Project Details

Project Name	Plaza Logistica Esteban Echeverrria 1	Address Line1	Pedro B. Palacios 100
Number of Distinct Buildings	3	Address Line2	
Number of EDGE Subproject(s) associated	3	City	Esteban Echeverria
Total Project Floor Area	45,168.93 m²	State/ Province	Buenos Aires
Project Owner Name	Emiliano Giana	Postal Code	B1805DYC
Project Owner Email	eg@plazalogistica.com.ar	Country	Argentina
Project Owner Phone	Office 0054-1152361010	Project Number	1000122208
Share with investor(s) or bank(s)?	Yes		

Associated Subproject(s):

Plaza Logistica Esteban Echeverrria 1, Plaza Logistica Esteban Echeverrria 1- Vestuario, Plaza Logistica Esteban Echeverrria 1- Comedor

Subproject Details

Subproject Name	Plaza Logistica Esteban Echeverrria 1-Vestuario	Address Line1	Pedro B. Palacios 100
Retail Store Name	Plaza Logistica Esteban Echeverrria 1-Vestuario	Address Line2	
Subproject Multiplier for the Project	1	City	Esteban Echeverria
Certification Stage	Preliminary	State/ Province	Buenos Aires
Status	Under Review	Postal Code	B1805DYC
Auditor	gustavo goldman	Country	Argentina
Certifier	Green Business Certification Inc. (GBCI)	Subproject Type	New Building

Location Data

Country : Argentina

City : Buenos Aires

Basic Parameters

Type of Retail	Warehouse	No	Landscaped Area	m²
Site Area	298.3 m²			
Car Parking	None	No	Food Court	

Building Data

Floors Above Ground	:	1	no.
Floors Below Ground	:	0	no.
Floor to Floor Height	:	2.6	m
Gross Internal Area	:	298.3	m²

		Default	*User Entry*	
Gross Internal Area	:		298	
Office Spaces	:	~~17~~	129.59	m²
Receiving And Shipping	:	~~33~~	0.0001	m²
Package Disassembly	:	~~10~~	0.0001	m²
Package Assembly	:	~~10~~	0.0001	m²
Rack Storage	:	~~149~~	0.0001	m²
Controlled Storage	:	~~10~~	0.0001	m²
Bulk Storage	:	~~50~~	79	m²
Inventory Control	:	~~3~~	0.0001	m²
Dispatcher	:	~~7~~	0.0001	m²
Mechanical & Electrical Room	:	~~90~~	89.71	m²
Food Court	:	~~-~~	0.0001	m²

Building Orientation

	Default	*User Entry*	
Floor Plan Depth*** :	~~-~~	33.24	m
Main Orientation*** :	Northwest		

*** These parameters will be used to estimate building dimensions. If the exact details of the dimensions and orientation are available, then complete the User Entry fields in the Building Lengths section. The orientation of the building will have a direct effect on energy consumption.

Building Lengths

	Default	*User Entry*
~~North~~	~~-~~	
~~South~~	~~-~~	
~~East~~	~~-~~	
~~West~~	~~-~~	
Northeast	~~9.0~~	8.7
Northwest	~~33.2~~	33.24
Southeast	~~33.2~~	33.24
Southwest	~~9.0~~	8.7

Building Systems

Does the building design include an AC system?	: Yes
Does the building design include a space heating system?	: Yes

Key Assumptions for the Base Case

	Default	User Entry	
Fuel Used for Electric Generator	Diesel	Diesel	
Fuel Used for Hot Water Generation	Electricity	Electricity	
Fuel Used for Cooking	Electricity	Electricity	
Fuel Used for Space Heating	Electricity	Electricity	
% of Electricity Generation Using Diesel	5.00%		% Ave. Yrly
Cost of Electricity	0.058		$/kWh
Cost of Diesel Fuel	3.05		$/L
Cost of Natural Gas	0.53		$/L
Cost of Water	0.10		$/kL
CO_2 Emissions from Electricity Generation	493.01		g/kWh
Window to Wall Ratio	10.00%		%
Solar Reflectivity for Paint - Wall	30.00%		%
Solar Reflectivity for Paint - Roof	30.00%		%
Roof U-value	1.99		W/m².K
Wall U-value	1.86		W/m².K
Glass U-value	5.75		W/m².K
Glass SHGC	0.50		Factor
Cooling System	ASHRAE 90.1.2007	ASHRAE 90.1.2007	
AC System Efficiency	2.66		COP
Heating System	ASHRAE 90.1.2007	ASHRAE 90.1.2007	
Heating System Efficiency	2.66		Eff.

