

Waste Reduction Coordination for Headquarters Renovation

Meeting Summary September 22, 1992

Attendees: Michel Gregory, Berit Stevenson, Jim Goddard, Pat Merkle
Andy Sloop, Bill Metzler, Pat Varley, Flor Matias

(Additional distribution: Joanna Karl, Leigh Zimmerman,
Genya Arnold, Steve Kraten, Glenn Taylor, Debbie Gorham)

Jim Goddard will be conducting the Waste Reduction Coordination meetings. He requests that we bring to these meetings areas of concern that must be discussed. Any details which need to be worked out can be accomplished in scheduled small meetings in-between our bi-weekly Headquarters meeting.

Salvage & Construction Site Recycling: Pat Merkle reported that the project is in transition. Several boxes have been removed from the site. The project is progressing quickly and many more subcontractors have been added to this project. Each subcontractor will be handling their own waste. The subcontractors seem receptive to providing documentation of the waste removed from the site. Pat Merkle will provide tonnage figures at each of the bi-weekly meetings. The signs are currently in use for two boxes on-site. The Hoffman boxes are: Trash and Rubble. The plan is for wood and scrap metal to be accumulated in large piles and removed for processing. We will work out if the subs will do this cooperatively or individually. Pat Merkle will provide weekly information on the totals to the Committee.

Recycling System: Pat Merkle and Flor Matias discussed the system. The three-quarter cubic yard collection containers are being designed. The bags are currently at headquarters that will line these containers. Flor explained that each bag, when full, will be tied off and the container will be rolled to the dock to be dumped into the truck. There will be a stand-by bag on-site and each time a full bag is removed, an additional stand-by bag will be deposited at Metro. There will be three chutes and three containers with one bag in each container and on stand-by bag. The staff will be required to dump their own recycling containers saving janitorial time to collect and dump the material.

Andy Sloop requested an update on the paint. Regional Facilities confirmed that recycled paint would be used on this project. It is possible that the low bidder will choose to use the Rasmussen Paint instead of the Reichel Paint which will require a substitution. The Contractor will submit a substitution to Cade Lawrence of Hoffman Construction. The bid process requiring an alternate, may have been confusing. It required constant prodding by Cade to require the low bidder to actually bid the alternate. Andy Sloop will interview Cade, and possibly some other contractors to discover what the obvious weaknesses of this system were.

Status of Buy Recycled: Pat Varley shared her report listing potential products and products already incorporated into this project. Currently \$7,500.00 has been allocated. It is possible that syndercrete will be used in the reception area spending an approximately \$2,000 more. The

syndercrete may be eliminated in the Council Chambers because it is expensive and does not show to any one but the councilors. These issues must all be decided in the next two weeks because the products must be ordered. The TI package is progressing. Pat Varley listed some additional options not on her print-out such as: display boards, permanent signage in the lobby, and plastic benches on the plaza. Debbie Gorham, Andy Sloop, Leigh Zimmerman, Pat Varley, and Pat Merkle will set up a small meeting at the end of this week to discuss the philosophy for the expenditure of the \$35,000 allocated and to prioritize the options for that money.

Landscaping The landscape architect has substituted some natives for existing ornamental plants. Fleur de Lawn is a seed mix that includes flowers and clover with grasses; it will be used as formal lawn substitute because it requires less water and maintenance. Should this product turn out to be unsatisfactory, or encourage complaints, it will be replaced by another product within one year. The additional costs for design and materials will be accepted by Regional Facilities.

The Plaza will experience no changes except in value engineering. There is a potential for some use of light-weight soils on the Plaza. The information has been delivered to the Landscape Architect from local processors. They will choose based on price, quality and weight. There will be an additional 6 inch strip added to the landscape around the parking garage. This strip will be used to grow ivy between the sidewalk and the parking garage and it will incorporate drip irrigation. Berit was going to let the Committee know when the Landscape Bid would be let so that we could understand the opportunity to more fully incorporate drip irrigation into this project.

Bill Metzler suggested a potential 50% to 70% water savings along with a savings in materials. Berit questioned the appropriateness of drip irrigation on this project. Flor Matias would need to be a partner in a drip irrigation system, to observe and participate in the design and it would require training. Bill Metzler is expecting an estimate within the next few days and he will share this estimate with Regional Facilities, hopefully before they have chosen a contractor. These project considerations are very important; The contract and the schedule must be considered.

Pat Merkle mentioned an opportunity to use "green glass" in place of pea gravel and other gravel used for drainage around the building. She has had conversations with Owens Brockway to discuss the potential for a demonstration with their glass, decreasing the cost. Landscape changes to-date have had no impact on design review. Glass has a great potential for use as fill around the building, under sidewalks and underlinement in the pipe ditches.

