

## EARTH-WISE BUILDING EDUCATION

Metro is using the Resourceful Renovation as an opportunity to educate others. A handbook and a videotape, funded in part by an EPA grant, are being distributed to construction project managers, builders, architects and developers to help them incorporate salvage, recycling, recycled building materials and other resourceful elements into construction projects. Metro hopes the Resourceful Renovation will demonstrate that earth-wise building is not only good for the environment, but good for business, too.

To order a copy of the handbook, the video, Metro's Construction Site Recycling or Recycled Products guides, call the Metro Solid Waste Department at 797-1650.



**METRO**

600 NE Grand Ave.  
Portland, OR 97232-2736

797-1700

*Metro Regional Center*

# RESOURCEFUL RENOVATION

*In 1992, Metro,  
the agency responsible  
for solid waste disposal  
and recycling in the  
Portland metropolitan area,  
began renovating  
a vacant Sears  
department store into  
earth-wise offices.*

*If you choose not to keep this brochure, please return it to the display rack so it can be used again. Thank you!*

Quickly dubbed "Resourceful Renovation," the project was an opportunity for Metro to practice what it preaches by "recycling" an existing building and pursuing a set of resourceful goals:

1. Emphasize salvage and reuse
2. Maximize recycling and recovery
3. Use recycled building materials
4. Incorporate an efficient office recycling system
5. Conserve energy
6. Reduce water use

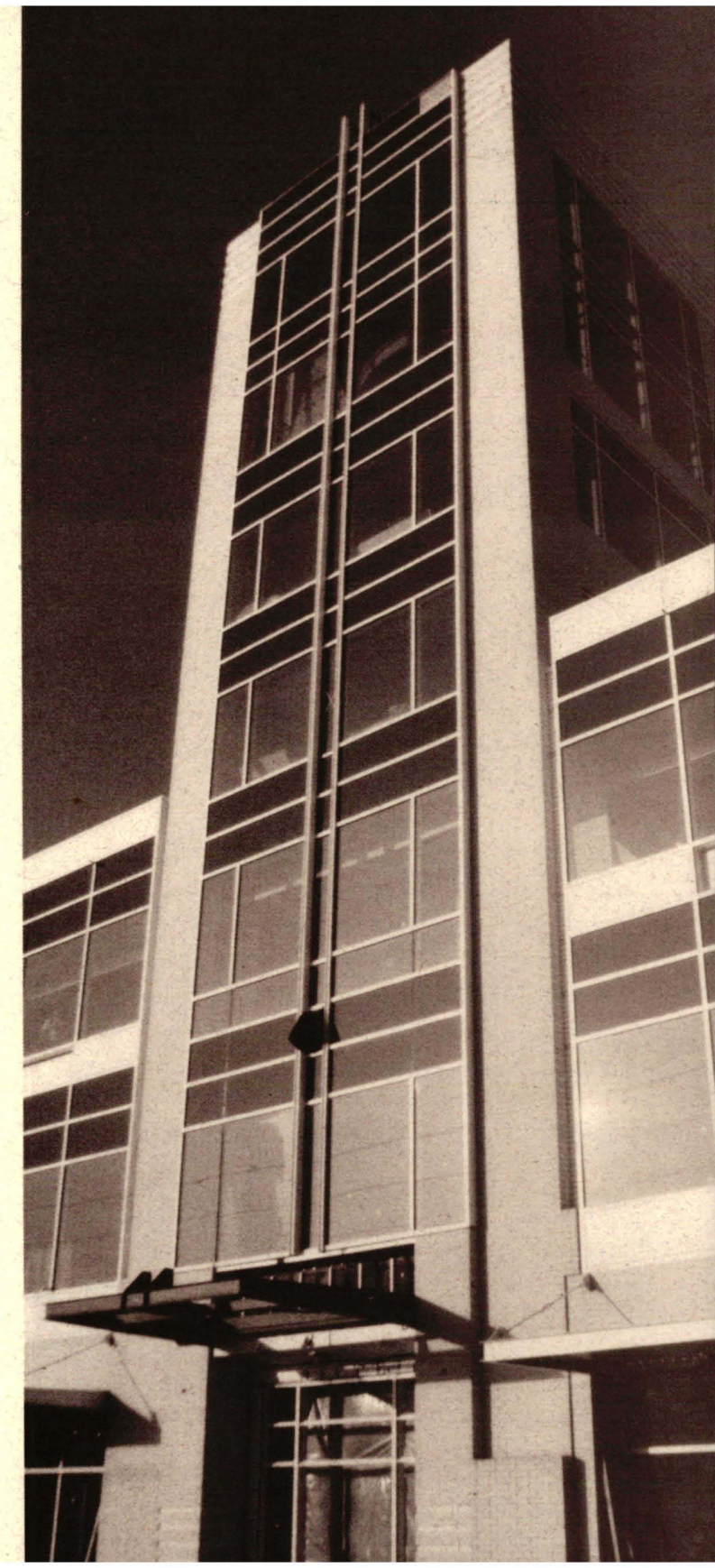
Beyond creating offices of which Metro can be proud, Metro staff learned first-hand how to apply innovative waste reduction and recycling practices to a major construction project. The Environmental Protection Agency awarded Metro a \$30,000 grant to document the Resourceful Renovation and develop educational materials for architects, builders and contractors.

By the close of the project, 8,024 tons of material had been kept out of the landfill at an estimated savings of \$35,000 in disposal costs. Material salvaged and recycled accounted for 77 percent

of all waste on the \$11.5 million construction project. Only 265 tons of waste were landfilled.



*The Sears building structure was reused in Metro's renovation.*





## SALVAGE AND REUSE

Before demolition work began, 159 tons of materials were salvaged by local nonprofits and salvage companies.

Wood .....	124 tons
Hardwood flooring .....	20 tons
Carpet .....	9 tons
Doors, bathroom fixtures .....	2 tons
Shrubs .....	4 tons

Rejuvenation, Inc., a local houseparts salvage company, removed 18,000 square feet of the hardwood flooring for installation and refinishing in its new retail showroom. Metro's contractor saved \$1,500 in removal and disposal costs, and Rejuvenation gained a beautiful old floor.

