

GORDON TRACK | LOCKERS AND OFFICES

CERTIFIED

Harvard University Athletic Complex, 55 North Harvard Street, Boston, MA 02163

The Gordon Track Lockers and Offices project is a 3,300 square foot renovation undertaken by Harvard Faculty of Arts of Sciences (FAS) to repurpose existing space in the Gordon Indoor Track and Tennis facility, located at 55 North Harvard Street. The Gordon Track and Tennis facility consists of a 6-lane banked oval track, an 80-yd sprint lane, two long jump/triple jump pits, a pole vault runway and multiple high jump aprons.



With the newly renovated offices and locker rooms, the facility ranks among the best in the region. Gordon track is the host of numerous meets each season and in recent years has been the site of the Heptagonal and IC4A Championships.

The new space, which occupies transition space between Bright Hockey Center and the track includes staff offices, a lounge, and locker room facilities for the women coaches and men's track team. Project scope included the installation of new underground plumbing, HVAC equipment, lighting, and architectural finishes.

FAS is committed to reducing greenhouse gas emissions as part of Harvard's goal to reduce greenhouse gas emissions 30% below 2006 levels by 2016, inclusive of growth. With this certification, FAS has completed 20 LEED projects.

Gordon Track Lockers and Offices

Photo: Harvard Green Building Services, 2011.

PROJECT HIGHLIGHTS

LEED® Facts

Gordon Track Renovation

Harvard FAS

2011



Location.....	Boston, MA
Rating System.....	LEED-CI v2
Certification Achieved.....	Certified
Total Points Achieved.....	25/59

Sustainable Sites.....	3/7
Water Efficiency.....	2/2
Energy and Atmosphere.....	7/14
Materials and Resources.....	3/14
Indoor Environmental Quality.....	5/17
Innovation and Design.....	5/5

54% reduction in water consumption

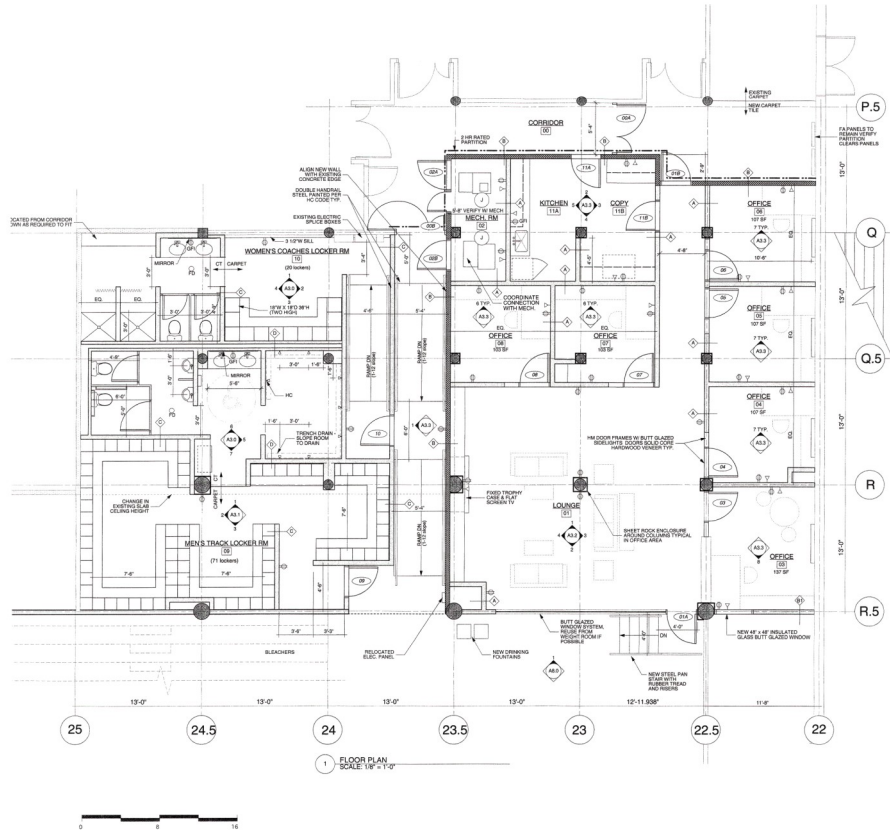
35% reduction in lighting power density

78% of all construction and demolition waste was diverted from landfills



PROJECT OVERVIEW

GORDON TRACK LOCKER ROOMS AND OFFICES FLOOR PLAN



Gordon Track Offices
 Photo: Harvard Green Building Services, 2011

PROJECT TEAM

Owner	Harvard Faculty of Arts and Sciences
Project Manager	Harvard Faculty of Arts and Sciences Capital Project Management
Architect	Imai Keller Moore
Contractor	Delta Design & Construction
HVAC Engineer	MacRitchie Engineering, Inc.
Commissioning Authority	MacRitchie Engineering, Inc.
Sustainability Consultant	Harvard University, Office for Sustainability Green Building Services



SITE



Gordon Track
Photo: Harvard Athletic Communications, 2009

- ▶ To encourage alternatives to driving, all occupants of the Gordon Track and Tennis Facility have access to Harvard's comprehensive **CommuterChoice Program**, which provides incentives and discounts for all modes of alternative transportation as well as carpooling and fuel efficient vehicles.
- ▶ The building is located within walking distance to the Harvard Square MBTA stop, several bus lines, and the Harvard University Shuttle.
- ▶ Bicycle Racks are located directly outside the Gordon Track facility with enough space for 100 bicycles.
- ▶ The building is located in a dense urban area, which allows occupants to walk and easily access amenities such as restaurants, banks, churches, and retail stores.



