Building Division

No. B11

City of Lakewood

Planning and Public Works

6000 Main St SW
Lakewood, WA 98499
(253) 512-2261

Visit our office:
Tues. – Thurs. 9am – 12pm

Contact us:
Permit Center
permits@cityoflakewood.us

Rental Housing Safety Program
rentals@cityoflakewood.us

Business Licensing
businesslicensing@cityoflakewood.us

Engineering
publicworksengineering@cityoflakewood.us

Planning
planning@cityoflakewood.us

Revised:
April 17, 2025

Commercial Construction Plan Components

Code References

- International Building Code (IBC) 107.
- LMC 15.05.060.E amendments to IBC 107.3.4 Design professional in responsible charge.

Please note

This construction plan or plan set component list is to be used as a guide to assist you with your commercial building permit application submittal. There may be elements unique to your project not shown on this list that will be required on your submittal construction plans or plan sets.

Land Use Approval including variances, subdivisions, and tree removal permits are recommended prior to submitting the building permit application to avoid delay in project review. *A commercial building permit will not be issued prior to any required land use approvals.*

All environmentally critical areas (wetlands, streams, geologically hazardous areas, and associated buffers) on the subject property should be reviewed, delineated, and/or rated prior to submitting a single-family building permit application to avoid delay in project review. This may require the submission of a shoreline permit, floodplain development permit, or tree removal permit.

File Requirements

The City of Lakewood Planning and Public Works Department only accepts electronic permit documents that meet the following standards:

- PDF documents shall be created with a program that meets ISO standards for PDF creation.
- Maximum Size of document allowed is 100 MB.
- Properly formatted and compressed PDF files should not exceed 1 MB per sheet. Files should be only saved in black and white (1-bit monochrome).

- Files must be unlocked or unprotected.
- Zip files are not accepted.

Construction Documents Requirements

1. Plans shall be of sufficient clarity to indicate the location, nature, and extent of the work proposed, and shall demonstrate how the proposed work conforms to the provisions of adopted codes and ordinances. Each plan sheet should be titled and each drawing therein should be labeled.
2. Export Settings:
    a. Maintain output Scale – avoid “Fit to Page”.
    b. Export directly to PDF not printed and then scanned
3. Plans shall be combined into one complete set, no individual sheet submittals
4. Architectural plans must be drawn to scale not less than 1/8” = 1’ & ¼” = 1’ for details, scaled dimensioned, and labeled.
5. Construction documents shall be prepared at a scale not less than 1/8-inch min. and details 1/4 inch min.
6. Site and Civil plans must be drawn to scale (1" = 20' minimum), dimensioned, and labeled.
7. Minimum plan sheet size is 11" x 17"; maximum plan sheet size is 24" x 36". All sheets to be the same size and sequentially labeled
    a. A minor remodel will be accepted on 8.5”x11”
8. Documents shall be submitted in the correct orientation. Incorrect oriented documents will not be accepted
9. Plans are required to be clearly legible, with scaled dimensions, in indelible ink.
10. Plans will not be accepted that are marked "Not for Construction", "Preliminary", that have red lines, with watermarks in the center of the page, or that have been altered after the design professional has signed the plans
11. All submittal documents are in PDF format, document security allows for adding review comments & markups
12. Topographic and boundary survey must be stamped by a surveyor licensed in the state of Washington (WAC 196-23-020). Survey datum must be KCAS or NAVD 88.
13. All structural plan sheets must be stamped by a WA state licensed professional engineer (RCW 18.43.020).
14. All civil plan sheets must be stamped by a civil engineer licensed in the state of Washington (RCW 18.43.370).

15. Design & construction documents shall be prepared by WA state licensed architects in accordance with RCW 18.08.410
    a. For nonresidential buildings less than 4,000 square feet, residential buildings does not contain more than 4 units, & residential buildings contain more than 4 units but the entire completed building is less than 4,000 square feet.
16. RCW 18.08.410(7) grants exemption for any person to design and prepare construction documents for alteration, or repairs to a project:
    a. Not greater than four thousand square feet in a building greater than four thousand square feet and when the contemplated work does not affect life safety or structural systems.
    b. The combined square footage of simultaneous projects allowances under this section shall not exceed four thousand square feet.