Preserved for reuse in the building were striking cast medallions, a two-story water tank that was transformed into a "think tank" meeting room and metal latticework. Metro retained 80 percent of the original building in the renovation. Reusing the frame saved approximately \$2 million compared to the costs of demolition and new construction.



## RECYCLING AND RECOVERY

Thanks to participation from Hoffman Construction, the general contractor, and many subcontractors, 725 tons of materials were recycled.

Metal .....	406 tons recycled
Wood .....	203 tons recycled as boiler fuel
Sheet rock .....	111 tons recycled
Corrugated cardboard .....	5 tons recycled

More than 7,000 tons of brick, concrete, sand and dirt were kept out of the landfill. Some of the material was used on site to fill elevator shafts and back fill around the building foundation. More than 5,000 tons were used as capping material for the closed St. Johns Landfill or as fill at other sites.

Metro staff and Hoffman worked with subcontractors to maximize recycling. Subcontractors were asked to complete waste management plans and source separate waste materials for recycling.



Metal recycling area (above)  
Salvaged hardwood flooring (left)

## RECYCLED PRODUCTS

Products made from recycled materials were used whenever possible. While some products were more expensive than non-recycled alternatives, many were comparable or less expensive.

PRODUCT:	LOCATION:
Foam insulation .....	Throughout building <i>(from polystyrene)</i>
Steel insulation .....	Throughout building <i>(from steel slag)</i>
Ceiling tile .....	Throughout building <i>(from newspapers)</i>
Paint .....	Throughout building <i>(from old latex)</i>
Gypsum wallboard .....	Throughout building <i>(from newspapers and gypsum)</i>
Floor tiles .....	Restrooms levels 1, 2, 3 <i>(from waste glass)</i>
Restroom partitions .....	Restrooms levels 1, 2, 3 <i>(from HDPE plastic)</i>
Locker room benches .....	Locker room, level 1 <i>(from HDPE plastic)</i>
Resilient flooring .....	Fitness room, level 1 <i>(from tires)</i>
Wheel stops .....	Parking, levels B, 1 <i>(from mixed plastics)</i>
Landscaping soil .....	Landscaping <i>(from yard debris)</i>

The paint, used as primer throughout the building, is reprocessed locally from household latex paint Metro collects at its household hazardous waste facility. The wallboard is made locally with gypsum recycled from construction sites.

## RECYCLING SYSTEM

To facilitate efficient office recycling in the completed building, a three-chute paper collection system was installed in an existing mechanical shaft. The chute carries white and colored paper and newspaper from each floor into central holding bins adjacent to the loading dock. The system eliminates the need to transfer loads of paper between floors and saves janitorial time. Collection areas for other recyclables, such as cans, glass and cardboard, were designed for each floor.

## ENERGY AND WATER CONSERVATION

Metro projects a 35 percent energy savings, more than 1 million kilowatt hours per year, from the nine conservation measures it incorporated into the building. They include high-efficiency lighting and occupancy sensors, a computerized energy management control system, high-efficiency glazing and variable-speed HVAC motors.

Water conservation elements include low-flow toilets and faucets, drip irrigation demonstration sites in the south plaza and around the parking structure, and a drought-tolerant lawn of native grasses and wild flowers on the southwest corner of the building.



## TALKING PAPER

Re: Metro Regional Center Cost Comparisons (Channel 12)

### **Goals**

- Achieve long-term financial benefits of ownership vs. leasing.
- Accommodate existing staff and allow for growth.
- Improve public accessibility.
- Create permanent home for regional government.

### **Considerations**

- Relocation Task Force formed to review needs and alternatives.
- Options were: building new office, purchasing and renovating the Sears building, or leasing a larger building.
- Selection criteria were long-term cost, public accessibility, parking availability, ownership benefits, location and growth potential.
- Purchasing a building rather than continuing to lease will save the region money over 30 years. Lease payments escalate over time, while debt service payments remain constant.
- Renovation cost is competitive with new construction cost.
- Recycling existing structure contributes to rejuvenation of inner Northeast neighborhood and activates a site that has been vacant since 1984.

### **Project Costs**

- Building project cost: \$19.6 million (Construction: \$12 million)
- Parking structure project cost: \$4.6 million (Construction: \$1 million)
- Project costs include acquisition, financing, project management, furniture and construction.
- Initial occupancy cost: approximately \$19.42 per square foot for fiscal year 94-95, the first full year of normal operating costs. Metro paid approximately \$15.50 per square foot for operating its old leased facility.
- Primarily financed by \$22,990,000 in general revenue bonds. The bonds are repaid by Metro departments from operating revenues according to cost allocation plan based on use of facility space.

- The estimated savings in 2022 dollars is \$52.7 million, or \$8.6 million present value based on a comparative lease rate of \$16.75 per square foot,
- The above savings are long-term, i.e. over the life of the debt service. Metro's Finance Department estimates that Metro's cost of occupancy for the first ten (10) years is more expensive than a lease at \$16.74 per square foot in FY 1994-95. Savings begin to kick in after ten years and continue through the remaining life of the debt service.

### **Project Cost Comparisons**

- Metro Regional Center
 

Construction	\$57 per square foot
Project	\$97 psf
- Human Resources Building (Salem)
 

Construction	\$88 psf
Project	\$100 psf
- State Office Building (Portland)
 

Construction	\$91 psf
Project	\$104 psf



## **Metro Regional Center "Resourceful Renovation"**

The Metropolitan Service District (Metro) is renovating the former Sears department store at 600 NE Grand Ave. in the Lloyd District to replace its leased office space in downtown Portland.

### **Goals**

- Achieve long-term financial benefits of ownership vs. leasing.
- Accommodate existing staff and allow for growth.
- Improve public accessibility.
- Create permanent home for regional government.

### **Considerations**

- Options were building new offices, purchasing and renovating the Sears building or leasing a larger building.
- Selection criteria were long-term cost, public accessibility, parking availability, ownership benefits, location and growth potential.
- Purchasing a building rather than continuing to lease will save the region \$9.8 million over 30 years. Lease payments escalate over time, while debt service payments remain constant.
- Renovation cost is competitive with new construction cost.
- "Recycling" existing structure contributes to rejuvenation of inner Northeast neighborhood and activates a site that has been vacant since 1984.

