

# City of Royal Oak

## Commercial Plan Review Submittal Checklist



# City of Royal Oak Commercial Plan Review Submittal Requirements

[www.ci.royal-oak.us/code-enforcement/romain.htm](http://www.ci.royal-oak.us/code-enforcement/romain.htm)

Revised November 18, 2004

# **City of Royal Oak**

## **Commercial Plan Review Submittal Checklist**

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November 19, 2004

To: All Design Professionals

Dear Sir or Madam:

The City of Royal Oak's Building Department is working hard to streamline its' plan review process.

We all recognize that times are trying for all aspects of the building industry. Projects are often "fast tracked" unlike anything we have ever seen before. The old days of "design/build" seem to have been replaced by "concepts" that are figured out in the field. Few individuals that are involved with a Building project, including the Building Department, are offered the opportunity to spend as much time reviewing the project as they would like.

The Building Department is asking for your cooperation. I have attached a list that we have developed, based on recent plan review experiences, that we feel will help speed up the Commercial Plan Review process. This list contains items that were found to be missing from sets of drawings we have been asked to review for permit issuance. These items, when missing from the drawings, lead to a delay in the approval process, and, ultimately, delay the entire project.

Please take a moment to review this list. In the future, before submitting any plans for review by this Department, use this list as a guideline to make sure all the information we are looking for is included. By doing this, you will be helping us speed up the review process and ultimately allow us to issue permits faster.

If you have any questions regarding this list, please contact the Building Department at (248) 246-3210.

Sincerely,

Kelly M. Winters  
Building Official

Enclosures

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### **GENERAL REQUIREMENTS**

#### **Plans and Specifications**

The success of the Plan Review will reflect the thoroughness of the submitted documents. Attached is a listing (by discipline) of the plans, specifications, and engineering details, which must be submitted.

In an effort to facilitate the Plan Review process, please submit three complete sets of plans when requesting Mechanical, Plumbing and/or Electrical reviews in addition to the Building Review. A fee for building Plan Review, including all necessary trade reviews, must be paid at the time of submittal. **Construction documents will not be accepted for plan review unless accompanied by necessary fees.**

#### **Completed Plan Review**

Upon completion, you will be sent a comprehensive Plan Review. This review will include a copy of the Code Section, which corresponds to the notes on the list. In all cases, you are encouraged to review the completed Plan Review and call us directly if you have any questions concerning the review.

In an effort to speed the process, please have only **one designated person** call to ask questions about the plan review. When multiple people call about the same plan review it takes valuable time away from the inspectors' that, he or she could spend reviewing plans.

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### **BUILDING PLAN REVIEW REQUIREMENTS**

In order to perform a thorough **Building Plan Review**, the following specifications, drawings and details must be submitted:

- Three complete sets of signed and sealed architectural plans, structural plans and material specifications of all work.
- COM Check building envelope energy compliance certificate to verify compliance to Michigan Energy Code. Free COM Check software is available from the U.S. Department of Energy, at [www.energycodes.gov](http://www.energycodes.gov), for compliance to ASHRAE Standard 90.1 – 1999 Edition, per Part 10a, Michigan Energy Code.

#### **Site Plan:**

- Location Map
- Property Description
- Recorded Easements
- North Arrow
- Size and location of all new construction and all existing structures on the site
- Distances from lot lines
- Established street grades and proposed finish grades

#### **Architectural plans and specifications:**

- Description of uses and the proposed use group(s) for all portions of the building. The design approach for mixed-uses (as applicable)
- Proposed type of construction of the building
- Fully dimensioned drawings to determine areas and building height
- Adequate details and dimensions to evaluate means of egress, including occupant loads for each floor, exit arrangement and sizes, corridors, doors, stairs, etc.

