

CONNECTION TO THE OUTSIDE THE BUILDING IS DESIGNED TO MAXIMISE EXTERNAL VIEWS FOR BUILDING OCCUPANTS, WHERE 80% OF THE OCCUPIED SPACE PROVIDES OCCUPANTS WITH A VISUAL CONNECTION TO THE EXTERNAL ENVIRONMENT, CREATING HEALTHIER AND MORE COMFORTABLE INDOOR SPACES.



CYCLIST FACILITIES THE RESIDENCE IS EQUIPPED WITH CYCLE PARKING STATIONS TO ENCOURAGE THE USE OF BICYCLES BY STAFF, STUDENTS AND VISITORS TO REDUCE CARBON EMISSIONS CAUSED BY MOTOR VEHICLES.



WATER SAVING THE BUILDING HAS WATER EFFICIENT TAPS, SHOWERS AND TOILETS INSTALLED THAT USE LESS WATER AND WILL REDUCE THE DEMAND ON THE CITY'S POTABLE/FRESH WATER. PLANTS IN THE GARDENS ARE IRRIGATED WITH DRIP IRRIGATION TO REDUCE WATER CONSUMPTION.



ENERGY GREEN HOUSE GAS EMISSIONS THIS BUILDING IS DESIGNED TO MINIMISE GREENHOUSE GAS EMISSIONS FROM OPERATIONAL ENERGY CONSUMPTION. IT IS DESIGNED TO BE 54% MORE EFFICIENT THAN THE GOVERNMENT STANDARD FOR ENERGY EFFICIENCY.



VENTILATION AND FRESH AIR THIS BUILDING IS DESIGNED TO PROVIDE SUFFICIENT AMOUNTS OF OUTSIDE AIR (FRESH AIR) TO COUNTER-ACT THE BUILD UP OF INDOOR POLLUTANTS.



DAYLIGHT THE BUILDING DESIGN PROVIDES GOOD LEVELS OF DAYLIGHT TO BUILDING USERS AND STUDENT RESIDENCE ROOMS. THIS MAKES FOR HEALTHIER SPACES AND ALLOWS ONE TO USE ELECTRICAL LIGHTS LESS.



LOCAL SOURCING OF MATERIALS A SIGNIFICANT PROPORTION OF MATERIALS USED IN THE CONSTRUCTION OF THIS BUILDING ARE LOCALLY SOURCED WITHIN CLOSE PROXIMITY TO THE SITE TO REDUCE GREENHOUSE GAS EMISSIONS AND POLLUTION FROM TRANSPORTATION OF MATERIALS FROM FAR AWAY. THIS ALSO SUPPORTS THE LOCAL ECONOMY. 20% OF THE PROJECT'S TOTAL CONTRACT VALUE IS REPRESENTED BY MATERIALS/PRODUCTS THAT HAVE BEEN SOURCED FROM WITHIN 400KM OF THE SITE. 10% OF THE PROJECT'S TOTAL CONTRACT VALUE IS REPRESENTED BY MATERIALS/PRODUCTS THAT HAVE BEEN SOURCED FROM WITHIN 50KM OF THE SITE.



INDOOR POLLUTANTS THE INTERIOR FINISHES OF THIS BUILDING WERE SELECTED TO AVOID INDOOR POLLUTANTS FROM MATERIALS THAT ARE OFTEN PRESENT IN PAINTS, ADHESIVES AND SEALANTS (VOLATILE ORGANIC COMPOUNDS AND LEAD).

REUSED LAND THE BUILDING WAS BUILT ON PREVIOUSLY DEVELOPED LAND WITHIN A MUNICIPALLY APPROVED URBAN EDGE, RATHER THAN USING A GREENFIELD SITE.



REDUCED CARBON FOOTPRINT OF CONCRETE THE BUILDING WAS BUILT USING CONCRETE THAT REDUCED THE AMOUNT OF CEMENT USED BY 30% BY REPLACING THIS WITH REPLACEMENT WASTE MATERIALS (WITHOUT REDUCING THE STRENGTH OF THE CONCRETE) TO REDUCE THE CARBON FOOTPRINT OF THE CONCRETE. CEMENT PRODUCTION IS RESPONSIBLE FOR A LARGE AMOUNT OF GREENHOUSE GAS EMISSIONS GLOBALLY.



