

APPENDIX G: DEMOLITION COSTS FOR THE CENTER, FINAL REPORT

APPENDIX G



4198-B Center Park Drive
 Colorado Springs, CO 80916
 Phone (719) 884-3635
 Fax (719) 884-3622

January 17, 2006

Ms. Anne Baldrige
 e²M, Inc.
 9563 S. Kingston Court
 Suite 200
 Englewood, CO 80112

RE: Building Removal Estimate for Former Bureau of Mines Twin Cities Research Center, Fort Snelling, Minnesota

Dear Ms. Baldrige:

Innovar Environmental, Inc. (Innovar) is pleased to submit the enclosed building removal cost estimate for the former Bureau of Mines Twin Cities Research Center, Fort Snelling, Minnesota. Our cost estimate is in accordance with our e²M Statement of Work received on September 7, 2005. We have enclosed individual detailed cost estimates (Enclosure 1) for each building and structure requiring removal, which include any detailed assumptions and references. A summary of these costs are included in the table below. Details, clarifications and other assumptions follow.

Building No.	Building Removal Cost	Environmental Hazard Abatement Costs	Total
1	\$ 436,135.64	\$ 182,866.80	\$ 619,002.44
2	\$ 38,180.53	\$ 1,328.40	\$ 39,508.93
3	\$ 9,772.82	\$ 531.36	\$ 10,304.18
4	\$ 18,849.06	\$ 47,394.36	\$ 66,243.42
5	\$ 28,869.09	\$ 265.68	\$ 29,134.77
6	\$ 653.70	\$ 0.00	\$ 653.70
7	\$ 7,427.40	\$ 0.00	\$ 7,427.40
8	\$ 3,814.25	\$ 0.00	\$ 3,814.25
9	\$ 67,562.00	\$ 1,328.40	\$ 68,890.40
10	\$ 3,691.30	\$ 0.00	\$ 3,691.30
11	\$ 40,651.97	\$ 265.68	\$ 40,917.65
Concrete & Asphalt	\$ 168,077.93	\$ 0.00	\$ 168,077.93
Ore Bins	\$ 17,772.28	\$ 0.00	\$ 17,772.28
Utility Disconnects	\$ 6,000.00	\$ 0.00	\$ 6,000.00
TOTAL	\$ 847,457.97	\$ 233,980.68	\$ 1,081,438.65

RE: Building Removal Estimate for Former Bureau of Mines Twin Cities Research Center, Fort Snelling, Minnesota

January 17, 2006

Page 2 of 5

Innovar initially visited the project site September 26-29 2005 to gather essential site-specific information and to collect local vendor estimates from the Minneapolis and St. Paul area. While we were at the site, we drafted a site-specific scope of work that defined specifically what was to be done. Our scope was based on our understanding of the project and included the following basic language;

- The Contractor shall provide all necessary equipment, labor, and materials to perform the complete removal of all site improvements, excluding perimeter fencing and the existing historic Coldwater Springs House Building. Specifically, site improvements include eleven (11) buildings, three (3) ore bins, all asphalt and concrete, and all aboveground and underground utilities. Approximate cumulative building square footage is 164,682;
- The Contractor will attempt to salvage the majority of all recyclable materials;
- The Contractor shall remove and dispose of all environmentally hazardous materials in accordance with all federal, state and local regulations prior to demolition;
- The Contractor shall coordinate for all utility disconnections and be responsible for the removal of all utilities, both above and below ground;
- The Contractor shall acquire all appropriate permits;
- The Contractor shall provide all needed backfill and 4" of topsoil required to create a clear and level grade site once the demolition is completed and free of all items, such as large rocks and demolition debris. Fill material will be provided by the Contractor; and
- The project is subject to Davis-Bacon Wage Determination MN20030061 09/09/2005.

Innovar's cost estimate for the above scope is \$ 847,457.97 for demolition, backfill and final grade. This estimate included the complete removal of infrastructure improvements, to include utility disconnects, utility system removal, and recycling or disposal of all materials off-site. It also included the hauling of all borrow materials from off-site to be used as fill and topsoil. Our hazardous materials abatement estimate is \$ 233,980.68, which includes asbestos abatement, and polychlorinated biphenyl (PCB) ballast, fluorescent light bulb, and mercury thermostat switch removal. We also included a \$ 25,000 asbestos abatement contingency for unforeseen abatement, of which almost always occurs. Innovar's total building removal cost estimate per the above scope is collectively \$ 1,081,438.65. We used the above referenced Davis-Bacon Wage Determination to determine minimum wages (Enclosure 2). We also used the RS Means Costworks® 2005 standard overhead and profit schedule (Enclosure 3) to determine fully burdened labor rates since these are different for every contractor. Innovar's specific details and cost assumptions are described in Enclosure 1 and are broken down by building. Our building removal price per square foot and materials salvaged summary is included in the following table. We included salvaging materials that could be salvaged in

RE: Building Removal Estimate for Former Bureau of Mines Twin Cities Research Center, Fort Snelling, Minnesota
January 17, 2006
Page 3 of 5

cost estimate due to costs being significantly less expensive than raw disposal. We did not consider disposal of materials where recycling was a cost benefit (i.e., metal and concrete). In regard to concrete alone, tipping fees for demolition debris, of which concrete would be considered if disposed of, are \$ 6.90 per cubic yard. However, if the concrete is salvaged, there are no disposal fees. By recycling concrete rather than disposing of it, approximately \$ 110,000.00 would be saved in disposal costs alone. This scenario is also standard for salvaging large volumes of metal. In summary, by not salvaging metal and concrete, the overall project cost would increase significantly and therefore was not considered.

Per the original scope of work, Innovar was required to prepare building footprints and coverages of what each site included in each cost estimate in regard to asphalt and concrete removal. This proved to be overly complicated and expensive due to the multitude of scenarios presented. Based on conversations with e²M and the Client, it was determined that a square foot cost would be adequate for this requirement and is included in the table below.

Building No.	Approximate Square Footage	Building Removal Cost Per ft²	Approximate Tons of Salvaged Concrete
1	106,000	\$ 4.11	2,480
2	10,692	\$ 3.57	330
3	1,997	\$ 4.89	225
4	5,673	\$ 3.32	395
5	13,280	\$ 2.17	835
6	160	\$ 4.09	25
7	2,500	\$ 2.97	200
8	160	\$ 23.84	25
9	9,800	\$ 6.89	855
10	420	\$ 8.79	100
11	14,000	\$ 2.90	1,255
Concrete & Asphalt	221,488	\$.76	5,300 (asphalt) 840 (concrete)
Ore Bins	2,952	\$ 6.02	540
TOTAL			13, 405

Innovar's estimate for hazardous materials abatement is detailed in each building's cost breakdown in Enclosure 1 and includes the following:

- Building 1: Abatement of 48,990 ft² of 9" x 9" vinyl asbestos tile (VAT) & mastic;
- Building 1: Removal of 10,060 ft² of carpeting and pad to access VAT;

RE: Building Removal Estimate for Former Bureau of Mines Twin Cities Research Center, Fort Snelling, Minnesota

January 17, 2006

Page 4 of 5

- Building 1: Abatement of 165 transite panels;
- Building 1: Demolition of 756 ft² of raised computer floor;
- Building 4: Abatement of 17,520 ft² of transite panels; and
- All Buildings: Removal of fluorescent light bulbs, PCBs, PCB ballasts and mercury switches.

Additional asbestos materials were not identified during the site visit. However, potential exists that some asbestos materials are still present, especially in the boilers, boiler room and pipe chases. Additional investigations should be performed to determine the extent of asbestos present throughout the site. The hazardous materials present must be removed prior to demolition and their removal costs are considered fixed as they relate to our estimate.

Innovar contacted several local demolition contractors in the Minneapolis / St. Paul area to see if they were interested in the demolition project should it come out to bid. Our purpose was two-fold. We wanted to proof our cost estimate by having local contractors bid the project since they are more familiar with local environments and have established special rates with local vendors. We also wanted to identify each contractor's capabilities and recommend the qualified ones should the project be put out to bid. Innovar held a site visit on September 29, 2005 and had four companies attend. We used the same scope as outlined previously and provided each contractor with a bid sheet. Due to the magnitude and complexity of the project, the contractors requested another site visit. We held the second and last site visit on October 7, 2005. This time four demolition companies and two environmental hazard abatement contractors attended. We received a total of three bids from the demolition companies and rate sheets from the abatement contractors. The demolition estimates are included in the table below with percent variation as compared to Innovar's estimate.

Company	Innovar Environmental Inc.,	Carl Bolander & Sons Co.	Ramsey Excavating Co.	Frattalone Companies
Demolition Cost	\$ 847,457.97	\$ 673,640.00	\$ 713,354.00	\$ 723,970.00
Percent Variation		26%	19%	17%

Each of the three contractors submitting a proposal has relevant past performance and all appear to be fully qualified for this project. Their demolition proposals vary between 17 and 26 % from ours for several reasons. Each of the contractors suggested performing on-site crushing and selling of salvaged asphalt and concrete, which significantly reduces hauling costs. A significant amount of asphalt and concrete hauling costs will be avoided using this technique. Innovar used the worst case scenario, which included hauling everything off using

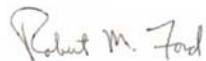
RE: Building Removal Estimate for Former Bureau of Mines Twin Cities Research Center, Fort Snelling, Minnesota
January 17, 2006
Page 5 of 5

contracted haulers. One contractor chose to use some of the crushed concrete aggregate as fill material in their estimate. Again, Innovar did not use this technique in our estimate because it was unclear if this technique would be authorized. Other variables in relevant cost include the amount of company overhead, profit and equipment use rates used by each company. Our estimate uses the RS Means Costworks ® 2005 standard markup schedule which is traditionally higher than many companies, but is used as a standard.

After using several scenarios and techniques, Innovar is confident that our cost estimate of \$ 1,081,438.65 is a fair and accurate cost for abatement and removal of all structures and infrastructure improvements located on the project site. Our demolition estimate is within 17% of the highest local bidder and our abatement costs will be relative to each contractor bidding the project. By using Innovar's estimate, the client will ensure that the project is adequately funded, to include a modest margin for changes in scope, if necessary.

We appreciate the opportunity to work with you on this project and look forward to any comments you may have. Please do not hesitate to contact me via cell at (719) 491-7012 if you have any questions or need clarification with anything.

Sincerely,
Innovar Environmental, Inc.



Robert M. Ford
Project Manager

Enclosures (3)

APPENDIX G

**RE: Building Removal Estimate for Former Bureau of Mines Twin Cities Research
Center, Fort Snelling, Minnesota
January 17, 2006**

