FINAL REPORT

OCT 0 9 2001

1999 Project Abstract
For the Period Ending June 30, 2001

Title: Construction and Demolition Waste Abatement Demonstration Project
Project Manager: **Robert Alf (Michael Krause as Backup)**
Organization: **Green Institute DeConstruction Services Program**
Address: **2216 E. Lake St.; Minneapolis, MN 55407**
Fund: **Future Resources Fund**
Legal Citation: **ML 99, Ch.231, Section 16, Subd. 7(s)**

Appropriation Amount: **$250,000**

Results - The project helped build a model community-based enterprise that diverted approximately 8,000 cubic yards of construction and demolition debris from landfills to be reused in construction markets. Labor fee oriented deconstruction was the most cost effective in the short term versus relying solely on the resale of materials for revenues. Case studies in June 2001 show that residential labor fee jobs averaged 190 % coverage of variable costs while non-labor fee jobs covered less than 100 % . However, there were not enough labor fee jobs available to sustain operations. This highlights the importance of determining the most efficient method of selling materials. Selling directly from sites proved more efficient than selling through the retail outlet or the warehouse. Each dollar of site sales returned $0.50 to pay for the deconstruction process while Warehouse sales returned $0.29 and retail sales returned < $0.17. Each location served distinct customers resulting in greater cumulative revenues - from $112,000 annually before project start to $185,000 in year 1 and $241,000 in year 2 of the project. Operating revenues funded only 41% of wages/benefits at project start but grew to 70% by project end. This resulted in a more sustainable enterprise that can be replicated elsewhere in Minnesota. As an on-going enterprise, the deconstruction program will continue to benefit

Dissemination - An estimated 50,000+ Minnesotans received direct project information. The project received significant public attention through airing of a public radio segment both in Minnesota and nationally. Two network news programs and one cable show also produced segments that were aired and viewed by thousands. The result was significant phone demand for information plus invitations to present at seminars and to provide tours. Finally, indirect information went to as many as 1,000 deconstruction customers. Requests for information and dissemination of results will continue long after conclusion of the project.

Date of Report: July 1, 2001

LCMR Final Work Program Report:

I. PROJECT TITLE: Construction and Demolition Waste Abatement Demonstration Project

Project Manager: Robert Alf (Michael Krause as Backup)
Affiliation: Director of DeConstruction Services, The Green Institute
Mailing Address: 2216 E. Lake Street, Minneapolis, MN 55404
Telephone Number: 612-728-9388 **E-Mail:** bobalf@reusecenter.org **Fax:** 612-724-2288
Web Page Address: greeninstitute.org

Total Biennial Project Budget:

$ LCMR:	$250,000.00	**$ Match:**	$0.
-$LCMR Amount Spent:	$247,750.86	**-$Match Amount Spent:**	0.
=$LCMR Balance:	$2,249.14	**=$ Match Balance:**	$0.

A. Legal Citation: ML 99, Ch. 231, Section 16, Subd. 7(s)
Appropriation Language:
(s) Construction and Demolition Waste Abatement Demonstration Project $250,000 is from the Future Resources Fund to the director of the Office of Environmental Assistance for an agreement with The Green Institute to field test building salvage strategies, expanding markets for salvaged materials, and creating a community-based enterprise model.

B. Status of Match Requirement: No Match Required.

II. & III. FINAL PROJECT SUMMARY

Results - The project helped build a model community-based enterprise that diverted approximately 8,000 cubic yards of construction and demolition debris from landfills to be reused in construction markets. Labor fee oriented deconstruction was the most cost effective in the short term versus relying solely on the resale of materials for revenues. Case studies in June 2001 show that residential labor fee jobs averaged 190 % coverage of variable costs while non-labor fee jobs covered less than 100 % . However, there were not enough labor fee jobs available to sustain operations. This highlights the importance of determining the most efficient method of selling materials. Selling directly from sites proved more efficient than selling through the retail outlet or the warehouse. Each dollar of site sales returned $0.50 to pay for the deconstruction process while Warehouse sales returned $0.29 and retail sales returned < $0.17. Each location served distinct customers resulting in greater cumulative revenues - from $112,000 annually before project start to $185,000 in year 1 and $241,000 in year

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IV. OUTLINE OF PROJECT RESULTS:

Result 1: Field Testing of Strategies

Deconstruction Services (DCS) is the business name that the Green Institute's deconstruction program operates under. DCS tested numerous strategies for how to structure dismantling jobs with property owners. Most property owners preferred to contract directly with DCS versus having their construction general contractor involved. This no doubt helped ensure that their general contractor did not increase any of their costs for dealing with DCS. There appeared to be few issues with this strategy once DCS completed development and implementation of standard contracts. Once presented with the contract, property owners appeared to become assured of a professional and safe approach to their project with DCS.