Monthly Average Outdoor Temperature (deg.C)

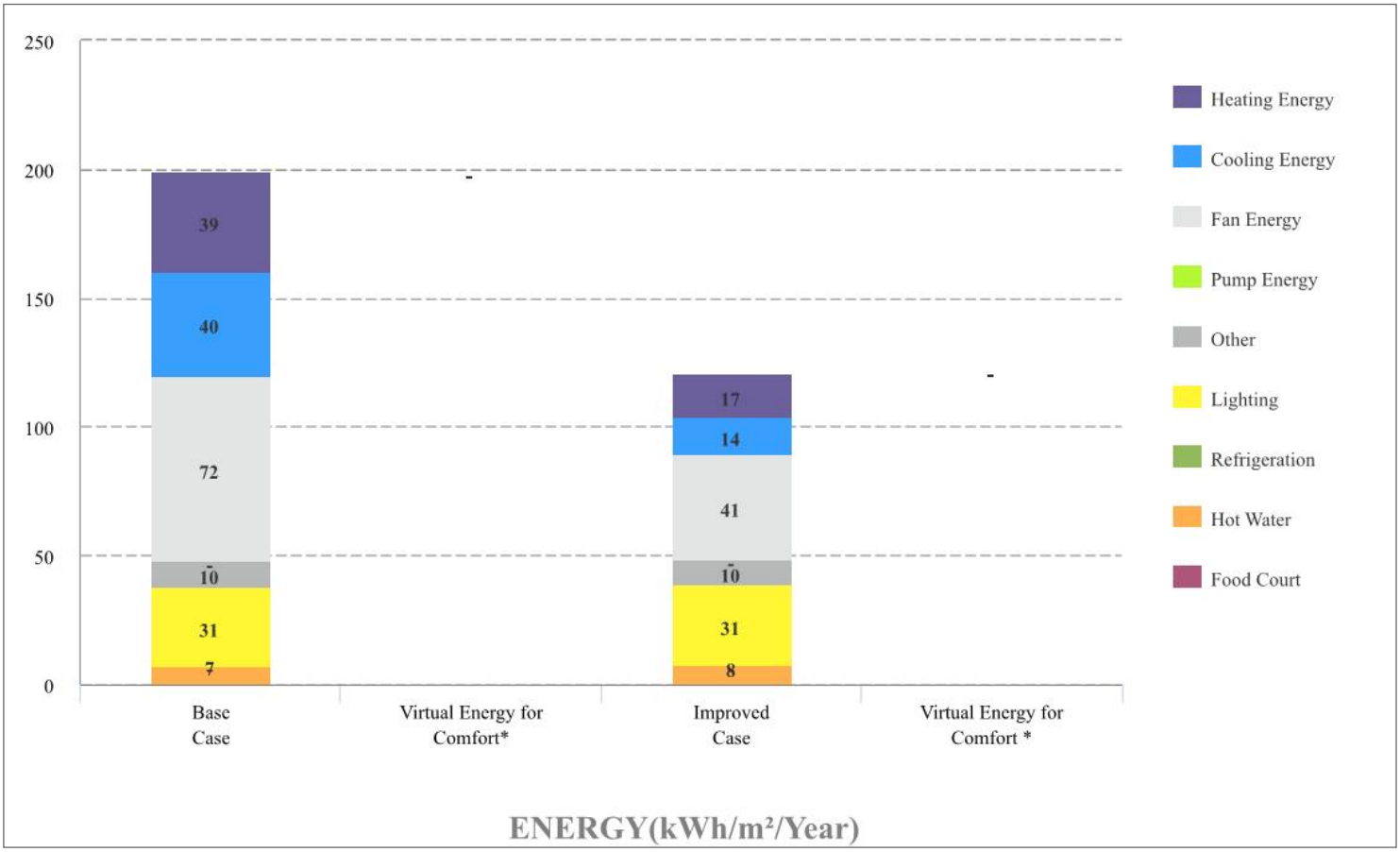
	Default	User Entry	
Jan	24.5		
Feb	23.4		
Mar	21.3		
Apr	17.6		
May	14.4		
Jun	11.2		
Jul	11.0		
Aug	12.3		
Sep	14.4		
Oct	17.2		
Nov	20.3		
Dec	23.0		
Latitude	34.60		Deg
Average Annual Rainfall	950.00		mm