ENCLOSURE 1
DETAILED INDIVIDUAL BUILDING COST ESTIMATES

Enclosure 1

Bureau of Mines Twin Cities Research Center Demolition

BUILDING NUMBER 1		Raw Labor Rate ¹	Fringe ²	Fixed Overhead + Fully Burdened Labor Rate	Unit	Demolition Estimate Cost	Percent of Proposal	Assumptions
Labor Category	(a)	(b)	(c)	(d)=(b)+(c)	Hours	Cost		
Heavy Equipment Operator (Area 1, Group 2) ⁴	\$28.77	\$11.70	\$12.15	\$53.62/hr	hrs	\$60	\$1,477.84	Two excavator operators and one shear operator five eight week.
Heavy Equipment Operator (Area 1, Group 4) ⁴	\$26.92	\$11.70	\$12.55	\$51.17/hr	hrs	320	\$16,374.88	One backhoe operator for 8 weeks.
Heavy Equipment Operator (Area 1, Group 6) ⁴	\$22.67	\$11.70	\$11.17	\$45.44/hr	hrs	160	\$7,286.44	One compactor operator for 4 weeks.
Labour (Area 1, Group 1) ⁵	\$27.38	\$9.21	\$11.96	\$48.75/hr	hrs	640	\$31,197.92	Two laborers for 8 weeks.
TOTAL HOURS:						2080	\$106,337.08	17.18%
TOTAL LABOR COST:								
Other Direct Costs (ODCS)	Raw Rate				Unit	Quantity	Dollars	
Subcontractor Hauling (Demolition Debris) ⁶	\$80.00				yd ³	375	\$30,000.00	One and one half hour load and haul charge to landfill for 250 loads of 25 cu yd of demolition debris.
Disposal of Demolition Debris ⁷	\$6.50				yd ³	2,350	\$15,250.00	Landfill disposal cost for 250 loads of 25 cu yd of demolition debris, total of \$25.00/ cu yd or 10,000 tons.
Subcontractor Hauling (Concrete) ⁸	\$80.00				cu yd	300	\$24,000.00	One and one half hour round trip load and haul charge to recycler for 250 loads of concrete.
Disposal of Concrete	\$0.00				cu yd	3,000	\$0.00	No charge by client concrete.
Subcontractor Hauling (Steel) ⁹	\$0.00				tun	275	\$-	Container will be shipped at no cost to pick up steel.
Disposal of Steel	\$0.00				tun	300	\$0.00	No charge for scrap steel. Estimated amount of recovered costs from steel is ~\$200 although price fluctuates.
Excavator (Lease) ³	\$600.00				day	20	\$12,000.00	Estimated use of excavator for 20 working days.
Excavator, set up for Shear (Lease) ³	\$650.00				day	40	\$24,000.00	Estimated use of excavator for 40 working days.
Shear (Lease) ³	\$400.00				day	40	\$16,000.00	Estimated use of shear for 40 working days.
Dozer (Lease) ³	\$300.00				day	40	\$16,000.00	Estimated use of dozer for 40 working days.
Wheel Loader (Lease) ³	\$300.00				day	40	\$12,000.00	Estimated use of wheel loader for 40 working days.
Compactor (Lease) ³	\$475.00				day	3	\$1,425.00	Estimated use of compactor for 20 working days.
Fill Dirt ¹⁰	\$6.15				tun	528	\$4,624.74	Material and haul charge for fill dirt, mulching fertilizer multiplied by three feet deep to set volume.
Portable Latrine ¹¹	\$151.00				week	8	\$200.00	Latrine rental for two weeks.
Materials ¹²	\$1,000.00				hump	1	\$1,000.00	Miscellaneous supplies for demolition.
Permitting and Licensing ¹³	\$200.00				gal	26,000	\$200,000.00	Demolition permit fee.
Fuel ¹⁴	\$3.25				hump	1	\$148,672.20	Fuel usage at 50 gallons per day per piece of equipment for 8 weeks. Includes a statement of 48,000 ft ³ of V.A.T. & Matrix, 10,650 ft ³ of carpeting and pool, 165 trash panels, and 156 ft ² of framed computer room floor, and removal of all bulk, bullet microscopy switches, and frozen.
Hazardous Materials Removal Costs ¹⁵	\$148,672.20							
TOTAL ODCS:							\$296,916.94	64.17%
TOTAL LABOR AND ODCS:							\$503,254.02	
TOTAL OVERHEAD @ 13%:							\$65,223.02	10.77%
TOTAL PROFIT @ 10.0%¹⁶:							\$50,325.40	8.13%
BONDING:								
GRAND TOTAL:							\$619,002.44	100.00%

Footnotes:

- 1-Davis-Bacon Wage Determination MN2000061 09/09/2005
- 2-Davis-Bacon Wage Determination MN2000061 09/09/2005
- 3-Average Fixed Overhead and Workman's Compensation Insurance from RS Means CostWorks 2005
- 4-Wage Determination MN2003061 Describes Area 1 in Hennepin County, and Groups Are Described Based on Job Function.
- 5-Charts From Local Vendors.
- 6-Estimated
- 7-Aerial Price
- 8-Average Fixed Company Overhead from RS Means CostWorks 2005.
- 9-Average Company Profit from RS Means CostWorks 2005.

Enclosure 1
Bureau of Mines Twin Cities Research Center Demolition

BUILDING NUMBER 2		Raw Labor Rate ¹	Fringe ²	Fixed Overhead + Fully Burdened Labor Rate ³	Unit	Demolition Estimate Cost	Percent of Proposal	Assumptions
Labor Category	(a)	(b)	(c)	(d+e+c)	Hours	Cost		
Heavy Equipment Operator (Area 1, Group 2) ⁴	\$28.77	\$11.70	\$12.15	\$53.62/hr	hr	\$80	4,280.82	One excavator operator and one shear operator for 1 week.
Heavy Equipment Operator (Area 1, Group 4) ⁴	\$26.92	\$11.70	\$12.55	\$51.17/hr	hr	\$16	\$817.74	One hauler/dumper operator for 2 days.
Heavy Equipment Operator (Area 1, Group 6) ⁴	\$22.47	\$11.70	\$11.17	\$45.54/hr	hr	\$16	\$728.64	One compactor operator for 2 weeks.
Laborer (Area 1, Group 1) ⁵	\$27.38	\$9.21	\$11.96	\$48.75/hr	hr	\$40	\$1,949.87	One laborer for 1 week.
TOTAL LABOR HOURS								
TOTAL LABOR COST⁶:						\$152	\$ 7,787.08	19.37%
Other Direct Costs (ODCs)								
Subcontractor Hauling (Demolition Debris) ⁷	\$80.00				hr	\$8	\$64.00	One and one half hour load and haul charge to landfill for 5 loads of 25 cu.yd of demolition debris.
Disposal of Demolition Debris ⁸	\$6.30				yd ³	125	\$82.50	Landfill disposal cost for 5 loads of 25 cu.yd of demolition debris.
Subcontractor Hauling (Concrete) ⁷	\$80.00				hr	\$88	\$7,440.00	One and one half hour round trip load and haul charge to recycler for 45 loads of concrete.
Disposal of Concrete ⁸	\$6.30				yd ³	800	\$5,040.00	No charge for claim concrete.
Subcontractor Hauling (Steel) ⁷	\$90.00				ton	0	\$ -	Container will be dropped in no cost to truck up steel.
Disposal of Steel ⁸	\$0.00				ton	0	\$ -	No charge for scrap steel.
Excavator, set up for Shear (Lease) ⁹	\$600.00				day	\$5	\$2,000.00	Estimated use of excavator for 2 working days.
Shear (Lease) ⁹	\$400.00				day	\$5	\$2,000.00	Estimated use of shear for 2 working days.
Wheel Loader (Lease) ⁹	\$300.00				day	2	\$800.00	Estimated use of wheel loader for 2 working days.
Compactor (Lease) ⁹	\$475.00				day	2	\$950.00	Estimated use of compactor for 2 working days.
Fill Dirt ¹⁰	\$6.15				ton	1,010	\$ 6,211.50	Material and land charge for fill dirt, building footprint multiplied by three feet deep to ref volume.
Portable Latrine ¹¹	\$25.00				week	1	\$ 25.00	Latrine rental for 1 week.
Materials ¹²	\$1,000.00				hump	1	\$ 1,000.00	Miscellaneous supplies for demolition.
Permitting and Licensing ¹³	\$200.00				gal	1	\$ 200.00	Demolition permit fee.
Fuel ¹⁴	\$3.25				hump	700	\$ 2,275.00	Fuel usage at .50 gallons per day per piece of equipment for 1 week.
Hazardous Materials Contractor ¹⁵	\$1,080.00				hump	1	\$ 1,080.00	Included removal of bulk, barrels and specialty asbestos.
TOTAL ODCS:						\$ 2,434.00	\$ 61,299	
TOTAL LABOR AND ODCS:						\$ 32,121.08		
TOTAL OVERHEAD @ 13%¹⁶:						\$ 4,175.74	10.57%	
TOTAL PROFIT @ 10.0%¹⁷:						\$ 3,212.11	\$ 8.13%	
BONDING:								
GRAND TOTAL:						\$ 39,468.93	100.00%	

Footnotes:

1-Dove-Bacon Wage Determination MN20030061 (09/09/2005).

2-Dove-Bacon Wage Determination MN20030061 (09/09/2005).

3-Average Fixed Overhead and Warrantee Compensation Insurance from RS Means CostWorks 2005.

4-Wage Determination MN20030061 Describes Area 1 in Hennepin County, and Groups A and C described based on Job Function.

5-Quotes From Local Vendors.

6-Estimated.

7-Armal Price.

8-Average Fixed Company Overhead from RS Means CostWorks 2005.

9-Average Company Profit from RS Means CostWorks 2005.

Enclosure 1
Bureau of Mines Twin Cities Research Center Demolition

BUILDING NUMBER 3		Raw Labor Rate ¹	Fringe ²	Fixed Overhead + Fully Burdened Labor Rate ³	Unit	Demolition Estimate Cost	Cumulative Cost	Percent of Proposal	Assumptions
Labor Category		(a)	(b)	(c) (a+b+c)	Hours	Cost			
Heavy Equipment Operator (Area 1, Group 2) ⁴	\$28.77	\$11.70	\$12.15	\$53.62	hr	16 \$ 857.96			One excavator operator and one shear operator for 1 day.
Heavy Equipment Operator (Area 1, Group 4) ⁴	\$26.92	\$11.70	\$12.55	\$51.17	hr	8 \$ 409.37			One backhoe/loader operator for 1 day.
Heavy Equipment Operator (Area 1, Group 6) ⁴	\$22.67	\$11.70	\$11.17	\$45.54	hr	8 \$ 364.32			One excavator operator for 1 day.
Laborer (Area 1, Group 1) ⁵	\$27.38	\$9.21	\$11.96	\$48.75	hr	8 \$ 389.97			One laborer for 1 day.
TOTAL LABOR HOURS									
TOTAL LABOR COST⁶:									
Other Direct Costs (ODCs)	Raw Rate				Unit	Quantity	Dollars		
Subcontractor Hauling (Demolition Debris) ⁷	\$80.00				hr	4 \$ 320.00			One and one half hour load and haul charge to landfill for 2 loads of 25 cu.yd of demolition debris.
Disposal of Demolition Debris ⁸	\$6.30				yd ³	50 \$ 315.00			Landfill disposal cost for 2 loads of 25 cu.yd of demolition debris.
Subcontractor Hauling (Concrete) ⁷	\$80.00				hr	12 \$ 960.00			One and one half hour round trip load and haul charge to recycler for 8 loads of concrete.
Disposal of Concrete ⁸	\$6.30				yd ³	200 \$ -			No charge for claim concrete.
Subcontractor Hauling (Steel) ⁷	\$90.00				ton	0 \$ -			Container will be dropped at no cost to truck up steel.
Disposal of Steel ⁸	\$0.00				ton	0 \$ -			No charge for scrap steel.
Excavator, set up for Shear (Lease) ⁹	\$600.00				day	1 \$ 600.00			Estimated use of excavator for 1 working day.
Shear (Lease) ⁹	\$400.00				day	1 \$ 400.00			Estimated use of excavator with shear.
Wheel Loader (Lease) ⁹	\$300.00				day	1 \$ 300.00			Estimated use of shear for 1 working day.
Compactor (Lease) ⁹	\$475.00				day	1 \$ 475.00			Estimated use of compactor for 1 working day.
Fill Dirt ¹⁰	\$6.15				ton	125 \$ 768.75			Material and land charge for fill dirt, building footprint multiplied by one foot deep to get volume.
Portable Latrine ¹¹	\$25.00				week	0 \$ 5.00			Latrine rental pre-rented for 1 day.
Materials ¹²	\$1,000.00				lump	0 \$ 250.00			Miscellaneous supplies for demolition.
Permitting and Licensing ¹³	\$200.00				lump	1 \$ 200.00			Demolition permit fee.
Fuel ¹⁴	\$3.21				gal	200 \$ 650.00			Fuel usage at .50 gallons per day per piece of equipment for 1 day.
Hazardous Materials Contractor ¹⁵	\$472.00				lump	1 \$ 472.00			Included removal of bulk, barrels and incineration services.
TOTAL ODCS:									
TOTAL LABOR AND ODCS:							\$ 8,377.38		
TOTAL OVERHEAD @ 13%¹⁶:								\$ 1,089.06	10.57%
TOTAL PROFIT @ 10.0%¹⁷:								\$ 837.74	8.13%
BONDING:									
GRAND TOTAL:							\$ 10,304.18		100.00%

Footnotes:

1-Dove-Bacon Wage Determination MN20030061 (09/09/2005).

2-Dove-Bacon Wage Determination MN20030061 (09/09/2005).

3-Average Fixed Overhead and Wartime Compensation Insurance from RS Means CostWorks 2005.

4-Wage Determination MN20030061 Describes Area 1 in Hennepin County, and Groups A and C described Based on Job Function.

5-Quotes From Local Vendors.

6-Estimated.

7-Aerial Price.

8-Average Fixed Company Overhead from RS Means CostWorks 2005.

9-Average Company Profit from RS Means CostWorks 2005.