### **Building Description (see attached photo of model)**

- Four levels that include offices, public meeting space, a child-care facility, office space and internal parking (201,510 total square feet, including internal parking).
- Internal basement and street level parking (approximately 170 spaces) can be converted into office space as needed.
- A pedestrian-friendly main entrance is located off the north plaza.
- Commercial space on the north plaza and along Grand Avenue and an office for the Lloyd area district attorney on the Grand Avenue level.
- Exterior glass brings light into the building and makes the interior visible from the street.
- The tower is being preserved for use as a staff lunch area and the former water tank is being converted into a "think tank" conference room.

### **Adjacent Parking Garage**

- 470 parking space garage at Northeast Grand and Irving is currently managed by Pacific Development under a contract with Metro.
- Up to 346 spaces are leased to the state of Oregon through a 30-year lease. The garage is also used for Oregon Convention Center and Memorial Coliseum overflow parking.
- The garage will become self-supporting. After eight years, it is expected to generate more than \$100,000 per year.

### **Resourceful Renovation Elements**



- Waste produced in renovation and new construction is being salvaged, reused or recycled whenever possible. Eighty percent of the mass of the original building is retained.
- More than a dozen different recycled building materials, including drywall, ceiling tiles and plastic rest room partitions, are being used.
- Metro has received a \$30,000 Environmental Protection Agency grant to document the project as a demonstration project.
- A recycling chute is being installed in an existing mechanical shaft to carry officer paper to the storage area from any level.
- An energy saving design, prepared and implemented in coordination with Pacific Power and Light, has been incorporated to minimize the building's energy consumption.

#### **Other Features**

- Two public art projects, funded by one percent of the construction budget, are being incorporated into the building—one in the north plaza and one in the lobby area.
- A child-care facility, operated by a private contractor, will care for up to 50 infants, toddlers and pre-school children.

#### **Design/Build Team**

- Thompson Vaivoda/Cole Architects and Hoffman Construction were selected through design competition.