RESULTS

Final Energy Use	3,035.15 kWh/Month	Operational CO_2 Savings	10.81 tCO_2/Year
Final Water Use	50.34 m3/Month	Embodied Energy Savings	4,876.26 MJ/m²
Base Case Utility Cost	457.73 $/Month	Incremental Cost	31,348.21 $
Utility Cost Reduction	177.00 $/Month	Payback in Years	14.76 Yrs.
Energy Savings	22.87 MWh/Year	Water Savings	305.75 m³/Year
Embodied Energy in Materials Savings	1454.59 GJ	Aggregate Floor Space Including Multiplier	298.30

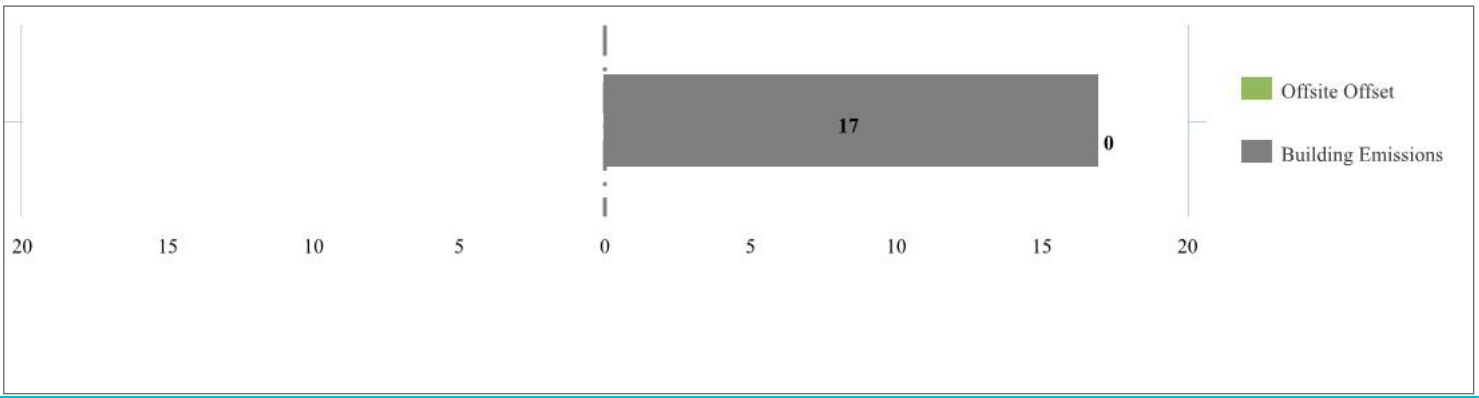
Energy Efficiency Measures 38.57%

Meets EDGE energy standard



* Virtual energy is the amount of energy that will be required based on the assumption that the retail will eventually install air conditioning or heating.