Enclosure 1 Bureau of Mines Twin Cities Research Center Demolition

BUILDING NUMBER 4		Raw Labor Rate ¹ (a)	Fringe ² Workman's Compensation Insurance ³ (b)	Fixed Overhead + Fully Burdened Labor Rate (a+b+c) (c)	Unit Hours	Demolition Estimate Cost	Percent of Proposal Proposal	Assumptions
Labor Category		Hourly Rate	Hourly Rate	Hourly Rate	Unit Hours	Cost		
Heavy Equipment Operator (Area 1, Group 2) ⁴	\$28.77	\$11.70	\$12.15	\$53.62	hr	32 \$ 1,715.93		One excavator operator and one shear operator for 2 days.
Heavy Equipment Operator (Area 1, Group 4) ⁴	\$26.92	\$11.70	\$12.55	\$51.17	hr	8 \$ 409.37		One hauler/dumper operator for 1 day.
Heavy Equipment Operator (Area 1, Group 6) ⁴	\$22.47	\$11.70	\$11.17	\$45.54	hr	16 \$ 728.64		One compactor operator for 1 day.
Labour (Area 1, Group 1) ⁵	\$27.38	\$9.21	\$11.96	\$48.75	hr	16 \$ 779.95		One laborer for 1 day.
TOTAL LABOR HOURS								
TOTAL LABOR COST⁶						72 \$ 3,633.89	5.89%	
Other Direct Costs (ODCs)		Raw Rate			Unit Quantity	Dollars		
Subcontractor Hauling (Demolition Debris) ⁷	\$80.00				hr	8 \$ 640.00		One and one half hour load and haul charge to landfill for 5 loads of 25 cu.yd of demolition debris.
Disposal of Demolition Debris ⁸	\$6.90				yd ³	125 \$ 862.50		Landfill disposal cost for 5 loads of 25 cu.yd of demolition debris.
Subcontractor Hauling (Concrete) ⁷	\$80.00				hr	24 \$ 1,920.00		One and one half hour round trip load and haul charge to recycler for 16 loads of concrete.
Disposal of Concrete ⁸	\$6.90				yd ³	400 \$ -		No charge for claim concrete.
Subcontractor Hauling (Steel) ⁷	\$90.00				ton	0 \$ -		Contractor will be required to sort the steel to pick up steel.
Disposal of Steel ⁸	\$0.00				ton	0 \$ -		No charge for scrap steel.
Excavator, set up for Shear (Lease) ⁹	\$600.00				day	2 \$ 1,200.00		Estimated use of excavator for 2 working days.
Shear (Lease) ⁹	\$400.00				day	2 \$ 800.00		Estimated use of shear for 2 working days.
Dumper	\$400.00				day	1 \$ 400.00		Estimated use of dumper for 1 working day.
Wheel Loader (Lease) ⁹	\$300.00				day	1 \$ 300.00		Estimated use of wheel loader for 1 working day.
Compactor (Lease) ⁹	\$475.00				day	1 \$ 475.00		Estimated use of compactor for 1 working day.
Fill Dirt	\$6.15				ton	357 \$ 2,195.55		Material and land charge for fill dirt, building footprint multiplied by one foot deep to get volume.
Portable Latrine ¹⁰	\$25.00				week	0 \$ 10.00		Latrine rental price for 2 days.
Materials ¹¹	\$1,000.00				hump	0 \$ 250.00		Miscellaneous supplies for demolition.
Permitting and Licensing ¹²	\$200.00				gal	1 \$ 200.00		Demolition permit fee.
Fuel ¹³	\$3.25				hump	349 \$ 1,137.50		Fuel usage at .50 gallons per day per piece of equipment for 2 days.
Hazardous Materials Contractor ¹⁴	\$38,532.00				1	\$ 38,532.00		Included removal of asbestos, lead paint and mercury switches.
TOTAL ODCS						50,222.55	75.82%	
TOTAL LABOR AND ODCS						\$ 53,856.44		
TOTAL OVERHEAD @ 13%¹⁵						\$ 7,001.34	10.27%	
TOTAL PROFIT @ 10.05%¹⁶						\$ 5,385.64	8.13%	
BONDING:								
GRAND TOTAL:						\$ 66,243.42	100.00%	

Footnotes:

¹ Davis-Bacon Wage Determination MN20030061 09/09/2005.² Davis-Bacon Wage Determination MN20030061 09/09/2005.³ Average Fixed Overhead and Workman's Compensation Insurance from RS Means CostWorks 2005.⁴ Wage Determination MN20030061 Describes Area 1 in Hennepin County, and Groups Are Described Based on Job Function.⁵ Quotes From Local Vendors.⁶ Estimated.⁷ Actual Price.⁸ Average Fixed Company Overhead from RS Means CostWorks 2005.⁹ Average Company Profit from RS Means CostWorks 2005.

Enclosure 1 Bureau of Mines Twin Cities Research Center Demolition

BUILDING NUMBER 5		Raw Labor Rate ¹	Fringe ²	Fixed Overhead + Fully Burdened Labor Rate	Unit	Demolition Estimate Cost	Percent of Proposal	Assumptions
Labor Category	(a)	(b)	(c)	(d+e+c)	Hours	Cost		
Heavy Equipment Operator (Area 1, Group 2) ³	\$28.77	\$11.70	\$12.15	\$53.62/hr	hr	\$48.5	2.73% ⁴	One excavator operator and one shear operator for 3 days.
Heavy Equipment Operator (Area 1, Group 4) ⁴	\$26.92	\$11.70	\$12.55	\$51.17/hr	hr	\$16.5	8.17%	One loader operator for 1 day and one dozer operator for 1 day.
Heavy Equipment Operator (Area 1, Group 6) ⁵	\$22.47	\$11.70	\$11.17	\$45.54/hr	hr	\$8.5	364.32	One excavator operator for 1 day.
Labour (Area 1, Group 1) ⁶	\$27.38	\$9.21	\$11.96	\$48.75/hr	hr	\$16.5	779.95	One compactor operator for 1 day.
TOTAL LABOR HOURS						\$88	\$ 4,565.91	One laborer for 1 day.
TOTAL LABOR COST¹:								15.57%
Other Direct Costs (ODCs)		Raw Rate			Unit	Quantity	Dollars	
Subcontractor Hauling (Demolition Debris) ⁷	\$80.00				hr	12	\$960.00	One and one half hour load and haul charge to landfill for 8 loads of 25 cu.yd of demolition debris.
Disposal of Demolition Debris ⁸	\$6.30				yd ³	200	\$ 1,380.00	Landfill disposal cost for 8 loads of 25 cu.yd of demolition debris.
Subcontractor Hauling (Concrete) ⁹	\$80.00				hr	33	\$ 2,640.00	One and one half hour round trip load and haul charge to recycler for 22 loads of concrete.
Disposal of Concrete ¹⁰	\$0.60				yd ³	400	\$ -	No charge for claim concrete.
Subcontractor Hauling (Steel) ¹¹	\$0.00				ton	0	\$ 0	Contractor will be responsible for all sort to pick up steel.
Disposal of Steel ¹²	\$0.00				ton	0	\$ 0	No charge for scrap steel.
Excavator, set up for Shear (Lease) ¹³	\$650.00				day	3	\$ 1,950.00	Estimated use of excavator for 3 working days.
Shear (Lease) ¹⁴	\$400.00				day	3	\$ 1,200.00	Estimated use of excavator with shear.
Dozers ¹⁵	\$400.00				day	1	\$ 400.00	Estimated use of shear for 3 working days.
Wheel Loader (Lease) ¹⁶	\$300.00				day	1	\$ 300.00	Estimated use of wheel loader for 1 working day.
Compactor (Lease) ¹⁷	\$475.00				day	1	\$ 475.00	Estimated use of compactor for 1 working day.
Fill Dirt ¹⁸	\$6.15				ton	836	\$ 5,141.40	Material and land charge for fill dirt, building footprint multiplied by one foot deep to get volume.
Portable Latrine ¹⁹	\$25.00				week	1	\$ 25.00	Latrine rental for 1 week.
Materials ²⁰	\$1,000.00				lump	1	\$ 1,000.00	Miscellaneous supplies for demolition.
Permitting and Licensing ²¹	\$200.00				gal	1	\$ 200.00	Demolition permit fee.
Fuel ²²	\$3.24				lump	1	\$ 1,612.40	Fuel usage at .50 gallons per day per piece of equipment for 3 days.
Hazardous Materials Contractor ²³	\$216.00				lump	1	\$ 216.00	Includes removal of asbestos, lead paint and mercury switches.
TOTAL ODCS:						\$ 19,499.90		65.73%
TOTAL LABOR AND ODCS:						\$ 23,086.81		
TOTAL OVERHEAD @ 13%⁷:						\$ 3,079.28		10.57%
TOTAL PROFIT @ 10.05%⁸:						\$ 2,368.68		8.13%
BONDING:								
GRAND TOTAL:						\$ 29,143.77		100.00%

Footnotes:

1-David Bacon Wage Determination MN20030061 09/09/2005.

2-David Bacon Wage Determination MN20030061 09/09/2005.

3-Average Fixed Overhead and Workman's Compensation Insurance from RS Means CostWorks 2005.

4-Wage Determination MN20030061 Describes Area 1 in Hennepin County, and Groups Are Described Based on Job Function.

5-Quote From Local Vendors.

6-Estimated.

7-Aerial Price.

8-Average Fixed Company Overhead from RS Means CostWorks 2005.

9-Average Company Profit from RS Means CostWorks 2005.

Enclosure 1
Bureau of Mines Twin Cities Research Center Demolition

BUILDING NUMBER 6		Raw Labor Rate ¹	Fringe ²	Fixed Overhead + Fully Burdened Labor Rate	Unit	Demolition Estimate	Cumulative Cost	Percent of Proposal	Assumptions
Labor Category		(a)	(b)	(c)	(d= b+c)	Hours	Cost		
Heavy Equipment Operator (Area 1, Group 2) ³	\$28.77	\$11.70	\$12.15	\$53.62	hr	0.063	\$ 3.35		One excavator operator for 1/2 hour.
Heavy Equipment Operator (Area 1, Group 4) ⁴	\$26.92	\$11.70	\$12.55	\$51.17	hr	0.031	\$ 1.60		One loader/backhoe operator for 15 minutes.
Heavy Equipment Operator (Area 1, Group 6) ⁴	\$22.47	\$11.70	\$11.17	\$45.54	hr	0.031	\$ 1.42		One compacter operator for 15 minutes.
Labour (Area 1, Group 1) ⁵	\$27.38	\$9.21	\$11.96	\$48.75	hr	0.000	\$ -		
TOTAL LABOR HOURS									
TOTAL LABOR COST⁶						0.125	\$ 6.37	0.38%	
Other Direct Costs (ODCs)		Raw Rate			Unit	Quantity	Dollars		
Subcontractor Hauling (Demolition Debris) ⁷	\$80.00		\$80.00		hr	0	\$ -		
Disposal of Demolition Debris ⁸	\$6.30		\$6.30		yd ³	0	\$ -		
Subcontractor Hauling (Concrete) ⁹	\$80.00		\$80.00		yd ³	2	\$ 160.00		One and one half hour round trip load and haul charge to recycler for 11 loads of concrete.
Disposal of Concrete ⁹	\$6.00		\$6.00		yd ³	1.600	\$ -		No charge for claim concrete.
Subcontractor Hauling (Steel) ⁹	\$90.00		\$90.00		yd ³	-	\$ -		Contractor will be required to no sort to back up steel.
Disposal of Steel ⁹	\$0.00		\$0.00		tun	0	\$ -		No charge for scrap steel.
Excavator (Lease) ⁵	\$600.00		\$600.00		dry	0	\$ 37.50		Estimated use of excavator for 30 minutes.
Excavator, set up for Shear (Lease) ⁵	\$650.00		\$650.00		day	0	\$ -		
Shear (Lease) ⁵	\$400.00		\$400.00		day	0	\$ -		
Doxer	\$300.00		\$300.00		day	0	\$ -		
Wheel Loader (Lease) ⁵	\$300.00		\$300.00		day	0	\$ 18.75		Estimated use of wheel loader for 15 minutes.
Compactor (Lease) ⁵	\$475.00		\$475.00		day	0	\$ 14.81		Estimated use of compactor for 15 minutes.
Fill Dirt ¹⁰	\$6.15		\$6.15		tun	10	\$ 61.50		Material and haul charge for fill dirt.
Portable Latrine ¹¹	\$25.00		\$25.00		week	0	\$ -		
Materials ¹²	\$1,000.00		\$1,000.00		lump	0	\$ -		
Permitting and Licensing ¹³	\$200.00		\$200.00		end	1	\$ 200.00		Demolition permit fee.
First ¹⁴	\$3.25		\$3.25		end	10	\$ 32.50		Fuel usage at \$0.40/gallon per day per piece of equipment for 3 days.
TOTAL ODCS							\$ 25.09	0.33%	
TOTAL LABOR AND ODCS							\$ 51.47		
TOTAL OVERHEAD @ 13%¹⁵							\$ 69.09	10.27%	
TOTAL PROFIT @ 10.0%¹⁶							\$ 51.15	8.13%	
BONDING:									
GRAND TOTAL:							\$ 653.70	100.00%	

Footnotes:
1-Davis-Bacon Wage Determination MN20030061 (09/09/2005)
2-Davis-Bacon Wage Determination MN20030061 (09/09/2005)
3-Average Fixed overhead and Workman's Compensation from RS Menns CostWorks 2005
4-Wage Determination MN20030061 Describes Area 1 in Hennepin County, and Groups Are Described Based on Job Function.
5-Quoted From Local Vendors.
6-Estimated
7-Acquisition Price
8-Average Fixed Company Overhead from RS Menns CostWorks 2005.
9-Average Company Profit from RS Menns CostWorks 2005.

