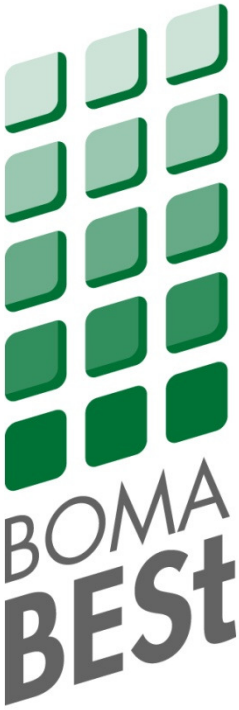

BOMA BESt Assessment: Enclosed Shopping Centres

June 2009

Contents

Total Points	1000

Basic Information		
0.1	What is the name of the building? Tip: Enter the name as you would like it to appear on the certificate if the building becomes certified.	
0.2	What is the street address?	
	City:	
	Province:	
	Postal code:	
0.3	When was the building constructed? Tip: Specify year of construction OR choose an era.	_____ (exact year) ☐ prior to 1960 ☐ prior to 1989 ☐ after 1990
0.4	What are the dates of major additions or renovations?	Describe renovations:_____
0.5	What is the total area of the site? Tip: Include building footprint, parking, landscaping and all other areas within the property boundary.	_____hectares _____acres
0.6	What are the floor areas of the following spaces (in square feet)?	Total Gross Floor Area (GFA) _____ Tip: Includes all tenant spaces, common mall areas and building loading and service areas but does not include indoor or outdoor parking areas. Tenant (leased) area _____ Tip: Total of all tenant occupied areas within the GFA. Does not include kiosk areas within the common mall. Common mall pedestrian area _____ Tip: Does not include leased tenant space or building loading and service areas. Service area_____ Tip: Includes service corridors, tunnel, shipping/receiving, loading docks Exterior Landscape area _____
0.7	How many storeys are there?	_____
0.8	How many parking stalls are there?	Surface (Site) Parking _____ Parking Deck _____
0.9	Who are the major anchor stores?	
0.10	How many people frequent this facility annually? Tip: This information is critical for scoring purposes.	
0.11	Is traffic measured in the facility? (e.g. with a traffic counter)	☐ Yes ☐ No
0.12	How many hours per day is the retail facility open?	Monday to Friday _____ Saturday _____ Sunday _____

0.13	How many days per year is the facility open?	_____
0.14	What has the vacancy rate been, on average, over the last year?	___% Notes: _____
0.15	Who is the owner of the building?	_____
0.16	Who is the building manager? (company) Tip: Provide the company name and the manager's name.	_____
0.17	Building general description: Tip: Provide a short building description including any innovative energy and environmental measures or other significant amenities (e.g. interior landscape). Please include notes on any significant renovations or retrofits within the last 5 years.	
0.18	Building construction description Tip: Provide a short description of building construction, including the structural system (e.g. brick or block or prefab steel framing) and building envelope (e.g. single or double glazed windows, roof lights, etc.)	
19.a 19.b 19.c	HVAC system description Tip: Provide a short description of the building HVAC system. □ central heating and cooling plant (chillers, boilers) □ tenants areas provided with heating and cooling from central plant □ tenants have their own independent heating and cooling systems (e.g. packaged rooftop units) □ packaged rooftop heating/cooling units □ ground source heat pumps Air systems in the mall areas are: □ constant volume □ variable air volume. Describe the system:_____	

1.0 Energy (350 points)		350
1.1 Energy Consumption (80)		80
	Building Information	
1.1.1	Please select the fuels or utilities used by the building, for which energy consumption figures will be entered. Tip: Check each fuel for which consumption will be entered. If there is more than one meter for a given fuel, please combine data for all meters into a single figure.	
	☐ Natural Gas-m3 (cubic meters) ☐ Electricity- kWh ☐ Propane-Litres ☐ Fuel Oil-Litres ☐ Steam- GJ, Mlbs (steam pounds x 1000) Tip: Check Steam and/or Chilled water only if purchased directly from an external supplier. ☐ Chilled Water-GJ, Ton Hours (CHW) Tip: Check Steam and/or Chilled water only if purchased directly from an external supplier. ☐ Deep Lake Cooling – Ton hrs (Enwave – Toronto area only).	

Energy Consumption for Mall's Common Areas.

Please indicate how the property is being billed for electricity and natural gas (building owner pays or tenant pays, or a combination). Where some space types are partially sub-metered, indicate the percentage of the floor area that is sub-metered.

Electricity (information questions)			
1.1.2	Are tenants, other than anchor stores, independently metered and billed by the electricity supplier?	☐All tenants ☐Some tenants ☐None	
1.1.3	For what percentage of the tenant leased area are tenants independently metered and billed by the electricity supplier?		
1.1.4	Where tenants are not independently metered and billed by the electricity supplier, do tenants pay the landlord for their share of electricity usage based on: Tip: a sub meter is a separate meter installed by the landlord to measure actual energy use by the individual tenant, to quantify what portion of the main utility account is to be paid by the tenant.	☐ floor area ☐ sub-metered data ☐ not applicable	
Heating Fuel (information questions)			
1.1.5	Are tenants, other than anchor stores, independently metered and billed by the natural gas supplier?	☐All tenants ☐Some tenants ☐None	

1.1.6	For what percentage of the tenant leased area are tenants independently metered and billed by the natural gas supplier?		
1.1.7	Where tenants are not independently metered and billed by the natural gas supplier, do tenants pay the landlord for their share of electricity usage based on: Tip: a sub meter is a separate meter installed by the landlord to measure actual energy use by the individual tenant, to quantify what portion of the main utility account is to be paid by the tenant.	☐ floor area ☐ sub-metered data ☐ not applicable	
1.1.8	Describe how tenant energy-use billing is handled: _____		
	The benchmarking for the shopping centre will be determined by the total of the shopping centre utility meters, and either sub metered or calculated tenant leased space energy use. The benchmarking scale is as follows: 8 points-less than 36kWh/sf-yr 16 points-less than 34kWh/sf-yr 24 points-less than 32kWh/sf-yr 32 points-less than 30kWh/sf-yr 40 points-less than 28kWh/sf-yr 48 points-less than 26kWh/sf-yr 56 points-less than 24kWh/sf-yr 64 points-less than 22kWh/sf-yr 72 points-less than 20kWh/sf-yr 80 points-less than 18kWh/sf-yr		
1.1.9	Specify the **ending** month of the 12 month period for which energy consumption figures are being entered.		Month - Year -
1.1.10	What was the building's total energy consumption for the 12 month period specified? Tip: This will be calculated automatically if 12 months of detailed data is entered below. Leave this field blank if you wish it to be calculated automatically. If detailed information is not available, please provide an estimate.		
1.1.11	What was the energy consumption data for each non-renewable fuel type by month? If you do not have a breakdown of 12 months of information, please enter the building's total energy bill for the entire specified 12 month period in Month 1. Tip: The benchmarking for the shopping centre will be determined by the total reported shopping centre common area usage and factored adjustment for independently metered tenant area usage. The scale is as follows:		

	Meter Reading Date: Tip: Please input the calendar date of the meter reading. Use DD MM YYYY (e.g. "4 Jul 2008"), to avoid ambiguity. You may use the pop-up calendar to select a date, or type a valid date value.		Consumption: Tip: Figures entered here should be for usage billed to the mall, excluding independently metered usage billed directly to tenants by energy providers, and excluding independently metered and billed anchor store usage, but including all sub-metered tenant usage.	Cost: Tip: Please show the **total net monthly cost** including all energy and demand charges, taxes and rebates.	
	Natural Gas month 1: … … Natural Gas month 12:			Cost $	

		Meter Reading Date:	Consumption:	Cost	
	Electricity month 1 … … Electricity month 12:		kWh	Cost $	

OPTIONAL – Electricity demand does not have to be entered, but will allow your power factor to be calculated.

	Electricity demand month 1: … Electricity demand month 12:	kW	kVA	

		Meter reading date:	Consumption	Cost	
	Propane month 1: … … Propane month 12:			Cost $	
	Fuel Oil month 1: … … Fuel Oil month 12:			Cost $	
	Steam month 1: … … Steam month 1:			Cost $	
	Chilled water month 1: … … Chilled water month 12:			Cost $	

Energy Efficiency Features				
	1.2 Lighting (25)			25
1.2.1	Does the building incorporate any of the following high-efficiency lighting features? Tip: Choose as many as apply.			
		Common Area	Service Area	
	• Compact fluorescents? Tip: Compact fluorescents are suitable replacement for incandescent lighting, combining small size with a high level of performance.	☐Yes ☐No	☐Yes ☐No	
	• T8 or T5 fluorescent lamps in building areas? Tip: T8 or T5 fluorescent lamps are suitable for general lighting, are highly efficient and produce warmer colours than traditional cool white fluorescents	☐ 70%-100% ☐ 40%-70% ☐ Under 40%	☐ 70%-100% ☐ 40%-70% ☐ Under 40%	
	• T8 or T5 fluorescent lamps in garage areas? Tip: Where there are no garage areas mark "not applicable".		☐ 70%-100% ☐ 40%-70% ☐ Under 40% ☐ N/A	
	• EXIT signs with light-emitting diodes (LEDs)? Tip: LED EXIT signs consume very little electricity, and have a long life.	☐ 70%-100% ☐ 40%-70% ☐ Under 40%	☐ 70%-100% ☐ 40%-70% ☐ Under 40%	
	• Other LED light-emitting diodes (LEDs) or Induction lights? Describe: _____ Tip: General LED or induction lighting, particularly for signs and exterior is becoming more common.	☐Yes ☐No.	☐Yes ☐No	
	• High intensity fluorescent fixtures Tip: Where there are no high levels of light required over large areas, or where changing lamps is not difficult mark "not applicable".	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	
	• Occupancy sensors in low-traffic areas, where appropriate (e.g. storage rooms)? Tip: Occupancy sensor control can be used on fixtures located in ancillary aisles and bulk or open storage areas.	☐ Yes ☐ No	☐ Yes ☐ No	
	• Daylight sensors? Tip: Daylight sensors or photocells, sense natural light and turn a light fixture off when there is adequate day light.	☐ Yes ☐ No	☐Yes ☐No	
	• Timed automatic shut-off for all non-essential lighting, including task lighting, and during unoccupied hours? Tip: Automatic shut-off can be provided by programmable time scheduling devices or occupancy sensors.	☐ Yes ☐ No	☐Yes ☐No	
1.2.2	What percentage of all lighting in the facility is "high-efficiency" lighting?		☐ 80%-100% ☐ 60%-80%	