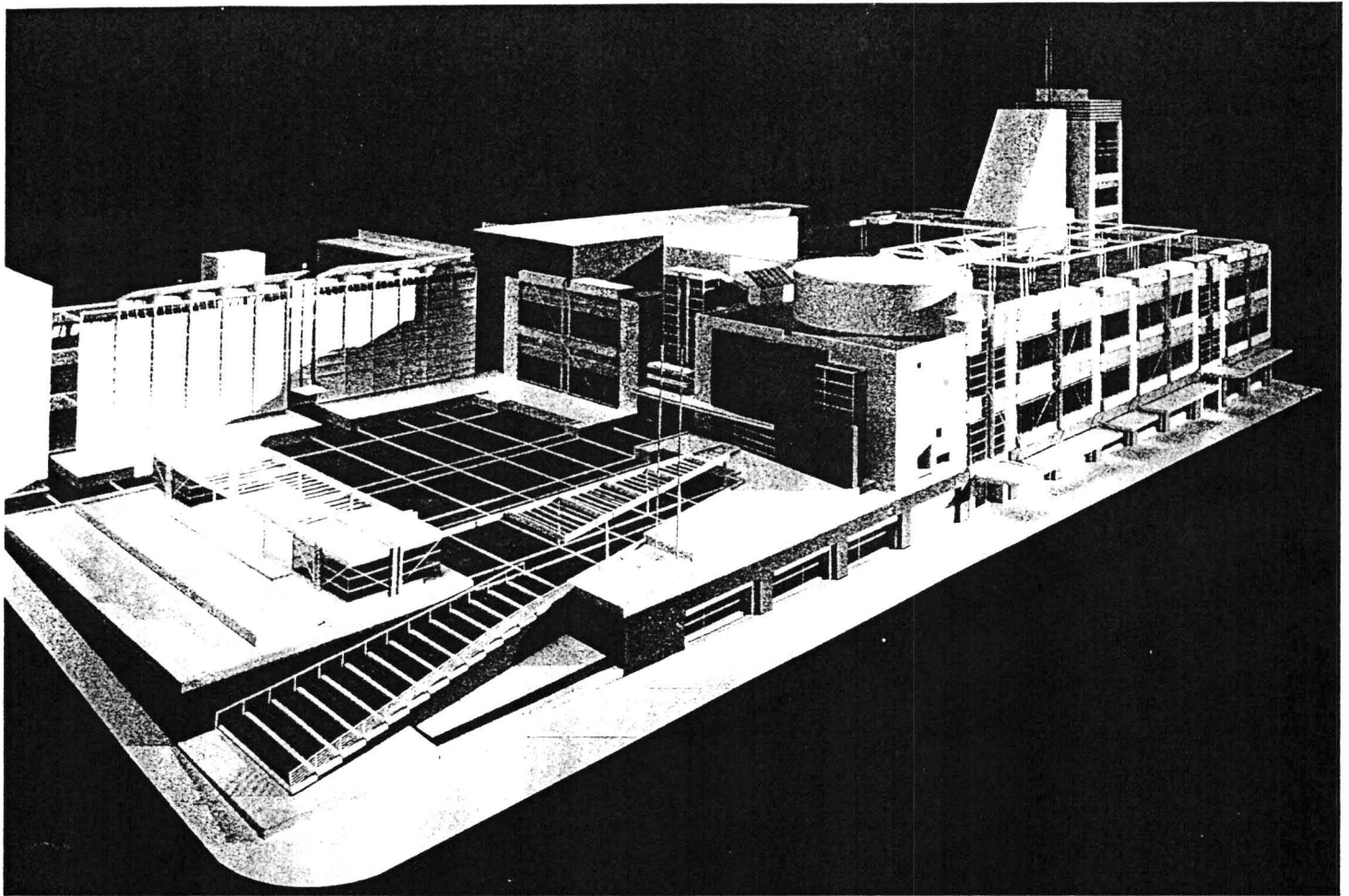
#### **Completion**

- April 1993

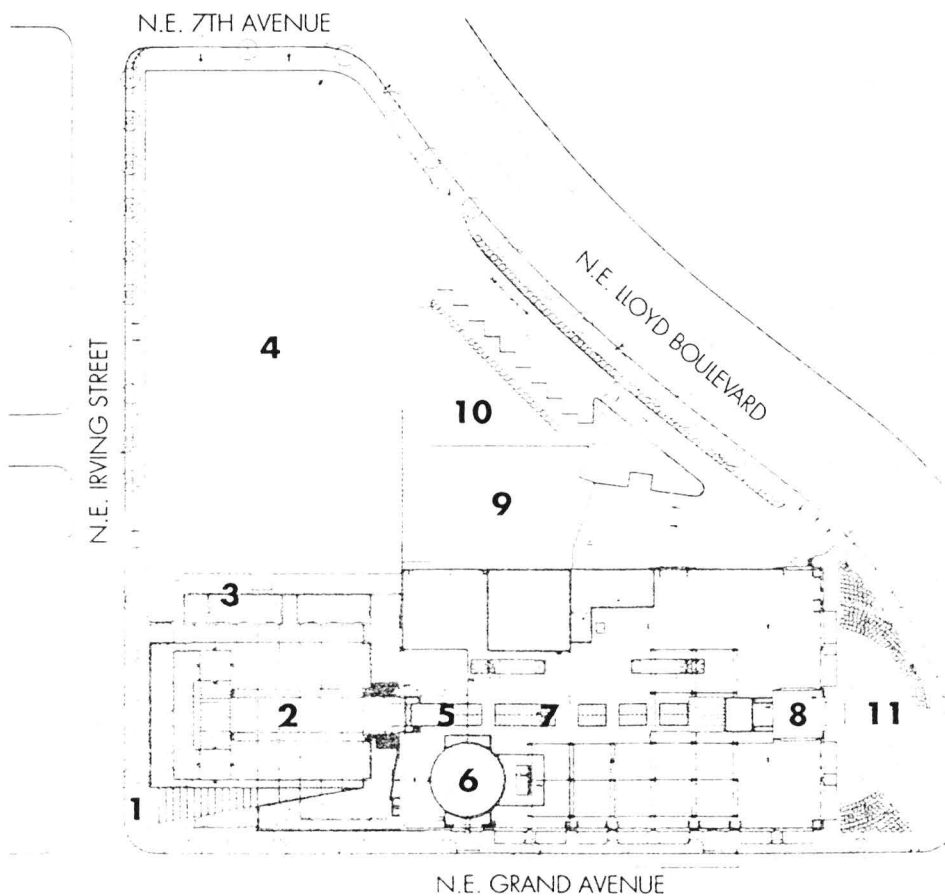
#### **Project Costs**

- Building project cost: \$19,613,803
- Parking structure project cost: \$4,805,233
- Both costs include acquisition, financing, project management, furniture and construction
- Annual operating costs (FY 1994/95): \$1,598,190 (\$501,000 operations/maintenance plus \$1,320,190 debt service less \$233,000 interest income and parking receipts).
- Total building all-inclusive cost: \$97.33 per square foot including financing, acquisition, management, construction, contingency and furniture fixtures and equipment; construction cost: \$56.56 per square foot.
- Total parking structure all-inclusive cost: \$10,223.90 per stall
- Initial occupancy cost: approximately \$18.50 per square foot for fiscal year 94-95, the first full year of normal operating costs. Metro pays approximately \$15.50 per square foot for operating its current leased facility.
- Primarily financed by \$22,990,000 in general revenue bonds. The bonds are repaid by Metro departments from operating revenues according to a cost allocation plan based on use of facility space.
- Estimated benefit of owning over 30 year life of bonds: \$55 million in 2022 dollars; \$1.9 million present value (\$9.8 million operating benefit; \$18.1 million land value; \$27.5 million building value).





View from northwest looking south with plaza in foreground.