Enclosure 1

Bureau of Mines Twin Cities Research Center Demolition

BUILDING NUMBER 7		Raw Labor Rate ¹	Fringe ²	Fixed Overhead + Fully Burdened Labor Rate ³	Unit	Demolition Estimate Cost	Percent of Proposal	Assumptions
Labor Category	(a)	(b)	(c)	(d)=(b)+(c)	Hours	Cost		
Heavy Equipment Operator (Area 1, Group 2) ⁴	\$28.77	\$11.70	\$12.15	\$53.62	hr	\$ 428.98	One excavator operator for 1 day.	
Heavy Equipment Operator (Area 1, Group 4) ⁴	\$26.92	\$11.70	\$12.55	\$51.17	hr	\$ 409.37	One backhoe/loader operator for 1 day.	
Heavy Equipment Operator (Area 1, Group 6) ⁴	\$22.67	\$11.70	\$11.17	\$45.54	hr	\$ 182.16	One compact track loader operator for 1/2 day.	
Labourer (Area 1, Group 1) ⁵	\$27.38	\$9.21	\$11.96	\$48.75	hr	\$ 389.97	One laborer for 1 day.	
TOTAL LABOR HOURS						\$ 1,310.49	18.99%	
TOTAL LABOR COST⁶:						\$ 1,310.49	18.99%	
Other Direct Costs (ODCs)		Raw Rate			Unit	Quantity	Dollars	
Subcontractor Hauling (Demolition Debris) ⁷	\$80.00				hr	5	\$ 400.00	One and one half hour load and haul charge to landfill for 3 loads of 25 cu.yd. of demolition debris.
Disposal of Demolition Debris ⁸	\$6.30				yd ³	75	\$ 457.50	Landfill disposal cost for 3 loads of 25 cu.yd. of demolition debris.
Subcontractor Hauling (Concrete) ⁹	\$80.00				hr	8	\$ 640.00	One and one half hour round trip load and haul charge to recycler for 5 loads of concrete.
Disposal of Concrete	\$0.60				yd ³	138	\$ -	No charge for claim concrete.
Subcontractor Hauling (Steel) ⁹	\$90.00				ton	0	\$ -	Contractor will be required to sort & pack up steel.
Disposal of Steel	\$0.00				ton	0	\$ -	No charge for scrap steel.
Excavator, set up for Shear (Leavey) ⁹	\$600.00				dry	1	\$ 600.00	Estimated use of excavator for 1 working day.
Shear (Leavey) ⁹	\$400.00				day	0	\$ -	Estimated use of excavator for 1 working day.
Dover	\$400.00				day	0	\$ -	Estimated use of wheel loader for 1 working day.
Wheel Loader (Leavey) ⁹	\$300.00				day	1	\$ 300.00	Estimated use of compact for 1 working day.
Compactor (Leavey) ⁹	\$475.00				day	1	\$ 475.00	Estimated use of compactor for 1 working day.
Fill Dirt	\$6.15				ton	157	\$ 965.55	Material and land charge for fill dirt, building footprint multiplied by one foot deep to get volume.
Portable Latrine ¹⁰	\$25.00				week	0	\$ 5.00	Latrine rental prearranged for 1 day.
Materials ¹¹	\$1,000.00				lump	0	\$ 200.00	Miscellaneous supplies for demolition.
Permitting and Licensing ¹²	\$200.00				each	100	\$ 200.00	Demolition permit fee.
First ¹³	\$3.25							Find usage at \$0.50 million per day per piece of equipment for 1 day.
TOTAL ODCS:						\$ 4,028.05	6.23%	
TOTAL LABOR AND ODCS:						\$ 6,038.54		
TOTAL OVERHEAD @ 13%¹⁴:						\$ 785.01	10.27%	
TOTAL PROFIT @ 10.0%¹⁵:						\$ 603.85	8.13%	
BONDING:								
GRAND TOTAL:						\$ 7,427.40	100.00%	

Footnotes:

- 1-Davis-Bacon Wage Determination MN20030061 09/09/2005
- 2-Davis-Bacon Wage Determination MN20030061 09/09/2005
- 3-Average Fixed overhead and Workforce Compensation Insurance from RS Menns ConstWorks 2005
- 4-Wage Determination MN20030061 Describes Area 1 in Hennepin County, and Groups Are Described Based on Job Function.
- 5-Quoted From Local Vendors.
- 6-Estimated
- 7-Acquisition Price
- 8-Average Fixed Company Overhead from RS Menns ConstWorks 2005.
- 9-Average Company Profit from RS Menns ConstWorks 2005.

Enclosure 1 Bureau of Mines Twin Cities Research Center Demolition

BUILDING NUMBER 8		Raw Labor Rate¹	Fringe²	Fixed Overhead + Fully Burdened Labor Rate³	Unit	Demolition Estimate Cost	Cumulative Cost	Percent of Proposal	Assumptions
Labor Category		(a)	(b)	(c) (a+b+c)	Hours	Cost			
Heavy Equipment Operator (Area 1, Group 2) ⁴	\$28.77	\$11.70	\$12.15	\$53.62/hr	hr	\$8	\$8	428.98	One excavator operator for 1 day.
Heavy Equipment Operator (Area 1, Group 4) ⁴	\$26.92	\$11.70	\$12.55	\$51.17/hr	hr	\$8	\$8	469.37	One loader-dumper operator for 1 day.
Heavy Equipment Operator (Area 1, Group 6) ⁴	\$22.67	\$11.70	\$11.17	\$45.54/hr	hr	4	4	182.16	One compactor operator for 1/2 day.
Labour (Area 1, Group 1) ⁵	\$27.38	\$9.21	\$11.96	\$48.75/hr	hr	0	0	-	
TOTAL LABOR HOURS									
TOTAL LABOR COST⁶						\$20	\$20	\$1,020.82	26.36%
Other Direct Costs (ODCs)									
Subcontractor Hauling (Demolition Debris) ⁷	\$80.00				Unit	Quantity	Dollars		
Disposal of Demolition Debris ⁸	\$6.30				hr	0	0		
Subcontractor Hauling (Concrete) ⁹	\$80.00				yd ³	0	0		
Disposal of Concrete	\$6.30				yd ³	3	\$3	240.00	One and one half hour round trip load and haul charge to recycler for 2 loads of concrete.
Subcontractor Hauling (Steel) ⁹	\$80.00				yd ³	0	0		No charge for claim concrete.
Disposal of Steel	\$0.00				ton	0	0		Container will be dropped in so not to kick up steel.
Excavator (Lease) ⁵	\$600.00				dry	1	\$	600.00	No charge for excavated steel.
Excavator, set up for Shear (Lease) ⁵	\$650.00				day	0	0		Estimated use of excavator for 1 working day.
Shear (Lease) ⁵	\$400.00				day	0	0		
Dover	\$400.00				day	0	0		
Wheel Loader (Lease) ⁵	\$300.00				day	1	\$	300.00	Estimated use of wheel loader for 1/2 working day.
Compactor (Lease) ⁵	\$475.00				day	1	\$	475.00	Estimated use of compactor for 1/2 working day.
Fill Dirt	\$6.15				ton	20	\$	123.00	Material and land charge for fill dirt, building footprint multiplied by two feet deep to get volume.
Portable Latrine ¹⁰	\$25.00				week	0	\$	5.00	Latrine rental prearranged for 1 day.
Materials ¹¹	\$1,000.00				hump	0	0		
Permitting and Licensing ¹²	\$200.00				ea	100	\$	200.00	Permitting permit fee.
Fit ¹³	\$3.25								Fit usage at \$0.50 dollars per day per piece of equipment for 1 day.
TOTAL ODCS									
TOTAL LABOR AND ODCS									
TOTAL OVERHEAD @ 13%¹⁴									
TOTAL PROFIT @ 10.0%¹⁵									
BONDING:									
GRAND TOTAL:									

Footnotes:

1-Davis-Bacon Wage Determination MN20030061 09/09/2005

2-Davis-Bacon Wage Determination MN20030061 09/09/2005

3-Average Fixed and Variable Compensation from RS Menns CostWorks 2005

4-Wage Determination MN20030061 Describes Area 1 in Hennepin County, and Groups Are Described Based on Job Function.

5-Quoted From Local Vendors.

6-Estimated

7-Acquisition Price

8-Average Fixed Company Overhead from RS Menns CostWorks 2005.

9-Average Company Profit from RS Menns CostWorks 2005.

Enclosure 1
Bureau of Mines Twin Cities Research Center Demolition

BUILDING NUMBER 9		Raw Labor ¹ Rate ²	Fringe ³	Fixed Overhead + Fully Burdened Labor Rate	Unit	Demolition Estimate	Cumulative Cost	Percent of Proposal	Assumptions
Labor Category	(a)	(b)	(c)	(d+e+c)	Hours	Cost			
Heavy Equipment Operator (Area 1, Group 2) ⁴	\$28.77	\$11.70	\$131.5	\$153.62	hr	40	\$ 2,144.91		One excavator operator for 4 days, one excavator/hand operator for 1 day.
Heavy Equipment Operator (Area 1, Group 4) ⁴	\$26.92	\$11.70	\$12.55	\$151.17	hr	40	\$ 2,046.86		One loader/backhoe operator for 1 week.
Heavy Equipment Operator (Area 1, Group 6) ⁴	\$22.47	\$11.70	\$11.17	\$145.54	hr	24	\$ 1,092.97		One compactor operator for 4 days.
Labour (Area 1, Group 1) ⁵	\$27.38	\$9.21	\$11.96	\$158.75	hr	56	\$ 2,729.82		One laborer for 4 days.
TOTAL LABOR HOURS									
TOTAL LABOR COST⁶:									
Other Direct Costs (ODCs)	Raw Rate				Unit	Quantity	Dollars		
Subcontractor Handling (Demolition Debris) ⁷	\$80.00				hr	17	\$ 1,360.00		One and one half hour load and haul charge to landfill for 11 loads of 25 yd ³ of demolition debris.
Disposal of Demolition Debris ⁸	\$6.50				yd ³	275	\$ 1,887.50		Landfill disposal cost for 11 loads of 25 yd ³ of demolition debris.
Subcontractor Handling (Concrete) ⁹	\$80.00				hr	45	\$ 3,600.00		One and one half hour round trip load and haul charge to crusher for 30 loads of concrete.
Disposal of Concrete ¹⁰	\$6.50				yd ³	30	\$ -		No charge for claim concrete.
Subcontractor Hauling (Steel) ¹¹	\$90.00				ton	0	\$ -		Contractor will be required to transport steel.
Disposal of Steel	\$90.00				ton	0	\$ -		No charge for scrap steel.
Excavator (Leave) ¹²	\$600.00				day	4	\$ 2,400.00		Estimated use of excavator for 4 working days.
Excavator, set up for Shear (Leave) ¹³	\$650.00				day	1	\$ 650.00		Estimated use of excavator/shear for 1 day.
Shear (Leave) ¹⁴	\$400.00				day	2	\$ 800.00		Estimated use of shear for 1 working day.
Dover	\$100.00				day	0	\$ -		Estimated use of Dover for 1 week.
Wheel Loader (Leave) ¹⁵	\$300.00				day	5	\$ 1,500.00		Estimated use of wheel loader for 1 week.
Compactor (Leave) ¹⁶	\$415.00				day	3	\$ 1,245.00		Estimated use of compactor for 1 day.
Fill Dirt	\$6.15				ton	4,936	\$ 30,356.40		Material and haul charge for fill dirt, building footprint multiplied by 8 feet deep to get volume.
Portable Latrine ¹⁷	\$25.00				week	2	\$ 50.00		Latrine rental for two weeks.
Materials ¹⁸	\$1,000.00				lump	0	\$ 400.00		Miscellaneous supplies for demolition.
Permitting and Licensing ¹⁹	\$200.00				ad	1	\$ 200.00		Demolition permit fee.
Gas ²⁰	\$3.21				lump	700	\$ 2,275.00		Fuel usage at 50 gallons per day per piece of equipment for 1 day.
Hydraulics Material Contractor ²¹	\$1,080.00				lump	1	\$ 1,080.00		Includes removal of bushes, bulletin and mercury switches.
TOTAL ODCS:							\$ 47,993.90	69.47%	
TOTAL LABOR AND ODCS:							\$ 56,008.45		
TOTAL OVERHEAD @ 13%²²:							\$ 7,281.10	10.27%	
TOTAL PROFIT @ 10.05%²³:							\$ 5,600.85	8.13%	
BONDING:									
GRANT TOTAL:							\$ 68,690.40	100.00%	

Estimates

1-Davis-Bacon Wage Determination MN20030061 09/09/2005

2-Davis-Bacon Wage Determination MN20030061 09/09/2005

3-Average Fixed Overhead and Worker Compensation Insurance from RS Means CostWorks 2005

4-Wage Determination MN20030061 Describes Area 1 as Hennepin County, and Groups A through E as Described Based on Job Function.

