




Congregation Darchei Noam
A Progressive, Egalitarian and Inclusive Community

Our Commitment to the Environment

As Jews and as Reconstructionists we are committed to the obligations of *Bal Tashchit* (do not waste) and *Tikkun Olam* (repair of the world). It is fitting, then, that Congregation Darchei Noam considers the sustainability of the natural environment to be a key component of programming, planning and decision-making.

These principles were an integral part of our approach to renovating our new home at 864 Sheppard Avenue West. The choices we made in selecting our heating, cooling, lighting, and water systems reflect our determination to minimize our impact on the natural environment. We sought out sustainable building materials and interior finishes and implemented environmentally respectful operating practices. In the process, we have crafted a beautiful yet practical new home, one that is comfortable and inviting, nurturing and inspiring.



Our New Home

Heating and Air Conditioning

- High efficiency, gas-fired, CFC-free, rooftop heating and cooling (HVAC) units use the new refrigerant 410A, which is not harmful to the ozone layer. These units are integrated with a sophisticated air distribution system which will keep our building's environment controlled consistently and uniformly. The temperature in the sanctuary will be regulated by two smaller units that run continuously while the space is in use, rather than one large one which would cycle on and off. This will be quieter and more energy-efficient while providing a higher degree of comfort.
- Zoning our building into independent sections allows the mechanical system to apply heating or cooling only where and when it is needed, so energy isn't wasted on areas of the building that aren't in use.
- Heat recovery systems reclaim heat from the return air system resulting in further energy savings.
- Programmable thermostats reduce heating and cooling levels when areas are not in use.
- CO2 sensors optimize fresh air intake and minimize energy costs by ensuring we bring in outside air only as required.

Insulation, Windows, and Roofing

- Exterior insulation equivalent to R20 (RSI 3.5) has been applied to both the new second storey and the existing structure before applying the new stucco finish to upgrade the thermal performance of the entire building.
- A high performance glazed curtain wall system comprises the exterior wall for the entire second floor, including the sanctuary. Curtain walls are not only more energy efficient than typical window wall systems, they are more effective in keeping unwanted moisture out.
- Low "E," tinted, sealed, double glazed window units have replaced all existing windows. The original stained glass windows on the middle level were retained and augmented with new sealed units in order to improve their energy efficiency.
- Operable windows were installed in all new spaces, letting Mother Nature do some of the work to reduce heating and cooling costs during the spring and fall.
- A reflective "white roof" reduces the heat gain and resultant air conditioning load from sunlight on the roof.

Lighting Systems

- Compact fluorescent fixtures and lamps are specified throughout the building.
- Multi-zone control illuminates only those areas in use.
- Windows throughout the building provide daylighting in lieu of artificial light. Windows were added to several of the existing lower level rooms.

Water Systems

- Motion-detection activated sinks and low flush toilets and urinals use less water than conventional fixtures.
- Instant hot water systems for washrooms and kitchens reduce energy costs for intermittently used areas and eliminate the need for water tanks.

Building Materials

- Highly durable building materials such as natural stone, tile, wood and vinyl products.
- Low VOC emitting materials.
- 100% recyclable carpet comprised of reclaimed post-consumer and post-industrial materials.
- Solvent free paints.

Site Use

- The location of the synagogue allows for ease of access via public transportation.
- Bike racks encourage the use of alternative modes of transportation.
- Retention of the majority of the existing building and foundations in lieu of demolition and new construction reduced the impact on landfill.

Operations

- Waste diversion of all recyclable and organic materials.
- Non-disposable dishes and cutlery.
- Environmentally friendly cleaning, bathroom, office, and kitchen supplies.
- On-going reviews of building systems and practices with a view to reducing our environmental footprint.

Solar panels

- Solar panels on south-facing portion of rooftop screen provide clean renewable energy.