	Tip: Estimate the percentage either by floor area of occupied space or by numbers of lights. High efficiency refers to the types of lighting mentioned above.	☐ 40%-60% ☐ 20%-40% ☐ Under 20% ☐ none	
1.2.3	Do parking areas and exterior lighting incorporate daylight sensors or timers to adjust lighting levels? Tip: Exterior lighting is typically controlled with photovoltaic sensors (photocells or daylight sensors) to ensure lighting operates only at night although it can also be controlled by time clocks, computerized lighting control systems or the building's mechanical control systems.	☐ Yes ☐ No	
1.2.4	What type of lighting is used in parking and exterior areas? Tip: Check all that apply.	☐ LED ☐ HID lamps (high intensity discharge) ☐ High-intensity fluorescent fixtures (e.g. metal halides) ☐ Other (Describe)_____	
	1.3 Major HVAC Equipment (20)		20
1.3.1	Are the boilers 20 years old or more? Tip: The average life cycle of a boiler is 25 years. A boiler older than 20 years may need to be replaced. If there are no boilers, mark "not applicable".	☐ Yes ☐ No ☐ N/A (no boilers)	
1.3.2	What percentage of "lead" boilers in the facility are high-efficiency? Provide models and efficiencies: _____ Tip: At least 50% of the lead boilers (by numbers) must have a full load thermal efficiency of at least 90% for gas boilers, and at least 85% for steam or water boilers. If there are no boilers, mark not applicable.	☐ 50% – 100% ☐ 25% – 49% ☐ less than 25% ☐ N/A (no boilers)	
1.3.3	Do the boilers have a control system that allows them to operate through a wide range of loads? Tip: The ability to regulate the air fuel mixture in the burner makes it more efficient for handling variable loads. If there are no boilers, mark "not applicable".	☐ Yes ☐ No ☐ N/A (no boilers)	
1.3.4	Do the boilers have automatic vent dampers (if appropriate)? Tip: These are placed in the flue pipe between the heating unit and the chimney to restrict the flow of heated air up the chimney. If there are no boilers, mark "not applicable".	☐ Yes ☐ No ☐ N/A (no boilers)	
1.3.5	What percentage of the rooftop package units in the facility are high-efficiency? Provide models and efficiencies: _____ Tip: High-efficiency Package Rooftop Units have Seasonal Energy Efficiency Ratio (SEER) 13/11.2.Energy Efficiency Ratio (EER) minimum. Proper maintenance is required to maintain the SEER, and evidence of the SEER and maintenance should be available for review. Note that maintenance of SEER ratio typically requires re-commissioning.	☐ 50% – 100% ☐ 25% – 49% ☐ less than 25% ☐No Package Units	
1.3.6	What percentage of chillers in the facility are high-efficiency? Provide models and efficiencies:_____ Tip: High efficiency chillers are typically rated at full-load efficiency in the range of 0.46 - 0.65 kW/ton (or COP of not less than 4.4) compared to old CFC-11 or CFC-12 chillers that have an efficiency in the range of 0.72 - 0.90 kW/ton. If there is no central cooling plant or chillers, mark "not applicable".	☐ 50% – 100% ☐ 25% – 49% ☐ less than 25% ☐ N/A (no chillers)	

	1.4 Controls (16)		16
1.4.1	Is temperature setback and weather compensation implemented? Tip: These refer to adjustments to the building temperature based on occupancy and outside temperatures, to reduce heating or cooling requirements.	☐ Yes ☐No	
1.4.2	Does the building have building automation systems (BAS)? Tip: These systems optimize the start-up and performance of HVAC equipment, improve the interaction of mechanical subsystems, increase occupant comfort, lower energy use and provide off-site building control. Partial BAS can consist of items such as snow and ice sensing controls that operate garage ramp heaters or domestic hot water system (DHW) controls.	☐ Full ☐ Partial ☐ None	
1.4.3	Does the building automation systems (BAS) control the following: Tip: If there is no BAS, mark "not applicable".		
	○ Lighting system	☐ Yes ☐ No ☐ N/A	
	○ HVAC system	☐ Yes ☐ No ☐ N/A	
1.4.4	Are building automation systems (BAS) integrated with the energy monitoring and/or preventive maintenance systems? Tip: An effective Building Automation System is a tool to help facility managers optimise energy, operations and maintenance in a building. Tip: If there is no BAS, mark "not applicable".	☐ Yes ☐ No ☐ N/A	
	1.5 Hot Water (9)		9
1.5.1	Does the building have high-efficiency water heating equipment? Tip: Equipment may consist of condensing water heaters, "tankless" (instantaneous) water heaters or solar water heating technology. Note that ASHRAE 90.1B tanks are not considered high efficiency for this assessment.	☐Yes ☐No	
1.5.2	What percentage of hot water faucets have water saving devices? Describe:_____ Tip: Devices that reduce the rate and duration of water-flow in faucets can lower hot water costs (e.g., low flow faucets with aerators, automatic faucet on/off control, high pressure boosters for loading and garbage area cleaning).	☐ 50% – 100% ☐ 25% – 49% ☐ less than 25%	
1.5.3	Are domestic hot water temperatures maintained between 50° and 55° Celsius? Tip: Measure temperatures at the taps. Maintaining water temperature between 50° and 55° Celsius saves energy, and prevents scalding and occurrence of Legionella.	☐Yes ☐No	
	1.6 Other Energy Efficiency Features (13)		13
1.6.1	Are there variable speed drives on the following fan and pump systems? Tip: These electronic devices control motor speed by varying frequency of the electrical supply, thereby reducing energy consumption, improving fan or pump control, and extending the life of the equipment. Mark "not applicable", where the systems are not present.	☐ Yes ☐ No ☐ N/A	
	• main supply air systems	☐ Yes ☐ No ☐ N/A	

	• main chilled water and condenser (cooling tower) pump systems	☐ Yes ☐ No ☐ N/A	
	• heating pump systems	☐ Yes ☐ No ☐ N/A	
	• domestic water booster pumps	☐ Yes ☐ No ☐ N/A	
	• cooling tower fan motors	☐ Yes ☐ No ☐ N/A	
1.6.2	Are there energy-efficient motors on fans/pumps? (Please indicate the percentage of fans/pumps that have high efficiency motors.) Tip: Energy efficient motors use from 1-4% less electricity than standard motoros and are generally more reliable, last longer, and result in lower transformer loading.	☐ 50% – 100%	
		☐ 25% – 49%	
		☐ less than 25%	
1.6.3	Are there other energy efficiency measures, such as:	Select as many as apply.	
	• Exhaust air heat recovery? Tip: This could be in the form of a heat pipe, heat wheel, air to air exchanger or glycol heat recovery loop. Where heat recovery would not be practical, mark not applicable.	☐ Yes ☐ No ☐ N/A	
	• Chiller controls that allow the units to operate at a wide range of low and high load conditions? Tip: For example chilled water temperature reset controls. Where there are no large central systems, mark "not applicable".	☐ Yes ☐ No	
	• De-stratification fans? Tip: The de-stratification fan is a unit for re-circulating ambient air and thus making it possible to recover the heat accumulated under the roof space by redirecting it downwards to ground level.	☐Yes ☐No	
	• Direct-fired space heating/ventilating systems?	☐Yes ☐No	
	• Daylight harvesting (e.g. skylights)? Describe: Tip: Daylight harvesting is the use of daylight as a primary source of illumination. It involves the combination of source of daylight, e.g. windows, skylights with light control systems.	☐Yes ☐No	
	• A green roof? Tip: Roof covered by a light weight vegetation and soil medium with low maintenance requirements.	☐Yes ☐No	
	• A solar pre-heated ventilation air system? Tip: A pre-heated ventilation air system such as a solar wall uses a perforated metal cladding to pre-heat outside air supply to the facility.	☐Yes ☐No	
	• Cogeneration (building or district scale)? Tip: Cogeneration is the simultaneous production of heat and electrical or mechanical power achieved by capturing and recycling the rejected heat that escapes from an electricity generation process in the building. Cogeneration can be used to reduce peak demand. Where cogeneration would not be economically viable, mark "not applicable."	☐Yes ☐No ☐ N/A	

	• Thermal insulation coating? Tip: New (nanotechnology based) thermal insulation paints or coatings can keep external or internal surfaces cooler or warmer by reflecting or emitting heat.	☐Yes ☐No	
	• Escalators with energy- efficient control system? Tip: Escalators generally run during all of the hours that the building is open for operation. .Efficient control systems can maintain the speed of the escalator, but can reduce power consumption when few riders are on it.	☐ Yes ☐ No ☐ N/A (no Escalator)	
	• Other energy-saving systems or measures? Tip: Describe any other energy-saving systems or measures used to save energy (e.g. deep lake cooling, solar absorption chillers, CO2 demand ventilation, displacement ventilation, dehumidification methods, daylight cleaning, high performance fume hoods, thermal mass storage etc.).	☐Yes ☐No Describe: _____ _____	
	1.7 Green Energy (12)		12
1.7.1	Is "green electricity" purchased? Tip: Many energy retailers now offer energy produced from certified solar, water, wind and recovery technologies. If unknown, check no.	☐ Yes ☐ No	
1.7.2	Does the building utilize any of the following renewable on-site energy sources: Tip: Renewable energy sources do not deplete natural resources		
	○ Active Solar? Describe:_____ Tip: This is generally used to increase the temperature of large volumes of water or air in commercial and industrial buildings (e.g. solar wall or solar DHW panels).	☐Yes ☐No	
	○ Wind? Describe:_____ Tip: This is generally used to generate electricity to offset electricity purchased from the electric utility.	☐Yes ☐No	
	○ Photo Voltaic? Describe:_____ Tip: Photovoltaics convert the sun's energy to usable electricity. They are the most effective when used during the day avoiding the need for battery or other storage systems..	☐Yes ☐No	
	○ Ground Source "Heat Pump"? Describe:_____ Tip: Using the temperature differential between above-ground and below-ground (or ground water), fluid is circulated in an underground (or underwater) loop. The energy collected is used for air and/or water heating. The system can be reversed in summer to provide cooling instead of heating.	☐Yes ☐No	
	○ Bio-mass? Describe:_____ Tip: Fuel such as round wood, wood and agricultural waste, prepared wood fuels, landfill gas and digester gas are burned using high efficiency combustion to provide space and/or water heating.	☐Yes ☐No	
1.7.3	What percentage of the building's total energy use is supplied by these on-site renewable sources? Describe the source and enter percentage of total annual energy requirements supplied:_____ Tip: Enter percentage of total annual energy requirements supplied from the above sources.	☐ > 10% ☐ < 10% ☐ 0%	
	1.8 Envelope (35)		35