★ Gordon Track Building
★ MBTA Bus Stops

Bike Racks at Gordon Track
Photo: Harvard Green Building Services



WATER EFFICIENCY

Water-efficient and low-flow fixtures were installed in the Gordon Track building in order to achieve a **54%** reduction of potable water consumption below the code allowance.

Differences in the Flush & Flow Rates for EPAct 1992 Standard Fixtures and the fixtures installed for the Gordon Track Project		
Fixture Type	Gordon Track Flush & Flow Rates	EPAct 1992 Standard Flush & Flow Rates
Water Closet [GPF]	0.8	1.6
Urinal [GPF]	0	1.0
Bathroom Sink [GPM]	0.8	2.2
Shower [GPM]	1.8	2.5
Kitchen Sink	1.5	2.2
GPF - Gallons Per Flush GPM - Gallons Per Minute		



ENERGY EFFICIENCY

Harvard Faculty of Arts and Sciences has committed, along with Harvard University as a whole, to reduce greenhouse gas emissions 30% below 2006 levels by 2016, inclusive of growth. Therefore energy efficiency was a main goal of this renovation project.

MECHANICAL SYSTEMS

Air Handling Equipment: The project scope involved the installation of two new air handling units and two air-cooled condensing units. The new equipment provides conditioned air to the space more efficiently than the antiquated equipment that was serving the space.

Occupancy and Temperature Sensors: Each room has occupancy sensors that are tied to the building's control system allowing the supply air and temperature set-points to set back whenever spaces are unoccupied. The type of space and the activities carried out within it dictate the appropriate occupied and unoccupied set points for temperature and ventilation.

Commissioning: The mechanical and electrical systems were fully commissioned by a third-party Commissioning Authority, which helps ensure that the systems are operating in accordance with the design intent, and that the systems are not consuming more energy than is required to meet the project space needs.

ELECTRICAL SYSTEMS

Loads: 100% of the equipment and appliances in the space are Energy Star, which includes items such as refrigerators and LCD screens.

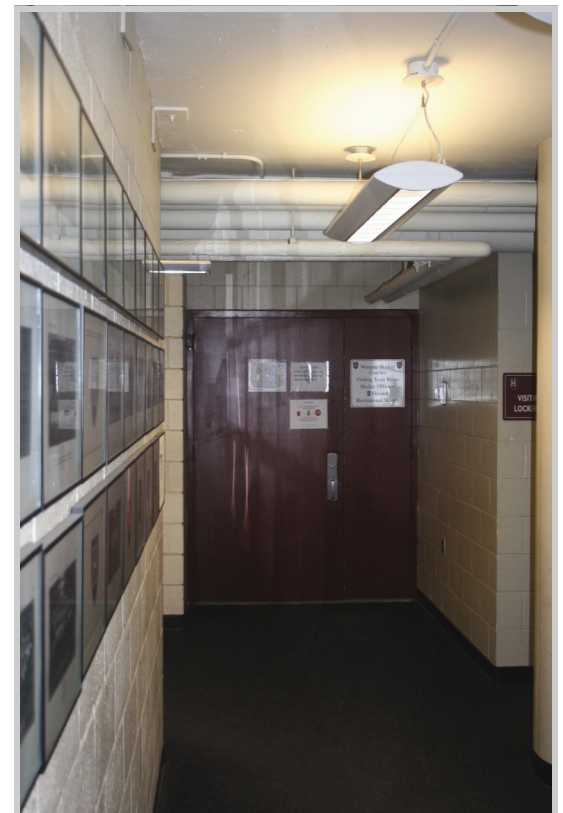
Light Fixtures: Energy-efficient, low-mercury fluorescent lighting fixtures and lamps were carefully chosen and strategically located within each space to reduce lighting power density and potential mercury emissions while maintaining adequate lighting levels for each type of space.

Task Lights: The lighting design consists of overhead lighting controlled by multiple switches/zones and task lights at the desks. This design allows occupants to adjust the lighting to suit their individual preferences, which not only increases productivity and comfort, but also decreases energy use.

Light Sensors: All lighting zones are equipped with occupancy sensors that turn lights off when not activated by motion for a set period of time.