5-Quoted from Local Vendors.

6-Estimated.

7-Actual Price

8-Average Fixed Company Overhead from RS Means CostWorks 2005.

Enclosure 1

Bureau of Mines Twin Cities Research Center Demolition

BUILDING NUMBER 10		Raw Labor Rate ¹	Fringe ²	Fixed Overhead + Fully Burdened Labor Rate ³	Unit	Demolition Estimate Cost	Percent of Proposal	Assumptions
Labor Category	(a)	(b)	(c)	(d)=(b)+(c)	Hours	Cost		
Heavy Equipment Operator (Area 1, Group 2) ⁴	\$28.77	\$11.70	\$12.15	\$53.62/hr	hr	\$ 428.98		One excavator operator for 1 day.
Heavy Equipment Operator (Area 1, Group 4) ⁴	\$26.92	\$11.70	\$12.55	\$51.17/hr	hr	\$ 402.34		One loader/backhoe operator for 2 hours.
Heavy Equipment Operator (Area 1, Group 6) ⁴	\$22.67	\$11.70	\$11.17	\$45.54/hr	hr	\$ 251.08		One compacter operator for 2 hours.
Labour (Area 1, Group 1) ⁵	\$27.38	\$9.21	\$11.96	\$48.75/hr	hr	\$ 0.5	-	
TOTAL LABOR HOURS						\$ 622.41	16.86%	
TOTAL LABOR COST⁶						\$ 622.41	16.86%	
Other Direct Costs (ODCs)								
Subcontractor Hauling (Demolition Debris) ⁷	\$80.00	Raw Rate			Unit	Quantity	Dollars	
Disposal of Demolition Debris ⁸	\$6.30	hr	2	\$ 160.00				One and one half hour load and haul charge to landfill for 1 load of 25 yd ³ of demolition debris.
Subcontractor Hauling (Concrete) ⁹	\$80.00	Yard ¹⁰	25	\$ 172.50				Landfill disposal cost for a load of 25 yd ³ of demolition debris.
Disposal of Concrete	\$0.60	yd ¹⁰	5	\$ 400.00				One and one half hour round trip load and haul charge to recycler for 3 loads of concrete.
Subcontractor Hauling (Steel) ⁹	\$0.00	yd ¹⁰	0	\$ 0.00				No charge for claim concrete.
Disposal of Steel	\$0.00	ton	0	\$ 0.00				Contractor will be required to pay to truck up steel.
Excavator (Lease) ⁵	\$600.00	dry	1	\$ 600.00				No charge for scrap steel.
Excavator, set up for Shear (Lease) ⁵	\$650.00	day	0	\$ 0.00				Estimated use of excavator for 1 working day.
Shear (Lease) ⁵	\$400.00	day	0	\$ 0.00				
Dover	\$400.00	day	0	\$ 0.00				
Wheel Loader (Lease) ⁵	\$300.00	dry	0	\$ 0.00				Estimated use of wheel loader for 2 hours.
Compactor (Lease) ⁵	\$475.00	dry	0	\$ 118.75				Estimated use of compactor for 2 hours.
Fill Dirt	\$6.15	ton	26	\$ 159.50				Material and land charge for fill dirt; building footprint multiplied by 8 feet deep to get volume.
Portable Latrine ¹¹	\$25.00	week	0	\$ 5.00				Latrine rental prearranged for 1 day.
Materials ¹²	\$1,000.00	lump	0	\$ 0.00				
Permitting and Licensing ¹³	\$200.00	unit	1	\$ 200.00				Permitting permit fee.
Fuel ¹⁴	\$3.25	gal	150	\$ 487.50				Fuel usage at .50 gallons per day per piece of equipment for 1 day.
TOTAL ODCS						\$ 2,787.65	64.44%	
TOTAL LABOR AND ODCS						\$ 3,601.06		
TOTAL OVERHEAD @ 13%¹⁵						\$ 390.14	10.27%	
TOTAL PROFIT @ 10.0%¹⁶						\$ 200.11	8.13%	
BONDING:								
GRAND TOTAL:						\$ 3,691.20	100.00%	

Footnotes:
 1-Davis-Bacon Wage Determination MN20030061 09/09/2005
 2-Davis-Bacon Wage Determination MN20030061 09/09/2005
 3-Average Fixed overhead and Workforce Compensation from RS Menns CostWorks 2005
 4-Wage Determination MN20030061 Describes Area 1 in Hennepin County, and Groups Are Described Based on Job Function.
 5-Quoted From Local Vendors.
 6-Estimated
 7-Acquisition Price
 8-Average Fixed Company Overhead from RS Menns CostWorks 2005.
 9-Average Company Profit from RS Menns CostWorks 2005.

Enclosure 1
Bureau of Mines Twin Cities Research Center Demolition

BUILDING NUMBER 11		Raw Labor Rate ¹	Fringe ²	Fixed Overhead + Fully Burdened Labor Rate	Unit	Demolition Estimate Cost	Percent of Proposal	Assumptions
Labor Category	(a)	(b)	(c)	(d)=(b)+(c)	Hours	Cost		
Heavy Equipment Operator (Area 1, Group 2) ³	\$28.77	\$11.70	\$12.15	\$53.62/hr	hr	\$6	3,602.87	One excavator operator with shear for 2 days. 1 excavator operator for 5 days.
Heavy Equipment Operator (Area 1, Group 4) ⁴	\$26.92	\$11.70	\$12.55	\$51.17/hr	hr	\$6	818.74	One backhoe operator for 2 days.
Heavy Equipment Operator (Area 1, Group 6) ⁴	\$22.67	\$11.70	\$11.17	\$45.44/hr	hr	\$6	728.64	One compactor operator for 2 days.
Labour (Area 1, Group 1) ⁵	\$27.38	\$9.21	\$11.96	\$48.75/hr	hr	\$6	2,729.82	One laborer for 2 days.
TOTAL LABOR HOURS:								
TOTAL LABOR COST:						144 \$ 7,280.08	17.39%	
Other Direct Costs (ODCs)	Raw Rate				Unit	Quantity	Dollars	
Subcontractor Hauling (Demolition Debris) ⁶	\$80.00				hr	9	720.00	One and one half hour load and haul charge to landfill for 6 loads of 25 yd ³ of demolition debris.
Disposal of Demolition Debris ⁷	\$60.50				yd ³	150	1,055.00	Landfill disposal cost for 6 loads of 25 yd ³ of demolition debris.
Subcontractor Hauling (Concrete) ⁸	\$80.00				hr	57	4,560.00	One and one half hour round trip load and haul charge to recycler for 38 loads of concrete.
Disposal of Concrete	\$60.00				yd ³	0	0	No charge for dem concrete.
Subcontractor Hauling (Steel) ⁹	\$0.00				ton	0	0	Container will be shipped at no cost to truck up steel.
Disposal of Steel	\$0.00				ton	0	0	No charge for scrap steel.
Excavator or Loader ¹⁰	\$600.00				day	5	3,000.00	Estimated use of excavator for 5 working days.
Excavator, set up for Shear (Lease) ⁵	\$650.00				day	5	3,250.00	Estimated use of excavator w/shear for 5 working days.
Shovel (Lease) ⁵	\$400.00				day	2	800.00	Estimated use of shovel for 2 working days.
Dozer	\$460.00				day	1	460.00	Estimated use of dozer for 1 day.
Wheel Loader (Lease) ⁵	\$500.00				day	4	2,000.00	Estimated use of wheel loader for 4 days.
Compactor (Lease) ⁵	\$475.00				day	2	950.00	Estimated use of compactor for 2 days.
Fill Dirt ¹¹	\$6.15				ton	1,322	8,130.30	Material and haul charge for fill dirt, building footprint multiplied by 1.5 feet deep to get volume.
Potable Latrine ¹²	\$25.00				week	8	200.00	Latrine rental for two weeks.
Materials ¹³	\$1,000.00				hump	1	1,000.00	Miscellaneous supplies for demolition.
Permitting and Licensing ¹⁴	\$200.00				hump	1	200.00	Demolition permit fee.
Fuel	\$3.25				gal	700	2,275.00	Fuel usage at 50 gallons per day per piece of equipment for 1 day.
Hazardous Materials Contractor ¹⁵	\$216.00				hump	1	216.00	Included removal of bathe, bellarts, and mercury switches.
TOTAL ODCs:							\$ 25,986.30	63.51%
TOTAL LABOR AND ODCs:							\$ 33,166.38	
TOTAL OVERHEAD @ 15%*							\$ 4,974.95	10.27%
TOTAL PROFIT @ 10.6%*							\$ 3,216.64	8.13%
BONDING:								
GRAND TOTAL:							\$ 40,917.65	100.00%

Footnotes:

¹-Davis-Bacon Wage Determination MN200/0061 (09/09/2005).²-Davis-Bacon Wage Determination MN200/0061 (09/09/2005).³-Average Fixed Overhead and Warranted Compensation Insurance from RS Means CostWorks 2005.⁴-Wage Determination MN200/0061 Describes Area 1 as Hennepin County, and Groups Are Described Based on Job Function.⁵-Quoted From Local Vendors.⁶-Estimated.⁷-Actual Price.⁸-Average Fixed Company Overhead from RS Means CostWorks 2005.⁹-Average Company Profit from RS Means CostWorks 2005.

Enclosure 1 Bureau of Mines Twin Cities Research Center Demolition

CONCRETE AND ASPHALT DEMOLITION										Assumptions		
Labor Category	Raw Labor Rate ¹	Fringe ²	Fixed Overhead + Fully Burdened Labor Rate ³	Unit	Demolition Estimate	Cumulative Cost	Percent of Proposal					
	(a)	(b)	(c)	(a+b+c)	Hours	Cost						
Heavy Equipment Operator (Area 1, Group 2) ⁴	\$28.77	\$11.70	\$12.15	hr	264	\$ 14,156.41		One excavator operator with shear for 33 days.				
Heavy Equipment Operator (Area 1, Group 4) ⁴	\$26.92	\$11.70	\$12.55	hr	264	\$ 13,592.28		One backhoe-digger operator for 30 days.				
Heavy Equipment Operator (Area 1, Group 6) ⁴	\$22.47	\$11.70	\$11.17	hr	178	\$ 5,529.15		One excavator operator for 33 days.				
Labour (Area 1, Group 1) ⁵	\$27.38	\$9.21	\$11.96	hr	264	\$ 12,869.14		One laborer for 33 days.				
TOTAL LABOR HOURS												
TOTAL LABOR COST⁶:												
						\$20, \$ 46,463.98	27.38%					
Other Direct Costs (ODCs)												
Subcontractor Hauling (Demolition Debris) ⁷	\$80.00			hr	0	\$ 0	-					
Disposal of Demolition Debris ⁸	\$6.30			yd ³	0	\$ 0	-					
Subcontractor Hauling (Concrete) ⁹	\$80.00			yd ³	102	\$ 8,160.00		One and one half hour round trip load and haul charge to recycler for 166 loads of concrete.				
Disposal of Concrete	\$0.60			yd ³	0	\$ 0	-	No charge for claim concrete.				
Subcontractor Hauling (Steel) ⁹	\$90.00			yd ³	0	\$ 0	-	Contractor will be required to no sort to pick up steel.				
Disposal of Steel	\$0.60			ton	0	\$ 0	-	No charge for scrap steel.				
Excavator (Lease) ⁵	\$600.00			dry	33	\$ 19,800.00		Estimated use of excavator for 33 working days.				
Excavator, set up for Shear (Lease) ⁵	\$650.00			day	0	\$ 0	-					
Shear (Lease) ⁵	\$400.00			day	0	\$ 0	-					
Dumper				day	0	\$ 0	-					
Wheel Loader (Lease) ⁵	\$300.00			day	33	\$ 9,900.00		Estimated use of wheel loader for 33 days.				
Compactor (Lease) ⁵	\$475.00			day	16	\$ 7,600.00		Estimated use of compactor for 16 days.				
Fill Dirt	\$6.15			ton	3,665	\$ 31,149.75		Material and land charge to backfill excavated areas.				
Portable Latrine ¹⁰	\$25.00			week	6	\$ 150.00		Latrine rental for two weeks.				
Materials ¹¹	\$1,000.00			hump	0	\$ 0	-	Miscellaneous supplies for demolition.				
Permitting and Licensing ¹²	\$200.00			ea	1	\$ 200.00		Demolition permit fee.				
Fit ¹³				ea	4,140	\$ 13,254.00		Fit usage at .50 dollars per day per piece of equipment for 1 day.				
TOTAL ODCS:												
TOTAL LABOR AND ODCS:												
											\$ 136,458.73	
TOTAL OVERHEAD @ 13%¹⁴:												
											\$ 17,764.33	10.27%
TOTAL PROFIT @ 10.0%¹⁵:												
											\$ 13,664.87	8.13%
BONDING:												
GRAND TOTAL:												
											\$ 168,077.93	100.00%

Footnotes:

1-Davis-Bacon Wage Determination MN20030061 09/09/2005

2-Davis-Bacon Wage Determination MN20030061 09/09/2005

3-Average Fixed overhead and Workman's Compensation from RS Menns ConstWorks 2005

4-Wage Determination MN20030061 Describes Area 1 in Hennepin County, and Groups Are Described Based on Job Function.