1.8.1	Has the current performance and condition of the building envelope been assessed in terms of the following: Tip: The condition of the building envelope is critical to the building performance. An assessment of the current performance and condition of the envelope should consider the issues of relative humidity, temperature and interior pressure.		
	• Water infiltration and condensation? Tip: Consider the differences in temperature on the inner surfaces of the building and the water vapour condensation on the surface of thermal bridges - the mould and mildew control points.	☐Yes ☐No	
	• Moist air transfer? Tip: Consider the envelope permeability and the ability of materials to withstand, without deterioration, periods of freezing and thawing.	☐Yes ☐No	
	• Air flow? Tip: Consider the air pressure differences and air-leakage characteristics of the envelope	☐Yes ☐No	
	• Heat transfer? Tip: Assess the thermal resistance and quantity of heat transferred through the envelope.	☐Yes ☐No	
1.8.2	Are windows energy efficient? Describe ____ Tip: Energy-efficient windows consist of, at minimum, double-glazed, low-e windowpanes with frames spacers that have high thermal integrity. Mark “not applicable” where there are no windows.	☐Yes ☐No ☐N/A	
1.8.3	Does the building have the following features to reduce the cooling load? Tip: Exterior awnings, exterior and interior solar blinds, green roofs and exterior vegetation, high-albedo (reflective) roofing materials, and low-e film reduce cooling loads and glare.		
	• Exterior awnings, mounted window film or interior solar blinds? Tip: Mark “not applicable” where there are no windows.	☐Yes ☐No ☐N/A	
	• High-albedo (cool) roofing materials with a Solar Reflectance Index (SRI) of 70 or higher? Tip: A white or cool roof has a high-reflectance surface which contributes to reduced cooling energy, lower peak electricity demand , improved indoor comfort anddecreased air pollution due to the reducing of the “heat island effect”. Mark “not applicable” if the building has a green roof.	☐Yes ☐No	
1.8.4	Are all exterior doors and associated weather-stripping routinely checked and repaired to ensure a tight fit with minimal infiltration of outside air? Tip: High performance weather stripping on doors combined with regular checking and maintenance increases their thermal performance.	☐Yes ☐No	

1.8.5	Are loading doors "high speed type" equipped with devices to minimize outside air infiltration when open? Tip: Air curtains and "gasket" type cushions around loading docks are one of the most effective ways to seal a door opening. Air curtains provide a relatively low cost enclosure that reduce heating and refrigeration costs. If infrared heaters are used at loading areas these should have controls interconnected to prevent their operation when doors are opened, unless there is uninsulated piping in the area.		☐Yes ☐No	
1.8.6	Do pedestrian entrances from the outdoors use revolving doors and/or double doors with a vestibule? Tip: Also check for heaters in vestibules and entrances having proper thermostat set points to prevent continuous or excessive operation.		☐Yes ☐No	
1.8.7	Has a Building Condition Report been produced within the last 3 years? Tip: Loss of integrity of the building envelope, such as cracking in sealing, corrosion in exterior panel hangers or leaky roofs can start to occur in ten to fifteen year old buildings. At this point, a building condition survey, including infrared scans and hot-spot searches, is desirable. In buildings less than 10 years old and not requiring a Building Condition Report mark "not applicable".		☐Yes ☐No ☐ N/A	
1.8.8	Were the recommendations from the Building Condition Report for the roof carried forward into a Capital Plan? Tip: In buildings less than 10 years old and not requiring a Building Condition Report mark "not applicable". In buildings older than 10 years, with no report within the last 7 years, mark "no".		☐Yes ☐No ☐ N/A	
1.8.9	Does the Roof Maintenance and Management Plan include the requirement to conduct an infrared (thermal) scan for insulation? Tip: Infrared scans and hot-spot searches, can locate missing or deficient roof insulation and pinpoint energy loss.		☐Yes ☐No	
1.9 Energy Management (80)				80
	Energy Policy			
1.9.1	Is there an energy policy endorsed by senior management? Tip: This should be a public document that expresses commitments to establish energy targets, assign responsibilities, monitor performance, as well as undertake an annual review and report.	☐ Yes there is a formal energy management policy		
		☐ No there is no energy management policy		
		☐ Other there is no formal (documented) energy management policy, but management operates with a view to avoiding excessive energy use		
	Energy Audit			

1.9.2	Has the building had an energy audit within the past three years that included recommendations with costs, savings and a payback period? Tip: This is a minimum requirement for BOMA BESt. An energy audit identifies areas that unnecessarily consume excessive amounts of energy. The energy audit report must include: • Utility billing analysis with benchmarking observations • Summary of major equipment and type of lighting systems in the buildings • List of potential energy conservation opportunities based on walk-through audit of the facility • Building owner and manager information, building name and address, date of energy study completion • Building description A BOMA-accepted equivalent may suffice in particular situations as per the conditions and criteria set out in the BOMA BESt Application Guide.	☐Yes ☐No ☐ A BOMA-accepted equivalent	
1.9.3	Which of the following systems were audited: Tip: If no audit was done, mark "no".		
	○ lighting system?	☐Yes ☐No	
	○ HVAC plant?	☐Yes ☐No	
	○ HVAC distribution system? Tip: If there is no major duct distribution system or heating/cooling piping systems mark "not applicable".	☐Yes ☐No ☐ N/A	
	○ domestic hot water system?	☐Yes ☐No	
	○ major equipment?	☐Yes ☐No	
	○ plug-load equipment?	☐Yes ☐No	
	○ building envelope?	☐Yes ☐No	
	○ renewable energy systems (e.g. solar, wind, geothermal)	☐Yes ☐No	
	Energy Management, Monitoring and Targeting		
1.9.4	Is there an energy management (reduction) plan to address issues raised in the energy audit? Tip: This is a minimum requirement for BOMA BESt. An energy management/reduction plan should identify measures, allocate resources, and identify implementation timelines.	☐Yes ☐No	
1.9.5	Is there a regular review of energy consumption by a qualified person to identify anomalies or excessive consumption - and take corrective action as needed? Tip: Energy use should be monitored. This means that monthly energy bills should be actually reviewed for anomalies or excessive consumption.	☐Yes ☐No	
1.9.6	Are energy usage targets set? Tip: Targets are best expressed as a percentage decrease of energy used.	☐Yes ☐No	
1.9.7	Is there evidence of movement towards these energy targets over time? Tip: Review energy figures for the past 3 years. If there is no marked energy use decrease or there are no energy figures, mark "no".	☐Yes ☐No	

1.9.8	Have steps been taken to analyze and reduce peak energy demand? Tip: Electricity demand should be monitored, either through monthly utility bills or the use of more frequent load measurements (such as daily, hourly or 15-minute interval readings), to assess undesirable trends and peaks. Measures should been implemented to reduce peak demand.	☐Yes ☐No	
	Energy Training		
1.9.9	Is there a formalized training plan for building staff, including new employees, on how to implement energy and equipment monitoring and preventive maintenance, as well as energy efficiency improvements? List the training courses or internal training taken by staff in last two years:_____ Tip: Training needs should be identified for each staff member. Training updates should be provided on a regular, ongoing basis. New employees should be familiarized with building operations, and energy efficient practices and goals.	☐Yes ☐No	
1.9.10	Does management provide training for staff on the Building Automation Systems (BAS)? Tip: If there is no BAS, mark "not applicable".	☐ Yes ☐ No ☐ N/A	
	Financial Resources		
1.9.11	Are there financial resources to maintain and improve the energy efficiency of the building, or is the building participating in a program for energy efficiency upgrades? Describe:_____ Tip: This could be an energy efficiency improvement budget, or participation in a program that provides financial assistance for energy upgrades.	☐Yes ☐No	
	Sub-metering		
1.9.12	Have sub-meters been installed to accurately measure and record individual tenants' energy usage? Describe_____ Tip: Submetering not only encourages energy conservation by tenants; it also enables the owner to charge them fairly. If there is only one tenant or individual metering, mark "not applicable".	☐ 50% – 100%	
		☐ 25% – 49%	
		☐ less than 25%	
		☐ N/A	
1.9.13	Have sub-meters been installed to measure major energy uses (e.g. lighting, chilled or heating water flow, specific equipment and motors etc.) or is the BAS used to track major energy uses? Tip: This is critical to managing energy because it makes it possible to establish the building-load profile and demand structure. Describe_____	☐Yes ☐No	
	Documented Operating Instructions		