    Life safety is affected if the work contemplated includes, but is not limited to:
    (a) Alteration of any fire rated construction; (b) Alteration of any means of egress including barrier free provisions defined by the building codes; (c) Alteration of a building such that the number of occupants in the affected space(s) would be increased.
    (5) Project size is defined as the cumulative square footage of all spaces that contain altered construction in the design under consideration.
    (6) Simultaneous projects are projects which have an open permit in the same building, designed or prepared by nonarchitects, the total of which may not exceed four thousand square feet.
17. Drawings and construction documents prepared by a Washington State design professional, whether required to be or not, must be stamped and signed by the preparer.

Cover Page

At a minimum, the cover page should be provided that includes:

1. Table of contents- Identify page numbers included in building plan package and label what items are included on each page.
2. Site address, parcel number, and scope of work.
3. Building information:
    a. Specify model code information.
    b. IBC Occupancy Type (show all types by floor and building total)
    c. Number of stories and total height in feet.
    d. Building square footage (per floor and building total).
    e. Construction type.

   f. Exterior walls fire-resistance rated in accordance with Table 601, based on the type of construction, and Table 705.5, based on the fire separation distance.
   g. Type of sprinklers used per IBC 903.3.
   h. energy/mechanical code, and land use code information.
4. Design Team Information:
   a. Design Professional
   b. Architect(s)
   c. Structural Engineer(s)
   d. Civil Engineer(s)
   e. Landscape Architect(s)
   f. Owner(s)
   g. Developer(s)
5. The registered design professional in responsible charge shall list the deferred submittals on the construction documents for review by the Building Official per IBC 107.3.4.1.
6. Statements of third-party inspections of the building enclosure, and statement affirming the building enclosure design satisfy the requirements of RCW 64.55.

Minimum Design Criteria	
Roof snow loading: 25 PSF	Basic Wind speed – IBC 1609.3, Figures 1609.3(1), (2), (3).
Wind Exposure Category IBC 1609.4	Seismic Design Category D
Geotechnical investigation report IBC 1803	Frost Line Depth = 12 inches minimum
Flood design data, current FEMA flood maps.	Maximum rates of rainfall 60 minutes duration, 100-year return: • 1 inches/hour • 0.010 gallons per minute per square feet

Other items may be included on the cover page that pertain to the project.

Building Enclosure Design Documents

Any person applying for a building permit for construction of a multi-unit residential building or rehabilitative construction shall submit plans, details, and specifications for the construction of the building enclosure stamped by a licensed architect or engineer.

Site Plan

Check out our brochure on Site Plan Requirements. Site plans are not required for interior remodels that do not change ingress/egress, add bedrooms, do not increase total square footage, and the use remains the same.

Stormwater Pollution Prevention Plan (Erosion Control Plan)

1. North arrow.
2. Show the size, location, setbacks, and use of existing and new buildings and additions.
3. Show existing and proposed site topography in two-foot contours.
4. Show the location of utilities (water, septic, gas, etc.) and their connection to buildings or additions.
5. Show adjacent right(s)-of-way, width, and street name(s).
6. Provide a list of existing impervious area(s) in square feet, including structures, concrete, gravel, etc.
7. Indicate total lot size in square feet.
8. Provide the new impervious area in square feet.
9. Show existing street improvements (sidewalk, curb, gutter, edge of roadway, curb-cuts for driveways, etc.) along the property frontage(s).
10. Show proposed Temporary Erosion and Sedimentation Control (TESC) measures. (Best Management Practices shall apply.)
11. Use directional arrows to show surface drainage.
12. Show grading and clearing limits; indicate approximate cut and fill quantities of site earthwork.
13. Show proposed flow control method for roof, driveway, and any other proposed impervious surface.
14. Show location of all existing and proposed drainage easements and drainage facilities (catch basins, ditches, swales, culvert, detention ponds, etc.) on the property.
15. Provide details for flow control facilities or Best Management Practices (BMPs).
16. Provide sizing calculations for flow control facilities or BMPs.