5-Quoted From Local Vendors.

6-Estimated

7-Acquisition Price

8-Average Fixed Company Overhead from RS Menns ConstWorks 2005.

9-Average Company Profit from RS Menns ConstWorks 2005.

Enclosure 1
Bureau of Mines Twin Cities Research Center Demolition

ORE BIN REMOVAL		Raw Labor Rate ¹	Fringe ²	Fixed Overhead + Fully Burdened Labor Rate ³	Unit	Demolition Estimate Cost	Cumulative Cost	Percent of Proposal	Assumptions
Labor Category	(a)	(b)	(c)	(d)=(b)+(c)	Hours	Cost			
Heavy Equipment Operator (Area 1, Group 2) ⁴	\$28.77	\$11.70	\$12.15	\$53.62/hr	hr	\$2,155.93			One excavator operator for 4 days.
Heavy Equipment Operator (Area 1, Group 4) ⁴	\$26.92	\$11.70	\$12.55	\$51.17/hr	hr	\$2,137.49			One backhoe/loader operator for 4 days.
Heavy Equipment Operator (Area 1, Group 6) ⁴	\$22.67	\$11.70	\$11.17	\$45.54/hr	hr	\$16,528.64			One backhoe/loader operator for 2 days.
Labour (Area 1, Group 1) ⁵	\$27.38	\$9.21	\$11.96	\$48.75/hr	hr	\$16,779.95			One laborer for 4 days.
TOTAL LABOR HOURS									
TOTAL LABOR COST⁶:						\$482,01		27.46%	
Other Direct Costs (ODCs)		Raw Rate			Unit	Quantity	Dollars		
Subcontractor Hauling (Demolition Debris) ⁷	\$80.00				hr	0	\$0		
Disposal of Demolition Debris ⁸	\$6.30				yd ³	0	\$0		
Subcontractor Hauling (Concrete) ⁹	\$80.00				yd ³	26	\$2,080.00		One and one half hour round trip load and haul charge to recycler for 17 loads of concrete.
Disposal of Concrete	\$6.30				yd ³	0	\$0		No charge for claim concrete.
Subcontractor Hauling (Steel) ⁹	\$80.00				ton	0	\$0		Contractor will be required to sort & pack up steel.
Disposal of Steel	\$0.00				ton	0	\$0		No charge for scrap steel.
Excavator (Lease) ⁵	\$600.00				dry	4	\$2,400.00		Estimated use of excavator for 4 working days.
Excavator, set up for Shear (Lease) ⁵	\$650.00				day	0	\$0		
Shear (Lease) ⁵	\$400.00				day	0	\$0		
Dumper	\$400.00				day	0	\$0		
Wheel Loader (Lease) ⁵	\$300.00				day	4	\$1,200.00		Estimated use of wheel loader for 4 days.
Compactor (Lease) ⁵	\$475.00				day	2	\$950.00		Estimated use of compactor for 2 days.
Fill Dirt	\$6.15				ton	180	\$1,070.00		Material and land charge to backfill excavated areas and reshape.
Portable Latrine ¹⁰	\$25.00				week	1	\$25.00		Latrine rental for one week.
Materials ¹¹	\$1,000.00				lump	0	\$0		Miscellaneous supplies for demolition.
Permitting and Licensing ¹²	\$200.00				ea	1	\$200.00		Demolition permit fee.
First ¹³	\$3.25				ea	500	\$1,625.00		First usage at \$5 million per day per piece of equipment for 4 days.
TOTAL ODCS:						\$ 9,587.00		\$3.49%	
TOTAL LABOR AND ODCS:						\$ 14,449.01			
TOTAL OVERHEAD @ 13%¹⁴:						\$ 1,878.37		10.27%	
TOTAL PROFIT @ 10.0%¹⁵:						\$ 1,444.90		8.13%	
BONDING:									
GRAND TOTAL:						\$ 17,772.28		100.00%	

Footnotes:
1-Davis-Bacon Wage Determination MN20030061 (09/09/2005)
2-Davis-Bacon Wage Determination MN20030061 (09/09/2005)
3-1 Average Fixed overhead and Workforce Compensation Insurance from RS Menns ConstWorks 2005
4-Wage Determination MN20030061 Describes Area 1 in Hennepin County, and Groups Are Described Based on Job Function.
5-Quoted From Local Vendors.
6-Estimated
7-Acquisition Price
8-Average Fixed Company Overhead from RS Menns ConstWorks 2005.
9-Average Company Profit from RS Menns ConstWorks 2005.

APPENDIX G

**RE: Building Removal Estimate for Former Bureau of Mines Twin Cities Research
Center, Fort Snelling, Minnesota
January 17, 2006**

ENCLOSURE 2
DAVIS BACON WAGE DETERMINATION MN20030061 9/9/2005

WAIS Document Retrieval

Page 1 of 34

Enclosure 2 Bureau of Mines Twin Cities Research Center Demolition

GENERAL DECISION: **MN20030061** 09/09/2005 MN61

Date: September 9, 2005

General Decision Number: **MN20030061** 09/09/2005

Superseded General Decision Number: MN020061

State: Minnesota

Construction Types: Heavy (Heavy, Sewer and Water Line, and Treatment Plant)

Counties: Anoka, Benton, Carver, Chisago, Clay, Dakota, Hennepin, Houston, Isanti, Olmsted, Polk, Ramsey, Scott, Sherburne, St Louis, Stearns, Washington and Wright Counties in Minnesota.

TREATMENT PLANTS, HEAVY, SEWER & WATER LINES

Modification Number	Publication Date
0	06/13/2003
1	01/02/2004
2	04/09/2004
3	04/23/2004
4	05/14/2004
5	06/04/2004
6	06/18/2004
7	07/02/2004
8	09/24/2004
9	03/04/2005
10	04/01/2005
11	05/06/2005
12	06/03/2005
13	07/08/2005
14	09/09/2005

ASBE0034-006 06/01/2005

ANOKA, BENTON, CARVER, CHISAGO, DAKOTA, HENNEPIN, HOUSTON, ISANTI, OLMSTED, RAMSEY, SCOTT, SHERBURNE, STEARNS, WASHINGTON & WRIGHT COUNTIES

Rates Fringes

Asbestos Workers/Insulator (Includes application of all insulating materials, protective coverings, coatings & finishes to all types of mechanical systems)...	\$ 33.47	15.06
---	----------	-------

ASBE0049-005 06/01/2004

ST. LOUIS COUNTY

Rates Fringes

Asbestos Workers/Insulator (Includes application of all	
--	--

Page 1 of 34

<http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=Davis-Bacon&docid=MN20...> 10/26/2005

Enclosure 2 Bureau of Mines Twin Cities Research Center Demolition

insulating materials,	
protective coverings,	
coatings & finishes to all	
types of mechanical systems) ... \$ 30.46	10.35

ASBE0133-002 07/01/2004

CLAY & POLK COUNTIES

Rates	Fringes
-------	---------

Asbestos Workers/Insulator (Includes application of all insulating materials, protective coverings, coatings & finishings to all types of mechanical systems) ... \$ 23.33	8.79
---	------

ASBE0205-011 05/01/1998

ANOKA, BENTON, CARVER, CHISAGO, DAKOTA, HENNEPIN, HOUSTON,
ISANTI, OLMSTED, RAMSEY, SCOTT, SHERBURNE, ST. LOUIS, STEARNS,
WASHINGTON & WRIGHT COUNTIES

Rates	Fringes
-------	---------

Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging & disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems) \$ 18.21	3.30
--	------

BOIL0647-004 01/01/2005

Rates	Fringes
-------	---------

Boilermaker.....\$ 28.09	16.82
--------------------------	-------

BRMN0001-026 05/01/2005

ANOKA, CARVER, CHISAGO, DAKOTA, HENNEPIN, ISANTI, RAMSEY,
SCOTT, SHERBURNE (City of Elk River), WASHINGTON & WRIGHT
COUNTIES

Rates	Fringes
-------	---------

Bricklayer, Stonemason.....\$ 31.44	11.30
-------------------------------------	-------

BRMN0001-027 05/01/2005

BENTON, SHERBURNE (Excluding city of Elk River) & STEARNS
COUNTIES

Rates	Fringes
-------	---------

Enclosure 2 Bureau of Mines Twin Cities Research Center Demolition

GROUP 1.....	\$ 31.74	11.70
GROUP 2.....	\$ 31.40	11.70
GROUP 3.....	\$ 29.99	11.70
GROUP 4.....	\$ 29.65	11.70
GROUP 5.....	\$ 29.48	11.70
GROUP 6.....	\$ 27.97	11.70
GROUP 7.....	\$ 26.85	11.70
GROUP 8.....	\$ 24.84	11.70

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1 - Helicopter Operator; Truck & Crawler Crane with 200' of Boom & Over, including Jib (\$.50 premium with 300' of Boom & over, including jib); & Tower Crane 250' & Over

GROUP 2 - Truck & Crawler Crane with 150' of Boom, up to but not including 200' of Boom, including Jib; & Tower Crane 200' & Over, Concrete Pump 164 ft Boom.

GROUP 3 - Traveling Tower Crane; Master Mechanic; Pile Driving Operator (when 3 drums are used); Truck & Crawler Crane, up to but not including 150' of Boom, including Jib; Derrick (Guy & Stiffleg); Tower Crane (Stationary) up to 200'; & All Terrain Vehicle Crane, Boom Truck over 100 ft.

GROUP 4 - Crawler Backhoe; Hoist Engineer (3 drums or more); Locomotive Operator; Overhead Crane Operator (inside building perimeter); & Tractor Operator with Boom

GROUP 5 - Air Compressor Operator 450 CFM or Over (2 or more machines); Pump Operator and/or Conveyor Operator (2 or more machines); Mechanic; Pumpcrete or Complaco type Machine Operator; Forklift; Boom Truck up to 100 ft; Concrete Mixer Operator; Drill Rig - Heavy Rotary or Churn when used for Caisson Drilling for Elevator Cylinder or Building Construction; Front End Loader (Over 1 cu. yd.); Hoist Engineer (1 or 2 drums); Straddle Carrier Operator; Power Plant Engineer (100 KW & over on multiples equal to 100KW & over); Tractor Operator over D2; & Well Point Pump Op.

GROUP 6 - Concrete Batch Plant Operator; Gunite Operator; Tractor Operator D2 or similar size; & Front End Loader Operator, up to 1 cu. yd.

GROUP 7 - Air Compressor Operator 600 CFM or Over; Pump and/or Conveyor Operator; Brakeman; Pick-up Sweeper (1 cu. yd. & over Hopper capacity); Truck Crane Oiler; & Welding Machine Operator, Fireman temporary heat.