On only a few occasions, DCS was hired as a sub-contractor by a general contractor to perform significant deconstruction before a remodel. These jobs were generally profitable to DCS as they were contracted on a time/materials basis and therefore did not depend upon later sales of materials to pay for variable costs. The advantage to the contractor is lower demolition costs plus their customer receives a tax deduction for materials reclaimed. However, the over-heated construction climate in 2000 and 2001 has resulted in fewer contractors viewing this option as desirable because there is a "learning curve" to informing the DCS Crew Leader what needs to be done. Even though this may result in higher margins for the contractor, most felt "it was just easier to do it (the demolition) ourselves. It is possible that this strategic option may increase over time as the over heated construction market slows and contractors look for more cost effective means to perform the low-skilled demolition phases of their jobs.

Another strategic option considered was for DCS to act as general contractor for full of a structure. The hypothesis was that this would allow for more control over the deconstruction phase thus resulting in more efficiency of materials removal and even site sales of materials. However, due to the over-heated construction market discussed above, DCS was unable to find interested demolition firms to participate as the demolition subcontractor. Toward the end of the project, DCS was able to define an informal partnership with VP Enterprises (demolition firm) to perform remainder demolition after a partial decon and this will likely to happen in later 2001. DCS will likely achieve higher economic efficiency not only due to the greater control over the deconstruction phase but since they will be able to share in the benefits of reduced demo costs. Lower debris volumes results in lower tipping fees and lower machinery and labor costs to remove. Most demolition firms do not fully pass along these savings to the homeowner thereby resulting in increased margins for the demo firm. The above demo firm has agreed to split these cost savings with DCS thereby increasing both their margins and benefiting DCS.

A hybrid strategy was defined and tested in early 2001. This strategy was to act as a "specialty deconstruction contractor". For example DCS would get paid by kitchen remodelers to remove cabinets before a kitchen remodel. Since DCS is extremely experienced in removing cabinets, they were able to charge a kitchen remodeler far less than it would cost the remodel to have their own carpenters perform the removal. DCS received a labor fee that more than covered their variable costs plus received cabinets that are one of the most desirable products sold through it's retail outlet. It is estimated that these jobs returned approximately 200% of the variable costs incurred thus providing significant coverage of fixed costs. This strategy is still new so there is still low but growing demand for this service (approximately 10% of crew time). It appears likely that growth in this area will provide significant advancements in self-sufficiency of the deconstruction operation. Another area that this targeted deconstruction has succeeded is in removing hardwood floors for remodelers or flooring contractors.

The results are significant in showing that labor-fee oriented deconstruction is most cost-effective. New operations may be limited in this option until a reputation for professional results is achieved. In addition, this option appears to have more appeal to the market when the construction economy is moderate to low versus over-heated.

Project hindsight would point to several strategies that would have been helpful:

1. Advertise the deconstruction service to selected customers more likely to be labor-fee oriented (versus broad advertising)
2. Help define an option for customers to calculate their potential tax deduction from a project versus leaving this completely undefined for them. The result would be greater demand for the service thus allowing for greater fee generation.

Result 1 Expenditures (See Atttachment B) *$123,885.22*

Result 2: Market Expansion for Reusable Materials

There appears to be an unlimited supply of structures for deconstruction – the key to a sustainable deconstruction enterprise is to sell the materials at high enough prices to cover both the dismantling costs and selling costs. Several operations in the Twin Cities perform effective salvage and resale but they generally have a narrow focus on specialty materials such as architectural woodwork or large beams. DCS's niche is to dive deeper into the dismantling of a structure and sell a broad range of materials thus providing a model with the potential for growth beyond the limited supply of the "specialty salvage materials". This translates into highly leveraged possibilities for waste abatement and reuse.

