

Guide to the Commercial Plan Checklist

Project Address:	
Contact's Name:	Contact's Tele:
Owners Name:	Owner's Tele:
Owner's Address:	E-mail:
General Contractor:	Contractor's Contact #:
Date:	Construction Type:
Occupant Load:	Fire Sprinklers: Y- <input type="checkbox"/> N- <input type="checkbox"/>
Building Classification: Commercial	Occupancy Use:
Plan Checker:	Flood Zone:
Description of Work:	

Please Note:

This supplement is provided to give a brief explanation of the requirements associated with the checklist items that constitute the Commercial Checklist. For more detailed information please refer to the applicable code section, rule, or statute as indicated. Plans are to be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and all relevant laws, ordinances, rules and regulations.

Please reference the appropriate codes on your plans

- | |
|---|
| <ul style="list-style-type: none"> ○ Village of Ruidoso Municipal code 22-31 ○ 2015 New Mexico Commercial Building Code
(Based on the 2015 IBC) ○ 2015 New Mexico Fire Code
(Based on the 2015 IFC) ○ 2015 New Mexico Existing Building Code
(Based on the 2015 IEBC) ○ 2018 New Mexico Energy Conservation Code
(Based on the 2018 IECC) ○ 2021 New Mexico Plumbing Code
(Based on the 2021 UPC, <u>(DO NOT USE IPC)</u>) ○ 2021 New Mexico Mechanical Code
(Based on the 2021 UMC, <u>(DO NOT USE IMC)</u>) ○ 2017 New Mexico Electrical Code
(Based on the 2017 NEC) ○ 2009 ICC 117.1 A, Accessibility Code ○ Additional codes may apply |
|---|

CORRECT BOLD AND UNDERLINED ITEMS

(When provided plan correction list)
(Provide a list detailing location of corrections on plans or answers to questions & indicate revisions on plans)

Under lined red items are commonly missed items

Supplemental Section 1.0 -- General Project Data **Construction Documents (2015 IBC 107.1)**

No: Item

1.1 REQUIRED Sets of Plans and report

Provide electronic plans (preferred) or submit 1 set for plan review

- a. Electronic plans are preferred or 2 sets at resubmittal
- b. Provide a corresponding list showing corrections or giving answers to questions and information when resubmitting for back check.
- c. When demolition is to be apart of the project, an asbestos report, for the areas to be demoed, is to be submitted with the permit application package.
- d. Provide water and sewer utility availability forms and/or septic permit approval.

1.2 REQUIRED Cover sheet title block

The cover sheet typically has affixed on it a title block which includes the following information:

- Project name.
- Project address.
- Owner's name, address, and phone number.
- Designer/preparer (include address, phone number, fax number, and contact person).
- Date of preparation (or revision).

1.3 DESIGN MINIMUMS:

- a. Basic wind zone; 90-B (115 or 120 ultimate wind speed, depending on risk category)
- b. Seismic zone; B
- c. Snow load; 30#
- d. Ground. Soil load; 2000# (unless by Geo-tech/engineering report)
- e. Weathering; moderate
- f. Frost depth; 20" (to bottom of footings)
- g. Termite; slight
- h. Winter design temp; 5 degrees
- i. Ice barrier; No
- j. Air freezing index; 5-10 degree
- k. Mean annual temp; 50 degrees
- l. Energy zone; 5B, per IECC and NMAC

1.4 REQUIRED Cover sheet plan index

The cover sheet plan index indicates the location of specific types of information to be found within the plan set. Typically, designers will give a prefix to each type of information (i.e., A Plumbing, etc.).

Please Note: Number all sheets to correspond with the plan index.