1.9.14	Are there readily available documented operating instructions, covering standard control settings, and basic trouble-shooting for all major equipment and related sub-systems? Tip: Brief, user-friendly operating instructions-listing all the building services, and describing their function, with operating instructions, standard control settings, and basic trouble-shooting make it possible to handle minor problems and make adjustments without interrupting the service or having to call in the contractor. While electronic manuals may be available, it is useful, as a precaution, to have printed copies of basic instructions in an accessible location, so that in the event that computers are down or regular staff is not available, someone who is not entirely familiar with the systems can take over.	☐Yes ☐No	
	Maintenance and Commissioning		
1.9.15	Does the regular mechanical systems maintenance schedule include: Tip: The maintenance schedules should be documented and records maintained.		
	• measurement of boiler efficiency? Tip: If there are no boilers, mark "not applicable".	☐Yes ☐No ☐N/A	
	• checks on the correct operation of ventilation and cooling controls? Tip: If there is no HVAC, mark "not applicable".	☐Yes ☐No ☐N/A	
	• systematic checking of temperature, humidity and fresh air controls to ensure they are set correctly and are responding as intended?	☐Yes ☐No	
	• identification and investigation of all occurrences of excess energy use?	☐Yes ☐No	
	• checking of air supply grills to ensure they are not blocked and are delivering correct air quantity?	☐Yes ☐No	
	• checks for refrigerant leaks? Tip: If there is no cooling plant, mark "not applicable".	☐Yes ☐No ☐N/A	
	• Checks on cooling towers? Tip: If there are no cooling towers, mark "not applicable".	☐Yes ☐No ☐N/A	
	• filters replacement schedule and filter size and type for all systems? Tip: If there is no air handling unit, mark "not applicable".	☐Yes ☐No ☐N/A	
	• cleaning and sterilizing of wet regions in the air conditioning system and checking for accumulation of dirt? Tip: If there is no air handling unit, mark "not applicable".	☐Yes ☐No ☐N/A	
	• checking of all exterior doors and associated weather-stripping? Tip: High performance weather stripping on doors combined with regular checking and maintenance increases their thermal performance.	☐Yes ☐No	
1.9.16	Does the Roof Maintenance and Management Plan indicate that there should be a regular maintenance cycle?	☐ 6-10 year cycle ☐1-5 year cycle ☐ none	

1.9.17	Is there a preventive maintenance program for HVAC (heating, ventilation, air-conditioning)? Tip: This is a minimum requirement for BOMA BESt. Preventive maintenance differs from regular maintenance in that it takes into account that certain systems components require overhauling or replacement after a certain age or at certain intervals. More detailed suggested practices are available from BOMA Canada, including maintenance to be performed monthly, quarterly, semi-annually, annually and every 5 years.	☐Yes ☐No	
1.9.18	Are commissioning principles (e.g. continuous commissioning) and practices implemented in response to changes to facility occupancy, usage, repair or retrofits? Describe:_____ Tip: Commissioning or recommissioning is an ongoing process that goes beyond an operations and maintenance program, which serves to resolve operating problems, improve comfort, and optimize energy use. Re-commissioning is required at the time of major retrofits and occupancy changes. It focuses on improving overall system control and operations for the building. It does not ensure that the systems function exactly as originally designed, but ensures that the building and systems operate optimally to meet the current requirements. The optimal operational parameters and schedules are developed based on actual building conditions and current occupancy requirements. Installing an energy management system that allows continuous commissioning through hourly or larger data collection points allows a facility management team to keep a building "tuned" without the cost of commissioning	☐Yes ☐No	
1.10 Transportation (60)			60
	Public Transportation		
1.10.1	Does the building have access to public transport within 500 meters? Tip: Good access to public transport is defined as at least one bus or streetcar stop, or train or underground station within 500 meters of the building.	☐Yes ☐No	
1.10.2	Does the building provide preferred parking for carpools or vanpools for customers or employees?	☐Yes ☐No	
	Cycling Facilities		
1.10.3	Is the facility accessible by bike path?	☐Yes ☐No	
1.10.4	Are there bike racks sheltered from rain?	☐Yes ☐No	
	Other Measures		

1.10.5	Are there other measures to reduce car dependency (e.g. car-pooling, purchase of transit passes, auto share services on-site)? Describe: _____ Tip: By providing a database where staff and tenants can share postal code information, this enables them to make carpooling arrangements. Building wide purchase of transit passes can provide public transportation at reduced rate. Locating auto-sharing facilities on the premises reduces the need to take a car to work. Improving the site access for pedestrian and bikes through signage and/or landscaping can also help to decrease car dependency.	☐Yes ☐No	

2.0 Water (80 points)			80
2.1 Water Consumption (30)			30
2.1.1	Is there a water meter on water mains?	☐Yes ☐No	
2.1.2	How many food court tenants are there?		
2.1.3	What is tenant leased area in the food court areas (in square feet)?		
2.1.4	How many washrooms are there in the common areas of the facility?		
2.1.5	Please specify the ending month of the 12 month period for which water consumption figures are being entered.		
2.1.6	What was the building's total water bill for the 12 month period specified? Tip: This will be calculated automatically if dtailed data is entered below. If detailed information is not available, please provide an estimate.		
2.1.7	What was the total water consumption, by month, for the 12 month period specified? If you do not have the breakdown by month, please enter the total consumption for the 12 month period specified. Tip: Provide water consumption for the specified 12 month period by inputting either total values (in any of the boxes provided), or monthly or bi-monthly amounts. This will be rated automatically based on the following scale: 18 points- less than 3 L/ per visitor 24 points- less than 2.5 L/ per visitor 30 points- less than 2 L/ per visitor		

	Meter Reading Date	Consumption	Cost	
Water month 1: … … Water month 12		m^3	Cost $	

2.2 Water Conserving Features (35)			35
2.2.1	For each category of fixture, indicate what percentage of the fixtures are water efficient.		
	• low flow (6L/flush) or dual flush toilets (6/4.2 L/flush)?	☐ 70%-100%	
		☐ 40%-70%	
		☐ Under 40%	
	• ultra low flush urinals 3L/flush or waterless urinals?	☐ 70%-100%	
		☐ 40%-70%	
		☐ Under 40%	
	• automatic valve controls and/or proximity detectors on toilets and urinals?	☐ 70%-100%	
		☐ 40%-70%	
		☐ Under 40%	
	• low flow (7.5L/min) and/or proximity detectors?	☐ 70%-100%	
		☐ 40%-70%	
		☐ Under 40%	
	• other water-saving features? Describe: Tip: Other water-saving devices include low-flow showerheads (9.0L/min), waterless urinals, greywater systems, etc.	☐Yes ☐No	
2.2.2	What percentage of tenants that use water in their facilities have installed low flow (water conserving) fixtures? Tip: Mark "not applicable where none of the tenants use water in their facilities.	☐ 70%-100%	
		☐ 40%-70%	
		☐ Under 40%	

		☐N/A	
2.2.3	Is the use of water in clean-up procedures being minimized? Describe _____	☐Yes ☐No	
2.2.4	Does the landscaping minimize the need for irrigation? Describe _____ Tip: Landscaping that requires low or no supplemental irrigation, sometimes referred to as xeriscaping, involves the use of plant species, often native, that require little watering, and techniques that help reduce the amount of water needed for irrigation. If there is no landscaping, mark "not applicable".	☐Yes ☐No ☐N/A	
2.2.5	Are non-potable sources of water used for irrigation such as:		
	• Rainwater? Tip: Rainwater is water collected specifically for irrigation in rain cisterns. Rainwater collection systems can be located either inside or outside a building. Green roofs would also qualify as a capture system for rainwater. If there is no landscaping, or where landscaping does not require any irrigation, mark "not applicable".	☐Yes ☐No ☐N/A	
	• Gray water? Tip1: Graywater is treated waste-water from sinks and showers (not toilets) that has had soils and undesirable bacteria removed. If there is no landscaping, or where landscaping does not require any irrigation, mark "not applicable".	☐Yes ☐No ☐N/A	
2.2.6	Is the following water efficient technology used for irrigation: Tip: If there is no landscaping, or where landscaping does not require any irrigation, mark "not applicable".		
	• Drip irrigation	☐Yes ☐No ☐N/A	
	• Root-fed irrigation	☐Yes ☐No ☐N/A	
	• Moistures sensors to control irrigation	☐Yes ☐No ☐N/A	
	• Other water efficient technology Describe: _____	☐Yes ☐No ☐N/A	
	2.3 Water Management (16)		15
2.3.1	Is there a written policy intended to minimize water use, and encourage water conservation? Tip: This is a minimum requirement for BOMA BESt. A water conservation policy should express a commitment to reducing demand for water and to establish goals and strategies to reduce water consumption.	☐Yes ☐No	
2.3.2	Is water consumption being monitored? Tip: Monitoring can only be done provided there is a meter. Metering and checking monthly water bills helps to verify consumption and to redflag occurrences of unusual and excessive consumption, which should be investigated and corrected - resulting in savings	☐Yes ☐No	
2.3.3	Is there sub-metering of major water users or uses, such as high-usage tenants, landscaping, etc.? Tip: If there is no major water use, mark "not applicable." Describe: ____	☐Yes ☐No	

2.3.4	Has a water audit been done within the last three years? Tip: This is a minimum requirement for BOMA BESt. The water audit report must include: • Water billing analysis with benchmarking observations • Summary of major water-consuming systems in the buildings • List of potential water conservation opportunities based on walk-through audit of the facility • Building owner and manager information, building name and address, date of study completion • Building description An audit should provide recommendations for maintenance procedures that may need to be revised, and identify water-using equipment that should be upgraded. The water audit report may be incorporated into the energy audit report. A BOMA-accepted equivalent may suffice in particular situations as per the conditions and criteria set out in the BOMA BESt Application Guide.	☐Yes ☐No ☐ BOMA-Accepted equivalent	
2.3.5	Are there water use reduction targets? Tip: Water targets should be established in Litres/m², or as a percentage reduction in Litres/person.	☐Yes ☐No	
2.3.6	Are there regular procedures for checking and fixing leaks? Tip: Periodic checks for leaks can be done by recording the water-meter reading before and after any long period when there is no water use, for example late at night and again early in the morning.	☐Yes ☐No	
2.3.7	Does building management, through its design criteria or leases, require tenants to install low-flow fixtures when retrofitting?	☐Yes ☐No	