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- Exit signs/means of egress lighting, including power supply

### **BUILDING PLAN REVIEW REQUIREMENTS continued**

- Accessibility provisions
- Description and details of proposed special occupancies such as a covered mall, high-rise, mezzanine, atrium, public garage, etc.
- Adequate details to evaluate fire resistive construction requirements, including data substantiating required ratings
- Details of plastic, insulation, and safety glazing installation
- Details of required fire protection systems

### **Structural plans, specifications, and engineering details to include:**

- Soils report indicating the soil type and recommended allowable bearing pressure and foundation type
- Signed and sealed structural design calculations which support the member sizes on the drawings
- Local design load criteria, including frost depth
- Earthquake seismic zone/effective peak acceleration coefficient
- Details of foundations and superstructure
- Provisions for requested special inspections
- Applicable construction standards and material specifications (i.e., masonry, concrete, wood, steel, etc.)

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### **ELECTRICAL PLAN REVIEW REQUIREMENTS**

In order to perform a thorough **Electrical Plan Review**, the following specification, drawings and details must be submitted:

- Complete plans and specifications of all electrical work
- COM Check electrical energy compliance certificate to verify compliance to Michigan Energy Code. Free COM Check software is available from the U.S. Department of Energy, at [www.energycodes.gov](http://www.energycodes.gov), for compliance to ASHRAE Standard 90.1 – 1999 Edition, per Part 10a, Michigan Energy Code.
- Labeling criteria of all electrical equipment
- Lighting floor plan including electrical circuits indicating conduit and wiring sizes
- Power floor plans including electrical circuits indication conduit and wiring sizes, equipment and disconnect switches
- Exit sign/means of egress lighting location and power supply
- Panelboard schedule
- Lighting fixture schedule
- Symbol schedule and diagrams
- Specifications to include requirements for:
  - Raceway and conduit with fittings
  - Wire and cable
  - Electrical boxes, fittings and installation
  - Electrical connections
  - Electrical wiring devices
  - Circuit and motor disconnects
  - Hangers and supporting devices

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### **Electrical Plan Review requirements continued**

- Electrical identification
- Service entrance and details
- Overcurrent protection
- Switchboards
- Grounding
- Transformers
- Panelboards
- Motor control centers
- Lighting fixtures
- Fire protective signaling systems
- Automatic fire detection systems
- Emergency/standby power systems
- Information on available fault current

## **MECHANICAL PLAN REVIEW REQUIREMENTS**

In order to perform a **Mechanical Plan Review**, the following minimum specifications, drawings and details must be submitted for your project:

- Complete plans, specifications & dimensions of all HVAC system ductwork, including duct insulation requirements.
- COM Check mechanical energy compliance certificate to verify compliance to Michigan Energy Code. Free COM Check software is available from the U.S. Department of Energy, at [www.energycodes.gov](http://www.energycodes.gov), for compliance to ASHRAE Standard 90.1 – 1999 Edition, per Part 10a, Michigan Energy Code.
- Locations of air-conditioning system smoke detectors.



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- The locations of all fire dampers, smoke dampers and ceiling dampers.
- The distance between all air inlets, exhaust outlet, appliance vents and the property lines.
- The volume of outdoor ventilation air requirement, based on the individual room use & area, as specified in Table 403.3 M.M.C., with total outside air ventilation volume for each use type.
- Building Air Balance Schedule, that will include total supply, total return, total exhaust, total outdoor air volumes & total makeup air volumes for the entire project area.
- Diagram of the entire gas piping layout, including specifications for piping materials & gas delivery pressures; dimensions of all piping sizes & piping lengths from meter to each appliance outlet; location of gas shutoff valves; and gas demand capacity for all appliances.
- Equipment schedule of all HVAC equipment installed within project area to include: horsepower rating; airflow capacity; heating and/or cooling Btu/h capacity; type of fuel and/or power supply; equipment SEER ratings.
- Mechanical refrigeration equipment data, refrigeration group, type and amount; compressor horsepower; equipment location.
- Refrigeration machinery room construction details & specifications, including type of rated construction; ventilation requirements; refrigerant leak detection system; access & egress locations; service pathways; location of emergency ventilation & equipment controls.

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### **Mechanical Plan Review Requirements continued**

- ❑ Commercial Cooking Exhaust System, include the following:
  - Specifications for each Type 1 & Type 2 commercial cooking hood, including hood locations, hood dimensions, type of cooking, (e.g. Extra-Heavy Duty, Heavy Duty, Medium Duty, Light Duty); type of hood, (e.g. canopy, island, backshelf, eyebrow) hood construction material.
  - Exhaust air volume for each hood.
  - Air balance schedule to show all hood exhaust and make-up air volumes.
  - Construction details & specifications for all grease duct enclosures or listed flame containment protection.
  - Type of cooking appliances.
  
