ENERGY CONSIDERATIONS CHECKLIST *(November 27, 2011)*
Planning & Community Development and Code Enforcement Offices
Town Hall, 15 Newmarket Road, Durham, NH 03824; 603-868-8064

– P U R P O S E –

This checklist was developed by the Durham Energy Committee together with the Durham Planning Board. It is intended to encourage developers, applicants for Site Plan Review, applicants for building permits, and members of the Durham Planning Board to consider and discuss optional energy efficiency measures appropriate to a specific application rather than to mandate general requirements. Discussion at early stages may result in opportunities for energy and cost savings.

Project name _____

Date of Submittal _____

Applicant name _____

Engineer name _____

Architect name _____

❑ **New Construction** ❑ **Re-Development, Addition or Renovation**

PART I. BUILDING CONSTRUCTION, SYSTEMS AND MATERIALS

National Accredited Rating for Building Energy System

Check one box:		1 Does your building meet standards for:
	❑	• Passive House Institute* <http://www.passivehouse.us/passiveHouse/PHIUSHome.html>
	❑	• International Living Building Institute/Living Building Challenge* <http://living-future.org/lbc>
	❑	• LEED* (Platinum, Gold, Silver) <http://www.usgbc.org/>
	❑	• Energy Star* <http://www.energystar.gov/>
	❑	• Other _____ [please indicate Internet address or other reference]
		** These organizations have established energy-efficiency criteria. Qualifying applicants are encouraged to complete and attach the checklist from that certification (to be used for informational purposes only) and may then skip to Part IV, "Consultation with Director of Zoning, Building Codes & Health."*
	❑	None of the above

Yes	No	N/A		Energy performance and insulation
❑	❑	❑	2	Attic or ceiling insulation exceeds Town code (R value proposed = _____) *(see Chapter 38)*
❑	❑	❑	3	Walls insulation exceeds Town building code (R value proposed = _____ (see Chapter 38)
❑	❑	❑	4	Air sealing: passive air infiltration rate proposed*: _____
❑	❑	❑	5	Slabs: R value proposed _____
❑	❑	❑	6	Basement foundation: R value proposed _____
❑	❑	❑	7	Hot water pipes: R value proposed _____
❑	❑	❑	8	Heating ducts: R value proposed _____
❑	❑	❑	9	Plans to commission the building to confirm performance

** "Tight" envelopes require ventilation, typically with the use of energy or heat recovery ventilation systems.*

Yes	No	N/A		Construction methods and materials
❑	❑	❑	10	Net zero construction, i.e., building(s) uses less than or same amount of energy it generates
❑	❑	❑	11	Energy efficient doors and windows (including screens)
❑	❑	❑	12	Recycled content materials

Yes	No	N/A		Internal systems
❑	❑	❑	13	Low-flow plumbing fixtures
❑	❑	❑	14	Lighting: high efficiency
❑	❑	❑	15	Energy usage monitoring system(s)
❑	❑	❑	16	Energy-efficient appliances (refrigerators, stoves, air conditioners, ceiling fans, etc.)
❑	❑	❑	17	Energy-efficient HVAC system (proposed efficiency level ____)
❑	❑	❑	18	Renewable HVAC system (e.g., biomass boiler or furnace) or geothermal
❑	❑	❑	19	Renewable hot water system (e.g., solar thermal)
❑	❑	❑	20	Photovoltaic renewable electricity generation system (i.e., solar panels)
❑	❑	❑	21	Window technology or design that adjusts shading (active or passive, e.g., film, sensors)
❑	❑	❑	22	Ability to charge electric vehicles
❑	❑	❑	23	Grey-water system (e.g., to capture water from sinks or showers to use for toilets or flower gardens)
❑	❑	❑	24	Mechanical ventilation: Energy Recovery Ventilator efficiency proposed = _____
❑	❑	❑	25	Water usage monitoring system(s)
❑	❑	❑	26	Cooling load reduction features, e.g., ceiling fans, solar-ray-blocking blinds

PART II. SITE AND SITING CONSIDERATIONS (if not applicable, check here _____)

Yes	No	N/A		Solar lighting, heating and cooling (passive and active)
❑	❑	❑	27	Passive solar lighting design (optimizes natural illumination for interiors)
❑	❑	❑	28	Solar access: availability of, or access to, unobstructed, direct sunlight, usually south-facing
❑	❑	❑	29	Preservation of abutting solar rights, e.g., solar skyspace easements applicable to all plots within a subdivision or to your neighbors
❑	❑	❑	30	Orientation of internal streets allows solar access
❑	❑	❑	31	Deciduous trees that provide shade in summer and do not block solar gain in winter
❑	❑	❑	32	Window placement maximizes winter solar penetration and minimizes solar penetration in summer
❑	❑	❑	33	Vegetated rooftop(s), also known as a "green roof"

Yes	No	N/A		Parking
❑	❑	❑	34	Incentives for tenants without cars ("no free parking")
❑	❑	❑	35	Compact car space designation
❑	❑	❑	36	Advanced technology and/or alternative fuel car space designation (e.g., hybrids; “E85”)

Yes	No	N/A		Transportation, accessibility, connectivity
❑	❑	❑	37	Pedestrian sidewalk network within the project area
❑	❑	❑	38	Bicycle lane or path network within project area
❑	❑	❑	39	Storage for bicycles outdoors (covered/uncovered) (secured/unsecured)<*please circle*
❑	❑	❑	40	Storage for bicycles indoors (secured/unsecured)<*please circle*

PART III. OPERATIONS AND MAINTENANCE (if not applicable, check here _____)

Yes	No	N/A		Landscaping
				Lower Town water use results in lower electricity demand at water and wastewater treatment plants.
❑	❑	❑	41	Rainwater storage, e.g., cisterns
❑	❑	❑	42	Existing vegetation or native species plantings
❑	❑	❑	43	Xeriscaping (low-water-demand plants)
❑	❑	❑	44	Low-nitrogen-demand turf grass
❑	❑	❑	45	Rain garden ("bioretention system") to manage stormwater runoff from roofs, driveways, parking areas
				Covenant terms (e.g., for homeowner associations) allow:
❑	❑	❑	46	Outdoor clotheslines
❑	❑	❑	47	Installation of outdoor energy-efficiency devices, such as solar panels

PART IV. CONSULTATION WITH DIRECTOR OF ZONING, BUILDING CODES & HEALTH

Preliminary and follow-up consultations help solve problems and reduce costs

Yes	No	N/A		Met with Town's Director of Zoning, Building Codes & Health
❑	❑	❑	48	Date:

Notes from consultation:

Signature of Town's Director of Zoning, Building Codes & Health: