# DEPARTMENT OF ADMINISTRATIVE SERVICES (DAS)

# Office of School Construction Grants & Review (OSCG&R)

**HIGH PERFORMANCE SCHOOL CONSTRUCTION BULLETIN**

 **FORM SCG-3048**

This form was revised on 6/20/17

Section 16a-38k of the Connecticut General Statutes require that the construction of (1) a State agency facility projected to cost five million dollars or more and for which all budgeted bond funds are allocated by the State Bond Commission on or after 1/1/09; (2) renovation of a State agency facility projected to cost two million dollars or more and utilizing two million dollars of state funds approved and funded after 1/1/08; (3) new construction of a facility projected to cost five million or more of which two million dollars or more is state funding and is authorized by the General Assembly pursuant to Chapter 173 (“Public School Building Projects”) on or after 1/1/09; and (4) renovation of a public school facility as defined in subdivision (18) of section 10-282 that is projected to cost two million dollars or more of which two million dollars or more is state funding and is authorized by the General Assembly pursuant to chapter 173 on or after 1/1/2009 must comply with state regulations.

**This law (and associated regulations) was prompted by the State Legislature and is currently under the auspices of the Department of Energy and Environmental Protection (DEEP) and Department of Administrative Services (DAS).**

It is the responsibility of the municipality and the contracted project team to ensure compliance with the statutes and regulations, including the ***Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings (Rev. September 2011)***, as well as other referenced documents. The regulations (16a-38k) and the *Compliance Manual* include information to assist in determining what is required, who has to take a particular action, and when. The Office of School Construction Grants & Review (OSCG&R) requires the project teams to research the requirements in order to better understand and implement them.

**DISCUSSION**

* All new school building projects authorized on or after January 1, 2009 (meeting specified project cost benchmarks) shall be designed to the new High Performance Standards following the required formal process, as indicated in the *regulations of C.G.S. Section 16a-38k (1 through 9) and the* ***Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings***. The benchmarks also apply to the new construction of building additions.
* Many of the performance strategy points cannot be obtained until after construction is completed, or the building is occupied. Utilizing the DAS/DEEP process of the regulations does not require an independent organization certification, and as such the process should be less problematic for tracking/record-keeping.
* The ***Compliance Checklist-Schools*** (at the end of the *Compliance Manual*) shall accompany the second and third reports required by Section 16a-38k-8. The Checklist shall be (at a minimum) expanded to clearly outline the strategy approach, the responsible parties, and the specific documents where the strategy is best exemplified (specification sections and drawing sheet numbers). If LEED or NE-CHPS is pursued as the alternative strategy, the *Compliance Checklist-Schools* shall be accompanied by the appropriate checklists, expanded as previously described. If LEED is utilized as the alternative strategy, OSF recommends the use of *LEED for Schools.*

**The following is a summary of the regulations applicable to state-funded school building projects.**

**16a-38k-1 Definitions** (applicable to all sections of the regulations)

**16a-38k-2 Applicability** (projects authorized on or after January 1, 2009)

 (a) **(Applicable to the Division of Construction Services projects only)**

 (b) **(Applicable to the Division of Construction Services projects only)**

 (c) New School construction - $5 million w/ $2 million state funding

 (d) Renovation (CGS 10-282) - $2 million w/ $2 million state funding

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**16a-38k-3 Mandatory Building Project Requirements** - Twelve (12) mandatory standards

(a) Commissioning

(b) Integrated Design Process

(c) Energy Performance equal to current Building Code requirements

(d) Energy Star products

(e) Project Manager-Facilitator (Owner’s Rep.) to develop Indoor Air Quality management plan

(f) Use low-flow fixtures to consume 20% less water than base level calculations

(g) Recycle area

(h) Erosion and Sediment control

(i) No Smoking in building

(j) Integrated Pest Management Plan

(k) No CFC-based refrigerants

(l) Building ventilation to meet ASHRAE 62.1 or Building Code (more stringent)

**16a-38k-5 Additional Mandatory Building Project Requirements for Schools** - Six (6) additional mandatory requirements

 (a) Acoustical Standards as required per CGS 10-285g

 (b) Outside air intakes at least 25 feet from hazards (chimneys, vents, cooling towers, parking lots, etc.)