The project sought to expand the market for sales of reclaimed materials **at the same pace as** expanding capacity of deconstruction operations. This ensured that materials reclaimed would not simply sit in a warehouse or store for long periods of time accruing significant "carrying costs". In addition, it ensured that those interested in buying materials would not become frustrated by lack of supply.

The best measure of market expansion results from this project is by looking at total sales of deconstructed materials. Gross sales were as follows:

	Before LCMR (7/1/98-6/30/99)	Proj Yr 1 (7/1/99-6/30/00)	Proj Yr 2 (7/1/00-6/30/01)
Materials Sales (*)	$114,000	$187,000	$234,000
Incr from Pior Yr		64%	25%
Incr from 6/30/99		64%	205%

* Assumes sale of materials from the deconstruction program to our retail outlet at 25% of estimated sale price

Materials sales were conducted through three different outlets: directly on-site, warehouse (for bulk materials), and a retail store (ReUse Center). One project strategy was to emphasize site sales since they would have the lowest associated costs. Selling through the other two outlets require more bundling, loading, transporting, unloading, inventorying, displaying and advertising costs. As reported in Section II, site sales returned $0.50 to pay for the deconstruction process while Warehouse sales returned $0.29 and retail sales returned < $0.17. Site sales also had the advantage deriving hiring prices for some materials since the customer could actually see the materials in a fully intact "displayed" status. Once certain items were removed for later resale (i.e. cabinets), the sales price typically needed to drop. The offsetting disadvantage to site sales was the restriction of time. Customers need to preview, purchase and pickup the materials within a short period of time. This frequently reduced the number of customer requests willing/capable of considering a purchase. Hindsight shows that an

automated database of customer requests would have significantly improved the efficiency of the site sales specialist and possibly put added upward pressure on materials prices. The final hindsight strategy that should be considered is to increase sales and marketing resources for site sales. Before investing in sales from a warehouse or retail store, much more significant investments should be made in site sales since this appears to have the greatest return on investment.

Another disadvantage of site sales was for bulky, low-margin items like lumber. Such items are generally purchased by individuals very close to the time they need to use them which does not fit well with the "need to buy now" characteristic of site sales. The reason is that bulky, low-margin items are more difficult and therefore expensive to store until future use whereas; smaller, higher-margin items like doors and cabinets can easily be stored by the buyer until installation occurs. This leads to the need to warehouse these bulky, low-margin items so that customers can purchase them when needed.

The ReUse Warehouse was opened toward the end of 1999 to meet the need of storing and selling bulk items while incurring the lowest carrying costs. Selling these bulk items through the ReUse Center retail store was not logical since the cost per square foot of storage was much higher in the retail store versus a warehouse. In addition, a warehouse offers much greater drive-in loading and unloading as compared to a retail store. The warehouse was not heated or cooled and was not staffed for sales. Sales were by appointment or during "open-house" hours on Saturday's. The highest volume sales were for Douglas Fir lumber and large batches of hardwood flooring. Both of these materials were readily available on deconstruction sites so customers could come to rely upon the inventory.

Some of the issues encountered with the warehouse operation were as follows:

- Too cold in January and February for most customers
- Lighting needed to be added otherwise TOO DARK for buyers
- Training deconstruction crew to load deliveries into the warehouse neatly and logically since later moving/organizing of inventory very costly
- Need for more regularly staffed sales hours – customers want immediate access without calling first
- Some theft occurred due to common access to warehouse by other tenants
- Many customers needed lumber cut into different sizes or planed to help "clean it up"

One strategy implemented was to offer "lumber redressing" which consisted of using a table saw, band saw and planer to meet specific customer needs. The result was to generate nearly $30,000 of lumber sales in the second year of the project that would have likely not been possible. One of the projects that utilized a significant quantity of redressed lumber was for the construction of two new

single-family homes by Rondo Community Land Trust. DCS was one of the project partners that received a Heritage Preservation Award for the project and the incorporation of redressed lumber was central to this success. Finally, the Redressing Operation and the Rondo houses will receive significant exposure by Channel 11 sometime in September 2001. Belinda Jensen filmed a "News Extra" piece showing off the deconstruction, redressing and Rondo housing efforts.