Pat Merkle will deliver a sample of the light weight soil to the landscape contractor tomorrow. The landscape contractor is anxious to know price, and content. Grimms is proposing a 10% pumice mixed with 20% garden mulch and 70% bark. Grimms has had this material tested and recommended by its plant pathologist. However, the landscape architect is anxious to do some testing of its own. The important issues here are weight and cost. This recommended material has a saturated weight of 1,125 pounds per yard and a dry weight of 562 pounds per yard. 25% of the saturated weight moisture will be absorbed within 24 hours of saturation. If this product is a suitable alternative for the 20% pumice mix, the 30% peat moss and 50% bark this product may

need to be less expensive and lighter in weight. If that is true, we will fill out a substitution form and hope to use this product on the Plaza in the planters. We had proposed the use of glass in the bottom of these planters for drainage in lieu of pea gravel, however the landscape architect has some concerns about the amount of paper mixed in with the green glass. We now believe that the pea gravel may be used in the bottom of the planter for drainage.

The next meeting will be held on Tuesday, October 8, 1992, from 3:00 - 4:00 p.m. Pat Merkle will send a reminder indicating the location of the meeting.

Action Items:

Bill Metzler: will call a meeting of interested committee members when he receives the drip irrigation plans and prices.

Pat Merkle: will be talking to Grimms, McFarlanes, Mayer-Reed, and Owens Glass about recycled materials for this project.

Andy Sloop: will interview Cade to evaluate the strengths and weaknesses of the invitation language and process used to procure recycled products.

**PROGRESS ON RECYCLED PRODUCTS
FOR
METRO NEW HEADQUARTERS**

Sept 92

The process to incorporate recycled products into the building can be broken down in basically three stages.

1. Berit reviewed the 17 recycled products from Ed Mays' report for possible overall use in building- March 1992
2. Alternative Recycled Products chosen for Core and Shell Bid Package (CS)-April 1992
3. Alternative Recycled Products chosen for Tenant Improvement Bid Package (TI)- July 1992

ACCEPTED PRODUCTS AS OF 9/92

**Approx.
Price
Premium**

- | | |
|---|---------------|
| <p><u>1. Prominence Tile</u>-bathroom floor tiles</p> <p style="padding-left: 20px;">Benefits: 62 % pre-consumer glass yet are investigating post-consumer for near future; TVA approved</p> <p style="padding-left: 20px;">Barriers: Price premium approx. = \$4650 for three sets of bathrooms</p> | <p>\$4650</p> |
| <p><u>2. RB Rubber Mats</u>-gym/fitness flooring</p> <p style="padding-left: 20px;">Benefits: 100% recycled tires, local manufacturer, price equivalent</p> <p style="padding-left: 20px;">Barriers: uncomfortable for Day Care Infant area</p> | <p>\$0</p> |
| <p><u>3. Santana Partitions</u>- three sets of bathrooms</p> <p style="padding-left: 20px;">Benefits: 45-90% post-consumer plastic depending on color; unbreakable; no corrosion; no painting required</p> <p style="padding-left: 20px;">Barriers: Unable to hang from ceiling; may fade slightly in color; price premium for only TI bathroom- unable to negotiate as with CS bathrooms</p> | <p>\$2500</p> |
| <p><u>4. Armstrong Second Look Ceiling Tiles</u></p> <p style="padding-left: 20px;">Benefits: "40% recovered materials", specified by TVA</p> <p style="padding-left: 20px;">Barriers: Exact recycled content not determined</p> | <p>\$0</p> |
| <p><u>5. Santana Benches</u> -shower room</p> <p style="padding-left: 20px;">Benefits: 45-90% post-consumer plastic depending on color</p> <p style="padding-left: 20px;">Barriers: Cost premium?(believe approx. \$2000)</p> | <p>\$?</p> |
| <p><u>6. US Gypsum Board</u>- Core and Shell</p> | <p>\$0</p> |

Benefits: Exterior paper 100% recycled ONP

Barriers: Another brand gypsum board uses recovered gypsum

7.. Homosote-Design Wall Interior Panels-Council Chambers, Personnel, Day \$?
care

Benefits: Interior of panels -100% ONP

Barriers: price premium?(believe \$0 difference)

Total= \$7150

TO BE DETERMINED

Approx.
Price
Premium

1. Rasmussen Paint-Interior and Exterior

? Benefits: 50% recycled paint from Metro's HHW site; saving in costs; test results good \$0

Barriers: New product; limited colors; hesitation on quality and warranty
2. Syndercrete-Reception desk and Council Chambers

? Benefits: 12-25% recycled stone, wood shavings, and plastic chips, natural look \$8,000-10,000

Barriers: Price Premium; no local manufacturer
3. Terrazzo Flooring- Interior and Exterior- entrance

? Benefits: New produce; can use recycled glass and other recycled materials \$?

Barriers: Aesthetics, price premium
4. Compost/soil

? Benefits: Locally produced secondary material; all organic \$0

Barriers: Variable mix and availability
5. Refurbished office furniture

? Benefits: Cost savings N/A

Barriers: Availability
6. Watts Parking Wheelstops

? Benefits: 100% commingled recycled plastic; never requires painting \$?

Barriers: Price premium
7. Plastic Lumber Benches

? Benefits: Recycled plastic; possible local manufacturer \$100-300 ea

Barriers: Price premium-data available soon
8. Children's outside play "monkey bars"

? Benefits: Tbd- needs research \$?

Barriers: Tbd- needs research

NOT ACCEPTED RECYCLED PRODUCTS AS OF 9/92

Floors Cover

1. Image Carpet
Benefits: 100% post-consumer PET; priced comparable; highly visible
Barriers: Unavailable in closed loop as specified by TVA; solid colors only;
questionable commercial durability
2. Homosote Underlay
Benefits: 100% post-consumer recycled newsprint
Barriers: Limited use, not needed
3. Dura Undercushion
Benefits: 92% + recycled tires
Barriers: Limited use, not needed
4. Traffic Tiles
Benefits: 70% (25% post) recycled auto glass; high quality; used in new OMSI;
local distributor
Barriers: Aesthetics; price premium approx. = \$14,000 for three bathrooms;
using other recycled product
5. Summitville Tiles
Benefits: 75% recycled feldspar content; price comparable; high quality
Barriers: Aesthetics; using other recycled product
6. El Dorado Velvet Mats- entrances
Benefits: 100% recycled tires
Barriers: Aesthetics
7. Carlisle Rubber Flooring- gym flooring & day care
Benefits: 100% recycled tires; variety of colors
Barriers: Too hard for day care area; local recycled product was chosen for
gym floor
8. The Mat Factory Safety Deck-gym flooring & day care
Benefits: 100% recycled tires
Barriers: Too rigid; local recycled product was chosen for gym floor
9. Saf-Dek Safety Surface- gym flooring
Benefits: 100% recycled tires; price competitive
Barriers: Chose local manufacture of similar recycled product
10. Dinoflex Safety Surface- gym flooring, day care area and exterior mats

Benefits: Recycled rubber
Barriers: Too rigid

11. Eco-Tile- day care area
Benefits: 100% recycled PVC plastic; interlocking no need to glue
Barriers: Too rigid
12. Schuyler Loading Dock Bumpers
Benefits: 100% of rubber content recycled truck tires, virtually maintenance free
Barriers: Existing bumpers will be used
13. Scientific Development Loading Dock Bumpers
Benefits: 100% of rubber content recycled truck tires, virtually maintenance free
Barriers: Existing bumpers will be used

Walls

14. Domtar Drywall - core and shell
Benefits: 20% recycled drywall content + ONP covering, price equivalent
Barriers: New product out that uses single layer and includes fire walls
15. Homosote Board Panels-sidewall insulation
Benefits: 100% post-consumer recycled newsprint
Barriers: Limited use, not needed
16. Evanite Fiber Board Panels-
Benefits: 100% post-consumer waste wood, local manufacture
Barriers: Limited use, not needed
17. Coverage Wallpaper-
Benefits: 66% post-consumer recycled paper + 32% pre-consumer wood chips
Barriers: Limited use, not needed
19. Rasmussen Paint- interior
Benefits: 100% post-consumer recycled paint from Metro's HHW; cost savings
Barriers: Color not available in white
20. Homosote-Sound-a-Sote- noise deadening structural board for use in the printing
and Day Care areas
Benefits: 100% recycled ONP; no formaldehyde; price savings?
Barriers: Aesthetics; using less expensive method for acusical walls

Ceilings

21. Celotex Ceiling Tiles

Benefits: 48-90% recycled content with some post-consumer content; each product style contains different recycled content; will discount for promotion

Barriers: TVA prefers another recycled product

22.. Fiberlite Ceiling Tiles

Benefits: 100% pre-consumer recycled fiberglass

Barriers: TVA prefers another recycled product

23. Armstrong Ceiling Tiles- styles/products other than "Second Look"

Benefits: Greater % of recycled content

Barriers: TVA prefers other style with 40% recovered materials

Wood finish

24. Storie Wood Products-resawn wood

Benefits: All resawn wood; less than cost of virgin; better quality than new; local manufacturer

Barriers: Limited quantities of requested wood

Misc

25.. Avonite -countertops

Benefits: 60% pre-consumer recycled plastics

Barriers: Aesthetics

26.. Phoenix Scientific Industries- paving bricks

Benefits: Up to 70% municipal incinerator fly ash; less than non recycled comparable bricks

Barriers: Aesthetics; substantial price premium