Floor Plan Sheet(s)

1. Provide square footage and occupancy type of each room on every floor and provide summary.
2. Provide details for locations of all vertical and horizontal fire rated assemblies required for occupancy separation per IBC chapter 5.
3. Illustrate and provide details Means of Egress per IBC chapter 10.
   Means of Egress plan pages must include:
   a. Occupant load calculation,
   b. Exits sizing,
   c. Number of exits,
   d. Separation of exits,
   e. Common path of travel,
   f. Travel distance,
   g. Occupancy separation,
   h. Stair enclosure ratings,
   i. Provide non-separation calculation and mixed use ratio calculations.
4. Specify each wall type, door type, and glazing requirements.

Reflected Ceiling Plan Sheet(s)

1. Provide ceiling construction details per IBC 803.9.1.1, ASTM 635 & 636.
2. Provide suspended ceiling details including seismic bracing.
3. Show the location of all emergency lighting, exit signage and provide a lighting fixture schedule.

Roof Plan Sheet(s)

1. Show location of new or replaced HVAC, exterior equipment, ductwork, vents, screening
2. List of equipment and schedule. (include weight of equipment)
3. Structural engineering and details for gravity and/lateral loads. (when applicable)

Foundation

1. Stamped engineering calculations and structural drawings are required for all foundations/footings.
2. Provide plan view of foundation.
3. Location and size of exterior and interior bearing foundations/footings.
4. Location, size, embedment, and spacing of reinforcing steel anchor bolts, hold downs (if required), and post to footing connections.

Framing Plan

1. Specify size, span, spacing, species, and grade of lumber, or manufacturer and series of steel framing for all framing members.
2. Provide attachment details for top and bottom plates. Specify size and spacing of fasteners.
3. Clearly show bearing and shear walls. Specify nailing schedule.
4. Show materials and method of connection for all posts to beams connections.
5. Special connection methods must be detailed to show how the structure is held together.
6. Provide deflection detail stamped by architect or engineer for full height walls.

Construction Details

1. Specify size, span, spacing, species, and grade of lumber, or manufacturer and series of steel framing for all framing members.
2. Provide attachment details for top and bottom plates. Specify size and spacing of fasteners.
3. Provide shear wall schedule.
4. Show materials and method of connection for all posts to beams connections.
5. Provide typical wall section. Show components of walls, including finish materials, the seismic bracing for all walls.
6. Floor, ceiling construction and roof framing layout and details.
7. Provide full-height details for all mezzanines and stairways. Details must specify framing members, spacing, and finishes.
8. Provide windows & doors schedule specifying sizes, hardware, fire resistive rating where required, windows sizes for emergency escape openings dimensions, & windows sill heights.
9. Include a stair section showing rise, run, landings, headroom, handrail and guardrail dimensions; include size, anchorage and spacing of stringers if applicable.

Structural Sheet(s)

1. *Construction documents* shall show the size, section and relative locations of structural members with floor levels, column centers and offsets dimensioned.
2. The design loads and other information pertinent to the structural design required by Sections 1603.1.1 through 1603.1.9 shall be indicated on the *construction documents*.
3. Statement of special inspections per IBC 110.3.10 & IBC 1704.2.3.
4. Structural details and schedules shall be provided as required to provide specific information of the structural assemblies and must match the requirements provided in the structural calculations.

Structural Calculations (separate submittal item)

1. Structural calculations must be submitted for all commercial buildings.
2. A cover sheet must be provided that is signed and sealed by the engineer of record, who is registered in the State of Washington Design criteria used for foundation, floors, roof and lateral designs - Include geotechnical criteria used in design.
3. Calculations should include a table of contents with each page numbered.
4. Calculations prepared by a computer program must include an explanation of the program and documentation for input and output data formats.

Elevations

1. Building elevations of proposed structures to be labeled as north, south, east, and west .
2. Show full height elevation from finish floor to highest point of structure, floor & roof elevations. Building height calculation
3. Specify finished materials to be utilized in construction. Specify size of all materials.
4. Show complete exterior weatherization details.
5. Exterior wall openings. Show all doors and windows. Specify sizes if not shown on floor plan. Provide calculations for the proposed openings comply with the maximum allowable opening per IBC 705.8.
6. Illustrate on the plans cornices, roof and eave overhangs, projecting floors above, exterior balconies and similar projections extending beyond the exterior wall shall conform to the requirements of IBC 705.2 and IBC 1405.