CARBON EMISSIONS: 17.22 tCO_2/Year



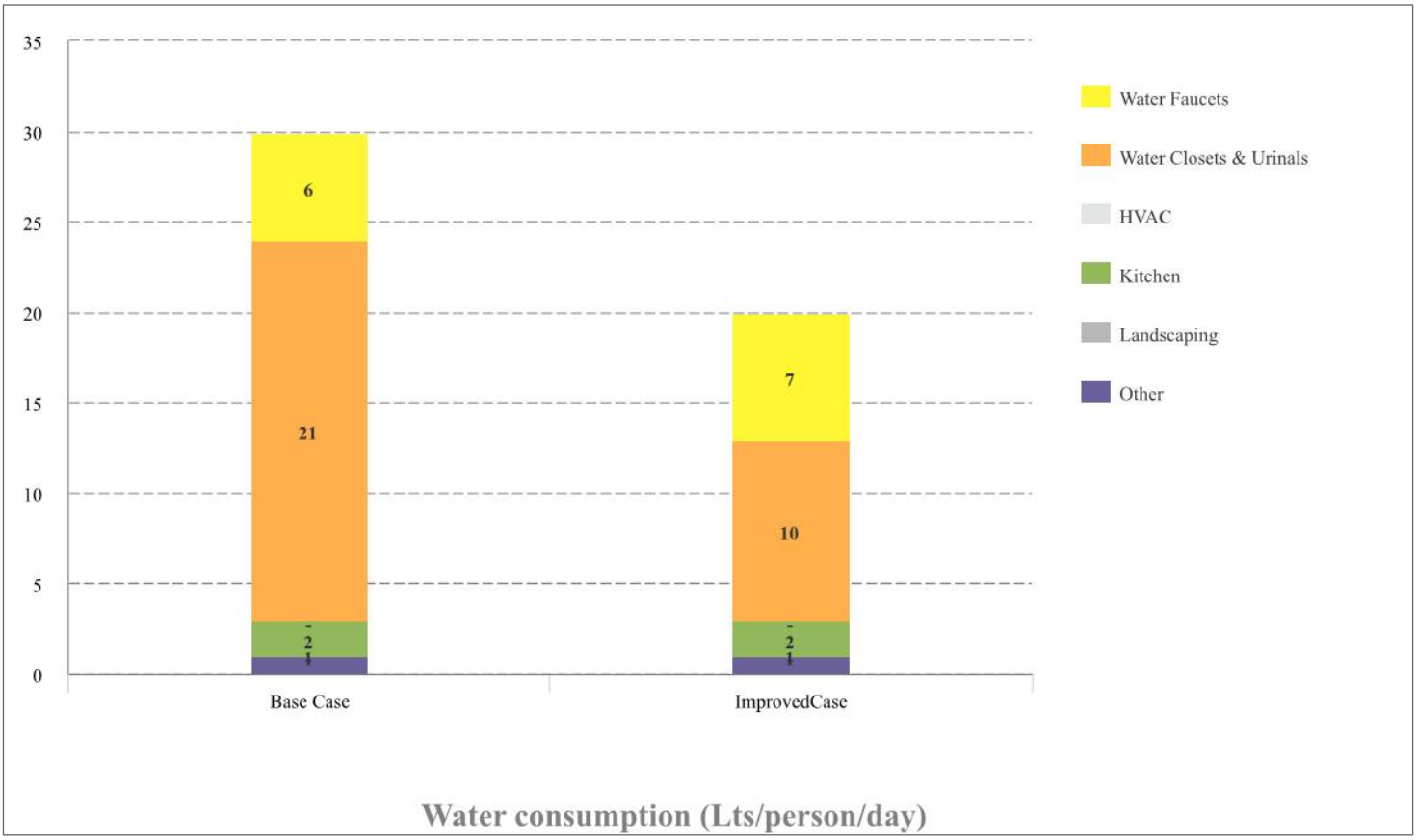
Yes	RTE01	Reduced Window to Wall Ratio - WWR of 5.29%	~~North~~	
			~~South~~	
			~~East~~	
			~~West~~	
			Northeast	9.06
			Northwest	1.47
			Southeast	0.69
			Southwest	5.53
Yes	RTE02	Reflective Paint/Tiles for Roof - Solar Reflectivity (albedo) of 0.6	SR	0.60
No	RTE03	Reflective Paint for External Walls - Solar Reflectivity (albedo) of 0.7	SR	0.60
No	RTE04	External Shading Devices - Annual Average Shading Factor (AASF) of 1	AASF	
Yes	RTE05	Insulation of Roof : U-value of 0.48	W/m².K	0.48
Yes	RTE06	Insulation of External Walls : U-value of 1.09	W/m².K	1.09
No	RTE07	Low-E Coated Glass : U-value of 3 W/m².K and SHGC of 0.45	W/m².K	
			SHGC	
No	RTE08	Natural Ventilation with Operable Windows for Corridors, Atrium, and Common Areas		
No	RTE09	Air Economizers During Favorable Outdoor Conditions		
Yes	RTE10	Variable Refrigerant Flow (VRF) Cooling System - COP of 3.62	COP	3.62
No	RTE11	Air Conditioning with Air Cooled Screw Chiller - COP of 3.63	COP	
No	RTE12	Air Conditioning with Water Cooled Chiller - COP of 4.95	COP	
No	RTE13	Ground Source Heat Pump - COP of 5.2	COP	
No	RTE14	Absorption Chiller Powered by Waste Heat - COP of 0.7	COP	
No	RTE15	Recovery of Waste Heat from the Generator for Space Heating		
No	RTE16	Variable Speed Drives on the Fans of Cooling Towers		
No	RTE17	Variable Frequency Drives in AHUs		
No	RTE18	Variable Speed Drives Pumps		
No	RTE19	Sensible Heat Recovery from Exhaust Air - Efficiency of 60%	Efficiency	