GROUP 8 - Mechanical Space Heater (Temporary Heat); Oiler or Greaser; & Elevator Operator

ENGI0049-024 05/01/2005

AREA 1 (METRO): ANOKA, CARVER, CHISAGO (South of the Northern boundary of T. 34-N & that part consisting substantially of the cities of Thomson, Cloquet, Scanlon & Carlton), DAKOTA, HENNEPIN, RAMSEY, SCOTT, SHERBURNE (South of the northern boundary of T. 33-N & East of the Western boundary of R. 27-W),

Enclosure 2 Bureau of Mines Twin Cities Research Center Demolition
ST. LOUIS, WASHINGTON & WRIGHT (East of & inclu. Hwy #25)
COUNTIES

AREA 2 (EASTERN): BENTON (East of the Western right of way of HWY #10), CHISAGO (Remainder), HOUSTON, ISANTI, OLMSTED, SHERBURNE (Remainder), STEARNS (East of the Western right of way of Hwy #15), and WRIGHT (Remainder) COUNTIES

AREA 3 (WESTERN): BENTON (Remainder), POLK, and STEARNS (Remainder) COUNTIES

	Rates	Fringes
Power Equipment Operator (Heavy, Sewer & Water lines)		
AREA 1:		
Group 1.....	\$ 28.77	11.70
Group 2.....	\$ 27.77	11.70
Group 3.....	\$ 27.22	11.70
Group 4.....	\$ 26.92	11.70
Group 5.....	\$ 23.88	11.70
Group 6.....	\$ 22.67	11.70
AREA 2:		
Group 1.....	\$ 26.31	11.70
Group 2.....	\$ 25.31	11.70
Group 3.....	\$ 24.86	11.70
Group 4.....	\$ 24.56	11.70
Group 5.....	\$ 21.99	11.70
Group 6.....	\$ 21.12	11.70
AREA 3:		
Group 1.....	\$ 23.10	11.70
Group 2.....	\$ 22.10	11.70
Group 3.....	\$ 21.17	11.70
Group 4.....	\$ 20.86	11.70
Group 5.....	\$ 19.15	11.70
Group 6.....	\$ 18.55	11.70

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1 - Helicopter Pilot; *Crane with over 135' Boom, excluding Jib; Dragline, Crawler, Hydraulic Backhoe and/or other similar equipment with Shovel-type Controls 3 cu. yds. & over Mfg. rated Cap.; & Pile Driving when 3 Drums are in use

GROUP 2 - Cableway; Concrete Mixer, Stationary Plant over 34E; Derrick (Guy or Stiffleg) (Power) (Skids or Stationary); Diver; Dragline, Crawler, Hydraulic Backhoe and/or similar equipment with Shovel-type Controls, up to 3 cu. yds. Mfg. rated cap.; Dredge or Engineers, Dredge (Power) & Engineer; Front End Loader, 5 cu. yds. & over; Grader or Motor Patrol, Finishing Earthwork & Bituminous; Locomotive Crane; Master Mechanic; Mixer (Paving) Concrete Paving, Road; Mole, including Power Supply; Mucking Machine, including Mucking Operations, Conway or similar type; Piledriving; Refrigeration Plant Engineer; Tandem Scraper; Tractor - Boom type; Truck Crane - Crawler Crane; & Tugboat 100 HP & over

GROUP 3 - Dual Tractor; Elevating Grader; Pumpcrete; Scraper-

Enclosure 2 Bureau of Mines Twin Cities Research Center Demolition
LABO0132-013 05/01/2005

ANOKA, CARVER, CHISAGO, DAKOTA, HENNEPIN, ISANTI, RAMSEY,
 SCOTT, SHERBURNE, WASHINGTON & WRIGHT COUNTIES

	Rates	Fringes
Laborers: (Treatment Plants)		
GROUP 1.....\$ 27.58	9.21	
GROUP 2.....\$ 28.08	9.21	
GROUP 3.....\$ 28.58	9.21	

LABORERS CLASSIFICATIONS

GROUP 1 - Construction Craft Laborer; Flagperson/Traffic Control; Carpenter Tender; Concrete; Damp Proofer Below Grade; Drill Runner Tender; Dumpman - Dirt, Asphalt, Concrete, Cement; Heater Tender; Hot Tar Caulker - Corker; Joist Handler; Material Handler - Power Buggy; Rebar; Snow Blower Operator; Signal Person; Asbestos and Hazardous Waste Technician; Hydro Blast or Waterblast; Chain Saw Operator; Concrete Saw, Drill Operator; Concrete Vibrator; Demolition & Remodeling, Excluding Demolition of an entire Structural System; Mason Tender; Mortar Mixer - Cement or any other substitute Material or Composition; Pipe Handler; Pneumatic & Electric Tool, Jackhammer, Paving Buster, Chipping Hammer, Tamper Operator, etc.; Swing Stage Line Scaffold (Not including Patent" Scaffolding); Torchman - Gas, Electric, Thermal or similar device; & Remote Control Tamper

GROUP 2 - Caisson Work; Mounted Wall Saw Operator; Nozzle Operator - Gunite, Cement, Sandblasting; Pipelayer; Pipe Rehab Technical, including Cleaning, Cutting, Cameraing, etc.; Refractory Worker; Sheeting Setter & Driver, Heavy Building Excavation; Underground Work - Open Ditch or Excavation 8' Below Grade; & Underpinning

GROUP 3 - Driller for Blasting purposes; Dynamite Blaster or substitute products Tovex TR, Water, Gas, Gel, Bristar, Silent Dynamite, etc.

LABO0132-016 05/01/2005

ANOKA, CARVER, CHISAGO, DAKOTA, HENNEPIN, ISANTI, RAMSEY,
 SCOTT, SHERBURNE, WASHINGTON & WRIGHT COUNTIES

	Rates	Fringes
Plasterer tender (Treatment Plants).....\$ 28.03	9.46	

LABO0405-003 05/01/2005

HOUSTON & OLMSTED COUNTIES

TREATMENT PLANTS

	Rates	Fringes
--	-------	---------

Enclosure 2 Bureau of Mines Twin Cities Research Center Demolition

GROUP 4.....	\$ 20.99	8.51
GROUP 5.....	\$ 21.24	8.51
GROUP 6.....	\$ 22.54	8.51
AREA 6:		
GROUP 1.....	\$ 16.59	7.71
GROUP 2.....	\$ 16.79	7.71
GROUP 3.....	\$ 16.94	7.71
GROUP 4.....	\$ 17.04	7.71
GROUP 5.....	\$ 17.29	7.71
GROUP 6.....	\$ 18.59	7.71
AREA 7:		
GROUP 1.....	\$ 14.79	7.31
GROUP 2.....	\$ 14.99	7.31
GROUP 3.....	\$ 15.14	7.31
GROUP 4.....	\$ 15.24	7.31
GROUP 5.....	\$ 15.49	7.31
GROUP 6.....	\$ 16.79	7.31

AREA DESCRIPTIONS

AREA 1 (District 1): ANOKA, CARVER, CHISAGO, DAKOTA, HENNEPIN, ISANTI, RAMSEY, SCOTT, SHERBURNE, WASHINGTON & WRIGHT COUNTIES

AREA 2 (District 2A): ST. LOUIS COUNTY (South of T. 55 N):

AREA 3 (District 2B): ST. LOUIS COUNTY (North of T. 55 N)

AREA 4 (District 3A): BENNTON & STEARNS COUNTIES

AREA 5 (District 3B): HOUSTON & OLMSTED COUNTIES

AREA 6 (District 4): CLAY (Excluding City Limits of Moorhead) & POLK (Excluding City Limits of East Grand Forks) COUNTIES

AREA 7 (ND DC): CLAY (City Limits of Moorhead) and POLK (City Limits of East Grand Forks) COUNTIES

LABORER CLASSIFICATIONS

GROUP 1: Construction; Bituminous Batcherperson (Stationary Plant); Bituminous Worker - Shoveler, Raker, Floater, Squeegee, Utility; Blaster Tender; Brick Tender; Carpenter Tender; Cement Coverperson Batch Truck; Cement Handler - Bulk, Bag; Concrete Batcher person; Concrete Handler, Caisson, Footings, Columns, Piling, Slabs, etc.; Concrete Longitudinal Float Operator (Manual Bullfloat on Paving); Concrete Shoveler, Tamper & Puddler (Paving); Conduit Layer; Curb Setter; Damp Proofer Below Grade; Demolition of an entire Structural System, Excluding Remodeling; Drill Runner Tender; Dump Operator (Dirt, Paver, Dumping Batch Truck, etc.); Fabric Installer; Grade Checker; Hydrant & Valve Setter; Hydro Blast or Waterblaster; Joint Filler (Concrete Pavement); Kettleperson (Bituminous or Lead); Labor Wrecking Demolition; Mortar Mixer; Pipe Handler; Power Buggy Operator; Pump Operator (Less than 6"); Retaining Wall Installation; Sand Cushion Bedmaker; Signal person; Slip Lining of Utility Lines; Soil Stabilizer; Sound Barrier & Guard Rail Installation; Squeegee person;

Enclosure 2 Bureau of Mines Twin Cities Research Center Demolition

Stabilizing Batcher person (Stationary Plant); Temporary Heaters & Blower Tender; Top Person (Sewer, Water or Gas Trench); Traffic Controller (Traffic Barriers) & Transit/Level; Flagperson. Pipelayer, Laser Beam (sewer, water, gas) \$1.50 above Group 1 rate. Blasting Person (dynamite or substitute products) \$3.00 above Group 1 rate.

GROUP 2: Chain Saw; Compaction Equipment (Hand Operated or Remote Control); Concrete Drilling; Concrete Mixer Operator; Concrete Sawer; Concrete Vibrator; Ditch & Other Work more than 8' Below starting level of manual work; Formsetter; Joint Sawer, Mortar; Pipe Fuser/Technician; Pneumatic Tools, Jackhammer, Paving Buster, Chipping Hammer, etc.; Remote Control Demo Machine & Related Accessories (Electric/Hydraulic); Stone Tender/Mason Tender; & Torchperson - Gas, Electric, Thermal or Similar Device

GROUP 3: Brick or Block Paving Setter; Caisson Work; Cofferdam Work

GROUP 4: Bottom person (Sewer, Water or Gas Trench - More than 8' Below starting level or manual Work); Cement Gun Operator (1 1/2" or Over); Driller - Air Track or Similar; & Nozzle Operator (Gunite, Sandblasting, Cement)

GROUP 5: Asbestos & Hazardous Waste Tech; Tunnel Laborer; Tunnel Miner; Tunnel Miner Tender; Underground Laborer; & Underpinning

GROUP 6: Tunnel Miner Under Pressure

LABO0580-002 04/19/1999

CLAY (Moorhead) & POLK (East Grand Forks) COUNTIES

Rates	Fringes
-------	---------

Laborer (Treatment Plants) Common Laborer; Concrete Bucket; Power Tool Operator; Mortar Mixer; Brick & Plasterers' Tender; Jackhammer Work; Hod Carrier; Non-Metallic Pipe Layer; Gas Line Wrapping or Taping; Cutting Torch for Demolition; Sandblaster & Gunnite Pot Tender; & Hose Tender.....\$ 14.05	4.34
---	------

LABO1091-002 05/01/2005

ST. LOUIS COUNTY (South of T 55 N)

Rates	Fringes
-------	---------

Laborers: (Treatment Plants) GROUP 1.....\$ 22.48	8.51
--	------

Page 19 of 34

<http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=Davis-Bacon&docid=MN20...> 10/26/2005

Enclosure 2 Bureau of Mines Twin Cities Research Center Demolition

GROUP 2.....	\$ 22.63	8.51
GROUP 3.....	\$ 22.88	8.51
GROUP 4.....	\$ 23.18	8.51
GROUP 5.....	\$ 20.58	8.51

LABORER CLASSIFICATIONS

GROUP 1: General; Carpenter Tender; Concrete Laborer; Damp Proofer Below Grade; Drill Runner Tender; Dumpman - Dirt, Asphalt, Concrete, Cement; Heater Tender; Hot Tar Caulker - Corker; Joist Handler; Rebar; Snow Blower Operator; Signalperson; Material Handler (All types Power Buggy); Fire Control; Asbestos Removal; & Hazardous Waste

GROUP 2: Chain Saw Operator; Concrete Saw, Drill Operator; Concrete Vibrator; Demolition & Wrecking, Excluding Remodeling; Gunite, Sandblasting Machine Operator; Mason Tender; Mortar Mixer - Cement or any other substitute material or composition; Pipe Handler; Pneumatic & Electric Tools, Jackhammer, Paving Buster, Chipping Hammer, Tamper Operator, etc.; Swing Stage Line Scaffold (not including "patent" scaffolding); Torchman - Gas, Electric, Thermal or similar device; & Hydroblast

GROUP 3: Caisson Work; Nozzle Operator - Gunite, Cement, Sandblasting; Pipelayer; Refractory Worker; Sheeting Setter & Driver, Heavy Building Excavation; Underground Work - Open Ditch or Excavation 8' Below Grade; Underpinning; & Hod Carrier

GROUP 4: Driller for Blasting Purposes; Dynamite Blasters or substitute products Tovex TR, Water, Gas, Gel, Bristar, Silent Dynamite, etc.; Asbestos Abatement Worker; & Hazardous Waste Worker