Building Cross Sections

1. Show sections of structure that clarify in detail the typical conditions and describe otherwise hidden conditions.
2. Provide typical wall section. Show components of wall, including finish materials.

3. Provide detail showing lateral bracing per 1604.4 IBC.
4. Ceiling construction (size & spacing of joists) and insulation; provide cross section of dropped ceiling and detail lateral bracing requirements of ASTM Standard C636/C636M.
5. Roof structure (size and spacing of joists or pre-manufactured truss spacing) and insulation (if applicable).
6. Provide full-height details for all mezzanines and stairways. Details must specify framing members, spacing, and finishes.

Fire Resistive Elements

1. Provide fire rated building elements complying with the fire-resistive prescriptive requirements of IBC Tables 721.1(1), 721.1(2), 721.1(3) or provide details for approved tested listed fire resistive rated assemblies. This applies for all rated walls and ceilings, including corridors, occupancy separations, area separation walls, etc.
2. All fire rated assemblies shall be provided in their entirety.
3. Provide details that show how penetrations through fire resistive elements are protected using UL listed assemblies.
4. Show cross sections for required fire rated parapet walls.

Barrier Free Access

1. Provide floor plans and elevations of sufficient detail to show that the building and site facilities are accessible to persons with disabilities, as provided in ICC/ANSI Standard A117.1-2017 requirements for barrier-free accessibility.
2. Plans must show an accessible route of travel. An accessible route of travel is a continuous unobstructed path connecting all accessible elements and spaces (restrooms, drinking fountains, elevators, etc.) in an accessible building or facility that can be negotiated by a person using a wheelchair and is usable by persons with other disabilities.
3. Show the primary entry door and all accessible entrances into the building.
4. Provide floor plans and elevations with dimensions for restrooms, kitchens, counters, and similar fixed facilities showing compliance with barrier-free access requirements.
5. Plans must show an accessible route of travel. An accessible route of travel is a continuous unobstructed path connecting all accessible elements and spaces (restrooms, drinking fountains, elevators, etc.) in an accessible building or facility that can be negotiated by a person using a wheelchair and is usable by persons with other disabilities.
6. Show the primary entry door and all accessible entrances into the building.

7. Provide floor plans and elevations with dimensions for restrooms, kitchens, counters, and similar fixed facilities showing compliance with barrier-free access requirements.

WA state Energy Code (WSEC-C) construction documents

1. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in sufficient detail pertinent data and features of the building, systems and equipment as herein governed. Details shall include, but are not limited to, as applicable:
    a. Energy compliance path per Section C401 or C501.
    b. Insulation materials and their R-values.
    c. Fenestration U-factors and SHGCs.
    d. Area-weighted U-factor and SHGC calculations.
    e. Mechanical system design criteria.
    f. Mechanical and service water heating system and equipment types, sizes and efficiencies.
    g. Economizer description.
    h. Equipment and systems controls.
    i. Fan motor horsepower (hp) and controls.
    j. Duct sealing, duct and pipe insulation and location.
    k. Lighting fixture schedule with wattage and control narrative.
    l. Location of daylight zones on floor plan.
    m. Air barrier details including all air barrier boundaries and associated square foot calculations on all six sides of the air barrier as applicable.
2. The construction documents shall specify that the documents described in WSEC-C section C103.6 be provided to the building owner or owner's authorized agent within a maximum of 90 days of the date of receipt of the certificate of occupancy.
3. Construction documents shall clearly indicate provisions for commissioning process. The construction documents shall minimally include the following:
    a. A narrative description of the activities that will be accomplished during the commissioning process. At a minimum, the commissioning process is required to include:

i. Development and execution of the commissioning plan, including all subsections of Section C408.1.2;
ii. The certified commissioning professional's review of the building documentation and close out submittals in accordance with Section C103.6; and
iii. The commissioning report in accordance with Section C408.1.3.
iv. Roles, responsibilities and required qualifications of the certified commissioning professional.

b. A listing of the specific equipment, appliances or systems to be tested.
c. Provide completed Lighting Power Summary and Lighting Budget Worksheet specifically identifying light fixture (wattage for light fixtures must include ballast wattage).
d. Show compliance with the ventilation requirements of the International Mechanical Code (IMC) Table 403.3, as amended by the state.