No	RTE20	CO2 Sensor/Demand-Controlled Ventilation for Fresh Air Intake		
No	RTE21	High-Efficiency Condensing Boiler for Space Heating - Efficiency of 90%	Efficiency	
No	RTE22	High-Efficiency Boiler for Water Heating - Efficiency of 90%	Efficiency	95.00
No	RTE23	Energy-Saving Light Bulbs - Sales Area		
Yes	RTE24	Energy-Saving Light Bulbs - Corridors and Common Areas		
No	RTE25	Energy-Saving Light Bulbs - External Spaces		
Yes	RTE26	Occupancy Sensors in Bathrooms		
No	RTE27	Higher Efficiency Refrigerated Cases		
No	RTE28	Solar Hot Water Collectors - 50% of Hot Water Demand	% Hot Water	
			Collector Area (m²)	0.0
No	RTE29	Solar Photovoltaics - 25% of Total Energy Demand	% of Annual Electricity Use	
			Capacity (kWp)	0.0
No	RTE30	Skylight(s) to Provide Daylight to 50% of Top Floor Area	% Daylit Area	
			SHGC	
			U-value [K·m²/W]	
No	RTE31	Other Renewable Energy for Electricity Generation	Source Type	Biomass
			% of Annual Electricity Use	
No	RTE32	Offsite Renewable Energy Procurement - Equal to 100% of total Operational CO2	% Annual Operational CO2	
			kWh/Year	-
No	RTE33	Carbon Offset - 100% of Total CO2	% Annual Operational CO2	
			tCO2/Year	-

