86	137.4	146.5	.833	188.9	1.272	143.7	425.42	176.6	170.0	154.8
Third quarter ..	4.09	168.6	29.07	197.3	31.92	129.5	151.8	.631	143.1	1.102	124.6	374.83	155.6	145.3	151.4
Fourth quarter															
Annual .....															

**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>
<b>1987</b>	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
<b>1988</b>									
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
<b>1989</b>									
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
<b>1990</b>									
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
<b>1991</b>									
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
<b>1992</b>									
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
<b>1993</b>									
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
<b>1994</b>									
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
<b>1995</b>									
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
<b>1996</b>									
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
<b>1997</b>									
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
<b>1998</b>									
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

**MN/DOT COST INDEX**  
(CONTINUED)

<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>
<b>1999</b>									
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
<b>2000</b>									
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
<b>2001</b>									
1st Quarter	91.27	131.58	133.42	131.96	166.65		196.86	189.55	141.28
2nd Quarter	116.05	135.28	149.2	138.15	135.53	219.62	144.03	155.6	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	171.7	149.25	151.85	141.61
<b>2002</b>									
1st Quarter	123.44	147.14	119.78	141.5	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	148.6	159.74	157.32	126.43	138.49	140.73
<b>2003</b>									
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	162.5	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
<b>2004</b>									
1st Quarter	89.34	157.99	145.67	155.45	184.4	166.06	166.16	169.78	150.36
2nd Quarter	101.93	156.99	153.21	156.21	193.4	0	135.92	149.83	146.23

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