

SACO PRODUCTS • NEW HOPK, MINNESOTA  
 PROJECT BY PART NUMBER 6532  
 FEDERAL ROAD AND RIVER ON THE LINE  
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STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	CUT	FILL	CUT	FILL	CUT	FILL
26+50	63.36	11.12	118.43	16.44	118.43	16.44
27+00	64.14	6.65	121.36	14.42	239.79	30.86
27+50	66.56	8.95	117.20	33.17	356.99	64.03
28+00	59.70	26.84	111.83	59.62	468.81	123.65
28+50	60.84	37.29	107.86	80.63	576.67	204.28
29+00	55.47	49.35	89.50	108.84	666.17	313.12
29+50	41.08	67.57	60.50	135.09	726.68	448.21
30+00	24.26	78.33	57.47	136.29	784.15	584.50
30+50	37.81	68.86	64.57	108.00	848.72	692.50
31+00	31.93	47.77	65.67	90.27	914.39	782.77
31+50	38.99	49.72	55.06	102.36	969.45	885.13
32+00	20.47	60.83	31.91	147.72	1001.36	1032.85
32+50	13.99	98.71	23.83	224.66	1025.19	1257.51
33+00	11.74	143.92	27.60	275.49	1052.79	1533.00
33+50	18.07	153.61	403.70	240.65	1456.49	1773.65
34+00	417.93	106.29	615.45	169.65	2071.94	1943.30
34+50	246.76	76.93	369.91	120.60	2441.85	2063.89
35+00	152.75	53.31	242.53	108.67	2684.38	2172.57
35+50	109.18	64.06	188.58	116.72	2872.96	2289.29
36+00	94.48	62.00	177.84	96.17	3050.80	2385.46
36+50	97.59	41.86	211.09	47.95	3261.89	2433.41
37+00	130.39	9.93	242.40	14.81	3504.30	2448.22
37+50	131.41	6.07	231.87	32.35	3736.17	2480.57
38+00	119.01	28.86	169.09	76.20	3905.26	2556.77
38+50	63.61	53.44	99.32	107.99	4004.58	2664.76
39+00	43.66	63.19	75.71	124.83	4080.30	2789.59
39+50	38.11	71.63	64.99	124.07	4145.29	2913.66
40+00	32.08	62.37	41.47	144.69	4186.76	3058.35
40+50	12.70	93.90	17.79	165.79	4204.55	3224.14
41+00	6.52	85.15	9.36	182.09	4213.91	3406.23
41+50	3.60	111.50	14.13	132.30	4228.04	3538.53
42+00	11.66	31.38	32.92	73.47	4260.96	3612.00
42+50	23.90	47.97	92.24	89.38	4353.20	3701.38
43+00	75.73	48.56	175.27	50.01	4528.47	3751.39
43+50	113.56	5.45	159.01	19.50	4687.49	3770.89
44+00	58.17	15.60	86.60	40.74	4774.09	3811.63
44+50	35.36	28.40	32.74	101.01	4806.83	3912.64
45+00	0.00	80.69	0.00	252.24	4806.83	4164.88
45+50	0.00	191.73	0.00	426.66	4806.83	4591.53
46+00	0.00	269.06	0.00	434.16	4806.83	5025.69
46+50	0.00	199.83	0.09	259.07	4806.92	5284.77
47+00	0.10	79.97	20.79	140.22	4827.71	5424.99
47+50	22.36	71.47	62.83	95.96	4890.54	5520.94
48+00	45.50	32.17	101.51	41.92	4992.05	5562.86
48+50	64.13	13.10	101.08	31.42	5093.13	5594.28
49+00	45.03	20.83	55.70	66.57	5148.83	5660.86
49+50	15.12	51.07	16.92	137.87	5165.75	5798.73
50+00	3.15	97.83	2.92	210.20	5168.66	6008.93
50+50	0.00	129.19	0.00	226.66	5168.66	6235.59
51+00	0.00	115.60	1.74	169.58	5170.40	6405.17
51+50	1.88	67.55	15.77	77.66	5186.16	6482.83
52+00	15.15	16.33	14.03	15.12	5200.19	6497.95
52+50	0.00	0.00	0.00	0.00	5200.19	6497.95