3.0 Waste Reduction and Recycling, Site (110 points)			
3.1 Recycling, Handling and Storing Recyclable Materials (55)			55
3.1.1	Is there a recycling program that incorporates the recycling of office paper, newspaper, cardboard, bottles, plastic and cans, for tenants, shoppers and operations at the site, to the extent that local infrastructure is available to accommodate these materials? Tip: This is a minimum requirement of BOMA BESt. The property must have an active recycling program. A BOMA-accepted equivalent may suffice in particular situations as per the conditions and criteria set out in the BOMA BESt Application Guide.	☐Yes ☐No ☐ Boma-accepted Equivalent	
3.1.2	Are there recycling facilities for shoppers, conveniently located in common areas including entrances? Tip: Collection points near the areas where waste is generated typically increase recycling rates. All collection should separate recyclables from waste garbage as per local or hauler requirements.	☐Yes ☐No	
3.1.3	Does Building Management collect recyclable materials directly from tenants? Tip: Collecting recycling directly from tenants can help to increase recycling rates because it increases control over separation of materials.	☐Yes ☐No	
3.1.4	Does Building Management provide recycling containers to tenants? Tip: It is important to provide appropriate recycling containers for tenants so they can easily participate in the recycling program.	☐Yes ☐No	
3.1.5	Is there a recycling program for:		
	• batteries	☐Yes ☐No	
	• fluorescent lamps?	☐Yes ☐No	
	• electronic waste	☐Yes ☐No	
	• merchandise bulk packaging	☐Yes ☐No	
	• grease	☐Yes ☐No	
3.1.6	Does the building have a composting program for organic waste? Tip: Composting may be done on-site or off-site at a special centralized facility. Mark “not applicable” where there are no facilities available to divert compost.	☐Yes ☐No ☐N/A	
	Waste Reduction Program		
3.1.7	Has a waste audit been done in Tip: A waste audit can be conducted in-house, or using a waste-management firm. It should identify the types and quantities of waste generated in the building and assess which waste materials are produced in sufficient quantities to warrant .recycling	☐ the last year ☐ the last 3 years ☐ No	
3.1.8	Is regular monitoring of waste conducted? Tip: This is done by recording the weight or volume of garbage that is leaving the building.	☐Yes ☐No	
3.1.9	What is the current diversion rate?	☐ above 90%	

	Tip: Diversion rate is used by commercial contractors to report the rate at which non-hazardous solid waste is diverted from entering a disposal facility.	☐ 80%-90%	
		☐ 70%-80%	
		☐ 60%-70%	
		☐ 50%-60%	
		☐ 30%-50%	
		☐ Under 30%	
		☐ Unknown	
	OPTIONAL – Entering monthly waste figures is encouraged, but not required. Waste figures should include all waste from the property.		
3.1.10	Please specify the ending month and year of the 12 month period for which solid waste figures are being entered.		
3.1.11	If you do not have monthly data, what was the building's total waste (garbage plus recycling) bill for the 12 month period specified? Tip: This will be calculated automatically if detailed data is entered below.		
3.1.12	What was the waste (garbage plus recycling), in total or by month, for the 12 month period specified? Tip: Enter the total amount of waste in metric tonnes (aggregate garbage and recycling) for each month or as a total amount for the 12 month period specified.		

Waste+recycling month 1: … … Waste+recycling month 12:	MT	Cost $	
3.1.13	Are there waste-reduction targets? A waste reduction workplan should identify resources needed to achieve waste reduction targets and assign responsibilities.	☐Yes ☐No	
3.1.14	Does Building Management provide training to tenants, (including new tenants) on the recycling program and their responsibilities?	☐Yes ☐No	
3.1.15	Does Building Management provide training to cleaning staff about the recycling program and their responsibilities?	☐Yes ☐No	
3.1.16	Does Building Management monitor and enforce tenant participation in the recycling program?	☐Yes ☐No	
3.1.17	Does Building Management require tenants to use clear bags for waste?	☐Yes ☐No	
3.1.18	Is there a written policy intended to minimize construction waste being sent to landfill? Tip: This is a minimum requirement of BOMA BESt. Construction and demolition waste accounts for about 30% of Canada's landfill. It can be reduced by implementing source separation and recycling programs on-site. The program should meet the minimal requirements of the jurisdiction (e.g. 3R Code of Practice). The waste specification should identify the materials actually addressed (eg. corrugated cardboard, metals, concrete blocks, clean dimensional wood, plastic, glass, gypsum board and carpet).	☐Yes ☐No	
3.1.19	Are there Tenant Construction Guidelines that include the policy on construction waste?	☐Yes ☐No	
3.1.20	Does Building Management monitor tenants' construction waste practices?	☐Yes ☐No	

3.2 Site (55)			55
	Site Pollution		
3.2.1	Is the building site free of contamination? Tip: There should be evidence that the site is free of contamination; or that it has been remediated to an acceptable level.	☐Yes ☐No ☐Unknown	
3.2.2	If the site is known to be free of contamination, which of the following is this based on?		
	• document search Tip: A document search has been conducted and there is no reason to suspect that the site is contaminated (i.e. it has never had underground storage tanks (USTs) or outside storage tanks (ASTs), it was always an office or other facility that did not use chemicals, it is not situated near gas stations or other problem industries, there have been no previous potential problem businesses on the site).	☐Yes ☐No	
	• Phase 1 Environmental Assessment Tip: A Phase 1 Environmental Site Assessment has been conducted that proves the site to be free of contamination.	☐Yes ☐No	
	• Confirmation Phase 2 Environmental Site Assessment or Phase 3 Clean Up Report Tip: The site was once contaminated, but has been remediated to an acceptable level, as indicated by a Phase 3 Cleanup Report	☐Yes ☐No	
3.2.3	If the site is known to be contaminated, are efforts being made to clean it up? Describe:_____ Tip: If the site is known to be uncontaminated, mark “not applicable”.	☐Yes ☐No ☐N/A	
	Site Enhancement		
3.2.4	Are there indications that the site ecological value has been enhanced? Describe measures:_____ Tip: The ecological value can be enhanced by increasing rooftop vegetation and the number of indigenous plant species, by reducing outdoor light pollution, by participating in the FLAP program or by creating a small natural “oasis” on the site. Examples more applicable in suburban areas include reduction of heat reflectance by shading with landscaping or shading structures, re-establishment of vegetation corridors or implementation of stormwater management measures.	☐Yes ☐No	
3.3.5	Are there measures to reduce the heat island effect including trees or high albedo paving or a combination of trees and high albedo paving on at least 20% of non permeable landscaping? Tip: The heat island effect can be reduced by increasing the heat reflectance of paved areas by repaving with material of SRI of 25 or higher, providing tree-shade or other shading of hardscapes.	☐Yes ☐No	

3.3.6	Is the roof designed to reduce the heat island effect (e.g. high albedo or vegetated) on at least 20% of roof area? Describe: _____ Tip: The heat island effect can be reduced by introduction of vegetated (green) roofs or white (high albedo) roofs having a Solar Reflectance Index (SRI) of 70 or higher for low slope roofs or SRI of 25 or higher for steep slope roofs.	☐ High albedo ☐ Vegetated (green) ☐No	

4.0 Emissions and Effluents (175 points)			175
4.1 Boiler Emissions (30)			30
4.1.1	What percentage of the building's "lead" boilers have low NO_x emission rates? Tip: A low-NOx emitting boiler produces less than 26 g/GJ NOx (100 mg NOx/kWh). If there are no boilers, mark "not applicable".	☐ None ☐ <25% ☐ 25- 49% ☐ 50-74% ☐ 75-100% ☐ N/A	
4.1.2	Are records kept of cleaning of burners, monitoring of controls, and analysis of flue gas? Tip: The maintenance should take place once or twice per year. If there are no boilers, mark "not applicable".	☐Yes ☐No ☐N/A	
4.1.3	Does the facility quantify and report its emissions (in Ontario as per regulation 127/01)? Tip: While related mostly to manufacturing, regulation 127/01 can affect commercial buildings which have combustion equipment such as boilers, heaters, ovens, etc. with a name plate capacity of greater than 3 million British Thermal Units per hour. If the facility does not have activities which need to be reported, mark "not applicable".	☐Yes ☐No ☐N/A	
4.1.4	Do purchase orders or contracts for furnace oil specify low sulfur content? Tip: Low content-sulfur heating oil should have no more than 0.05 percent of sulfur content. If fuel oil is not used, mark "not applicable".	☐Yes ☐No ☐N/A	
4.2 Ozone Depleting Substances (31)			31
	Refrigerants		
4.2.1	What types of refrigerants are used in the building's cooling system? Tip: Mark all that apply. The Ozone Depleting Potential (ODP) for a substance is the measure of its contribution to ozone depletion relative to that of CFC11 - the higher the value, the more damaging it is to the ozone layer. Another concern with regards to refrigerants is Global Warming Potential (GWP). If there are no ODS, or if the building is using a distributed system (e.g. heat pumps) mark "not applicable".	Select applicable: ☐ R11 ☐ R12 ☐ R22 ☐ HCFC123 ☐ HFC134 ☐ R410A ☐ R410B ☐ Other Describe _____ ☐ N/A	
4.2.2	If the building has on-site ozone-depleting substances (ODS), are there recovery facilities/services that comply with federal guidelines and requirements? Tip: Recovery can be to a system receiver or to a certified recycling or recovery machine. Refrigerant recovery should take place prior to opening equipment for maintenance, service, repair or disposal. It should be done according to procedures set out in the Air-Conditioning and Refrigeration Institute Standard 740, "Refrigerant Recovery/Recycling Equipment." If there are no ODS, mark not applicable.	☐Yes ☐No ☐N/A	
	Management of Ozone Depleting Refrigerants		

4.2.3	Is there a documented Management Plan for Ozone Depleting Substances (ODS) that includes the following: Tip: This is a minimum requirement for BOMA BESt. Maintenance of the refrigeration system can reduce operating costs by improving the chiller performance, avoiding costly repairs, and reducing the need for refrigerant replacement. If there are no ODS, mark "not applicable		
	• Inventory of refrigerants and records? Tip: Inventory should show the present ODS and records should show the historical quantities of ODS.	☐Yes ☐No ☐N/A	
	• Maintenance reports, loss reports, and leak test results?	☐Yes ☐No ☐N/A	
	• Operational staff training?	☐Yes ☐No ☐N/A	
	• Periodic leak testing?	☐Yes ☐No ☐N/A	
4.2.4	Is there a phase-out plan for ozone-depleting refrigerants? Tip: This is a minimum requirement for BOMA BESt. Until December 31, 2009, charging a chiller with CFCs following an overhaul will still be authorized if the owner agrees to convert or replace the system within 12 months after it has been charged so that it no longer contains CFCs. Effective January 1, 2015, operating or allowing the operation of a chiller containing CFCs will be prohibited. If there are no ODS, mark not applicable.	☐Yes ☐No ☐N/A	
4.2.5	Is there a maintenance contract for the building cooling system with a certified contractor? Tip: The contract should be for regular maintenance and monitoring of the refrigeration system, the pipework and the leak detection system. If there are no ODS, mark "not applicable".	☐Yes ☐No ☐N/A	
	4.3 Waste Water Effluents (34)		34
4.3.1	Are floor drains protected in areas where chemicals are stored? Tip: At a minimum, there should be containment of chemicals used in building operations, such as oils, solvents, rust inhibitors, biocides and pesticides. This can consist of plastic trays to store the materials. Where there are no chemicals in the building, mark "not applicable".	☐Yes ☐No ☐N/A	
4.3.2	Are roof drains connected to sanitary or combined sewers? Tip: Disconnecting roof drains from sanitary or combined sewers avoids unnecessarily loading the community wastewater treatment facilities.	☐Yes ☐No	
4.3.3	Are stormwater management measures implemented to reduce the quantity of water run-off from roofs and hard surfaces, such as parking areas? Describe measures:_____ Tip: Measures include allowing the water to soak into the ground or collecting and re-using it. If the building covers more than 80% of the site, mark "not applicable".	☐Yes ☐No ☐N/A	
4.3.4	Is there a program to clean catch-basins annually? Tip: Catch basins "catch" or collect dirt and other debris. This debris requires periodic removal, particularly before the rainy season.	☐Yes ☐No	
4.3.5	Is there on-site treatment of water run-off from hardscapes, using such measures as oil interceptors/filtration? Describe:_____	☐Yes ☐No	

