

DUNDALK COMMUNITY CENTER

Preserving Our Heritage . . .

. . . Preserving Our Environment



Prepared by the
Baltimore County Department of Public Works
Bureau of Engineering and Construction
2009



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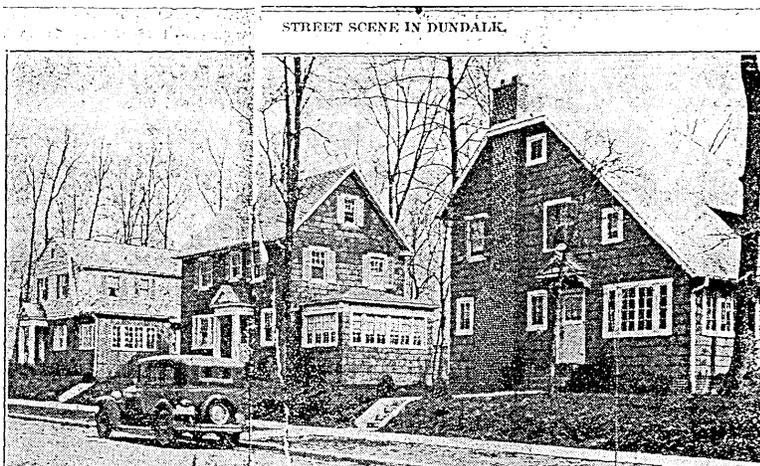
. . . Preserving Our Environment

❧ HISTORY AND ARCHITECTURE

By the middle of the 20th century, the Young Men’s Christian Association (YMCA) was a part of Dundalk and had a need for its own facilities in the community. The organization bought two lots from the Bethlehem Steel Company and broke ground for a new building in 1949. The new center, containing bedrooms, gymnasium, swimming pool, workshop, kitchen, and meeting and dining rooms, was completed in 1950. By 1969, this original building was used so much that the YMCA constructed an additional wing with a larger swimming pool.

In 1977, however, the YMCA determined that the organization could not continue to run the facility and sold it to Baltimore County, which maintained social and recreational programs there. As a fixture in the Dundalk community, it was sufficiently valued to be nominated as a Baltimore County Landmark in 2004.

In the 1890’s, the Henry McShane Manufacturing Company opened new foundries near St. Helena. The Baltimore and Sparrows Point Railroad, extending their line to provide freight deliveries, needed a name for the depot. McShane Company officials proposed “Dundalk” in honor of the company founder’s birthplace in Ireland. The central village of Dundalk that grew up in this area was a planned community on land originally purchased in 1916 by the Bethlehem Steel Company. During World War I the United States Shipping Board took over part of the land for housing for shipyard workers. After the war ended, the Dundalk Company was formed to complete the development of the town. The village core, along the western edge of the Dundalk National Register Historic District, faces what is now Dundalk Avenue, where a streetcar line connected the community to nearby work locations as well as Baltimore City. The village contains a number of basic commercial services within easy walking distance of the surrounding residential areas.



Photograph from The Jeffersonian, 1931, showing residential area of Dundalk



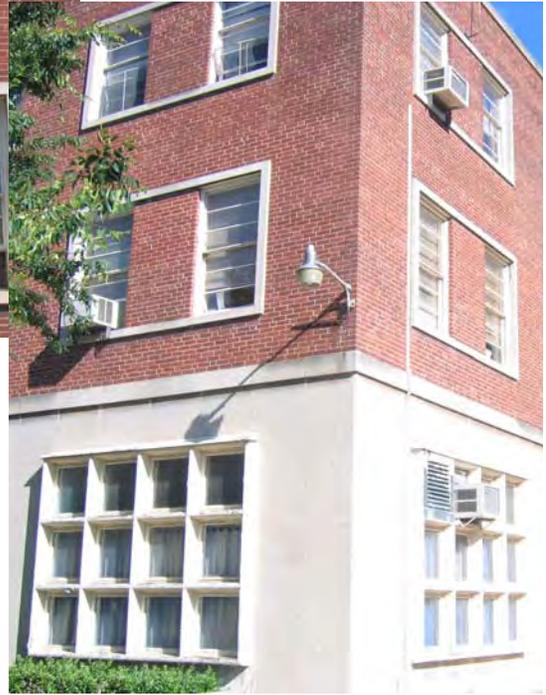
*Dundalk Shopping Center,
c. 1930s, courtesy of the
Dundalk - Patapsco Neck
Historical Society*

*St. Rita's School, courtesy of
the Dundalk - Patapsco Neck
Historical Society*



*Dundalk Elementary School, c. 1930s,
courtesy of Alberta Frye*

The Dundalk Community Center, at Dunmanway and Trading Place, anchors the southeast corner of the Historic District. On the edge of the core, it faces Heritage Park and Dundalk Elementary School. A harmonious part of the streetscape, it meshes with the unified character of its neighborhood. A variety of techniques, including choice of materials, window patterns, and entry treatments, offer interest to passers-by while providing an appropriate sense of scale that prevents the three-story building from overpowering the site.