It appears that lumber resale through the warehouse and enhanced by redressing services is poised for continued significant growth. The media coverage and industry awards received will provide continued consumer interest. In addition, a larger and higher quality inventory has been accumulated to provide the basis for this growth. Another strategy to increase sales of higher-margin lumber has been implemented and expected to generate significant results in 2001 and 2002. This strategy is to specially package and promote high quality woods such as Redwood and Cedar. Redwood and Cedar lumber was once highly desired by the building industry but high prices and environmental concerns of deforestation have reduced that demand. Sale of reclaimed Redwood and Cedar eliminates these two concerns and offers the highest margin of lumber sales possible.

Result 2 Expenditures (See Attachment B) *$64,604.17*

Result 3: Create a Model Community-Based Enterprise

Many policies, procedures, and forms (i.e. invoices, bid-forms, etc.) were created during the project that provide the basis for a replicable enterprise elsewhere within Minnesota. The most important aspect of such an enterprise is that it be sustainable on its own program operational revenues. The best measure of sustainability results achieved is the comparison of "revenues generated" to "wages/benefits expended". The obvious goal was to increase revenues generated at a pace faster than the related personnel expense. The following table shows the positive results:

	Before LCMR (7/1/98-6/30/99)	Proj Yr 1 (7/1/99-6/30/00)	Proj Yr 2 (7/1/00-6/30/01)
Revenues (*)	$149,000	$221,000	$269,000
Wages/Benefits	$367,000	$403,000	$382,000
Ratio	41%	55%	70%

* Assumes sale of materials from the deconstruction program to our retail outlet at 25% of estimated sale price

Although the deconstruction operation did not achieve self-sustaining status by the end of this project, the above strategies and results show momentum that will likely achieve sustainability within another 12-24 months. The deconstruction program will continue to share it's operational information with Minnesota communities and other organizations. In addition, fourteen community-based

jobs will continue where none would have otherwise existed and thousands of cubic yards of construction/demolition debris will continue to diverted from landfills and provide affordable raw materials for much needed housing development.

Result 3 Expeditures (See Attachement B) *$59,261.48*

V. PROJECT DISSEMINATION

Project Manager Robert Alf presented project information each year at the Minneapolis/St. Paul Home Show at a booth with the Minnesota Office of Environmental Assistance. Hundreds of attendees directly discussed project efforts or received project information. Other examples of significant sharing of project information are as follows:

- Executive Director Michael Krause gave a presentation on the deconstruction project at conference on "Natural Capitalism" October 2000
- Deconstruction presentation given at the RAM/SWANA Fall Conference 2000
- Information on project was given to attendees of AIA Heritage Preservation Award Ceremony Spring 2001
- Provided tours and written project information to attendees of Mpls/St. Paul Home Tour at 818 Marshall Ave.; St, Paul where significant quantities of reclaimed materials were installed in a new house
- Gave a tour of operations to 15 city representatives from Anoka County in Oct of 2000
- Provide project information at a Booth at Minneapolis Pride Celebration 1999
- Minnesota Public Radio (MPR) produced and aired a special about the deconstruction program in 1999
- National Public Radio aired the MPR special in 1999
- News story on Twin Cities Channel 4
- New story on Channel 11 Taped in Fall 2000 to be aired in 2001
- Video about project by Environmental Journal shown on Twin Cities Cable station
- Gave information at MacGroveland Home Improvement Fair 1999 & 2000
- Provided information via phone to U of M Students
- Local architectural/engineering firm LHB interviewed us to present at EnvironDesign4 conference in Colorado
- Provided technical information to Brian Lee of Duluth who was wanting to start a salvage business
- Provided project information to Kirk Puncochar- he worked for an engineering firm helping a 3 county project to facilitate deconstruction in Northwest MN because of full landfills
- Provided case study info to MPCA's Cindy Hilmoe

- Provided technical information to Eric Hart of Community Eco-Design Network in Mpls
- Gave tour and project information to a group from Women In Trades April 2000
- Provided deconstruction/salvage advice to developers of Sears Building in Mpls
- Provided information to Dennis Mahoney of Mpls to help in his independent salvaging business
- Provided significant operational information to Hennepin County's Environmental Services Division
- Also provided information to dozens of outstate business, news organizations and individuals that contacted us