4.3.6	Are there documented procedures in place to ensure that glycol discharges from the flushing of cooling coils are minimized or eliminated? Tip: Used glycol and water from cooling towers should be tested to ensure that they meet local sewer-use by-laws before being discharged into the drain system. Ethylene glycol, used as an anti-corrosion agent, and freezing point depressant in air conditioning systems, is toxic to humans and animals. Mark "not applicable" only if glycol is not being used.	☐Yes ☐No ☐N/A	
4.3.7	Are there documented policies for snow and ice management that aim to minimize damage to the environment (e.g. contaminated run-off)? Describe:____ Tip: In concentrations, road salts pose a risk to plants, animals and the aquatic environment. The application of chemicals to control ice hazards should be minimized while still protecting the safety of personnel and customers.	☐Yes ☐No	
4.3.8	Are snow piles located to minimize the effects of spring run-off on the environment (i.e. run-off is controlled)? Describe. ____ Tip: Contaminants can build up in large snowpiles and lead to "shock" doses of pollutants into waterways during spring runoff.	☐Yes ☐No	
	4.4 Hazardous Materials (45)		45
	Hazardous Materials Survey		
4.4.1	Has a hazardous building materials survey been completed and has an inventory of these materials been maintained? Tip: This is a minimum requirement for BOMA BESt. The survey should indicate if asbestos-containing materials, PCBs, lead paint or mercury are present in the building.	☐Yes ☐No	
	Asbestos		
4.4.2	If there is asbestos present, is there an up-to-date inventory based on an asbestos survey that includes records of locations and the condition of all asbestos? Tip: Buildings constructed before 1981 are more likely to contain asbestos. If there is no asbestos in the building mark "not applicable".	☐Yes ☐No ☐N/A	
4.4.3	Is there any friable asbestos in the building that has not been encapsulated (i.e. Is there any possibility that asbestos fibers could become air-borne)? Tip: The presence of asbestos-containing materials does not, in itself, constitute a health hazard, provided the asbestos is intact. Friable asbestos can crumble. Encapsulating it avoids the health hazards, which can occur when asbestos fibers become airborne. If there is no asbestos, mark "not applicable".	☐Yes ☐No ☐N/A	
4.4.4	Is there a documented asbestos management plan that includes training and the precautions to be taken during repairs and renovations? Tip: If there is no asbestos, mark "not applicable".	☐Yes ☐No ☐N/A	
	Radon		

4.4.5	If the building is in a high risk area for radon, has a radon survey been done which indicates levels below 200 Bq/m^3? Where applicable, describe precaution taken:___ Tip: Radon is a colourless, odourless, naturally occurring, radioactive gas produced by radium decay that is believed to cause lung cancer. The most common source of indoor radon is the uranium in the soil or rock upon which facilities are built. Areas considered high-risk in Canada are Winnipeg, Calgary, Vancouver, Sherbrooke, Saint John and Sudbury.. If outisde of a high risk area, mark not applicable.	☐Yes ☐No ☐N/A	
	PCBs		
4.4.6	Are there any PCBs present in the building? Tip: Until the early 1980s, PCBs were used in fluorescent lamp ballasts for interior lighting and in some high-intensity discharge (HID) ballasts for exterior lighting. There are also electrical transformers and capacitors still in operation that contain PCBs.	☐Yes ☐No	
4.4.7	Is there a PCB Management Plan that designates responsibilities, requires inventory of all materials containing PCBs, including transformers, as well as records showing locations of major PCB-containing equipment, stipulates storage requirements, describes a strategy for phasing out and disposing of PCB-containing equipment? Tip: If there are no PCBs mark “not applicable”. Mark “yes” only if the plan contains all of the above elements.	☐Yes ☐No ☐N/A	
4.4.8	Are there procedures in place to ensure that any PCB containing materials are safely stored, regular inspection of storage sites is conducted by designated persons, and spill response includes training for staff? Tip: If there are no PCBs mark “not applicable”. Mark “yes” only if there are procedures for all of the above.	☐Yes ☐No ☐N/A	
	Storage Tanks		
4.4.9	Are there any above-ground (AST) or under-ground (UST) storage tanks? Tip: Most tank systems are used for storing heating fuel, but they are also used to store fuel for electric generators and vehicles; solvents, lubricants and other petrochemicals; and other hazardous substances, such as corrosive or noxious chemicals.	☐Yes ☐No	
4.4.10	Is there a storage tank management plan, which ensures legal compliance and includes the following operation and maintenance procedures: Tip: Choose as many procedures as apply. If there are no storage tanks mark “not applicable”.		
	• Tank system registration and annual reporting as required under CEPA Regulations (e.g. AST greater than 4,000 L and/or all UST)? Tip: All underground storage tank systems and all outdoor aboveground storage tank systems that have a single or combined capacity of 4,000 litres or more should be registered. If there are no storage tanks or if the single or combined capacity of the storage tank systems is less than 4,000 litres, mark “not applicable”.	☐Yes ☐No ☐N/A	

	• Inventory control? Tip: Establishing an inventory of tank systems is the first step in preparing tank management plan. If there are no storage tanks, mark "not applicable".	☐Yes ☐No ☐N/A	
	• Tank upgrading and replacement schedule? Tip: The components that are subject to upgrade are leak detection, secondary containment, corrosion protection, overfill protection and spill containment. Mark "non-applicable" if there are no storage tanks. Mark "yes" if tanks were already replaced or upgraded.	☐Yes ☐No ☐N/A	
	• System testing? Tip: System tests include leak tests and dipping for diesel in water and for water in diesel. If there are no storage tanks, mark "not applicable".	☐Yes ☐No ☐N/A	
	• Filling, transferring operations and spill protection? Tip: The Technical Guidelines and Codes of Practice may require property managers to install systems for spill containment, overfill protection, secondary containment, dispenser sump and leak detection. Various systems are available for both aboveground and underground storage tank systems. If there are no storage tanks, mark "not applicable".	☐Yes ☐No ☐N/A	
	• Emergency preparedness? Tip: An Emergency Preparedness Plan should identify response personnel who are to be trained, and their responsibilities in the event of a leak or spill. If there are no storage tanks, mark "not applicable".	☐Yes ☐No ☐N/A	
	• Record keeping? Tip: All inspections and maintenance, alterations and upgrading should be documented. If there are no storage tanks, mark "not applicable".	☐Yes ☐No ☐N/A	
	• Tank closure, abandonment or removal? Tip: A storage tank system must be properly decommissioned when replaced or taken out of service. If there are no storage tanks, mark "not applicable".	☐Yes ☐No ☐N/A	
4.5 Hazardous Products and WHMIS (35)			35
	WHMIS Program		
4.5.1	Are MSDSs, spill clean-up kits, and safety equipment including eye-wash stations located in an accessible place near the chemical storage areas? Tip: Material Safety Data Sheets (MSDS) contain information about the properties and safe handling of each hazardous product.	☐Yes ☐No	
4.5.2	Are the MSDSs less than 3 years old?	☐Yes ☐No	

4.5.3	Are WHMIS labels present on regulated products? Implementing the Workplace Hazardous Materials Information System (WHMIS) is a Canada-wide legal requirement designed to ensure that chemicals and other hazardous substances are handled safely and that information about them including the relevant protective measures is disseminated to workers and employers.	☐Yes ☐No	
	Health & Safety and Management of Hazardous Products		
4.5.4	Are chemicals and hazardous products stored under appropriate conditions in secure locations? Tip: Chemicals used in buildings that are classified as hazardous include oils, biocides, solvents, insecticides, pesticides and herbicides. They should be stored in rooms with proper ventilation, controlled temperatures, drain protection and adequate shelf space. Containers should be capped to avoid possible spills and fumes, properly labeled and kept in securely locked areas.	☐Yes ☐No	
4.5.5	Is a hazardous products (hazardous chemicals) management plan in place? Tip: This is a minimum requirement for BOMA BESt. A hazardous products management plan should indicate how controlled products are received at the facility, how they are to be used and disposed of. It should also include WHMIS sheets for all products identified in the inventory. Chemicals used in buildings that are classified as hazardous include oils, biocides, solvents, insecticides, pesticides and herbicides. They should be stored in rooms with proper ventilation, controlled temperatures, drain protection and adequate shelf space. Containers should be capped to avoid possible spills and fumes, properly labeled and kept in securely locked areas.	☐Yes ☐No	
4.5.6	Are education and training provided for the person responsible for the management of chemicals and for staff who may be required to work with them? Tip:-WHMIS education refers to the instruction of workers in general information such as how WHMIS works and the hazards of controlled products, whereas training refers to instruction in site-specific information such as work and emergency procedures.	☐Yes ☐No	
4.5.7	Is there a designated person responsible for managing hazardous products? Tip: The designated person should be responsible for: (1) advising workers of potential and actual hazards (2) ensuring that workers use prescribed protective equipment devices, and (3) taking every reasonable precaution for the protection of workers.	☐Yes ☐No	