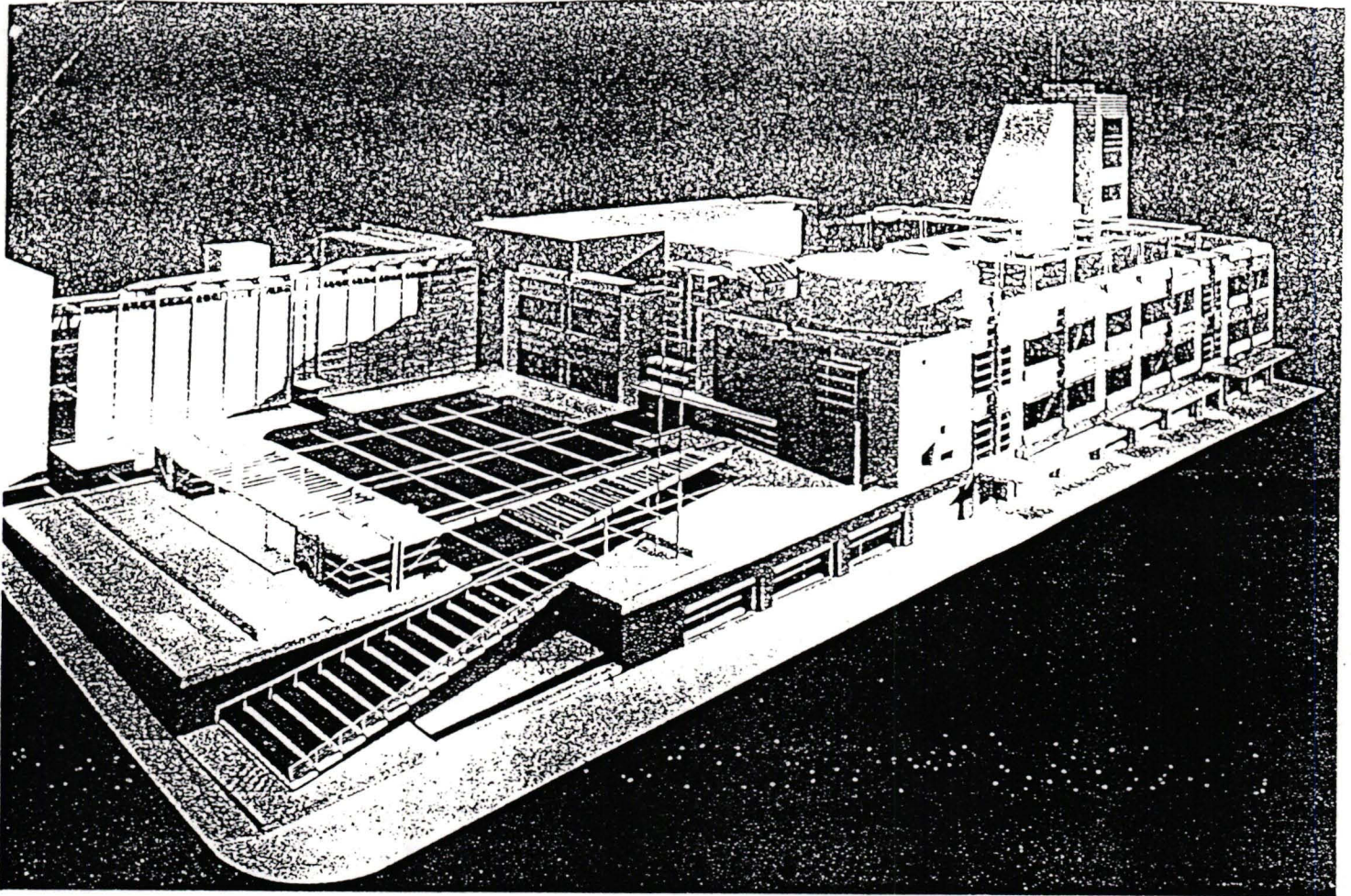
### Design development site plan

1. Public stairs
2. Plaza
3. Screen
4. Open parking structure
5. Reception area
6. Council chamber
7. Main corridor/skylights
8. Tower
9. Day care
10. Play area
11. Landscape area

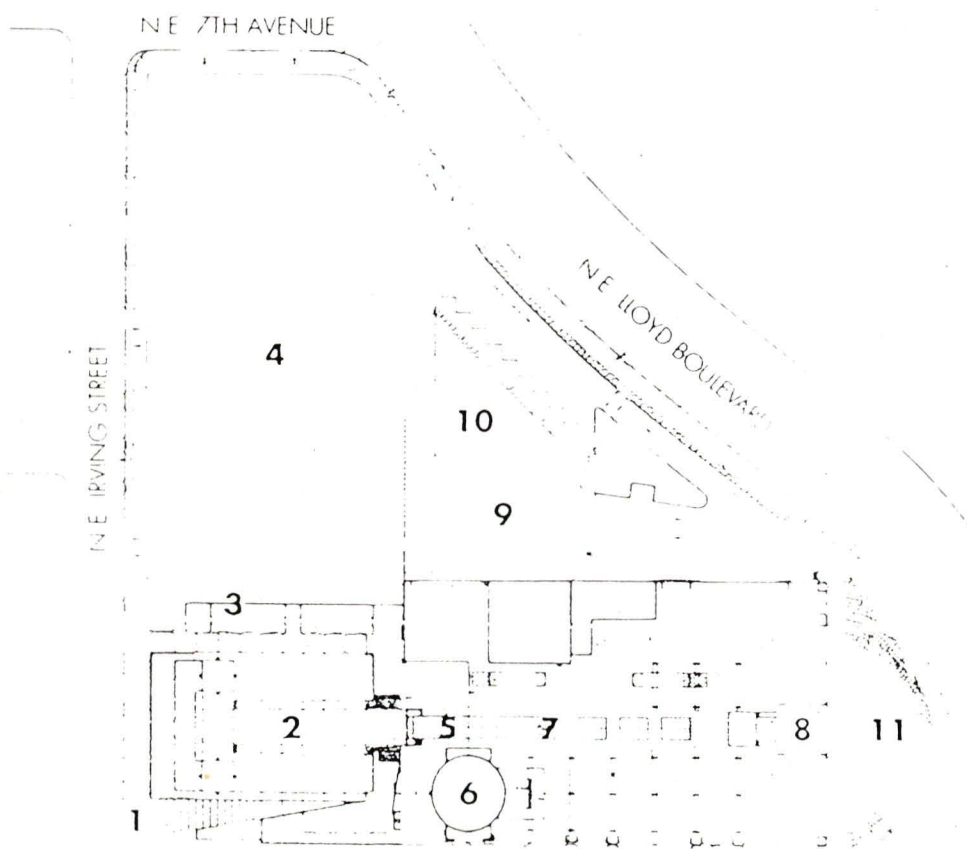


<b>Metro Headquarters Building and Parking Garage Budget</b>			
<b>PROJECT COSTS</b>	<i>Headquarters Building</i>	<i>Parking Structure</i>	<i>Total</i>
Real estate	\$2,779,000	\$2,688,000	
Project management	627,000	20,000	
Construction	9,364,000	991,000	
Contingencies	1,472,000		
Other			
Furniture and Fixtures	1,225,000		
Telephone/data wiring	130,000		
Art (1% of construction)	86,000		
<b>TOTAL PROJECT COSTS</b>	<b>\$15,683,000</b>	<b>\$3,699,000</b>	<b>\$19,382,000</b>
<b>FINANCING COSTS</b>			
Reserve Account for debt service			\$1,808,000
Capitalized interest			1,914,000
Accrued interest			79,000
Other costs of issuance			444,000
<b>TOTAL FINANCING COSTS</b>			<b>\$4,246,000</b>
<b>GRAND TOTAL COSTS</b>			<b>\$23,628,000</b>





View from northwest looking south with plaza in foreground.



**Design development site plan**

- 1 Public stairs
- 2 Plaza
- 3 Screen
- 4 Open parking structure
- 5 Reception area
- 6 Council chamber
- 7 Main corridor/skylights
- 8 Tower
- 9 Day care
- 10 Play area
- 11 Landscape area
- 12. Commercial space (not shown)



METRO REGIONAL CENTER COST AND SPACE DATA

Project Cost Category	Building	Garage	Total
Real Estate	\$2,779,000	\$2,688,000	\$5,467,000
Construction	11,396,924	991,000	12,387,924
Total (Percent)	14,175,924 (79%)	3,679,000 (21%)	17,854,924
Project Management	523,949	139,278	663,227
Contingency + Added Funds	381,035	101,288	482,323
Financing Cost	3,331,795	885,667	4,217,462
FF&E	1,000,000	-	1,000,000
Telephone/Data Wiring	110,000	-	110,000
1% for Art	91,100	-	91,100
	<u>\$19,613,803</u>	<u>\$4,805,233</u>	<u>\$24,419,036</u>
<u>Space</u>			
Original Building - Gross Area		199,527 sf	
Metro Offices		89,127 sf	
Daycare Area		6,328 sf	
Leased Space (Internal)		1,905 sf	
Potential Commercial (Internal)		3,251 sf	
Potential Commercial (External)		1,983 sf	
Final Building - Gross Area		201,510 sf	
Final Rentable Space		109,631 sf	
Final Parking Space (Internal)		91,879 sf	