- ❑ Product conveying exhaust systems, include the following:
  - Product or material being conveyed through the exhaust system, including MSDS & quantity of material, etc.
  - Flammability and/or health hazard rating of product conveyed through exhaust system.
  - Location of make-up air outlets, make-up air source and make-up air volume.
  - Exhaust duct construction details, including: duct construction material; duct dimensions; exhaust air inlets; location of exhaust air discharge & exhaust air volume.

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### **PLUMBING PLAN REVIEW REQUIREMENTS**

In order to perform a thorough **Plumbing Plan Review**, the following specifications, drawings and details must be submitted:

- Complete plans and specifications of all plumbing work
- Plumbing fixture and piping material specifications including identification of the applicable referenced standard
- The Plumbing fixture information to include:
  - The occupant load used to determine the number of required plumbing fixtures
  - Number and distribution based on the use group
  - Separate facilities for each sex
  - Accessible plumbing facilities and details
  - Anti-scald shower valves and devices for barrier free compliance
- Plumbing piping plan showing layout, pitch of drainage lines, cleanouts, size of traps, and riser diagram
- Water supply and distribution plan showing piping sizes, valves, water heater details and temperature-pressure relief valve with discharge pipe
- Sanitary drainage and vent system riser diagram showing drainage fixture units (dfu), sizes and vent termination details through the roof
- Potable water system riser diagram showing piping sizes and provisions for protection of potable water supply
- Piping support and installation schedule
- Storm drainage details including rain gutter or roof drain sizes and downspout/leader sizes
- Area of roof being drained into each roof drain/conductor and sizing or type of secondary drainage system, including points of discharge
- Health care plumbing and fixture details

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### Pre Plan Review Requirements

1. All commercial Building plans must be reviewed and approved by the Planning Department before submittal to the Building Department. The Planning and Zoning Department must review the plans and check to see that all contingencies required by the Planning Commission (Landscape plan, master signage plan, lighting plan) have been included in the new plans and verify that the approved site plan is being submitted.
2. All commercial Building Plans must be reviewed by the Engineering Department to determine if storm water detention/retention is required for the project. If storm water detention/retention is not required, the Engineering Department will sign off on our standard form. That signed form must be submitted when applying for a building permit. If storm water detention/retention is required, we recommend that Engineering Plans be submitted before the Building Plans are submitted or at the same time. The Engineering Plans must be reviewed and approved before an approved building plan/permit can be issued. The contact person is Engineer, Matt Callahan, 248-246-3263.
3. The City of Royal Oak has adopted a Performance Guarantee Ordinance. That section of the ordinance requires that a cost estimate of all site work be submitted for our review and a performance guarantee equal to 125% of that cost be submitted before a Building Permit can be issued. A copy of the section of the ordinance is enclosed for your review, along with several sample forms.
4. If the building requires Fire Suppression, a Fire Suppression Plan must be submitted to the Fire Department for review. The Fire Department is located at 215 E. Sixth Street. The contact person is Fire Marshal, Paul Benedict, 248-246-3811.

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### **Sanitary, Storm and Water Service Requirements for New Buildings**

1. Plans must be submitted to the Engineering Department for approval. These plans must show Water Service details, Storm Water Detention details and Sanitary Sewer details.
2. A Right of Way permit is required if working in a major thoroughfare. Engineering will make that determination. A site bond will be required for Right of Way work. The Engineering Department will establish the fees. Contact person for the Engineering Department, Mathew Callahan, 248-246-3263.
3. The Water Department establishes the water tap fees and they must be paid before the work is started. Contact person for the water department is Gail Collins, 248-246-3161.
4. A sewer permit is required for all plumbing site work to be performed. A Plumbing Contractor or a registered drain layer can obtain this permit.
5. If site work is to be started before the issuance of a building permit, the contractor performing the work must obtain a performance bond equal to 125% of the job cost. This bond must be obtained before commencement of the work.

