



**COMMUNITY DEVELOPMENT DEPARTMENT
BUILDING DIVISION**

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**MECHANICAL PLAN
REVIEW REQUIREMENTS
GUIDE**

**MECHANICAL PLAN REVIEW REQUIREMENTS FOR
COMMERCIAL BUILDINGS
BASED ON THE 2009 MICHIGAN MECHANICAL CODE**

GENERAL INFORMATION:

This guide outlines the requirements for obtaining a building permit to construct a tenant improvement in the township. Commercial “shell building” are often built without specific information as to the eventual tenants of the leased spaces. Also, occupancy or use of tenant spaces may change during the life of a commercial building. The items listed below are required with any plan submittal.

PLANS REVIEW:

Please allow time for the plan review process, which varies depending on Department’s workload. Plans are reviewed in the order they are received based on the application date. Plans that contain all the necessary information and details will expedite the review process.

- A **preliminary plan review letter** with a preliminary plan review-processing checklist will be issued within **three (3) working days** of submittal.
- Full plan reviews of **large commercial projects** will be completed within **fifteen (15) working days** of submittal.
- Full plan reviews of **small commercial projects** will be completed within **seven (7) working days** of submittal.
- **Plan review of revised or resubmitted plans** for both commercial and residential projects will be completed within **fifteen (15) working days** of submittal.
- In order to be in compliance with the state of Michigan’s Construction Code requirements, **plan reviews** shall be completed within **fifteen (15) working days** of submittal.

The permit applicant will be notified by mail or telephone if the information provided does not meet the Building Code requirements or if any additional information is necessary.

Three sets of construction documents required by the governmental agency for approval shall carry the embossed or printed seal (original seals and signatures) of an architect or professional engineer licensed in Michigan.

CODE:

- Michigan Mechanical Code 2009 Edition
- Michigan Rehabilitation Code 2006 Edition
- Internal National Fuel Gas Code 2009 Edition

How to purchase a book:

- The Codes and Standards order form is available on the Bureau's web site at www.michigan.gov/cis or (517-241-9313). Make a check payable to the State of Michigan and mail your request to the Bureau of Construction Codes, P.O. Box 30255, Lansing, Michigan 48909
- Books may also be purchased directly from ICC International, 4051 West Flossmoor Road, County Club Hills, Illinois 60478 or (800) 786-4452 or www.iccsafe.org

Three sets of Michigan Uniform Energy Code, Part 10a (ANSI/ASHRAE/IESNA Standard 90.1-1999) – clarify whether compliance with applicable sections have been met.

- New Buildings– Section 4.1.1
- Additions – Section 4.1.2.1
- Alterations – Section 4.1.2.2
- Alterations – heating, ventilating, and air-conditioning – Section 4.1.2.2.2

Three sets of Specification – if applicable

PLAN REQUIREMENTS:

Building plans drawn to standard architectural scale, clear, legible and non-altered; (4)-four sets required detailing the following items:

Building Code Analysis: (see attachment)

- Code Year / Type (Building, Plumbing, Mechanical, Electrical, Fire)
- Occupancy Classification
- Type of Construction
- Fire Sprinklers / Type/ NFPA
- Fire Alarm / Type/ NFPA
- Area
- Occupant loads for all areas (actual and calculated)
- Required plumbing fixtures
- Non-separated or separated uses with required calculations

- Floor plans showing location of duct layouts and sizes, fire, smoke and combination fire/smoke dampers. Location of mechanical units on roof, ground, or walls. Equipment to be indicated by model, type, size, BTU, location and material specification. (All existing and new equipment to be indicated).

- Ceiling plan indicating location of fixtures, exit lights, emergency lights, smoke detectors, fire alarms, supply and return air diffusers, and roof mounted HVAC equipment.

- 303 and 304; location and type of HVAC equipment.

- 306; Access and service space.

- 306.5; Equipment installed on roofs over 16 feet, provide permanent ladder.

- 306.5.2; Provide 125V AC convenience outlet on roof top appliances.
- 403.1; Mechanical ventilation per table 403.3, show required outside air. Show balance and ventilation schedule on plans.
- 403.7; prior to final provide balance report of ventilation of rooms and areas, include on plans. Must be certified balancing contractor.
- 507.16.1 & 507.16.1.1; Include on plans – requirements for smoke test for commercial hoods. To be witnessed by mechanical inspector.
- NFPA 2006; Submit cleaning schedule for commercial kitchen exhaust hood and duct systems.
- 602 and IFGC 404; There shall be no PVC or gas piping in circulating air ducts.
- 606 and 607; Show location of fire dampers and smoke detectors.
- 304 IFGC; outside combustion and dilution air for gas fired water heaters.
- 917.1; Cooking appliances, submit manufactures listing documentation and installation instructions. Clearly show all equipment on plans.
- Provide manufactures documentation on all HVAC equipment installed. Must include all information pertaining to hook ups.
- Include ventilation and balance schedule on plans; exhaust fans for fumes and odors for nail and pedicure areas.
- All mechanical installations subject to field inspections.
- Four (4) sets of Fire Sprinkler Plans shall be submitted to Township's Development Services Department for Fire Marshal review and approval. Please note that this review process may take approximately 2-6 weeks, so plan accordingly. For more information, please call Fire Marshal, Pat Riney at 248-409-1515.

Items noted above are minimum requirements. Unusual or complex projects often require additional information.

PLAN REVIEW FEES/OVERTIME PLAN REVIEW:

- a) Where review of construction documents is performed by outside consultants, the review fee shall be charged at 1.5 times the actual cost. Payment shall be in advance of the review based on estimated cost.

- b) Where review of construction documents is performed by township employees, the review fee shall be charged at \$75 per hour (i.e., revised drawings, deferred documents, etc.).
- c) Plan review shall be charged at 15% of the building plan review fee or \$150 minimum.

We hope this guide is helpful and we encourage you to provide us with any suggestion you may have as we continue to work toward improving our development process. If you have any questions regarding codes or Township ordinances buildings, please feel free to contact me at 248-451-4890.

Ted Massey
Mechanical Inspector/Plans Examiner