 (c) Only electronic ignition on gas-fired appliances (no pilot lights)

 (d) Low VOCs certification of materials (adhesives, paints, carpet, ceilings, etc.)

 (e) Perform Phase I environmental site assessment (per ASTM #E1527) and subsequent actions as required.

 (f) HEPA vacuum prior to occupancy

**16a-38k-6 Building Standard Strategies** - Minimum of 28 of the 59 optional strategies

 (a) Energy Efficiency & Renewable Energy

 (b) Indoor environment

 (c) Water efficiency

 (d) Recycling, Reuse, and Sustainability

 (e) Site Selection and Development

 (f) Operations and Procedures/Innovation

**16a-38k-7 Alternative Strategies**

 Permits *LEED for Schools* silver rating or *NE-CHPS* rating system/certification

 But also incorporates the requirements of 16a-38k-3, 16a-38k-5, 16a-38k-8, and 16a-38k-9.

**16a-38k-8(b) Reporting Requirements (to DAS)**

1. Report after award of design contract (prior to PREP meeting) from design team to the Commissioner of the DAS

 a. Project time-lines

 b. Project Design Team List (names, addresses, phone, fax, e-mail) at minimum architect, mechanical engineer, electrical engineer, civil engineer, commissioning agent, the project manager-facilitator (owner’s rep.), and representatives of the municipality.

 c. Letter of Understanding of the requirements of the regulations

2. Report upon completion of design development from Project-Manager Facilitator (Owner’s Rep.), signed by municipality (Building Committee Chairperson) to DAS Commissioner prior to PCR meeting.

 a. Details of compliance with section 16a-38k-3 and 16a-38k-5 of the regulations

 b. Document which of the 28 strategies are planned for implementation **or** the Alternative Strategy utilized pursuant to section 16a-38k-7

 c. Document how team intends to meet the alternative paths to compliance

3. Report at completion of the construction documents (no later than BSF PCT meeting) prepared design team, provided to project-manager facilitator to submit to DAS Commissioner

 a. Include energy modeling (**summary** of data input and data output and resulting performance)

 b. Cost differentials and operational savings

The *Compliance Checklist-Schools* **shall be expanded** to (at a minimum) clearly outline the strategy approach, the responsible parties, and the specific documents where the strategy is best exemplified (specification sections and drawing sheet numbers) as a way to more clearly demonstrate compliance.

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4. Substitutions of any strategy (during construction process) requires written notification from project-manager facilitator to DAS Commissioner

 a. Detail how substitution(s) will be in conformance to the project manual (efficiency goal).

5. Pre-Occupancy Commissioning report (for all projects) by commissioning agent and sealed by the professional engineer

 a. Must indicate “this report certifies that the material contained herein is true and correct”

 6. Report at Post-occupancy submitted within 180 days after one year occupancy (actual building performance report)

**16a-38k-9 Exemptions**

 Any exemption to a previously approved performance strategy must be requested in writing to the DAS Commissioner. Similar to the requirements of 16a-38k-8(b) 3, regarding substitutions, written notification shall be from the Project-Manager Facilitator to DAS Commissioner requires a letter from the chief operating officer of the owner/municipality.

**Report Preparation Guidance:**

When preparing and submitting the various reports (pursuant to 16a-38k-8) to the DAS Commissioner:

1. Send to the **Commissioner of Administrative Services**, **Office of School Construction Grants & Review**, 450 Columbus Blvd., Hartford, CT 06103.

2. The **Cover letters** shall be authored by the appropriate parties, and include the project title and Office of School Construction Grants & Review Project Number.

3. **Reports** should be brief and identify what stage of the process the report corresponds to.

4. Submit only a **summary** of the **energy modeling**, with the anticipated performance level (meet the current Building Code energy requirements).

5. Submit a completed **Compliance Checklist-Schools** (found at end of the *Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings, September 2011*).

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