Bozeman’s New Library

an intro to its green features
Natural Daylighting
16kW Photovoltaic System
Night Flushing
Energy Modeling - Energy Efficient Systems
Recycled Materials
State-of-the-art Materials
Low Water Use
Low VOC’s
Stormwater Filtration
SITE - Site Remediation

- **Cleanup**
  - In-situ treatment
  - ex-situ treatment
  - Air monitoring

- **Reclamation**
  - backfilling,
  - regrading,
  - revegetation
Landscaping

• Planting
  • native or adaptive species

• Water Efficient Landscaping
  • 50% reduction through use of drought tolerant plants, clever landscape design. Hybrid drip irrigation system that operates on ground water rather than municipal water supply
Stormwater Management

- Preserved several acres of open space
- Use of green swales, dissipates, detention basins, and subterranean recharge structures cut peak flows by 40%
- Sedimentation control: through silt fencing, gabions and erosion control blankets. Will treat 82% of total suspended solids in the stormwater
AVAILABILITY OF POTENTIAL POLLUTANTS ON THE LAND SURFACE

LEGEND

Types of Pollutants that may occur in or near the Urban Area as a Result of the Indicated Activity

T = Toxic (hydrocarbons, metals, pesticides, chlorides)
O = Organic (oxygen-demanding)
N = Nutrient (primarily N and P)
P = Pathogenic
S = Sediment
A = Aesthetic (trash and debris)

Vehicle Exhaust, Wear of Tires, Brakes, and other Moving Parts, Oil and other Fluid Leaks (T,O)
Leaves and Grass Clippings (O,N)
On-Site Waste Disposal System in Inadequate Soils (T,O,N,P,A)
Human Litter, Careless Material Storage and Handling, Poor Property Maintenance (T,O,S,A)
Construction and Demolition Activity (S,A)
Animal Droppings (O,P,A)
De-icing Compounds and Sand (T,S)
Excessive Application of Chemical and Organic Fertilizers and of Pesticides (T,O,N,A)
Pavement Disintegration (S)
SITE - Alternative Transportation

- Hybrid/Alternative Fueled & Carpool Parking
- Bike Racks & Showers
Wastewater Reduction

- Typical Urinal uses 1.0 gallon per flush
- Waterless uses 0 gallons
- Water savings: 1,216 gallons per day and 379,392 gallons a year
- Annual cost savings of $890
- Automatic sensors on faucets
Materials

- Reused furniture
- Recycled content in materials used.
- Low-VOC paints, sealants, and adhesives
- Materials chosen with green in mind: carpet tile, engineered stone, marmoleum flooring, kalwall
Materials
Waste Diversion 91%

- Reduced construction waste.
  - Diverted from landfill:
    - Aluminum .03 tons
    - Asphalt 161.35 tons
    - Cardboard/ Paper 4.09 tons
    - Concrete Rubble 321.05 tons
    - Masonry- brick and cast stone 1.40 tons
    - Scrap steel & Iron 18.79 tons
    - Depot Brick 39.66 tons

- Occupant Recycling
  cardboard, paper, plastic, metal, glass
Milwaukee Railroad Depot

Renovate Depot

Relocate Depot

Recycle Depot
Energy

- Photovoltaic system: 16 kW system saves $2440.00 annually
Boiler and HVAC
Night Flushing
Energy- Daylighting & Views

- Low- E, gray glass
- Translucent fenestration system- Kalwall
Lighting Design Lab

DAYLIGHTING LAB SEATTLE
Blinds & More

State of the art sensor controls blinds.
Why Green?

- Operational & Maintenance Cost Savings
- Healthy & happy place to work, relax & learn
- Sustaining their future
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Green Features of the Design

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