VI. CONTEXT

Significance. The Solid Waste Coordinating Board estimated that in 1994 nearly 800,000 tons of construction and demolition debris was being generated in the metropolitan area alone. Most of this waste is going into area landfills. If the metro area is not able to begin to reduce the rate of growth in the waste stream, additional multi-million dollar processing facilities for solid waste may be needed early in the next decade. Deconstruction offers a cost-effective means of reducing the waste stream while creating training-oriented jobs at living wages with benefits. In addition, material that is reused represents a significant savings in the embodied energy that is in new virgin materials. The Green Institute was awarded a $50,000 grant in June 1997 from the Office of Environmental Assistance to establish a deconstruction program and a $250,000 grant from the U.S. Environmental Protection Agency in March 1998. The Institute's deconstruction crews have undertaken a variety of projects including residential and commercial structures and ranging from full deconstruction to partial salvage of reusable materials. On some projects, crews have been able to salvage and sell for reuse as much as 75 percent of the materials in a structure. The model for a cost-effective enterprise that can reduce waste and create jobs is emerging from the work of the Green Institute. The LCMR funding helped to consolidate that work, expand the environmental impact of deconstruction and disseminate information to facilitate other deconstruction efforts. The Institute's deconstruction operations have continued beyond the project's two year timeline and will become self-sustaining within 18 months. At the time that LCMR funding was requested, the deconstruction program had been in operation for less than six months. As mentioned, it has received funding from OEA and the U.S. EPA. The project also produces program revenues from the sale of salvaged materials and fees paid by building owners when they opt to keep the materials for their own use. Program revenues before the project began were approximately $112,000 for the twelve months ended 6/30/99. These revenues fund direct costs associated with the deconstruction crews. Program revenues in the first year of the project (7/1/99-6/30/00) were $185,000 and for Year 2 (7/1/00-6/30/01) were

$241,000. Crew members started at $8.70 an hour and received a full employer-paid benefit package and frequently an hourly raise after 60 days. Because the Green Institute is a Minnesota non-profit corporation, the program offered taxpayers a receipt for an in-kind contribution to a non-profit when they donate a structure or materials.

VII. **COOPERATION:** No direct project partners were initially identified for this project however, several partnerships naturally developed. The first was with the St. Paul Neighborhood Energy Consortium's "WoodWins Program". As a non-profit program, WoodWins' goal was to create and sell outdoor furniture from materials that would have been landfilled. Deconstruction Program Director Bob Alf sat on the WoodWin's Advisory Committee and provided technical advice related to materials and construction. In addition, WoodWins purchased significant quantities of lumber from the Institute's deconstruction program for use in manufacture of the outdoor furniture. WoodWins has sold thousands of units of furniture to date and hopes to create a sustainable enterprise.

Another significant partnership was developed with St. Paul's Rondo Community Land Trust (RCLT). RCLT develops affordable housing in St. Paul and approached the deconstruction program with a goal of adding environmental sustainability to it's projects. Deconstruction Program Director Bob Alf worked closely with RCLT, architects and contractors to define appropriate materials to be integrated into the blueprints for two new single-family dwellings on Marshall Avenue. The result was the successful completion of two new houses that RCLT has sold as affordable housing that included over $20,000 of reclaimed building materials. High quality reclaimed materials such as clear Redwood lumber, Douglas Fir lumber, Cedar lumber, paneled doors with brass/cut-glass knobs, Oak flooring, and Maple flooring were utilized. The subsequent quality of construction and final appearance that matched the historic character of the neighborhood earned a "Historic Preservation Award". See attached award certificate. The deconstruction program, RCLT, Cermak Rhoades Architects and BCB Construction each received this award from the St. Paul Chapter of the American Institute of Architects. Such success has led to significant plans for continuing the relationship of the deconstruction program with RCLT.

VIII. LOCATION: All of the deconstruction projects were in the Twin Cities area with a majority being in Minneapolis and western suburbs. It is difficult to say why a higher percentage of request for deconstruction came from the Western half of the Metro area. It is possible that since the first few major deconstruction projects happened to occur in that area, subsequent referrals were significantly located there as well. The customer base for reusable materials is regional with customers coming from as far away as the St. Cloud area and Winona.. The project significantly reduced the flow of waste into landfills thus benefiting many

areas of Minnesota with landfill operations.

