

DEVER ARCHITECTS ANNOUNCES ONE OF PENNSYLVANIA'S FIRST "GREEN" SUPERMARKETS!

What makes this supermarket so special? LEED registration and hopefully soon - certification!

"The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings... LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality." - U.S. Green Building Council - www.usgbc.org.

The Concordville ACME team is working toward these goals and we hope to be awarded LEED points for accomplishing the following:

1. Sustainable Sites

- ▲ Construction Activity Pollution Prevention: Developed an Erosion & Sedimentation Control Plan to prevent soil loss due to runoff or wind erosion, stockpiled topsoil for reuse, prevented sediment from entering storm sewers or streams, and prevented dust or particulates air pollution.
- ▲ Development Density and Community Connectivity: The site is located within ½ mile of a residential area with 10 units per acre and has pedestrian access to 10 basic services within ½ mile.
- ▲ Alternative Transportation - Public Access: The project is located within ¼ mile of bus stops for two or more public bus lines.
- ▲ Alternative Transportation - Low Emitting & Fuel- Efficient Vehicles: Preferred parking (5% of total vehicle capacity) to be provided for low-emitting and fuel-efficient vehicles.
- ▲ Alternative Transportation - Parking Capacity: 5% of spaces to be preferred carpool and vanpool spaces.
- ▲ Site Development - Maximize Open Space: 20% of project site area to be vegetated open space.
- ▲ Stormwater Design: A Quantity Control Stormwater Management Plan prevents post-development peak discharge rate and quantity from exceeding the pre-development rate and quantity for one- and two- year 24-hour design storm.
- ▲ Heat Island Effect - Roof Surfaces: Roofing materials to have SRI of at least 78 a minimum of 75% of the roof surface.

2. Water Efficiency

- ▲ Water Efficient Landscaping - Potable Free System: No use of potable water for irrigation.

3. Energy and Atmosphere

- ▲ Perform Fundamental Commissioning of the Building Energy Systems

- ▲ Minimum Energy Performance: Building and building systems were designed to comply with mandatory provisions and prescriptive or performance requirements of ASHRAE/IESNA 90.1-2004.
- ▲ Fundamental Refrigerant Management: The project to use no CFC-based refrigerants.
- ▲ Optimize Energy Performance by 10.5% - 42% Percentage Improvement Reduction by performing whole building simulation using Building Performance Rating Method including ALL energy costs within and associated with building project (including office equipment, computers, conveying equipment, kitchen fixtures, etc.).
- ▲ Perform Enhanced Commissioning
- ▲ Enhanced Refrigerant Management: Select refrigerants that minimize or eliminate emissions that contribute to ozone depletion and global warming and do not install fire suppression systems containing ozone-depleting substances.

4. Materials and Resources

- ▲ Storage and Collection of Recyclables: The project to provide easily accessible areas for the whole building which are dedicated to the storage and collection of non-hazardous materials for recycling paper, corrugated cardboard, glass, plastic, and metal.
- ▲ Construction Waste Management: Recycle or salvage at least 50% or 75% of non-hazardous construction waste. Developed a Construction Waste Management Plan that identified materials to be diverted and where they were to be sorted (onsite or off-site). Excavated soil and land-clearing debris are excluded.
- ▲ Recycled Content, 10% or 20% (post-consumer + ½ pre-consumer): Use materials of recycled content (calculated by weight) such that the sum of post-consumer recycled based content plus one-half of pre-consumer content constitutes at least 10% or 20% of total value of materials in the project ($RC = PoC + .5 * PrC$). Mechanical, electrical, plumbing and specialty components are excluded, but furniture may be included as long as it is done so consistently through MRc3-7.
- ▲ Regional Materials, 10% or 20% Extracted, Processed & Manufactured Regionally: Use building materials or products that were extracted, harvested or recovered, and manufactured within 500 miles of project site for 10% or 20% (by cost) of total materials value. Mechanical, electrical, plumbing and specialty components are excluded, but furniture may be included as long as it is done so consistently through MRc3-7.
- ▲ Certified Wood: Use a minimum 50% of wood-base materials and products that are certified by Forest Stewardship Council (FSC). Only applicable to materials permanently installed in the project. Furniture may be included, provided it is applied consistently through MRc3-7.

5. Indoor Environmental Quality (IEQ)

- ▲ Minimum IAQ Performance: Meet the requirements of Sections 4 - 7 of ASHRAE 62.1-2004, Ventilation for Acceptable Indoor Air Quality.

Mechanical ventilation systems were designed using the Ventilation Rate Procedure or applicable local code, whichever is more stringent.

- ▲ Environmental Tobacco Smoke Control: Prohibit smoking in building and locate outdoor smoking areas at least 25 ft from building entrances, air intakes, and operable windows.
- ▲ Outdoor Air Delivery Monitoring: A permanent monitoring system to be installed that ensures ventilation systems will maintain design minimum ventilation requirements; For Mechanically Ventilated Spaces: install CO² monitors within all densely populated area (25 people or more per 1,000 square feet), for non-dense areas, provide direct outdoor airflow sensors to measure minimum outdoor airflow rate.
- ▲ Construction IAQ Management Plan, During Construction: Developed an Indoor Air Quality (IAQ) Management Plan for the construction phase of the project. During construction, meet or exceed Control Measures of Sheet Metal and Air Conditioning Contractors National Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, 1995; Protect on-site or installed absorptive materials from moisture damage; Install MERV-8 filters at every return air grille for installed air handlers that are in use during construction.
- ▲ Low Emitting Materials, Adhesives and Sealants: All adhesives and sealants used on the interior to comply with South Coast Air Quality Management District (SCAQMD) Rule #1168 for Adhesives, Sealants and Sealant Primers; aerosol adhesives to comply with Green Seal Standard for Commercial Adhesives GS-36.
- ▲ Low Emitting Materials - Paints and Coatings: Paints and Coatings used on interior to comply with VOC limits set forth by the following types: Architectural paints & primers for walls and ceilings to comply with Green Seal Standard GS-1; Anti-corrosive & antirust paints for interior ferrous surfaces to comply with Green Seal Standard GC-03; Clear wood finishes, coatings, stains, sealers and shellacs to comply with SCAQMD Rule 1113.
- ▲ Low Emitting Materials - Carpet Systems: All carpet to be installed to meet requirements of Carpet & Rug Institute's (CRI) Green Label Plus Program; All carpet cushion installed to meet requirements of CRI Green Label Plus Program; All carpet adhesive to comply with EQc4.1.
- ▲ Low Emitting Materials - Composite Wood & Agrifiber Products: Composite wood, agrifiber products and laminate adhesives to contain no added urea-formaldehyde resins. Materials considered fit-out, furniture and equipment (FF&E) are excluded.
- ▲ Thermal Comfort – Design: Designed HVAC systems and building envelope to meet requirements of ASHRAE 55-2004, Thermal Comfort Conditions for Human Occupancy.
- ▲ Thermal Comfort – Verification: Agreed to implement thermal comfort survey of occupants within 6-18 months after occupancy; Survey will collect anonymous responses regarding thermal comfort; Agreed to

develop a corrective action plan if more than 20% of occupants are dissatisfied.

- ▲ Daylight and Views - Distribution Quality: The project goal is to achieve a minimum glazing factor of 2% in a minimum of 75% of all regularly occupied spaces.

6. Design Excellence

- ▲ LEED Accredited Professional: The following team members are LEED accredited professionals: Marc Mondor of evolve EA, and Tom Dever and Gary Sharp of Dever Architects.