WASTE MANAGEMENT DURING CONSTRUCTION, OVER 70% OF CONSTRUCTION WASTE WAS RECYCLED AND NOT SENT TO LANDFILL. THE SITE ALSO HAS A WASTE MANAGEMENT PLAN IN PLACE TO ENSURE SEPARATION OF WASTE FROM BUILDING USERS, TO ENSURE THAT RECYCLABLE WASTE DOES NOT END UP ON LANDFILL SITES. FOOD WASTE FROM THE CANTEEN IS ALSO RECYCLED.



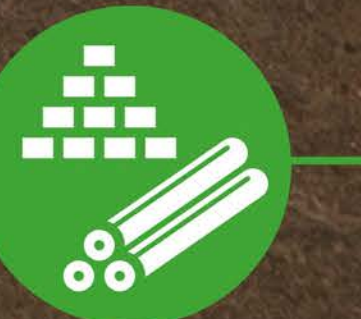
LIGHT POLLUTION AT NIGHT THE SITE WAS DESIGNED NOT TO HAVE ANY LIGHT FITTINGS THAT ARE DIRECTED INTO THE NIGHT SKY. THIS AVOIDS IMPACTING NOCTURNAL BIRDS AND CREATURES NEGATIVELY AND IMPROVES THE VISIBILITY OF STARS AND PLANETS AT NIGHT.



URBAN HEAT ISLAND THE BUILDING AND SITE WERE DESIGNED IN SUCH A WAY TO REDUCE THE URBAN HEAT ISLAND EFFECT FROM THE DEVELOPMENT (URBAN HEAT ISLAND EFFECT IS A RESULT OF HEAT ABSORBED BY HARD SURFACES IN URBAN AREAS). THE HEAT ABSORPTION OF THE SITE WILL BE REDUCED THROUGH THE PLANTED, SOFT SURFACES AND SHADING ON THE SITE AS WELL AS FROM SURFACE MATERIALS/COLOURS WITH A RELATIVELY HIGH SOLAR REFLECTANCE.



REDUCED CARBON FOOTPRINT OF STEEL THE BUILDING WAS BUILT USING REINFORCING STEEL THAT HAD MORE THAN 54% RECYCLED STEEL CONTENT TO REDUCE THE CARBON FOOTPRINT OF THE STEEL AND REQUIRES LESS STEEL ORE TO BE MINED. STEEL PRODUCTION IS RESPONSIBLE FOR A LARGE AMOUNT OF GREENHOUSE GAS EMISSIONS GLOBALLY.



UNIVERSAL ACCESS THIS STUDENT RESIDENCE OFFERS EQUALITY OF ACCESS FOR ALL BY INCLUDING ACCESS TO FACILITIES FOR PERSONS WITH DISABILITIES TO COMMON AREAS, ALONG WITH THE PROVISION OF AT LEAST ONE TOILET FACILITY ON THE ENTRY LEVEL OF THE STUDENT RESIDENCE THAT FACILITATES WHEELCHAIR USER ACCESS. A NUMBER OF ROOMS HAVE ALSO BEEN CREATED WITH ACCESS FOR PERSONS WITH DISABILITIES.



OUTDOOR EXERCISE A FREE OUTDOOR GYM IS ACCESSIBLE TO ALL STUDENTS. OUTDOOR EXERCISE OXYGENATES THE BODY, HELPS TO BUILD FITNESS AND PROMOTES SOCIAL OUTDOOR ACTIVITY WHILE AT THE GYM TOGETHER.



ACCESS TO CAMPUS & NEARBY AMENITIES THE BUILDING WAS BUILT IN A LOCATION THAT ALLOWS WALKABLE ACCESS TO THE UNIVERSITY CAMPUS AND NEARBY AMENITIES, TO REDUCE THE OVERALL NUMBER OF MOTOR VEHICLE TRIPS TAKEN TO GET TO THESE PLACES.



UCT AVENUE ROAD STUDENT RESIDENCE & DINING HALL GREEN FEATURES