### **Electrical Site Work Permit Requirements for New Buildings**

1. If electrical site work is to be started before the issuance of a building permit, the contractor performing the work must obtain a performance guarantee equal to 125% of the Electrical job cost. The performance guarantee must be submitted to the Building Department before starting the work.

### **Section 307 Performance Guarantee**

In the interest of insuring compliance with the Zoning Ordinance provisions, protecting the natural resources and the health, safety, and welfare of the residents of the City and future users or inhabitants of an area for which an application for a proposed use has been submitted, the City Official administering the application shall require the applicant to deposit a performance guarantee as set forth herein. The performance guarantee shall be required for the following purposes: to insure completion of improvements connected with a proposed use as required by this Ordinance, including but not limited to, streets, lighting, utilities, sidewalks, drainage, fences, screens, walls, and landscaping; to ensure that property is secured and stabilized in the event active

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development ceases; and, to provide security in connection with the issuance of a temporary certificate of occupancy in order to ensure completion of development plans.

(1) In General. Subject to the exceptions and special provisions set forth in paragraph (2), below, a performance guarantee shall mean a cash deposit, certified check or irrevocable bank letter of credit in the amount of one hundred twenty-five percent (125%) of the estimated cost of the improvements for which the guarantee is required, as determined by the applicant and verified by the City. If the amount of such estimated cost is not reasonably ascertainable by the City, the applicant may be required by the department administering the performance guarantee to submit: (1) a certified estimate prepared by applicant's licensed engineer or architect; or, alternatively, (2) a bona fide contract for the work to be performed, including a provision authorizing enforcement of the contract by the City in the event of a default by the applicant. To the extent that amounts required to be deposited are in excess of Two Hundred Fifty Thousand and No/100 Dollars (\$250,000.00), such amounts may be posted in the form of a corporate surety bond approved as to form and substance by the City Official administering the application, such bond to contain terms and provisions to promote a certain and efficient entitlement to such funds by the City in the event of the need for such funds in order to carry out the intent of the security. A letter of credit and corporate surety bond shall cover a time period equal to or longer than the time anticipated to complete improvements or take other actions, as applicable, and shall require thirty (30) days advance written notice to the City Official administering the application prior to termination. The City shall be authorized to employ the City Engineer and Building Official to review cost estimates and conduct periodic inspections of progress relative to required improvements and/or actions.

(2) Exceptions and Special Provisions.

- a. Non-residential: The performance guarantee posted in connection with proposed non-residential construction shall be in an amount equal to one hundred twenty five percent (125%) of the amount estimated and certified by the applicant's licensed engineer or architect for completion of improvements to streets, lighting, utilities, sidewalks, drainage (including retention or retention facilities, if any), fences, screens, walls and landscaping, or any other portion of the project determined by the Building Official to have an impact upon the public interest, infrastructure or upon the health, safety or welfare of the general public.

The first twenty percent (20%) of any such amount shall be posted either in cash or by Letter of Credit, and the balance, eighty percent (80%), shall be in the form of cash, Letter of Credit or a surety bond the form and substance of which shall be approved by the Building Official, whose approval shall not unreasonably be withheld.

An acceptable surety bond shall be issued:

1. By a company licensed to do business in the State of Michigan by the Department of Consumer and Industry Services, Office of Financial and Insurance Services;
2. By a company with a rating of not less than "A" as determined by A.M. Best Company or a similarly recognized rating agency;

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3. In a form that does not require the City of Royal Oak to expend money to complete the project bonded and thereafter seek reimbursement from the surety company;
4. By a company with additional qualifications or in a form containing additional provisions or restrictions as may reasonably be required by the Building Official based upon the need for provisions to protect the City under the particular facts and circumstances; and,
5. With a provision specifying that any dispute on whether and/or the amount of payment to be made by the surety, shall be resolved by binding arbitration.

One and two-family dwellings: In connection with the issuance of a building permit for one single-family detached dwelling or a two-family dwelling, the Building Official shall be authorized to require a performance guarantee in an amount not to exceed five percent (5%) of estimated construction cost. Such amount may be utilized by the City to secure and stabilize the property and avoid hazards in the event construction ceases, and to complete any improvements specified in the introductory paragraph to this Section 307.