## Comparative Costs Metro Regional Center

Comparables:

- Human Resources Building (Salem)
  - Gross area: 299,204 square feet
  - Construction cost: \$26,507,695
  - Construction unit cost: \$88.59/s.f.
  - Project cost: \$30,214,396<sup>1</sup>
  - Project unit cost: \$100.98/s.f.<sup>1</sup>
  - Parking: 196 spaces
  
- Public Utility Commission Building (Salem)
  - Gross area: 104,867 square feet
  - Construction cost: \$6,577,675
  - Construction unit cost: \$62.72/s.f.
  - Project cost: \$7,870,932<sup>1</sup>
  - Project unit cost: \$75.06/s.f.<sup>1</sup>
  - Parking: 173 spaces
  
- Portland State Office Building (Portland)
  - Gross area: 266,953 square feet
  - Construction cost: \$24,354,447
  - Construction unit cost: \$91.23/s.f.
  - Project cost: \$27,926,743<sup>2</sup>
  - Project unit cost: \$104.61/s.f.<sup>2</sup>
  - Parking: 239 spaces
  
- Metro Regional Center (Portland)
  - Gross area: 201,510 square feet
  - Construction cost (est.): \$11,396,924
  - Construction unit cost: \$55.56/s.f.
  - Project cost (est.): \$19,613,803<sup>3</sup>
  - Project unit cost: \$97.33/s.f.<sup>3</sup>
  - Parking: 170 spaces

### Cost Summary (per square foot)

Building	Construction Unit Cost	Project Unit Cost	Normalized Project Unit Cost <sup>4</sup>
HRB	\$88.59	\$100.98	\$100.98
PUC	\$62.72	\$75.06	\$75.06
PSOB	\$91.23	\$104.61	\$100.67
MRC	\$56.56	\$97.33	\$62.05

<sup>1</sup>Does not include financing costs, land acquisition costs or FF&E

<sup>2</sup>Does not include financing and FF&E costs

<sup>3</sup>Includes land acquisition, financing costs and FF&E

<sup>4</sup>Financing costs, acquisition costs and FF&E excluded.

## METRO REGIONAL CENTER ENERGY CONSERVATION MEASURES

Metro and the Hoffman Construction Company Design/Build team modeled the building under the PP&L Finanswer program at the beginning of design of the new Metro Regional Center approximately one year ago. The Finanswer program provides loans for construction of energy saving measures which exceed the Building Code. The loan is paid back over time through the cost savings realized.

Sixteen energy conservation measures (ECMs) were investigated for their cost and energy savings in three categories: architectural, mechanical and electrical. Architectural ECMs were: increasing the base building wall and roof insulation, using high efficiency glazing in exterior windows and skylights, and installing motorized sunscreens to reduce solar heat gain and glare. Mechanical ECMs were: installing a computerized energy management control system with direct digital controls on equipment, high efficiency rooftop cooling, variable speed fan controls on all HVAC motors, a well water cooling system, and solar domestic hot water heating. Electrical ECMs were: high efficiency lighting fixtures (fluorescent lights with electrical ballasts), energy efficient exit signs, daylighting controls to dim the lighting in response to natural light, automated sweep lighting controls to reduce the amounts of lights left on during unoccupied hours, and occupancy sensors in offices and restrooms to turn off lights when unoccupied.

Four of the ECMs were combined into two and nine were selected as cost-effective (with the later addition of the parking garage lighting). The selected ECMs' incremental costs above code requirements are \$293,672 with an estimated combined energy savings of 1,129,964 Kilowatt hours per year (KWH/yr). This is an improvement in annual electrical energy use of 33%.

The selected measures and their cost and energy savings are as follows:

<u>ECM</u>	<u>Cost</u>	<u>Energy Savings</u> <i>(Kwh/year)</i>
1. R-12.5 Wall Insulation	\$0	2,140
2. High Efficiency Glazing	\$36,218	129,481
3. High Efficiency Skylights	\$4,458	7,235
4. Occupancy Sensors (76 Rooms)	\$13,856	13,566
5. High Efficiency Exit Signs	\$6,926	11,774
6. Energy Management System	\$39,138	376,281
7. Variable Speed Fans	\$28,750	166,203
8. Efficient Lighting Measures	\$69,545	127,590
9. Parking Garage Lighting	<u>\$94,781</u>	<u>342,468</u>
 TOTALS	 \$293,672	 1,129,964 <i>(~\$10k in first year)</i> <i>(~\$30k in year 15)</i>



## Furnishings Metro Regional Center

The furniture for the new Metro Regional Center was selected by a staff committee, which included the architect (Thompson/Vaivoda/Cole and Associates) and the interior designer (McCarter Boczkaj). The furnishings selected are to be complementary to the building design, the colors and fibers selected to match the tones in the building's wood paneling and functional areas.

Metro will move virtually all of its present furniture to the new site. Generally, new furniture is being purchased for the public areas only, e.g. the lobby, the reception area and Council Chamber. The Council dais chairs and assembly seating are being purchased by bid. In addition to the lobby and reception areas, there will be new conference tables and chairs in the six main conference rooms. Furnishings are being purchased through a combination of the State Bid List and public bidding.

We are ordering ergonomically-designed chairs for all staff on the recommendation of our Risk Manager to minimize lost time due to back strains. Staff will move their existing furniture to the new site except for panels and task chairs. Twenty work stations will be equipped with new space efficient office furniture which will become the future standard for the agency. These stations are receptionists and/or secretarial stations. Low permanent partitions dividing areas and staff space have been designed to carry the electrical, telephone and data cabling and are sized to match the portable panels. Panels are being purchased through the State Bid List and are designed to provide privacy and efficiency of work stations. The panels are designed to be structurally capable of supporting desk and storage spaces which will be the standard for future office furniture for Metro.