1.5 Code summary

The code summary typically contains a minimum amount of information which includes the following:

- Governing codes and standards used (The applicable editions of the State of New Mexico Codes).
- Occupancy group classification.
- Occupancy load
- Type of construction.
- Actual and allowable area calculations.
- Building height and number of stories.
- Location on the property (relative to the actual property lines or assumed property lines).
- Outdoor ventilation air occupancy ventilation requirements based on use.
- Minimum number of plumbing fixtures required by Section 2902 and the NMBC and NMPC based on occupant load.
- Method of Energy Conservation calculation per Chapter 5 of the NMECC.
- Flood Zone

Note: Geotechnical Soils Investigation is required for new commercial construction over 2500 square feet. (IBC 1803 and RMC 22-31. b.)

1.6 Deferred submittal summary

The architect or engineer of record must list the deferred submittal items on the plans and submit the deferred submittal documents for review, and approval by the Building Official.

Please Note: Deferral of any submittal items must have prior approval of the Building Official. (NMAC 14.5.2.10.F)

1.7 Professional stamp and signature

The Building Official will only accept plans, computations and specifications that are prepared and designed by an architect or engineer licensed by the State of New Mexico to practice as such (with some exceptions). The architect or engineer of record is responsible for reviewing and coordinating all submittal items prepared by others, including deferred submittal items, for compatibility with the design of the building (NMAC 14.5.2,10. G). Licensed architects and engineers must refer to the appropriate state statutes pertaining to their practice to ensure compliance with these regulations. Provide wet stamped signature sets only. (Electronic stamped signatures are considered a “wet signature”)

Supporting Documents

No: Item: (IBC 107.1)

1.20 Land use or planning actions

Contact the local jurisdiction to determine if a copy of the conditions of approval from the local Land Use and Planning/Zoning department will need to be provided.

Supplemental Section 2.0 -- Civil Data

Construction Documents

No: Item

2.1 REQUIRED Site plan (IBC 107.2.5)

The site plan typically includes the following information:

- North arrow.
- Actual property lines and assumed property lines.
- Location of building(s) for proposed and existing projected building footprint. This shall include canopies, awnings, covered walkways, decks, loading docks, etc.
- Site area in acres and square feet.
- Calculated area of impervious surfaces (for onsite drainage retention).
- Total number of standard parking stalls, accessible parking stalls, and compact stalls.
- Accessible route to public way and site accessibility.
- Curbs, driveways, sidewalks, retaining walls, other site structures and features.
- Easements.
- Flood-plain elevation information.

2.2 REQUIRED Site utility plan (IBC 107.2.5)

Reference the potable water, sanitary and storm drainage requirements. The site utility plan typically includes the following information:

- North arrow.
- Easements.
- Location and sizes of existing and proposed gas lines.
- Location and sizes of existing and proposed potable water, sanitary and storm drain lines.
- Location(s) of existing and proposed underground and overhead electrical lines.
- Transformer location and electrical service entrance location(s).
- Abandoned lines, septic tanks, cesspools.
- Abandoned oil or gas tanks.

- Catch basins, rain drains, footing drains, backwater valves, sanitary sewer lines, water lines including pipe locations and sizes, irrigation supply, storm water detention details including piping, filters, interceptors, etc.
- Drywells with calculations. (Calculations can be on separate sheets. Provide proof of compliance with environmental rules - Reference item 2.23 in this section).
- Existing and proposed water distribution system location with pipe sizes shown and valve, hydrant, and meter locations indicated.
- Water service details.
- Backflow prevention assembly locations and details.

Please Note: It is the designer's responsibility to justify load, demand, and proper sizing of systems.