Programmable Thermostat

Photo: Harvard Green Building Services, 2011



Pendant Lights with Low Hg Linear Fluorescent Lamps

Photo: Harvard Green Building Services, 2011



INDOOR ENVIRONMENTAL QUALITY

Harvard Faculty of Arts and Sciences is committed to providing a healthy indoor environment for all occupants. The project team was careful to maintain healthy indoor air quality during construction and to also ensure the space is designed to promote healthy indoor air quality during occupancy.

INDOOR AIR QUALITY DURING CONSTRUCTION: During the renovation, the construction team implemented an Indoor Air Quality (IAQ) Management plan to foster best construction practices for the prevention of airborne toxins and particulate matter. Some aspects of the plan included walk-off mats to reduce the amount of debris tracked into the project, masking all return grills and ventilation with polyethylene sheets, green sweep practices, and storing all materials in cool, dry areas to prevent mold.

Only materials with **Low or No VOC Content** were used. Volatile Organic Compounds (VOCs) are chemical compounds and known carcinogens found in many construction materials that are considered detrimental to indoor air quality. Reducing the use of VOCs whenever possible improves indoor air quality by helping to eliminate the introduction of potential toxins into the breathing zone.

> ADHESIVES AND SEALANTS | PAINTS AND COATINGS:

Product Category	Product & Manufacturer	VOC Content (g/l)	VOC Limit (g/l)	Standard
Paints & Coatings	> B28-W600 ProGreen 200 Primer	43	200	SCAQMD Rule 1113
	> B30-600 ProGreen 200 Flat Paint	48	50	GS-11
	> B70-W1 Water-based Catalyzed Epoxy	129	150	GS-11
Adhesives & Sealants	> SS154 Multi-Purpose Adhesive	0	50	GC-36
	> SpecSeal AS200 Elastomeric Sealant	20	250	SCAQMD Rule 1168

Construction IAQ Measures Implemented During Construction

Pathway Interruption: Maintaining proper ventilation with auxiliary equipment.



HVAC Protection: Duct work sealed after installation.



A Clean Construction Site

Photo: Harvard Green Building Services, 2008.

GREEN HOUSEKEEPING: The Gordon Track and Tennis Facility participates in Harvard's Facilities and Maintenance Operations (FMO) Green Cleaning Program, which uses 100% recycled paper products and Green Seal certified cleaning solutions, among other green housekeeping practices.

SMOKING POLICY: In addition to prohibiting smoking in all facilities, FAS does not allow smoking within 25 feet of buildings with LEED certified spaces.



MATERIALS & WASTE

According to the 2009 EPA “Buildings and the Environment: A Statistical Summary” report, building-related construction and demolition debris totaled approximately 160 million tons per year, accounting for nearly 26 percent of total non-industrial waste generation in the U.S..

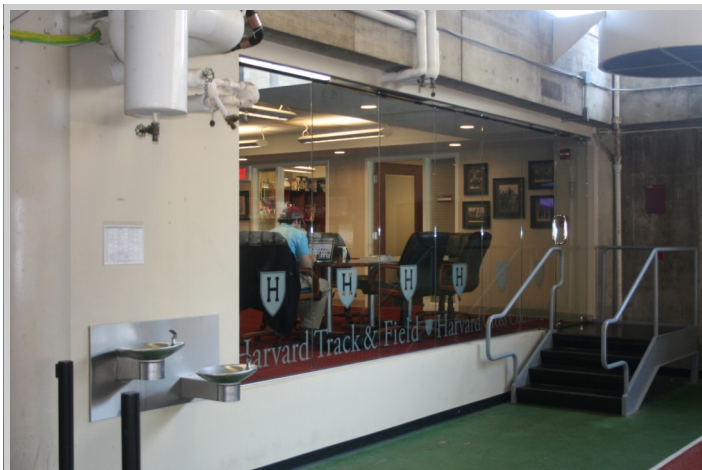
A significant portion of the waste can be reused, and diverted from landfill or incineration. By carefully tracking construction waste, the project team held the hauler responsible for accurate reporting of the disposal methods. This added accountability is helping to reduce the potential impact of construction waste streams on the natural environment.

78% of the on-site generated construction waste was diverted from landfill.



Trophy Case

Photo: Harvard Green Building Services, 2011.



Gordon Track Lounge

Photo: Harvard Green Building Services, 2011.



Gordon Track Energy Star LCD Screen/Trophy Case

Photo: Harvard Green Building Services, 2011.

ADDITIONAL RESOURCES

- > **HARVARD UNIVERSITY FACULTY OF ARTS AND SCIENCES (FAS):** <http://www.fas.harvard.edu/home>
- > **HARVARD ATHLETICS GORDON TRACK:** <http://www.gocrimson.com/sports/track/index>
- > **HARVARD GREEN BUILDING SERVICES:** <http://green.harvard.edu/green-building-services>
- > **HARVARD GREEN BUILDING RESOURCE:** <http://green.harvard.edu/theresource>