Plumbing Plans

1. Scope of work.
2. Plumbing equipment layout over the floor plan.
3. Isometric drawings of waste and vent systems.
4. Equipment schedules for boilers, water heaters, etc. including size, type and location.
5. One line schematic of domestic water service.
6. Riser diagram for multi floor buildings.
7. Location of backflow prevention devices.
8. Ground plan with pipe layout relative to structure foundations including type of material and water pressure at site.
9. Pipe size and material for potable water and sewer.
10. Roof storm drainage details including materials, primary & secondary roof drainage, sizing based on double the maximum rates of rainfall per WA UPC amendments 1103.1.
11. Calculations (can be separate documents)
    a. Water supply fixture units (WSFU) calculations
    b. Drainage fixture units (DFU) calculations

c. Vent pipe sizing calculations
d. Grease interceptor-sizing calculations

Mechanical Plans

1. Schedule of heating and cooling equipment including model numbers and manufacturer's cut sheets, heating and cooling efficiencies.
2. Schedule & details for fire, smoke, and fire/smoke dampers.
3. Specification of the economizer for each fan system.
4. Schedule of motors used in fan, pump and other HVAC systems.
5. Thermostatic control specifications.
6. Pipe and duct insulation schedule.
7. Type I hood and duct specifications and drawings including shaft assembly listings
8. Ventilation air calculations.
9. Refrigerant classification and amount.
10. Roof plan (if equipment is located on the roof) showing all mechanical equipment, vents, roof access, and equipment screening, roof & attic access openings, stairs or ladders to access the equipment on the roof.
11. Design & calculations for roof structural elements supporting equipment installed on the roof, equipment anchorage to resist earthquake motions per IBC 1613.
    a. For replacement equipment, state the weight of the old and new equipment on the plans, and show the old and new location of the replacement equipment. If the new equipment weight is equal or less than the existing, in the same location, using existing curb structural calculations will not be required for verification of the roof structure adequacy supporting the new equipment.
    b. Provide design & details for the new equipment anchorage to the existing curb.
12. Mechanical floor plan layout:
    a. Duct and equipment layout over the floor plan.
    b. The size of ducts and outlets.
    c. The name and anticipated usage of each room.
    d. The cubic feet of air per minute (cfm) at each diffuser, return air register, exhaust, and transfer grills.
    e. Location and details of fire dampers.
13. Statement of special inspections may be required for mechanical components in accordance with IBC 1705.13 & 1705.14.
14. Smoke control systems IBC 909:

    The *construction documents* shall include sufficient information and detail to adequately describe the elements of the design necessary for the proper

implementation of the smoke control systems. These documents shall be accompanied by sufficient information and analysis to demonstrate compliance with these provisions.

Racks

1. Provide design calculations & construction details prepared & signed by a Washington State licensed professional engineer.
2. Provide special inspection statement per IBC 1705.13.
3. Rack floor plan configuration drawings shall be furnished with each rack installation.
4. Plans shall detail rack locations; height and length of each rack; width of access aisles; ceiling/roof height; location of exits; products/commodities, including packaging, and sprinkler design information.
5. Provide design calculations for racks anchorage, and manufacturer specifications for the anchors.
6. High pile storage racks shall comply with the International Fire Code (IFC).

Other plans that may be applicable depending on project scope

- Landscape Plans - For new structures or change of use that did not require land use approval.

Other reports and permits that may be applicable depending on project scope

- Grading and Demolition Plan
- Site Development Permit
- Topographic and Boundary Survey
- Geotechnical Report with Soils Infiltration Tests
- Traffic Signal
- Rapid Flashing Beacon/Crosswalk
- Offsite improvements
- Sight Distance Analysis
- WSDOT Approval
- Water System Hydraulic Model (Fire Flow) Report