2.3 REQUIRED Grading plan (IBC 107.2.5)

Contact the local jurisdiction for grading requirements. The grading plan typically includes the following information:

- North arrow
- The preparation (and revision) dates of the drawings.
- Property limits and existing and proposed contours and area drainage features on the site per 54-132.1 and division 4 of the Ruidoso municipal code.
- Detailed plans of all surface and subsurface drainage devices, water quality systems, walls, cribbing, dams, and other protective devices to be constructed with, or as a part of, the proposed work, together with a map showing the drainage area and the estimated runoff of the area served by any drains, per 54-132.1 and division 4 of the Ruidoso municipal code.
- Location of all buildings or structures on the property where the work is to be performed and the location of all buildings or structures on land of adjacent owners that are within 15 feet of the property or that may be affected by the proposed grading operations.
- Recommendations included in the soils engineering report and the engineering geology report shall be incorporated in the grading plans or specifications. When approved by the building official, specific recommendations contained in the soils engineering report and the engineering geology reports, which are applicable to grading, may be included by reference.
- A detail showing slope setback requirements from property lines and other permit area boundaries.
- Location(s) of site retaining walls, including footing and wall drainage.
- U.S. Army Corps of Engineers or FEMA designated 100-year flood plain with elevation information, jurisdiction required buffer lines, and flood plain boundaries, sensitive areas, creeks and other identified areas of concern.

Supporting Documents

No: Item: (IBC 1803.2 & 1803.5.3)

2.20 Geotechnical/soil engineer report

Provide detailed requirements on the geotechnical/soil engineer's report. The report typically includes the following information:

- Preparation dates of the soils engineering and engineering geology reports together with names, addresses and phone numbers of the firms or individuals who prepared the reports.
- A plan of the property showing the location of identified geological conditions.
- A plan of the property showing the location of all test borings and/or excavations.
- Data regarding the nature, distribution, and strength of existing soils.
- Descriptions and classifications of the material encountered.
- Elevation of the water table, if encountered.
- Recommendations for foundation type and design criteria, including bearing capacity, provisions to mitigate the effects of expansive soils, provisions to mitigate the effects of liquefaction and soil strength, and the effects of adjacent loads.
- Recommendation regarding the design of the proposed foundation type and the shoring, if any.
- Recommendations regarding road and driveway construction, building pad preparation and temporary cut slopes.
- Expected total and differential settlement.
- Address any issues that the investigation identifies as a potential for liquefaction or expansive soils.
- Conclusions and recommendations for grading procedures and design criteria for corrective measures when necessary.
- An opinion on the adequacy for the intended use of site to be developed by the proposed grading as affected by soil engineering factors, including the stability of slopes.

2.21 Storm water calculations (UPC Appendix D)

Consult the local jurisdiction's public works or development department standards for complete requirements. Storm water calculations typically include the following information:

- Narrative explaining rationale used in the calculations.
- Drainage Submittal Summary.
- List of soil types, hydrologic types, and Soil Conservation Service or other approved standard runoff curve numbers used along with rationale.

- Name of the model used in the analysis with a brief explanation of its characteristics if not a commonly used model.
- Time of concentration calculations or monograph used and rationale, if needed.
- Detention volume.
- Calculations justifying catch basin spacing.
- Culvert sizing.

2.22 Site retaining wall structural calculations

Retaining walls with a top-of-wall to bottom-of-footing dimension that exceeds four (4) feet, or regardless of height, walls that resist a surcharge, (for example walls within the influence of a building footing or of a road or driveway), must be designed (engineered).

- To resist loads in accordance with accepted engineering practice due to lateral pressure of retained material and other forces such as those imposed by guardrails, fences, and surcharge loads.
- To resist sliding by at least 1.5 times the lateral force and overturning by at least 1.5 times the overturning moment, using allowable stress design loads.

Retaining wall structural calculations should include complete wall cross sections and pertinent construction details.

Please Note:

1. The retaining wall design calculations and details must be signed and stamped by an engineer

2.23 “Assurance of Compliance” with environmental rules

Contact the local jurisdiction for further information. If required, provide copies of:

- US Army Corps of Engineers requirements and/or approvals.