EARTHWORK QUANTITIES

2299.81	4670.46
+ 5200.19	+ 6497.95
7500 CY CUT	11,168.41 CY FILL

STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	CUT	FILL	CUT	FILL	CUT	FILL
3+00	17.46	4.02	50.69	16.86	50.69	16.86
3+50	37.29	14.20	49.46	37.61	100.15	54.47
4+00	16.13	26.42	27.95	56.69	128.10	111.16
4+50	14.05	34.81	30.95	68.93	159.05	180.09
5+00	19.38	39.64	38.50	68.65	197.55	248.74
5+50	22.20	34.50	40.88	55.89	238.44	304.64
6+00	21.95	25.86	10.58	9.87	249.01	314.51
6+13	21.98	15.13	29.03	32.42	278.04	346.93
6+50	20.39	32.19	16.88	24.27	294.92	371.19
6+75	16.07	20.23	12.42	30.74	307.34	401.93
7+00	10.76	46.18	13.06	115.30	320.39	517.24
7+50	3.34	78.35	3.10	175.40	323.49	692.64
8+00	0.00	111.08	0.00	233.18	323.49	925.82
8+50	0.00	140.75	0.00	287.14	323.49	1212.96
9+00	0.00	169.36	4.04	278.33	327.53	1491.29
9+50	4.37	131.24	32.73	161.47	360.26	1652.76
10+00	30.98	43.15	7.61	9.62	367.87	1662.38
10+06	37.50	43.41	13.28	28.12	381.15	1690.50
10+25	0.24	36.52	9.08	33.26	390.23	1723.77
10+50	19.38	35.32	48.40	22.31	438.63	1746.07
10+84	57.49	0.11	32.38	1.93	471.01	1748.01
11+00	51.78	6.42	112.44	7.95	583.45	1755.96
11+50	69.65	2.17	140.44	2.93	723.90	1758.89
12+00	82.02	1.00	36.39	3.60	760.28	1762.49
12+15	48.98	11.95	32.51	40.07	792.80	1802.56
12+50	1.19	49.87	1.10	198.85	793.90	2001.40
13+00	0.00	164.88	0.00	348.43	793.90	2349.83
13+50	0.00	211.42	0.00	383.12	793.90	2732.95
14+00	0.00	202.36	0.02	278.12	793.91	3011.07
14+50	0.02	98.01	22.44	119.80	816.36	3130.87
15+00	24.22	31.38	4.45	9.40	820.80	3140.27
15+08.06	5.56	31.60	14.38	49.61	835.18	3189.87
15+50	12.95	32.27	33.54	49.51	868.72	3239.39
16+00	23.26	21.21	85.42	31.72	954.14	3271.10
16+50	68.99	13.05	157.43	12.58	1111.57	3283.68
17+00	101.03	0.54	172.28	8.15	1283.85	3291.83
17+50	85.03	8.26	132.95	20.57	1416.79	3312.41
18+00	58.55	13.96	37.13	10.25	1453.93	3322.65
18+25	21.66	8.18	13.51	3.43	1467.44	3326.09
18+34	59.40	12.42	28.91	5.43	1496.35	3331.52
18+50	38.19	5.91	54.57	23.70	1550.92	3355.22
19+00	20.75	19.69	19.25	87.54	1570.16	3442.76
19+50	0.04	74.86	0.03	188.43	1570.20	3631.19
20+00	0.00	128.65	0.00	249.06	1570.20	3880.25
20+50	0.00	140.34	0.36	206.02	1570.56	4086.27
21+00	0.39	82.16	24.02	108.78	1594.57	4195.05
21+50	25.55	35.32	92.90	49.97	1687.47	4245.02
22+00	74.78	18.65	182.14	33.56	1869.61	4278.57
22+50	121.93	17.60	31.86	6.78	1901.47	4285.35
22+60	50.12	19.02	86.12	31.14	1987.58	4316.49
23+00	66.14	23.02	84.63	54.16	2072.21	4370.66
23+50	25.25	35.48	42.30	65.10	2114.51	4435.75
24+00	20.43	34.82	18.85	30.97	2133.36	4466.73
24+27	17.27	27.12	10.13	29.26	2143.49	4495.99
24+50	6.53	41.58	15.15	72.56	2158.64	4568.55
25+00	9.83	36.78	37.82	58.19	2196.45	4626.74
25+50	31.01	26.06	73.97	36.83	2270.43	4663.58
26+00	48.88	13.72	29.38	6.89	2299.81	4670.46

DESIGNED BY: KJT DRAWN BY: RKM  
 APPROVED: TJM JOB NUMBER 806550J  
 CAD DATE: April 18, 2002 5:08:17 p.m.  
 CAD FILE: 806550J\XVOL.DWG

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 DATE \_\_\_\_\_  
 TERRY J. MAURER LIC. 15316

NO.	DATE	BY	REVISION DESCRIPTION
1	7/9/02	EY	QUANTITY REVISIONS

1326 ENERGY PARK DRIVE  
 ST. PAUL, MINNESOTA 55108  
 (651) 644-4389  

**Howard R. Green Company**  
 CONSULTING ENGINEERS

175TH AVENUE  
 CITY OF ELK RIVER  
 175TH AVENUE

S.P. 204-111-04  
 CROSS SECTION EARTHWORK  
 3+00 TO 52+66.36

SHEET NO.  
**31**