*Architectural Details of Exterior
Façade, 1949 Building*





*View from
corner of
Trading Place
and Commerce
Street*

Designed in a late Art Deco-Industrial style, this building illustrates the development of early 20th century architecture. The lines of the building are modern, consisting of clean, simple geometric patterns with restrained ornamentation. However, the exterior materials are more historic in nature, including brick, limestone, and granite, reflecting other buildings in the village core. Similarly, the scale of the three-story building reflects the low-rise nature of the adjacent commercial, educational, and religious buildings.

As an additional connection to the community, the steel used in the original building and addition was manufactured at the nearby Bethlehem Steel mills.

RESTORE AND REUSE

Buildings age, however. An example of mid-20th century architecture, by the early years of the 21st century the Dundalk Community Center was showing some wear and tear. The roof needed replacing, mechanical systems were not functioning well, the pool was deteriorating. Accessibility to the building was difficult and, with modifications over the years, several sections of the interior were cut up and spaces could not be used efficiently.



Non-historic and inefficient window air conditioning units

Ceiling tile showing signs of damage from water leaks



Brick chimney in need of repointing

Damaged and uneven sidewalk





*Steel showing signs of rust
from excessive interior humidity*

Broken glass block



Due to the building's part in the community, it was decided, instead of constructing a new building, to renovate the Dundalk Community Center. The historic fabric of the building would be retained while mechanical, electrical, and plumbing systems would be updated to meet current and future needs. All portions of the building would be made accessible. The interior would be completely renovated for effective reuse of the center's approximately 45,000 square feet of space.

The pool and gym would be repaired and brought up to date; meeting and activity rooms would be provided. A tech center, with computers for public access and training, would be installed. Space would be supplied for Young at Heart, a senior center, and for the Police Athletic League, as well as space for other social programs.

Oh, and one more thing . . . this major renovation would be “green.”

GOING GREEN

What does “green” involve anyway? A “green” building is intended to be an environmentally responsible building, a sustainable part of the community, and a healthier place to work and live. The U.S. Green Building Council (USGBC), through their LEED[®] (Leadership in Energy and Environmental Design) Rating System, evaluates buildings in five areas: sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality. A sustainable site is one that successfully integrates a building with its natural location and connects it with the people who use it and their community. During renovation work at Dundalk Community Center, protections were in place to prevent contamination of the air and storm drainage systems. Installation of highly reflective roofing and reflective concrete sidewalks limit the “heat island effect;” the building and paving don’t retain as much heat in the summer,

reducing air temperature around the building. As an existing building in an established area, there are already connections to the community, including surrounding businesses and residences as well as public transportation.

New rooftop mechanical equipment and new reflective roofing



Reflective sidewalk and drought-resistant plantings

The United States extracts 3,700 billion gallons of water per year more than is returned to the natural water system to recharge water sources. Approximately 340 billion gallons of fresh water are withdrawn per day from rivers, streams, and reservoirs to support residential, commercial, industrial, agricultural, and recreational activities. At Dundalk Community Center, water use is reduced through low-flow plumbing fixtures, including faucet aerators and low-flow shower heads. There is no exterior irrigation system and native plants, requiring minimal care, are used for landscaping. By decreasing water use in Dundalk Community Center by over thirty-four percent, not only will less water be used, but there will be less sewage to be treated. Buildings in this country consume around thirty-seven percent of the energy and sixty-eight percent of the electricity used each year. Reducing the energy needed to run the Dundalk Community Center lowers its operating costs as well as the environmental impact of producing and utilizing electricity and natural gas. Installing new and more efficient equipment reduced the

building's modeled energy use by twenty-six percent. Another method employed to protect the atmosphere was to eliminate CFC-based refrigerants, which damage the ozone layer.