Supplemental Section 3.0 -- Architectural Data

Construction Documents (IBC 107.2.1)

No: Item:

3.1 REQUIRED Floor plan(s)

The floor plan typically includes the following information:

- North arrow.
- Proposed use or occupancy of each room or area. (New and existing)
- Dimensions of each room or area.
- Location(s) of fire resistive walls.
- Door and window identification.
- Location(s) of all permanently attached items (plumbing fixtures, cabinets, counters, etc.)

- Location(s) of all required exits per Chapters 10 and 11.
- For Tenant Improvements (TI's), additions, or alterations, show the location of work within the building.
- Gender-free restrooms, not men's and women's; single user toilet facility in public accommodations, commercial use, in existing or new construction but does not require the construction of any new restrooms. (Effective date 7/1/19)
- All new commercial restrooms for public use are to have a baby changing table. (Effective date 1/1/20)

3.2 REQUIRED Transverse and longitudinal cross sections

Typically, a sufficient number of cross sections are provided to indicate the following information:

- Foundation construction.
- Wall and floor framing.
- Roof construction.
- Insulation details.
- Exterior wall and roof sheathing.
- Interior and exterior finish materials.

3.3 REQUIRED Chapter 11 accessibility requirements

Typically, construction documents contain sufficient details and dimensions to show an accessible route throughout the building and conformance with Section 1109 "Accessible Design Standards". Accessible information on plans should include, but not be limited to, the following information: Provide details

- Reach ranges (forward and side approach).
- Ramps.
- Handrails.
- Doors.
- Aisles.
- Toilet and bathing facilities.
- Kitchens and sinks.
- Water fountains and water coolers.
- Telephones and ATM machines.
- Storage, shelving, and display units.
- Environmental controls and hardware.
- Floor coverings and surface treatments.
- Protruding objects.
- Special hazards.
- Areas of rescue assistance.

Please Note: Alterations to existing buildings require the removal of architectural barriers up to a limit of 25% of the project budget.

3.4 Interior elevations

Interior elevations typically include the following information:

- Door and window locations and sizes.
- Interior floor, wall, and ceiling finishes.
- Chapter 11 accessibility details, including signage (IBC 1101.2).

3.5 Exterior elevations

Provide all exterior elevations. Exterior elevations typically include the following information:

- Compass direction of view.
- Door and window locations, sizes, energy, safety, and fire rating, etc.
- Exterior finish materials and details as needed
- Building height, with dimensions to each floor, eaves, and ridgeline or parapet.
- Exterior grade adjacent to project.
- Accessibility signage as required.

3.6 Roof plan

The roof plans typically include, the following information, with details as necessary:

- North arrow.
- Roof slope.
- Crickets.
- Parapets.
- Location of rooftop mechanical equipment.
- Location and sizes of all roof drains, overflow drains, scuppers etc.
- Insulation details, if applicable.
- Roof covering material and classification.
- Rooftop screening for mechanical units.
- Roof access such as stairs, scuttles, or ladders.
- Personnel protection such as catwalks and/or guardrails.
- Location and details of attic access to meet the requirements of Section 1209.2.
- Location and cross-sectional details for draft stops to meet the requirement of Section 717.4. (>3,000 sf of area)
- Attic ventilation calculations to meet the requirements of Section 1203.2.

3.7 Wall type schedule and details

Wall type schedule and details typically include the following information:

- Wall construction method.
- Indication if wall type is fire rated or not.
- If wall type is fire rated, the listing agency name, listing number, fire resistance rating in hours, and construction verbiage from listing or code.
- Insulation methods to meet building envelope requirements.

- Insulation methods to meet sound transference control, if required.

3.8 Reflected ceiling plan(s)

The reflected ceiling plan typically includes the following information:

- North arrow.
- Location(s) of exit signs and egress lighting.
- Location(s) of ceiling lights.
- Attic access location and size.
- Details for suspended ceiling support and bracing.

3.9 Fire-rated construction details

Construction documents must include complete information for the construction of all fire-rated assemblies and all penetrations of fire-rated assemblies.