All of the office systems are medium priced with outstanding records of quality and durability and very flexible in configuration. The current furniture budget is \$841,000 with a \$40,000 allowance for child care center furniture. Furniture that is not transferred to the new site will be sold at a public auction and the monies from the auction will be put into a furniture fund. New office systems will be purchased over time as needed.



## Metro

Solid Waste Department  
Waste Reduction Division  
2000 S.W. First Ave.  
Portland, OR 97201-5398  
(503) 220-1168

# Metro Regional Center A Resourceful Renovation

## Fact Sheet

### Project Background

In November of 1991, Metro announced plans to move its central offices to the old Sears retail building located at 600 N.E. Grand Avenue. Metro's staff and management recognized that this renovation project offered an opportunity to design, build, occupy and promote a monument to innovative waste reduction and recycling practices while generating valuable information to help the region's contractors and builders save money and be good corporate citizens, by saving landfill space and other natural resources.

They proposed that Metro set a new standard in the region for construction/demolition waste reduction, reuse and recycling. Metro received a \$30,000 EPA grant to assist with implementing and documenting the recycling aspects of what has come to be known as the "Resourceful Renovation Project." The major elements of the project have included:

- Maximizing salvage of construction and demolition materials.
- Employing efficient building practices to reduce waste generated during construction.
- Using building materials with recycled content.
- Installing a state-of-the-art system for collecting and separating office papers.
- Documenting waste reduction practices

### Construction Site Recycling

- Each subcontractor is given a waste management form and a *Construction Site Recycling Guide*.
- Hoffman Construction, the prime contractor, provides a collection center for all materials except sheetrock. The two sheetrock subcontractors deliver their material to the same drywall recycler, one by truck and the other by commercial drop box.
- All construction workers are encouraged to use on-site roller carts to separate recyclable materials and mixed waste. Past practices were to fill cardboard boxes with mixed waste and recyclables and backhaul the material to a dumpster at the construction office. By providing and promoting convenient source separation of cardboard and rubble, this project has set an example for other construction and renovation projects to follow.
- Behaviors have been changed and money has been saved. For example, a 5-ton box of wood can be transported to a wood processor for the same cost as transporting mixed waste to a transfer station, yet the disposal cost for the separated wood is \$20 vs. \$225-\$375 for mixed waste.
- Clean wood, metals and rubble have been source-separated into drop boxes or piled on-site.
- Wood waste is loaded into a commercial drop-box and hogged for (commercial boiler) fuel.



- Sand and concrete rubble recovered on-site have been used to fill elevator shafts and back-fill around the building foundation.
- Mixed metals have been piled on-site and loaded for transport by a clean-up hauler in exchange for the scrap revenue.
- Building salvagers and non-profit organizations, such as the Warehouse and the Salvation Army loaded and transported carpet for reuse, saving the contractor \$68 per ton in avoided disposal costs.
- Rejuvenation House Parts enlisted labor to pull nails from 22,000 board feet of oak flooring to be used in their new show room. In the course of doing this, 16,000 additional feet of valuable cedar subflooring were recovered and sold.
- Brick, concrete and dirt (ie. rubble), have been used as beneficial fill for Metro's now closed St. Johns Landfill and in area pits.
- The standard waste management plan for contractors is to order one drop-box and co-mingle all materials. Because of source-separation very few drop boxes of mixed solid waste have been filled at this site.
- To increase public awareness about the benefits of construction site recycling, Metro posted two signs announcing tons reused and recycled.

Materials Reused and Recycled (as of 1/2/93)	Quantity (tons)
Rubble	7,020.38
Metals	386.57
Cardboard	2.03
Clean Wood	120.95
Green Glass	10
Mixed Solid Waste	109.1
Salvage	205.7
Sheetrock	85.96
<b>Total</b>	<b>7,940.69</b>

### Other Project Innovations

- Two *1% for Art* projects utilizing recycled materials have been selected and are proceeding.
- One project will include "pavers" made with recycled materials, others will contain impressions from recycled materials. They will be scattered throughout the plaza and near the building entrance.
- Waste Reduction staff participated early in the project and identified an existing mechanical shaft to become the location for office paper recycling chutes. Fire and other safety measures were carefully incorporated into the design.
- The landscape design was enhanced to incorporate additional native plants and a demonstration drip irrigation system is being installed to aid in the reduction of water consumption at the building.
- This project has generated interest among contractors nationally. *The Subcontractor* magazine gave an overview of the Metro building project and showcased several aspects of it.
- 100% recycled paint was used in most of the building as a primer coat. A 50/50 recycled paint will be applied to some of the manager's offices and work spaces. 462 gallons of recycled paint will be applied.
- Locally produced, light-weight soil containing yard debris compost will be used in the Plaza planters. Additionally, Metro is purchasing top dressing of 100% compost from McFarlane's Bark.

A listing of all recycled projects utilized in the building is attached.

**RECYCLED PRODUCTS LIST**  
for  
**METRO'S NEW HEADQUARTERS BUILDING**

December 92

**ACCEPTED PRODUCTS**

1. Prominence Tile\* (Bathroom floor tiles)

Benefits: 62% pre-consumer glass yet are investigating post-consumer for near future

Barriers: Price premium

2. RB Rubber Mats\* (Gym/fitness flooring)

Benefits: 100% recycled tires; local manufacturer; price comparable

Barriers: uncomfortable for Day Care Infant area

3. Santana Partitions\* (22 compartments)

Benefits: 45-90% post-consumer plastic depending on color; unbreakable; no corrosion; no painting required

Barriers: Unable to hang from ceiling so negotiated trade; may fade slightly in color; price premium

4. Armstrong Second Look Ceiling Tiles

Benefits: "40% recovered materials"; specified by TVA

Barriers: Post- Vs Pre-consumer recycled content not determined

5. Santana Benches\* (Shower rooms)

Benefits: 45-90% post-consumer plastic depending on color; never have to paint

Barriers: Price premium

6. US Gypsum Board\* (Core and shell package)

Benefits: Exterior paper 100% recycled ONP

Barriers: Another brand gypsum board uses recovered gypsum

7. Domtar Gypsum Board (Tenant improvement package only)

ONP exterior cover; local manufacturer; price comparable

8. Thermafiber Insulation (Core and shell)

Benefits: 50% recovered steel slag; contractor selected w/o encouragement

9. Western Insulfoam (Core and shell)

Benefits: 15% post consumer; local manufacturer; non-toxic;



contractor selected w/o encouragement

10. Rasmussen Paint

(Primer only)

