

780 CMR 1.00 Administration

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110.8 Engineering Details, Reports, Calculations, Plans and Specifications.

In the application for a permit for buildings and structures, the construction documents shall contain sufficient plans and details to fully describe the work intended, including, but not limited to all details sufficient to describe the structural, fire protection, fire alarm, mechanical, light and ventilation, energy conservation, architectural access and egress systems. The building official may require such calculations, descriptions narratives and reports deemed necessary to fully describe the basis of design for each system regulated by 780 CMR. In accordance with the provisions of M.G.L. c. 143, § 54A all plans and specifications shall bear the original seal and original signature of a Massachusetts registered professional engineer or registered architect responsible for the design, ~~except as provided in M.G.L. c. 143, § 54A and any profession or trade as provided in M.G.L. c. 112, § 60L and M.G.L. c. 112, § 81R.~~

unless the plans and specifications, etc. are not required to be prepared by a registered architect or a registered professional engineer, as set forth M.G.L. c. 112 § 60L and M.G.L. c. 112 § 81R, respectively.

When such application for permit must comply with the provisions of 780 CMR 4.00 or 780 CMR 9.00 or 780 CMR 34.00, the building official (municipal and/or state) shall cause one set of construction documents filed pursuant to 780 CMR 110.7 to be transmitted simultaneously to the head of the local fire department for his file, review and approval of the items specified in 780 CMR 901.7.1 as they relate to the applicable sections of 780 CMR 4.00, 780 CMR 9.00 or 780 CMR 34.00. The head of the local fire department shall within ten working days from the date of receipt by him, approve or disapprove such construction documents. If the head of the local fire department disapproves such construction documents, he or she shall do so, in writing citing the relevant sections of noncompliance with 780 CMR or the sections of the referenced standards of 780 CMR 35.00. Upon the request of the head of the local fire department, the building official may grant one or more extensions of time for

such review provided, however, that the total review by said head of the local fire department shall not exceed 30 Calendar days. If such approval, disapproval or request for extension of time is not received by the building official within said ten working days, the building official may deem the construction documents to be in full compliance with the applicable sections of 780 CMR 4.00, 780 CMR 9.00 or 780 CMR 34.00 and, therefore approved by the head of the local fire department.

Note that for one- and two-family buildings, refer to 780 CMR 51.00 through 99.00, the 7th Edition Massachusetts Building Code for One- and Two-Family Dwellings.

110.11 Independent Structural Engineering Review.

110.11.1 Condition for Permit. As a condition for the issuance of a building permit, the structural design of the following described structures shall be reviewed by an independent structural engineer to verify that the design of the primary structure is conceptually correct and that there are no major errors in the design:

1. New buildings and structurally separate additions which are five stories or more in *height* above the lowest floor, including stories below grade.
2. New buildings and structurally separate additions which enclose a total volume of **more than** 400,000 cubic feet, including stories below grade. The volume shall be measured using the outside dimensions of the *building*.
3. New or existing structures in or partially in *Use Group A* used for public assembly of 300 or more persons.
4. Existing buildings which enclose a total volume of **more than** 200,000 cubic feet, including stories below grade, for what 780 CMR 34.00 defines as Level 3, 4, and 5 Work.
5. Existing buildings which enclose a total volume of **more than** 200,000 cubic feet, including stories below grade, for what 780 CMR 34.00 defines as Level 2 Work, except that the required review shall be limited to the lateral load

resisting system.

6. Structures of unusual complexity or design as shall be determined by the BBRS. A building official may apply to the BBRS for such a determination on a specific structure.

Exception: Temporary structures erected for a period of one year or less.

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116.2 Registered Architectural and Engineering Services.

116.2.1 Design. All plans, computations and specifications involving new construction, alterations, repairs, expansions or additions or change in use or occupancy of existing buildings shall be prepared by or under the direct supervision of a Massachusetts registered architect or Massachusetts registered professional engineer and shall bear his or her signature and seal or **shall be prepared** by the legally recognized professional performing the work, as defined by **and consistent with** M.G.L. c. 112, § 81R. Said signature and seal shall signify that the plans, computations and specifications meet the applicable provisions of 780 CMR and all accepted engineering practices. Only one set of construction documents need bear the original signature and original (wet) seal.

116.2.2 Architect/Engineer Responsibilities During Construction. The registered architects and registered professional engineers who are responsible for the design, plans, calculations, and specifications, or their designee, **or registered architects and registered professional engineers who have been retained to perform construction phase services**, shall perform the following tasks:

1. Review, for conformance to the design concept, shop drawings, samples and other submittals by the contractor in accordance with the requirements of the construction documents.
2. Review and approval of the quality control procedures for all code-required controlled materials.

3. Be present at intervals appropriate to the stage of construction to become, generally familiar with the progress and quality of the work and to determine, in general, if the work is being performed in a manner consistent with the construction documents.

The application of the permit shall not be deemed to be complete until all of the ~~Construction Control Documents~~ **construction documents** (as defined in 780 CMR 2.00 and 780 CMR 116.2.1) have been submitted (also see 780 CMR 110.0). Final documentation of the compliance of the work per the plans and specifications shall be provided, and, when required by the Building Official, at the completion of each phase of construction.

116.2.3 Structural Tests and Inspections.

Structural tests and inspection shall be provided in accordance with 780 CMR ~~1705.0~~ **17.00** .