Water Efficiency Measures 33.30%

WATER SAVINGS

Meets EDGE Water Standard

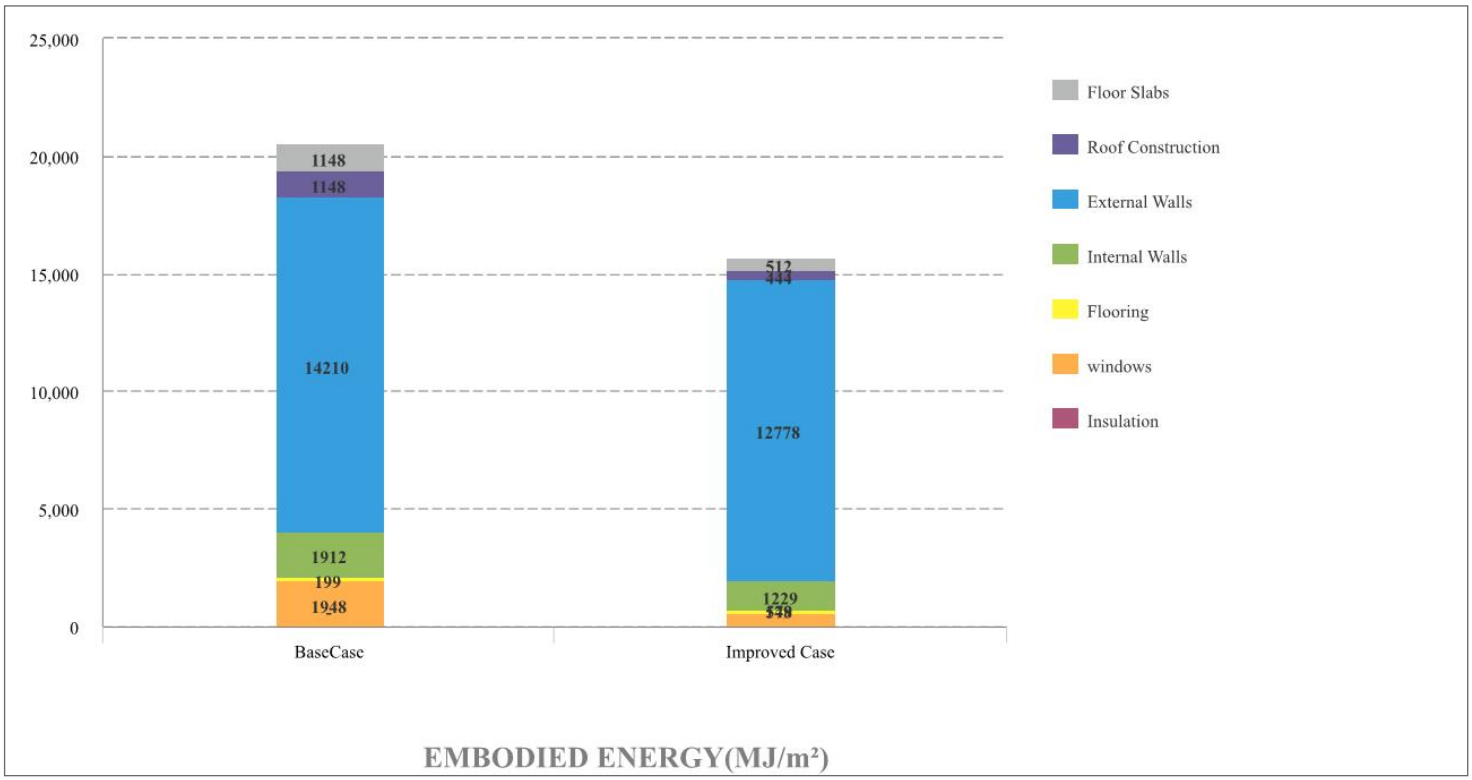


Yes	RTW01	Dual Flush for Water Closets in All Bathrooms - 6 L/first flush and 3 L/second flush	1st - L/flush	6
	No	Single Flush/Flush Valve	2nd - L/flush	3
Yes	RTW02	Water-Efficient Urinals in All Bathrooms - 0.6 L/flush	L/flush	0.6
Yes	RTW03	Aerators & Auto Shut-off Faucets in All Bathrooms - 7 L/min	L/min	7
No	RTW04	Water-Efficient Kitchen Faucets - 4 L/min	L/min	4
No	RTW05	Water-Efficient Dishwashers - 2 L/Rack		
No	RTW06	Pre-Rinse Valve for Rinsing Operation - 6 L/min		
No	RTW07	Water-Efficient Landscaping - 3 L/m²/day	L/m²/day	
No	RTW08	Condensate Water Recovery		
No	RTW09	Rainwater Harvesting System - 50% of Roof Area Used for Rainwater Collection	% of Roof Area Used	
No	RTW10	Grey Water Treatment and Recycling System		
No	RTW11	Black Water Treatment and Recycling System		

Materials Efficiency Measures 23.71%

Embodied Energy Savings

Meets EDGE Material Standard



				Proportion %	*Thickness*	*Steel Rebar*
RTM01	Floor Slabs					
	In-Situ Reinforced Concrete Slab 350 mm Steel : 35 kg/m²		In-Situ Reinforced Concrete Slab		120 mm	20 kg/m²
RTM02	Roof Construction					
	In-Situ Reinforced Concrete Slab 350 mm Steel : 35 kg/m²	Type 1	Steel (Zinc or Galvanised Iron) Sheets on Steel Rafters	100 %	mm	kg/m²
RTM03	External Walls					
	Common Brick Wall with Internal & External Plaster 200 mm	Type 1	Cored (with Holes) Bricks with Internal & External Plaster	100 %	330 mm	

				Proportion %	Thickness
RTM04 Internal Walls					
Common Brick Wall with Plaster on Both Sides	Type 1	Cored (with Holes) Bricks with Plaster on Both Sides		100 %	120 mm
100 mm					
RTM05 Flooring	Type 1	Ceramic Tile		60 %	
Ceramic Tile	Type 2	Finished Concrete Floor		40 %	
RTM06 Window Frames					
Aluminium	Type 1	Steel		100 %	Single Glazing
Single Glazing					
RTM07 Wall Insulation					
No Insulation		Air Gap <100mm Wide			30 mm
U : ~ 1.86 W/m²k					
RTM08 Roof Insulation					
No Insulation		Glass Wool			80 mm
U : ~ 1.99 W/m²k					

EDGE Certification Checklist

Building Type	Certification Stage	Subproject Name
Retail	Preliminary	Plaza Logistica Esteban Echeverrria 1- Vestuario