Benefits: 100% post-consumer recycled paint from Metro's HHW site; cost savings

Barriers: New product; limited colors; request to void standard warranty on workmanship

(Selected manager's offices & storage areas)

Benefits: 50% post-consumer paint for Metro's HHW site; cost savings

Barriers: New product; limited colors

11. Watts Parking Wheelstops (Parking lot)

Benefits: 100% commingled recycled plastic; never requires painting; cost savings of \$10 per bumper

12. Light weight soils (North Plaza)

Benefits: Secondary materials (compost)

Barriers: Price of virgin filter fabric to accommodate light weight soil

\* Recycled Content Certification form on file



# SUBCONTRACTOR

SEP 14 1992

Cleveland  
 Denver  
 Detroit  
 Houston  
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## Subs don't see big jobs as 'recession ending' signs

*Some in industry remain pessimistic*

By MARSHA RHEA

In the nation's heartland several major construction projects are boosting the industry's outlook, but subcontractors still take a dim view of the future.

"Stay alive till '95" is the favorite slogan of one member of the American Subcontractors Association-Chicago Chapter, according to Executive Director Perry Doubt. Chicago is getting a boost from an expansion to McCormick Place (the convention center), a new stadium for the Black Hawks and Bulls, and additional work at the airport. Still that is not enough to boost the economy to health.

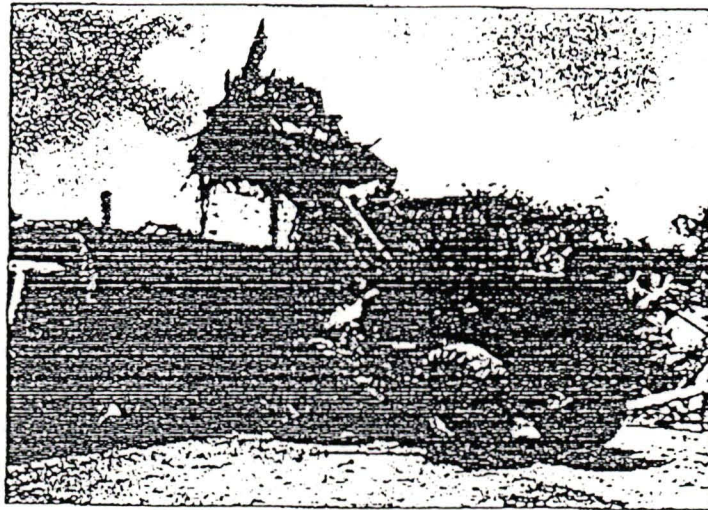
In an effort to revitalize the construction industry, the chapter became the leading construction association to endorse a proposed \$2 billion casino/entertainment center. Since the Illinois Legislature must approve the project, the chapter has been lobbying for it.

"It will put a big spark in our construction industry and provide tax revenue for the city and state," said Anne Wilson, chapter president and president of Bigane Paving Company. She admits she would rather see a \$2 billion manufacturing project come into Chicago because it would generate higher paying jobs, but no one is proposing one.

Dave Sauerman, vice president with Harrie Trust Bank and an ASA-Chicago Chapter board member, said the "core commercial-industrial market is deadlier than a doornail. The general feel is that while things might get better, people better adapt to this marketplace."

"If you aren't a top notch contractor, you might as well close your doors right now," Sauerman said. "In this kind of market I am going to take a fantastic contractor with years of experience at a great price. I am still getting my building built at 96 cents on the dollar, so why take Brand X?"

In Columbus, Ohio, construction continued on page 3



The cost of cleanup and removal are being passed to subcontractors. (Photo courtesy of National Solid Wastes Management Association)

## Subcontractors recycle construction waste for profit and by necessity

By MARSHA RHEA

Bazan Painting Company in St. Louis is transforming a potential hazardous waste problem into what may be a profitable sideline business, becoming one of the few construction companies making recycling work.

The company processes leftover solvent-based paint and dirty paint thinners through a distillation system, and sends the sludge to a local paint manufacturer for reprocessing as a mill-end primer. Overcoming the greatest impediment to construction recycling, the industrial painting contractor has created its own market

for the recycled product purchasing primer.

Walt Bazan Jr., Bazan vice president and an American Subcontractors Association board member, says, "When I get things running smoothly, I plan to hire a salesman and sell the primer to steel fabricators." He is even trying to persuade other union painting contractors in St. Louis to try his approach.

"I think it is a system that will work. It's technically illegal to accept someone else's wastes, but if you are able to make something out of it, it becomes a product," Bazan said. Un-

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## Congress OKs bill to study subs' access to bonding

*ASA initiative awaits president's signature*

By E. COLETTENELSON

In the closing hours before recessing for the Republican National Convention, Congress approved and sent to the president an American Subcontractors Association initiative designed to determine if construction contractors have adequate access to surety bonding.

The "Small Business Access to Surety Bonding Survey Act" would require the U.S. General Accounting Office to conduct a comprehensive survey of firms concerning experiences in obtaining surety bonding. Federal, state and local laws require contractors to provide payment and performance bonds as a precondition to the award of a construction contract. Many private sector purchasers of construction services also require contractors to provide bonds.

The survey requirement, originally introduced as individual bills by Del. Eleanor Holmes Norton (D-D.C.) and Sen. Harris Wofford (D-Pa.), was added as an amendment to a bill that would authorize more Small Business Administration loans to businesses unable to get credit at banks. President Bush is expected to sign the package.

"This study will help determine the extent to which qualified contractors have a problem in obtaining adequate surety bonding," said ASA Government Relations Committee Chairman Wayne Ruth.

In order to ensure that GAO conducts a comprehensive review, the bill establishes a base line of questions that should be included in a questionnaire sent to construction firms. It then requires GAO, in conjunction with the Small Business Administration, to prepare an assessment of the data collected by the survey and submit it to the Senate and House Small Business committees within 18 months of enactment. The bill does not require GAO to recommend Congressional action based on its assessment.

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