4.5.8	Are there inventory and records of the hazardous products/waste, including their removal and disposal? Tip: The inventory must identify the hazardous waste streams, the operations in the building that produce them, how and where the hazardous waste is handled and stored, and who is responsible for it. The records should show that the organization tracks the hazardous waste from the facility through a provincially licensed or certified carrier to a waste disposal facility that is also licensed or certified by the province to accept hazardous waste.	☐Yes ☐No	
4.5.9	Is there a Health and Safety Committee or Representative that meets regularly and carries out regular inspections of the premises? Tip: Inspections should cover ventilation, spill containment and clean-up provisions as well as compatibility of the hazardous materials that are being stored together, and security of access. The committee should include representatives from the tenants as well as management and should meet on a regular basis to deal with health and safety issues. If a Health and Safety Committee is not required by regulation (i.e. if there are fewer than 20 people), mark as “not applicable”.	☐Yes ☐No ☐N/A	
	Pesticides		
4.5.10	Are there suitable measures to ensure that food or food waste is well contained and that there are no unprotected openings, to minimize access by rodents? Tip: One way to minimize pesticides usage indoors is through the planned elimination of sources of food and pest habitats.	☐Yes ☐No	
4.5.11	Do landscaping practices minimize the use of pesticides, herbicides, fertilizer and petroleum based products? Describe the extent to which these products are used, and any alternative methods being employed on both the exterior and interior: _____ Tip: “Pesticide” refers to insecticides, herbicides, fungicides, rodenticides, disinfectants, anti-foulants and plant growth regulators. Use of local, resistant plants in landscaping and integrated pest management may lead to a minimal need for pesticides. If there is no landscaping or pest management is not required, mark as “not applicable	☐Yes ☐No ☐N/A	
4.5.12	Are pest-control inspections done monthly? Tip: If there is no landscaping or pest management is not required, mark as “not applicable”.	☐Yes ☐No ☐N/A	
4.5.13	Do pest control contracts require that the staff be licensed and use integrated pest management methods? Tip: The contract should require that records be kept on the type and frequency of applications of pesticides, alternative pest management approaches, compliance with legislation, and communication to tenants to notify them of pesticide applications in locations that they use. If there is no landscaping or pest management is not required, mark as “not applicable”.	☐Yes ☐No ☐N/A	

5.0 Indoor Environment (130 points)			130
	5.1 Indoor Air Quality - Ventilation (19)		19
5.1.1	Are air intakes located far from sources of pollution such as parking areas, bus stops, cooling towers or stagnant water? Tip: If inlets are on the roof, check for stagnant pools of water, insects and pigeon droppings, as well as proximity and wind direction with regard to the spray from cooling towers. If near the ground level, also check for sources of vehicle emissions (parking and idling), industrial or commercial pollution.	☐Yes ☐No	
5.1.2	Are outdoor air intakes checked regularly to ensure that the openings are protected and free from obstruction? Tip: Check that the grilles on the fresh-air supply inlets are free from obstruction by leaves, snow, insects and pigeon droppings.	☐Yes ☐No	
5.1.3	Is there adequate ventilation of retail spaces (15 cfm/person as per ASHRAE 62.1)?	☐Yes ☐No ☐Don't know	
5.1.4	Are there zoned ventilation system controls? Tip: Zoned ventilation allow better control of the amount of ventilation air used in response to different population densities or time of use. This helps to minimize the amount of energy used in air systems to operate fans and preheat or cool ventilation air.	☐Yes ☐No	
5.1.5	Is there ongoing carbon dioxide monitoring or sensors to maintain pre-set levels of carbon dioxide? Tip: Monitoring should be located in areas with high occupant densities and at the ends of the longest runs of the distribution ductwork. CO_2 monitoring can be installed as an independent system or be a function of the building automation system, preferably with feedback on space ventilation performance and operation of the air intake vents. If there are no ducted air systems, mark "not applicable."	☐Yes ☐No	
5.1.6	Do the common areas have natural ventilation (e.g. operable windows or controlled stack ventilation)?	☐Yes ☐No	
	5.2 IAQ-Filtration System (5)		5
5.2.1	Are filters rated at minimum efficiency of MERV 8 (Minimum Efficiency Reporting Value)? Tip: The efficiency of filters is usually indicated on filter packages.	☐Yes ☐No	
	5.3 IAQ - Humidification System (5)		5
5.3.1	What type of humidification system does the building use? Tip: Because of the risk of microbial contamination associated with spray humidification, a preferred method is humidification by steam. Water features do not qualify as they are not systematic, address only a small area, and can have varied operation. If there is no humidification, mark "not applicable".	☐Steam ☐Spray ☐N/A	
	5.4 IAQ-Cooling Towers (9)		9
5.4.1	Are the cooling towers located away from fresh air intakes and flue outlets? Tip: Check the relative positions of ventilation intakes to cooling tower drift, and the prevailing wind direction. If there are no cooling towers, mark "not applicable".	☐Yes ☐No ☐N/A	

5.4.2	Are there drift eliminators? Tip: Drift eliminators remove water droplets generated by the cooling tower. This saves water and reduces the risk of downdraft spray that could contain Legionella. Eliminators can be internal or external to the cooling tower. If there are no cooling towers, mark "not applicable".	☐Yes ☐No ☐N/A	
5.4.3	Is there at least monthly inspection of cooling towers for evidence of mould or slime (which could indicate elevated levels of bacteria), regular treatment of the cooling tower water; and complete cleaning and disinfection of each cooling tower at least every six months? Tip: There should be at least monthly inspections of cooling towers that include checking for evidence of slime or mould (which could indicate an elevated level of bacteria), regular treatment of the cooling tower water, and complete cleaning and disinfection of each cooling tower at least every six months. If there are no cooling towers, mark "not applicable".	☐Yes ☐No ☐N/A	
	5.5 IAQ - Parking and Receiving (8)		**8**
5.5.1	Are there measures to prevent the intake of exhaust fumes from the loading dock? Tip: Measures include posting notices to turn off vehicles; having well-sealed doors between the parking and occupied areas; ensuring that offices or other areas near parking garages and loading docks are under positive pressure; and increasing exhaust ventilation in the garage and loading docks.	☐Yes ☐No	
5.5.2	Is there a carbon monoxide detection and monitoring system:		
	• In enclosed parking garages Tip: If there is no parking garage, mark "not applicable".	☐Yes ☐No ☐N/A	
	• Near gas or fuel fired boilers Tip: Control of garage ventilation fans using a carbon monoxide detection system reduces energy use by operating the fans only as required to dispel CO build-up. If there are no gas or fuel-fired boilers, mark "not applicable".	☐Yes ☐No ☐N/A	
	5.6 IAQ - Control of Pollutants at Source (33)		33
5.6.1	Have there been ongoing observations or complaints of symptoms of mould or excess moisture? Tip: Check for visual or odour clues in the following areas: crawl spaces, sub-floor cavities and service tunnels, cold surfaces such as under windows and in corners formed by exterior walls, uninsulated cold water piping, bathrooms, indoor areas in the vicinity of known roof or wall leaks, floors and ceilings under plumbing, duct interiors near humidifiers, cooling coils, outdoor air-intakes and under carpets.	☐Yes ☐No	

5.6.2	Are there documented measures to reduce indoor pollution from washrooms, kitchens, printing areas, chemical storage and general storage areas? Describe: _____ Tip: Measures to reduce pollution at source should be documented and maintenance records kept, otherwise they may be implemented in a haphazard fashion. For example, in washrooms that are not frequently used, toilets should be flushed and water run in the sinks so that water does not stagnate in the supply lines and drainage piping; fume hoods should be installed over printing areas; cooking activities managed carefully to avoid indoor air quality problems; gas appliances vented and checked for leaks; dumpsters properly located to avoid odours and so on.	☐Yes ☐No	
5.6.3	Does the contract with the cleaning contractors specifically state that they are to use environmentally preferable cleaning materials? Tip: These are cleaning materials which do not greatly sacrifice performance and which are biodegradable, do not contain phosphates, or do not fall under the Hazardous Products Act. This requirement should be documented in the cleaning contract. When landlord is not responsible for cleaning, mark "not applicable."	☐Yes ☐No	
5.6.4	Is there a designated smoking area outside that is away from entrances and will limit the spread of smoke to the inside of the building? Tip: Banning smoking is the most effective way to avoid environmental tobacco smoke – source of irritation and a known carcinogen.	☐Yes ☐No	
5.6.6	Is there a checklist of items connected to IAQ that must be discussed with architects, engineers, contractors, and other professionals prior to renovations and repairs? Describe: ____ Tip: Discussion is essential to avoid design features could interfere with ventilation or thermal comfort, or which could cause condensation, or result in the selection of inappropriate materials or systems. Renovation procedures should also be discussed to avoid the release of dust and hazardous materials and to avoid sealants, finishes, carpets and furnishings that emit volatile organic compounds (VOCs)	☐Yes ☐No	
5.6.7	Does the building's water system maintenance program include measures to eliminate the occurrence of Legionella? Tip: *Legionalla* can be avoided by having point-of-use water heaters or by maintaining water temperatures between 50^0 and 55^0 C, avoiding stratification and dead legs in water circulation system.	☐Yes ☐No	
	5.7 IAQ Management (27)		27
5.7.1	Does building management have in place a documented means for addressing tenants/occupant concerns regarding indoor air quality (such as a complaints form and incident log)? Tip: This is a minimum requirement of BOMA BESt. Building management must have in place a documented means for addressing occupant concerns regarding indoor air quality.	☐Yes ☐No	
5.7.2	Has the building had an Indoor Air Qualityaudit in the past year? Tip: The audit should have been detailed enough for management to gain a comprehensive understanding of the current IAQ situation in the building, including all of the factors that could influence the building's IAQ.	☐Yes ☐No	