(3) Temporary Certificates of Occupancy. If the person to whom a building permit has been issued requests a temporary certificate of occupancy, the condition for such issuance shall include the posting of a performance guarantee in the form of cash or letter of credit as contemplated in this section. The amount of the performance guarantee shall be equal to one hundred twenty-five percent (125%) of the cost of satisfying all conditions specified for securing a permanent certificate of occupancy. Such amount shall be determined by the applicant and verified by the City, and, if such amount is not reasonably ascertainable by the City, the applicant may be required by the department administering the certificate of occupancy to provide a certification of amount by the applicant's licensed engineer or architect, or, alternatively, a bona fide contract for the work to be performed, including a provision authorizing enforcement of the contract by the City in the event of a default by the applicant. The posting of a performance guarantee under this sub-paragraph (3) shall be accompanied by an agreement, as referenced in sub-paragraph (5), below. If a performance guarantee enforceable by the City is otherwise posted for one or more of the purposes for which a performance guarantee is required under this sub-paragraph, the amount of the guarantee under this sub-paragraph may be reduced accordingly in order to avoid a duplication of security for identical purposes.

(4) Terms and Provisions of Performance Guarantees.

- a. A performance guarantee under this section shall be deposited with the City Treasurer prior to the issuance of the requested permit or certificate.
- b. The approval by the City, building permit, temporary certificate of occupancy, and the like, shall prescribe the period of time before completion of the improvements and/or actions for which the performance guarantee has been required.
- c. The City, upon written request of the applicant, shall rebate portions of the performance guarantee upon determination by the City that the improvements and/or actions for which the rebate has been requested have been satisfactorily completed in accordance with the approved plans, permits, temporary certificate of occupancy, and all other applicable laws, regulations and ordinances.

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- d. Upon satisfactory completion of all performance for which the guarantee was required, as determined by the City, the City shall return to the applicant the performance guarantee deposited, and any interest accrued thereon, provided, the City generally is not anticipated to deposit the performance guarantee in an interest-bearing account.
  - e. If the applicant fails to timely complete all improvements and/or timely take the required action for which the performance guarantee was required, the applicant shall be deemed to be in default. Unless a shorter period has been specified by building permit, ordinance or code, "timely" completion of improvements shall mean not longer than two years from the date of issuance of the building permit, provided, however, a longer period of time may be specified in an agreement entered into as provided in sub-paragraph (5), below, or in an amendment of such agreement.
  - f. In the event of a default, the City shall, following notice to the applicant, have the right to use the performance guarantee deposited, including any interest earned thereon, to complete the improvements or take the appropriate actions to achieve completion, and the application for site plan approval, building permit, temporary certificate of occupancy, or the like, shall be deemed to have authorized the right of the City to enter upon the property to bring about such completion. A notice to an applicant given under this Section may be provided by one or more of the following methods: regular mail, to the address on the application for permit; and/or by delivery of the notice to the applicant at such address; and/or by posting the property.
  - g. In the event the performance guarantee posted is insufficient in amount to allow the City to complete the improvements and/or actions, the applicant shall be required to pay the City such additional costs as needed for the completion of such improvements and/or actions. Should the City use the performance guarantee, or a portion thereof, to achieve such completion, any amounts remaining shall first be applied to the City's administrative costs, including, without limitation, attorneys' fees, planning consultant fees, engineering consultant fees, and the like, utilized in connection with securing the guarantee and completing the improvements and/or actions, and the balance remaining thereafter shall be refunded to the applicant.
  - h. If the applicant has been required to post a performance guarantee with another governmental agency other than the City for the purpose of ensuring completion of an improvement, and the amount and terms of such performance guarantee are deemed adequate by the City, and are enforceable by the City, the applicant shall not be required to deposit with the City a duplicate performance guarantee for the same improvement.
- (5) Written Agreement. At the time the performance guarantee is deposited with the City, and prior to the issuance of permits or temporary certificates of occupancy, the applicant may be required to enter into an agreement executed by the applicant and the City relative to the terms and provisions applicable to the use of the performance guarantee, provided, however, in the absence of such agreement, the terms and provisions of this section shall govern.