New mechanical equipment and computer control system



Just as the paper and ink for this booklet came from raw materials that needed to be extracted, processed, and transported to their site of use, so do all building materials, and there are energy and pollution costs associated with creating and moving these materials. To reduce the environmental costs of construction, fifteen percent of the materials used in this project were recycled, thirteen percent were produced within five hundred miles of the site, four percent were of rapidly renewable materials, and eighty-seven percent of the wood was grown and harvested in a sustainable fashion. A very basic way of conserving resources is to reuse, rather than demolish, a building. In renovating Dundalk Community Center, over ninety-six percent of the building's structure was saved. Also, recycling construction waste, which is forty percent of the country's waste stream, helps preserve landfill capacity and reduces the demand for new materials; at Dundalk, ninety percent of the construction waste was recycled.



Existing building contained tons of materials to be reused, such as brick, masonry, concrete, and steel.

On average, people in this country spend around ninety percent of their time indoors. Reducing pollutants inside buildings leads to healthier and more comfortable occupants and users. The easiest way to reduce indoor pollutants is to not bring them in. Paints, adhesives, carpet, and composite wood products used in this building have low levels of volatile organic chemicals that

could off-gas and irritate occupants. Smoking is prohibited inside the building and within twenty-five feet of entrances, windows, and air intakes. Chemicals that do have to be used in the building, such as cleaning and pool supplies, are stored in tightly sealed and separately ventilated rooms, and cleaning supplies are non-toxic and approved by Green Seal[®]. During construction, mechanical equipment was protected from dust and chemicals, with ducts sealed and filters being replaced, so there would not be contaminants in the air when the systems started.

HERITAGE AND ENVIRONMENT, BROUGHT TOGETHER

At first, it may seem contradictory to try and merge the “old” of a historic structure with the “new” of green building design and construction. In actuality, they blend well. Historic renovation is about preserving relevant features of the past for the current and future benefit of the community. Green design and construction is about conserving materials, energy, and water for the current and future benefit of the community.

Much of the historic significance of the Dundalk Community Center is tied to the design of its exterior appearance and the finish materials used. By maintaining and repairing the exterior, historic integrity is satisfied. By reusing an existing, structurally sound building, and even reusing some of the existing bricks for some of the renovation, materials and resources are conserved. In the simple act of preserving this building, heritage and environment are united.



Existing brick removed when renovating other portions of exterior was used to infill a window.

Some elements of the exterior, though, were replaced with new products. The most obvious examples are the windows. The existing windows were single paned, letting warm air escape in the winter and cool air escape in the summer. Since the building did not have central air conditioning, inefficient and decidedly non-historic window air conditioning units dotted the

façade. Decorative feature windows at one building corner mostly featured wood frames with peeling paint; feature windows at the original pool area were a hodgepodge of glass styles, including modern glass block. To maintain the spirit of the exterior, the new windows have profiles and appearances similar to the original ones. At the same time, there are improvements: the glass is double paned with a low-E coating, to better insulate the building; the frames are factory-coated aluminum, to improve maintenance; and the “new” glass block was replaced with clear glass, allowing more daylight into the interior. And with new central air conditioning, the old window units were removed.



New windows have a similar appearance to the original ones but are more energy-efficient.

Replacement glass blocks at the old pool have been changed to new efficient windows that provide daylight to the tech center.





New feature windows and (inset) detail of old damaged frame

However, some elements, like sixty-year-old plumbing fixtures, antiquated and poorly operating heating and cooling equipment, uninsulated walls, leaking roofs, water damage, structural problems, and uneven sidewalks, might, at a stretch, be considered “quaint” but hardly of historic import. Installing newer, lower consumption plumbing fixtures helps conserve water. Insulating walls and roofs means the mechanical equipment can be smaller; the new, smaller, higher efficiency heating and cooling equipment means less energy will be consumed. Interior finishes and structural elements that had been damaged by leaks or high humidity were repaired, providing a safer and healthier indoor environment. Replacing the roof helps prevent future water infiltration, and using highly reflective roofing keeps the building (and the neighborhood) cooler in the summer. New sidewalks, along with plantings, bike racks, and ramps to access the building entrances, help make the Dundalk Community Center more hospitable to the whole community.

With this renovation, the Dundalk Community Center retains its historic significance while becoming a more environmentally friendly building. It remains rooted in the community while serving that community more effectively. Spaces such as the gym and pool have been refurbished, and new functions such as the tech center have been added. (Who in 1949 would have expected a room full of personal computers?) Heritage and environment are preserved at Dundalk Community Center, with a new green heart behind its familiar façade.



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Architect:

Sanders Designs

Civil and Structural Engineer: Carroll Engineering, Inc.

Mechanical and Electrical Engineer: Allen & Shariff Corp.

Pool Consultant: Lothorian LLC

Kitchen Consultant: Pappas & Associates

LEED Coordinator: TerraLogos

General Contractor:

Maryland Construction, Inc.

LEED Coordinator: Greenbuilders