5.7.3	Are there documented procedures for maintaining good IAQ concerning the following: Tip: Building management must have heating, ventilation and air conditioning (HVAC) procedures and a preventive maintenance program in place.		
	• HVAC operations? Tip: There should be daily, weekly and monthly schedules, including coil cleaning program.	☐Yes ☐No	
	• Preventive maintenance? Tip: This should include a scheduled program for monitoring, cleaning and repairing/replacing HVAC components such as outside air intakes, outside air dampers, air filters, drain pans, heating and cooling coils, the interior of air handling units, fan motors and belts, air humidification, controls and cooling towers.	☐Yes ☐No	
	• Housekeeping procedures? Tip: These should identify all areas that should be cleaned, specify the products that are to be used and their appropriate application, and provide a cleaning schedule.	☐Yes ☐No	
	• Mould management? Tip: Key elements of this program should be to: 1) Detect moisture and mould growth early to minimize property damage and liability; 2) Provide guidance for preventing and responding to moisture/water or mold growth conditions; and 3) Outline the minimum required procedures for responding to a moisture/water or mold growth condition.	☐Yes ☐No	
	• Procedures for unscheduled maintenance? Tip: Procedures for unscheduled maintenance should be documented in the event of equipment failures which may require the prolonged deactivation or modification of the building's HVAC equipment.	☐Yes ☐No	
	Describe procedures for maintaining good IAQ:____		
5.7.4	Is Building Management sufficiently trained to implement an indoor air quality program to address tenant concerns? Tip: The training should be adequate to enable staff to identify, prevent and solve indoor air quality problems. IAQ problems can be complex. Staff should also have a clear understanding of when it is advisable to call in a professional and the authorization to do so.	☐Yes ☐No	
5.7.5	Are the following being monitored continuously: Tip: The building should conform to ASHRAE 55-1992 Addenda 1995 for thermal comfort.		
	• Temperature at set summer and winter ranges?	☐Yes ☐No	
	• Humidity?	☐Yes ☐No	
	5.8 Lighting (24)		24
5.8.1	Are high frequency ballasts fitted to luminaries? Tip: Electronic ballasts help prevent eyestrain and headaches which are often associated with the flicker produced by standard magnetic ballasts. In addition they can result in 10 to 15% energy reduction compared to conventional ballasts.	☐Yes ☐No	

5.8.2	In office areas, are there controllable internal or external blinds, or are lights angled to prevent glare at Visual Display Terminals? Tip: Internal shading devices limit the glare resulting from solar radiation. They should be adjustable to allow occupants to regulate the amount of direct light entering their space. The cut-off angle of downward light should reduce glare on VDT screens.	☐Yes ☐No ☐N/A	
5.8.3	In office areas over 20,000 square feet, is individually controlled task lighting provided? Tip: This is lighting which shines directly from the luminaire to the task. It includes desk and table lights. Mark “not applicable” where there are no office areas greater than 20,000 square feet.	☐Yes ☐No ☐N/A	
5.8.4	Does the building employ natural daylighting in common areas through the use of clerestory lights, roof skylights or light pipes? Describe____ Tip: The use of natural light in a building can reduce energy costs. Daylighting can improve employee productivity and even improve retail sales. Consider whether the building plan could allow easy access to sunlight.	☐Yes ☐No	
	Lighting Management		
5.8.5	Is there a planned schedule of cleaning light fixtures? Tip: Cleaning luminaires can increase light output and quality, resulting in the need for fewer lamps and significant energy savings over the life of the facility. Recommended cleaning intervals for luminaires in offices are one or two times a year.Where tenant lighting does not warrant this approach, such as when fixtures are easy to reach, or the type of fixtures do not require additional attention, mark “not applicable.”	☐Yes ☐No	
5.8.6	Is there a regular lamp inspection program which includes group re-lamping and re-ballasting? Tip: Lamps that are changed before they burn out produce greater light output, resulting in better quality light, the need for fewer lamps and corresponding energy savings. Where tenant lighting does not warrant this approach, such as when fixtures are easy to reach, or the type of fixtures do not require additional attention, mark “not applicable.”	☐Yes ☐No	

6.0 Environmental Management System (EMS) (155 points)			155
	6.1 EMS Documentation (39)		39
6.1.1	Does building management have a written environmental policy? Tip: The policy should be a public document that is easily accessible to staff and tenants. It should express a commitment to: comply with relevant laws or other requirements; continuous improvement; and pollution prevention. It should also be signed by senior management.	☐Yes ☐No	
6.1.2	Are there stated goals with respect to each of the following: Tip: Goals and specific targets to improve or maintain the facility's environmental performance should be documented as part of the "environmental vision" for the building.		
	☐ Energy conservation		
	☐ Water conservation		
	☐ Waste reduction and recycling		
	☐ Environmental purchasing		
	☐ Reduction in use and proper handling of hazardous products		
	☐ Training and education		
6.1.3	Are there action plans to improve the environmental and energy performance of the building? Describe:___. Tip: The action plans should outline implementation strategies, timelines, training and resources needed to achieve stated targets.. They should be reviewed, revised and updated on a regular, scheduled basis.	☐Yes ☐No	
6.1.4	As tenants renew their leases or when there is tenant turnover, do the new leases contain a section on energy and environmental responsibilities (Green Leases)? Tip: Green leases increase the responsibility of tenants to operate efficiently with their space and maximize environmental benefits of the building.	☐Yes ☐No	
	6.2 Environmental Purchasing (36)		36
6.2.1	Does building management have a written Environmental-Purchasing Policy? Tip: The policy should give direction to a plan that assigns responsibilities; ensures that those who do (corporate) purchasing have adequate training; refers to products used by in-house staff; stipulates requirements for cleaning contractors; and provides education to tenants.	☐Yes ☐No	
6.2.2	Is there a list of environmentally preferable products used in housekeeping and building maintenance? Identify who maintains the list: _____ Provide examples of products being used: _____ Tip: Staff need a list of feasible environmentally friendly substitutes and their suppliers. Because products are frequently discontinued and new products introduced to the market, the list should be regularly reviewed and updated.	☐Yes ☐No	

6.2.3	Does the purchasing policy include the requirement for purchasing energy efficient building equipment? Provide examples: ____ Tip: The policy should include the requirement that any purchases of appliances and HVAC should involve consulting the *EnerGuide* and /or purchase of Energy Star rated products.	☐Yes ☐No	
6.2.4	Are MSDSs reviewed by staff who purchase hazardous products? Tip: Those responsible for purchasing should ensure that up-to-date Material Safety Data Sheets (MSDS) for controlled products are reviewed and are available to employees. They should not be dated more than 3 years previous to the receiving date.	☐Yes ☐No	
6.2.5	Does building management have a written policy for the selection of building materials that attempts to reduce any potential negative impact on the environment? Tip: This is a minimum requirement for BOMA BESt. The policy committing the organization to using low environmental impact building materials and equipment in its facilities should also be part of the tenant construction guidelines or an appendix to a lease where tenant improvement restrictions are mentioned. Examples of low impact building materials include materials with high recycled content or low off-gassing carpeting and furnishings.	☐Yes ☐No	
	6.3 Emergency Response (20)		20
6.3.1	Are procedures documented and staff trained to deal with and obtain prompt assistance for emergencies such as fire, spills, power failures and illness? Tip: Procedures must be detailed for quick and effective action in the event of an emergency. They should include up-to-date contacts to obtain assistance promptly and to report the emergency. There should also be a protocol to assess the risks of re-occupying a building in the case of evacuation. Landlords should be able to see copies of the tenants' Emergency Response Plans, and the plans should be reviewed regularly and updated as required.	☐Yes ☐No	
6.3.2	Do the Emergency Plans refer to all applicable legislation regarding emergency procedures, reporting and record-keeping? Tip: The Emergency Response Plan must ensure compliance with applicable regulations. A first step is to define accountability with respect to permits, record-keeping and reporting	☐Yes ☐No	
6.3.3	Is there equipment on-site to deal with environmental emergencies? Tip: The environmental Emergency Response Plan should require that equipment such as spill control kits, absorbents, and personal protection equipment be on-site for quick and easy access.	☐Yes ☐No	
6.3.4	Are there contingency plans for both short-term and long-term power failures? Tip: Planning for power failures should address the following elements: communication to tenants; security; provision of emergency power and water; and, if necessary, evacuation	☐Yes ☐No	
6.3.5	Is there a site map showing the location of environmentally significant features such as shut-off valves, underground and above ground storage tanks etc. Tip: Site plans should identify environmentally significant features such as hazardous waste storage rooms, PCB-containing equipment, sanitary and storm sewer lines, CFC equipment, storage tanks as well as emergency equipment.	☐Yes ☐No	

	6.4 Tenant Awareness (42)		42
6.4.1	Is there a well understood system for communicating with tenants/occupants regarding environmental initiatives and practices in the building? Describe the system: ___ Tip: This is a minimum requirement for BOMA BESt. Building management must have in place a well-understood system for communicating with tenants/occupants on environmental issues specific to the building. Tenants should be provided with information, and should have a forum or hotline to discuss the environmental concerns and to coordinate their activities.	☐Yes ☐No	
6.4.2	Are there communications to tenants on the environmental measures that they can implement in the building to contribute to: Tip: Guidance on energy and environmental issues should be provided in the Tenants' Manual		
	• Energy conservation and plug load reduction? Tip: An inexpensive way to reduce energy costs is by developing energy efficiency procedures and personal habits. Provide information to occupants on energy use and means of saving energy (such as information on turning off lights in unoccupied spaces, after normal office hours and the correct use of blinds).	☐Yes ☐No	
	• Water conservation?	☐Yes ☐No	
	• Waste reduction and recycling? Tip: This can include promotional materials such as brochures and newsletters to keep tenants informed about how they can reduce the amount of waste being sent to landfill through such things as recycling and composting.	☐Yes ☐No	
	• Proper handling, storage and disposal of toxic products? Tip: The information should be of a general nature and should communicate that each toxic product has its own characteristics, which require proper handling, storage and disposal. This can include newsletters, postings on bulletin boards, signage, memos or participation in events that promote responsible environmental stewardship.	☐Yes ☐No	
6.4.3	Are periodic updates given to tenants to inform them of the status or progress of environmental initiatives and programs? Describe when and how the updates are provided:_____	☐Yes ☐No	
6.4.4	Has a Tenant Satisfaction Survey been completed in the last 3 years? Tip: Tenant satisfaction survey enables property managers to prioritize efforts and maximize the performance of their assets.	☐Yes ☐No	
	6.5 Community Environmental Contributions (18)		**18**
6.5.1	Does the facility support local environmental initiatives? Give an example:_____	☐Yes ☐No	
6.5.2	Does the facility provide a community drop-off for the disposal of hazardous products or the recycling of products (e.g. used batteries, paint containers or toner cartridges) Describe: _____	☐Yes ☐No	