Attachment A

Tax Deductible Donations

The ReUse Center: Do you have good quality materials that you would like to donate and keep out of landfills? The Reuse Center accepts reusable building materials. You receive a tax deductible receipt. Please contact the store at 612-724-2608 before bringing any items in.

DeConstruction Services: Are you considering replacing your cabinets, renovating, or completely taking down your house? We may be able to reduce your costs. You may also be able to claim a tax deduction for materials we salvage. We specialize in reclaiming building materials to keep them out of landfills. Think about us when thinking about your project. Call 612-728-9388 for more inquires.

Funding

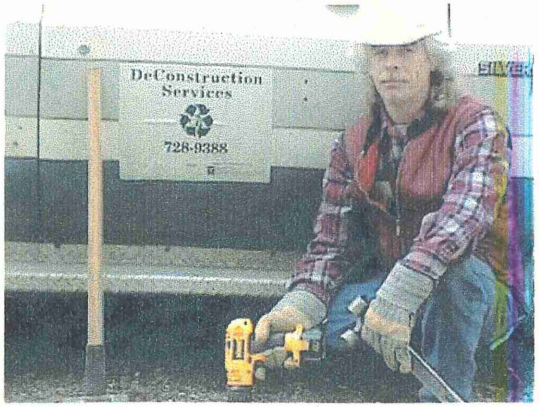
Funding provided by the Minnesota Future Resources Fund as recommended by the Legislative Commission on Minnsota Resources. Additional funding generated by product sales and service fees from operations.

The ReUse Center
2216 East Lake Street
Minneapolis, MN 55407
612-724-2608
reuse@reusecenter.org
Store Hours:
Mon-Thu 9am-7pm
Fri-Sat 10am-6pm
Sun 11am-4pm

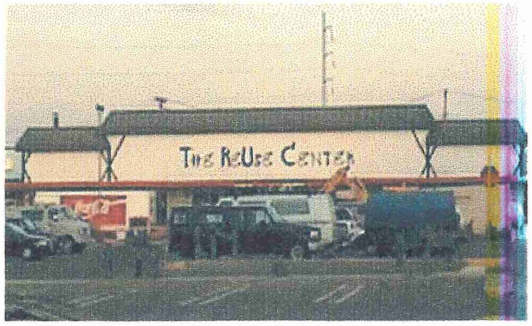
DeConstruction Services
2216 East Lake Street
Minneapolis, MN 55407
612-728-9388
bobalf@reusecenter.org
Office Hours:
Mon-Fri 8am-5pm
ReUse Warehouse Hours:
Mon-Fri by appointment
Saturday's 9am-2pm/appt.

Programs of The Green Institute

DeConstruction Services



The ReUse Center



Programs of The Green Institute

DeConstruction Services

Helping to save the planet, one building at a time

Who Are We?

DeConstruction Services was created to increase the quality and quantity of inventory for the ReUse Center, reduce the construction material waste stream, and create job opportunities in and around the Phillips neighborhood in South Minneapolis.

What Are We?

DeConstruction is construction in reverse, allowing materials to be reused, recycled or otherwise diverted from landfills.

What Do We Do?

We train crews to safely reclaim a variety of building materials from contracted residential and commercial sites. The reclaimed materials, ranging from millwork, hardwood flooring, lumber, antique doors and built-ins, are either sold on-site, at the ReUse Center at the ReUse Warehouse.

BUY Reclaimed Building Materials

- Framing Lumber and Hardwood Flooring
- Doors and Cabinets
- Jacuzzi's and Saunas
- Millwork and Windows
- Appliances and Toilets
- Whole Kitchens and Much MORE!!

You name your material and we find Quality at LOW PRICING for your needs!

We have three easy ways to buy:

On-Site Sales: Our job sites are your first chance to view reclaimed materials and are seen by appointment. For more information contact Lisa at 612-221-9428.

The ReUse Center: Our retail store has 26,000 square feet of retail space and offers over 75,000 different items. From architectural significant items to over 2000 doors. It is located in the Hi-Lake Shopping Center at Hiawatha Ave and Lake St in South Mpls. For more information, call 612-724-2608.