Energy Measures		Preliminary Audit Requirements
RTE01	Reduced Window to Wall Ratio	> Calculation of "Glazing Area" and "Gross Exterior Wall Area" for each façade of the building and the average building area weighted WWR using the WWR calculator
		> All façade elevation drawings showing glazing dimensions and general building dimensions.
RTE02	Reflective Paint/Tiles for Roof	> Building design drawings showing the roof material and roof finish.
		> Roof specification with solar reflectivity of the roof surface indicated.
		> Bill of quantities with the roof finish clearly marked.
RTE05	Insulation of Roof	> A roof construction detail drawing showing the type and thickness of insulation material. Ideally the roof detail drawing should be annotated with the U Value of the roof.
		> Calculations of U value either using the formula or U value calculators.
		> Manufacturer's data sheet of specified insulation material for the roof.
RTE06	Insulation of External Walls	> External walls construction detail drawing showing the type and thickness of the insulation material. Ideally the external walls detail drawing should be annotated with the U Value of the external walls.
		> Calculations of U value either using the formula or U value calculators.
		> Manufacturer's data sheet of specified insulation material for the external walls.
RTE10	Variable Refrigerant Volume (VRV) Cooling System	> Manufacturer's data sheets for the VRV cooling system specifying COP information.
		> For systems including more than one chiller unit, the design team must provide the average COP calculation.
		> Mechanical drawings showing the location of the external and internal units.
RTE24	Energy Saving Light Bulbs- Corridors and Common Areas	> Lighting schedule listing type and number of bulbs specified.
		> Electrical layout drawings showing the location and type of all installed bulbs.
RTE26	Occupancy Sensors in Bathrooms	> Electrical layout drawings showing the location of the occupancy sensors.
		> Specification of the sensors from manufacturer.

Water Measures		Preliminary Audit Requirements
RTW01	Dual Flush for Water Closets in Bathrooms	> Plumbing drawings/specifications including make, model, and flush volumes of water closet(s).
		> Manufacturer's data sheet for water closet(s) with information on the flush volume of the main and reduced flushes.
RTW02	Water-Efficient Urinals in all Bathrooms	> Plumbing drawings/specifications including make, model, and flush volume of the urinal(s).
		> Manufacturer's data sheet for urinal(s) with information on the flush volume.
RTW03	Aerators for Faucets/ Auto Shut-Off Faucet	> Plumbing drawings/specifications including make, model, auto shut-off mechanism and flow rate of the washbasin faucet(s)
		> Manufacturer's data sheet for faucet(s)/flow aerator(s) confirming the flow rate at 3 bar.

Material Measures		Preliminary Audit Requirements
RTM01	Floor Slabs	> Floor sections showing build-up of the floor; or
		> Manufacturer's data sheet for specified building material if applicable; or
		> Bill of quantities with the floor slab specification clearly highlighted.
RTM02	Roof Construction	> A section drawing of roof showing the materials and thicknesses; or
		> Manufacturer's data sheet for specified building material; or
		> Bill of quantities with the materials used for roof construction clearly highlighted.
RTM03	External Walls	> Façade drawings clearly marking the external wall specification selected; and
		> Drawings of the external wall sections; or
		> Manufacturer's data sheet for specified building material; or
		> Bill of quantities with the materials used for the external wall clearly highlighted.
RTM04	Internal Walls	> Drawings of the internal wall sections; or

RTM04	Internal Walls	> Manufacturer's data sheet for building materials used for internal wall specifications if available; or > Bill of quantities with the materials used for the internal wall clearly highlighted.
RTM05	Flooring	> Drawings clearly marking the flooring specification selected; or > Manufacturer's data sheet for building materials used for floor specifications; or > Bill of quantities with the materials used for the flooring clearly highlighted.
RTM06	Window Frames	> Façade drawings clearly marking the window frame(s) specification; or > Manufacturer's data sheet for glazing specified; or > Bill of quantities with the windows/window frames clearly highlighted.
RTM07	Wall Insulation	> Drawings clearly marking the insulation specification selected; or > Manufacturer's data sheet for insulation specified; or > Bill of quantities with the insulation materials clearly highlighted.
RTM08	Roof Insulation	> Drawings clearly marking the insulation specification selected; or > Manufacturer's data sheet for insulation specified; or > Bill of quantities with the insulation materials clearly highlighted.