GROUP 5: Flagperson

LABO1091-004 05/01/2005

POLK & ST. LOUIS COUNTIES

Rates	Fringes
-------	---------

Laborer (Asbestos Abatement) ...\$ 23.45	8.11
--	------

LABO1097-002 05/01/2005

TREATMENT PLANTS

POLK COUNTY (Excluding the city limits of East Grand Forks):

Rates	Fringes
-------	---------

Laborers: (Projects over \$760,000:)	
GROUP 1.....\$ 17.33	8.31
GROUP 2.....\$ 17.73	8.31
GROUP 3.....\$ 17.93	8.31

Laborers: (Projects under \$760,000:)

Page 20 of 34

<http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=Davis-Bacon&docid=MN20...> 10/26/2005

Enclosure 2 Bureau of Mines Twin Cities Research Center Demolition

GROUP 1.....	\$ 14.95	8.31
GROUP 2.....	\$ 15.29	8.31
GROUP 3.....	\$ 15.46	8.31

LABORER CLASSIFICATIONS

GROUP 1: Construction; Carpenter Tender; Concrete; Damp Proofer Below Grade; Dump Person - Dirt, Asphalt, Concrete & Cement; Heater Tender; Hot Tar Caulker - Corker; Joist Handler; Material Handler - Power Buggy; Rebar; Signal Person; Snow Blower; Chain Saw; Concrete Vibrator; Demolition & Wrecking, Excluding Remodeling; Mason Tender; Mortar Mixer - Cement or Any Other Substitute Material or Composition; Pipe Handler; Pneumatic & Electric Tool, Jackhammer, Paving Buster, Chipping Hammer, Tamper Operator, etc.; Swing Stage Line Scaffold (Not including "Patent" Scaffolding); & Torch Person - Gas, Electric, Thermal or similar device; Scrapping, Sweeping & Clean-up; Skid Steer, Forklift (Incidental Use)

GROUP 2: Creosote Handler; Caisson Work; Concrete Saw Drill; Nozzle Operator - Gunite, Cement, Sandblasting; Pipelayer; Sheeting Setter & Driver, Heavy Building Excavation; Underground Work - Open Ditch or Excavation 8' Below Grade; Underpinning; & High Pay/Low Pay - 40 ft. over or Under Ground Floor without Conventional Floor Areas; Pipe-Rehab Technician, including Cleaning, Cutting, Camering, etc.; Wall Mounted Saw Operator

GROUP 3: Driller for Blasting Purposes; Dynamite Blaster or substitute products; & Tovex TR, Water, Gas, Gel, Bristar, Silent Dynamite, etc.

GROUP 4: Flagperson

LABO1097-004 05/01/2005

ST. LOUIS COUNTY (North of T 55 N)

Rates	Fringes
-------	---------

Laborers: (Treatment Plants)		
GROUP 1.....	\$ 21.42	8.96
GROUP 2.....	\$ 21.82	8.96
GROUP 3.....	\$ 22.12	8.96
GROUP 4.....	\$ 23.42	8.96

LABORERS CLASSIFICATIONS

GROUP 1 - Construction; Carpenter Tender; Concrete; Damp Proofer Below Grade; Dump Person - Dirt, Asphalt, Concrete & Cement; Flagperson; Heater Tender; Hot Tar Caulker - Corker; Joist Handler; Material Handler - Power Buggy; Rebar; Signal Person; & Snow Blower Operator; Chain Saw Operator; Concrete Vibrator; Demolition & Wrecking, Excluding Remodeling; Mason Tender; Mortar Mixer - Cement or Any Other Substitute Material or Composition; Pipe Handler; Pneumatic & Electric Tool, Jackhammer, Paving Buster, Chipping Hammer, Tamper Operator, etc.; Swing Stage Line Scaffold (Not including "Patent" Scaffolding); & Torch

Enclosure 2 Bureau of Mines Twin Cities Research Center Demolition

AREA 4 (District 4): BENTON, CHISAGO (North of T. 34-N),
CLAY, ISANTI, POLK & STEARNS COUNTIES

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Boom; Mechanic; Off-Road, including Articulated
Dump Truck; Tractor Trailer; Winch Truck

GROUP 2 - Tri Axles (Including Four Axles)

GROUP 3 - Bituminous Distributor; Bituminous Distributor (One
man operation); Tandem Axles; & Single Axles

GROUP 4 - Bituminous Distributor Spray Operator (Rear and
Oiler); Dumpman; Pilot Car; Self-propelled Packer; Slurry
Operator; Tank Truck Tender (Gas, Oil, Road Oil & Water);
Tractor Operator (Wheel type used for any purpose)

THE FOLLOWING CLASSIFICATIONS SHALL COME UNDER THE
APPROPRIATE AXLE RATE WAGE GROUP:
"A" Frame; Dry Batch Hauler; Ready-Mix Concrete; Slurry; Tank
(Gas, Oil, Road Oil & Water)

TEAM0221-004 06/01/2002

Rates	Fringes
-------	---------

Truck drivers: (Landscape) Single Axles & Farm Tractors\$ 14.20	6.20
Truck drivers: Tandem Axles.....\$ 14.35	6.20
Truck-Train Combination....\$ 14.50	6.20

TEAM0346-004 05/01/2003

ANOKA, CARVER, CHISAGO (Southern half), DAKOTA, HENNEPIN,
RAMSEY, ST. LOUIS, SCOTT, SHERBURNE, WASHINGTON & WRIGHT
COUNTIES

Rates	Fringes
-------	---------

Truck drivers: (Treatment Plants)	
GROUP 1.....\$ 22.65	6.75
GROUP 2.....\$ 22.10	6.75
GROUP 3.....\$ 22.00	6.75
GROUP 4.....\$ 21.75	6.75

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Boom Truck

GROUP 2: Ready Mix, Tractor Trailor

GROUP 3: Fork Lift, Mechanic, Tandem or 3 axle Truck

GROUP 4: Dumpman, Farm Tractor, Single or 2 axle Truck

TEAM0405-003 05/01/2005

Page 32 of 34

<http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=Davis-Bacon&docid=MN20...> 10/26/2005

APPENDIX G

**RE: Building Removal Estimate for Former Bureau of Mines Twin Cities Research
Center, Fort Snelling, Minnesota
January 17, 2006**

ENCLOSURE 3
RS MEANS COSTWORKS ® 2005 OVERHEAD AND PROFIT SCHEDULE

Installing Contractor's Overhead & Profit

Below are the average installing contractor's percentage mark-ups applied to base labor rates to arrive at typical billing rates.

Column A: Labor rates are based on union wages averaged for 30 major U.S. cities. Base rates including fringe benefits are listed hourly and daily. These figures are the sum of the wage rate and employer-paid fringe benefits such as vacation pay, employer-paid health and welfare costs, pension costs, plus appropriate training and industry advancement funds costs.

Column B: Workers' Compensation rates are the national average of state rates established for each trade.

Column C: Column C lists average fixed overhead figures for all trades. Included are Federal and State Unemployment costs set at 6.2%; Social Security Taxes (FICA) set at 7.65%; Builder's Risk Insurance costs set at 0.44%; and Public Liability costs set at 2.02%. All the percentages except those for Social Security Taxes vary from state to state as well as from company to company.

Enclosure 3

Columns D and E: Percentages in Columns D and E are based on the presumption that the installing contractor has annual billing of \$4,000,000 and up. Overhead percentages may increase with smaller annual billing. The overhead percentages for any given contractor may vary greatly and depend on a number of factors, such as the contractor's annual volume, engineering and logistical support costs, and staff requirements. The figures for overhead and profit will also vary depending on the type of job, the job location, and the prevailing economic conditions. All factors should be examined very carefully for each job.

Column F: Column F lists the total of Columns B, C, D, and E.

Column G: Column G is Column A (hourly base labor rate) multiplied by the percentage in Column F (O&P percentage).

Column H: Column H is the total of Column A (hourly base labor rate) plus Column G (Total O&P).

Column I: Column I is Column H multiplied by eight hours.

Abbr.	Trade	A		B	C	D	E	F	G	H	I
		Hourly	Daily	Workers' Comp. Ins.	Average Fixed Over- head	Over- head	Profit	Total Overhead & Profit		Rate with O & P	
								%	Amount	Hourly	Daily
Skwk	Skilled Workers Average (35 trades)	\$34.85	\$278.80	16.2%	16.3%	13.0%	10%	55.5%	\$19.35	\$54.20	\$433.60
	Helpers Average (5 trades)	25.55	204.40	18.2		11.0		55.5	14.20	39.75	318.00
	Foreman Average, Inside (\$5.50 over trade)	35.35	282.80	16.2		13.0		55.5	19.60	54.95	439.60
	Foreman Average, Outside (\$2.00 over trade)	36.85	294.80	16.2		13.0		55.5	20.45	57.30	458.40
	Common Building Laborers	26.70	213.60	18.4		11.0		55.7	14.85	41.55	332.40
Clab	Asbestos/Insulation Workers/Pipe Coverers	37.10	296.80	15.5		16.0		57.8	21.45	58.55	468.40
	Boilermakers	42.90	343.20	13.7		16.0		56.0	24.00	66.90	535.20
	Bricklayers	35.25	282.00	15.1		11.0		52.4	18.45	53.70	429.60
	Bricklayer Helpers	26.90	215.20	15.1		11.0		52.4	14.10	41.00	328.00
	Carpenters	34.25	274.00	18.4		11.0		55.7	19.10	53.35	426.80
Cefi	Cement Finishers	32.85	262.80	9.9		11.0		47.2	15.50	48.35	386.80
	Elec	40.75	326.00	6.5		16.0		48.8	19.90	60.65	485.20
	Elev	45.05	360.40	7.6		16.0		49.9	22.50	67.55	540.40
	Eqhv	35.90	287.20	10.4		14.0		50.7	18.20	54.10	432.80
	Eqmd	34.65	277.20	10.4		14.0		50.7	17.55	52.20	417.60
Eqjt	Equipment Operators, Light Equipment	33.05	264.40	10.4		14.0		50.7	16.75	49.80	398.40
	Eqpl	30.10	240.80	10.4		14.0		50.7	15.25	45.35	362.80
	Eqmm	36.20	289.60	10.4		14.0		50.7	18.35	54.55	436.40
	Glaz	33.00	264.00	13.9		11.0		51.2	16.90	49.90	399.20
	Lath	31.45	251.60	10.9		11.0		48.2	15.15	46.60	372.80
Marb	Marble Setters	33.20	265.60	15.1		11.0		52.4	17.40	50.60	404.80
	Millwrights	35.50	284.00	10.4		11.0		47.7	16.95	52.45	419.60
	Mstz	32.65	261.20	9.7		11.0		47.0	15.35	48.00	384.00
	Pord	30.60	244.80	13.1		11.0		50.4	15.40	46.00	368.00
	Psst	31.00	248.00	46.8		11.0		84.1	26.05	57.05	456.40
Pape	Paper Hangers	30.30	242.40	13.1		11.0		50.4	15.25	45.55	364.40
	Pile Drivers	33.30	266.40	22.5		16.0		64.8	21.60	54.90	439.20
	Plas	31.35	250.80	14.9		11.0		52.2	16.35	47.70	381.60
	Plah	27.10	216.80	14.9		11.0		52.2	14.15	41.25	330.00
	Plum	40.85	326.80	8.0		16.0		50.3	20.55	61.40	491.20
Rodm	Rodmen (Reinforcing)	37.95	303.60	24.7		14.0		65.0	24.65	62.60	500.80
	Rofc	29.45	235.60	33.1		11.0		70.4	20.75	50.20	401.60
	Rots	29.70	237.60	33.1		11.0		70.4	20.90	50.60	404.80
	Rohe	21.60	172.80	33.1		11.0		70.4	15.20	36.80	294.40
	Shee	40.20	321.60	11.5		16.0		53.8	21.65	61.85	494.80
Spri	Sprinkler Installers	40.75	326.00	8.8		16.0		51.1	20.80	61.55	492.40
	Stpi	40.95	327.60	8.0		16.0		50.3	20.60	61.55	492.40
	Ston	35.30	282.40	15.1		11.0		52.4	18.50	53.80	430.40
	Sswk	38.15	305.20	38.6		14.0		78.9	30.10	68.25	546.00
	Tif	32.70	261.60	9.7		11.0		47.0	15.35	48.05	384.40
Tih	Tile Layers	25.35	202.80	9.7		11.0		47.0	11.90	37.25	298.00
	Trlt	26.80	214.40	15.2		11.0		52.5	14.05	40.85	326.80
	Trhv	27.55	220.40	15.2		11.0		52.5	14.45	42.00	336.00
	Sswl	38.15	305.20	38.6		14.0		78.9	30.10	68.25	546.00
	Wrck	26.70	213.60	39.5		11.0		76.8	20.50	47.20	377.60

*Not included in averages

APPENDIX G