ReUse Warehouse: Bulk building materials are located at 2570 Ellis Ave in St. Paul off I-280 and University Ave and are viewed by appointment (see hours on back). Our 1800 square foot area has materials like framing lumber, siding, hardwood flooring, beams, bead board, plus more. For more information contact Gretchen at 612-221-9429.

The ReUse Center

Offering a Window of Opportunity to Make a Difference

Who Are We?

The ReUse Center is a non-profit retail store specializing in reusable building materials such as doors, cabinets, millwork, windows, plumbing fixtures, carpet, light fixtures, paint, tile, hardware, architecturally significant items and much more!

What Are We About?

- **Job Creation** - providing living wage jobs
- **Environment** - divert reusable materials from landfills
- **Education** - learn ways to reuse materials in a variety of applications

What Can You Do?

At the ReUse Center you can...

- **Shop** - affordable building materials
- **Learn** - read about customer projects
- **Donate** - tax deductible donations
- **Volunteer** - have fun and meet new people

The Green Institute, Inc.
Attachment B - Deliverable Products and Related Budget
6/30/2001

LCMR Construction and Demolition Waste Abatement Demonstration Project

Budget Item	Result 1	Result 2	Result 3	Total
Wages, salaries & benefits				
Program Manager	35,060.78	0.00	31,370.17	66,430.95
Crew Leaders	67,118.73	0.00	0.00	67,118.73
Marketing Specialist	4,506.56	22,032.06	8,712.68	35,251.29
Inventory Specialist	1,128.61	32,729.73		33,858.34
Interns	0.00	0.00	0.00	0.00
Financial Manager	0.00	0.00	10,800.00	10,800.00
Printing & Advertising	0.00	2,850.86	0.00	2,850.86
Communications	0.00	6,991.52	1,997.58	8,989.10
Travel expenses in MN	0.00	0.00	6,381.05	6,381.05
Supplises, Tools, Equipment	16,070.54			16,070.54
Crew Van lease	0.00			0.00
	123,885.22	64,604.17	59,261.48	247,750.86

LCMR CONSTRUCTION AND DEMOLITION WASTE ABATEMENT DEMONSTRATION PROJECT

GRANT PERIOD: JULY 1, 1999 THRU JULY 1, 2001

	BUDGET ITEMS	CONTRACT BUDGET	CURRENT PERIOD COSTS INVOICED FOR REIMBURSEMENT	ACTUAL CUMULATIVE COSTS JULY 1, 1999 - DEC. 31, 2000	TOTAL COSTS THROUGH END OF REPORTING PERIOD (B + C)	BUDGET BALANCE (A - C)
		A	B	C	D	
	Wages, salaries & benefits:					
	Program Manager	66,500.00	0.00	66,430.95	66,430.95	69.05
	Crew Leaders	67,100.00	0.00	67,118.73	67,118.73	(18.73)
	Marketing Specialist	35,200.00	0.00	35,251.29	35,251.29	(51.29)
	Inventory Specialist	33,900.00	0.00	33,858.34	33,858.34	41.66
	Interns	0.00	0.00	0.00	0.00	0.00
	Financial Manager	10,800.00	0.00	10,800.00	10,800.00	0.00
	Printing & Advertising	5,100.00	507.00	2,033.07	2,850.86	2,249.14
	Communications, Telephone, Mail	9,000.00	0.00	8,989.10	8,989.10	10.90
	Travel expenses in Minnesota	6,400.00	0.00	6,381.05	6,381.05	18.95
	Supplies, Tools & Equipment	16,000.00	0.00	16,070.54	16,070.54	(70.54)
	Crew Van Lease	0.00		0.00	0.00	0.00
						0.00
	TOTAL	250,000.00	507.00	246,933.07	247,750.86	2,249.14

Attachment B, p. 2

Attachment C

SAINT PAUL HERITAGE PRESERVATION COMMISSION

&

SAINT PAUL CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS

AWARD of RECOGNITION

THE SAINT PAUL HERITAGE PRESERVATION COMMISSION AND THE SAINT PAUL CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS PRESENT THIS CERTIFICATE OF AWARD TO

DeConstruction Services of the Green Institute

IN RECOGNITION OF

Their contribution to the environmentally sensitive construction of 817 and 818 Marshall Avenue

15 May 2001
DATE

CHAIRMAN

Sylvia Frank, A.I.A.
PRESIDENT