- For site-built assemblies, this information must include listing agency name, listing number, fire resistance rating in hours, and construction verbiage from the listing.
- For pre-manufactured assemblies, this information must include listing information and the manufacturer's installation instructions.
- For fire-stopping materials to seal penetrations of fire-rated construction, this information must include listing information, installation details, and instructions.

3.10 Energy code compliant construction details and specifications

Construction details and specifications for conditioned building envelope components typically include the following information:

Forms: (On the Village web site for download).

1. Commercial energy plan checklist (fill out and submit with plan check package).
2. Commercial energy commissioning form (to be completed and provided to the inspector at the final building inspection).
3. Commercial duct inspection checklist (provide complete check list to inspector at the rough/topout mechanical inspection).
4. Provide a COMcheck or similar energy report at plan submittal.

Building Envelope:

- Vestibules required for buildings with 3000 sq. ft. or more of conditioned space.
- Detail(s) for each type of exterior wall assembly (including demising walls between conditioned and semi-heated spaces).
- Detail(s) for each type of window in exterior walls. U-factor requirement is for all windows and glazing.
- Detail(s) for each type of skylight in exterior roof/ceilings, U-factor requirement is for overall skylight in "overhead" position (not glass only).
- Detail(s) for each type of exterior, insulated roof/ceiling assembly.
- Detail(s) for each type of concrete slab-on grade floor assembly.

- Detail(s) for each type of exterior floor assembly that is above unconditioned space. This includes floor assemblies above parking areas.
- Detail(s) for each type of doors in exterior walls.

Mechanical:

Please provide Mechanical Data - New Construction/Tenant Improvement/Gas Piping Permits Energy Code Compliance Forms for requirements.

Lighting:

Provide Electrical Data, Energy code compliance forms and calculations for “lighting” for requirements.

3.11 Door schedule

The door schedule typically includes the following information:

- Door sizes and construction (height, width, and material).
- Type of closures (if applicable).
- Hold opens (if applicable).
- Fire Rating (when required).
- Gaskets (when required).
- Size and type of glazing in the door.
- Size and type (tempered, fire rated, etc.) of relites.
- Exterior door U-Values (where applicable).
- Special features (such as louvers, grills, undercut, etc.).
- Hardware requirements (accessible, panic, etc)

3.12 Glazing schedule

The glazing schedule typically includes the following information:

- Size and location of all glazing.
- Size and location of fire-rated glazing.
- Size and location of safety type glazing.
- Exterior window U-values and shading coefficient.

3.13 Furniture plan

The furniture plan typically includes the following information:

- Furniture layout for fixed seating.
- Aisle widths and row spacing.
- Compliance with accessible route requirements. Note on plans to “Maintain the minimum aisle requirements at all times”
- Racks and shelving including bracing or anchorage (where required).

Supporting Documents

No: Item:

3.20 Energy code compliance forms/calculations

3.21 State of New Mexico Environmental Department

- NMED approved and stamped proposed floor plan for projects that require NMED review and approval

Supplemental Section 4.0 -- Structural Data

Construction Documents

No: Item:

4.1 REQUIRED Structural cover sheet

The following information is typically included on the first structural sheet:

- Name of engineering firm and engineer of record, postal service address, electronic mail address, telephone number, and fax number of firm.
- Preparation (or revision) date of sheet.
- Identify the codes used for design (specify edition dates).
- Identify all the design loads to include dead loads, live loads, ground snow load, snow exposure coefficient, all occupancy importance factors, wind speed, wind exposure, seismic design criteria including seismic zone, and special loads.
- Frost depth.
- General structural notes, including material specifications.
- Special inspection matrix indicating item to be inspected, firm responsible for inspection (soil engineer, special inspection agency, etc.), stage of construction when item will be inspected, and whether inspection will be continuous or periodic or note on plans if none are required.
- Structural observation matrix indicating item to be observed, person responsibility for the observation, and stage(s) of construction when observation(s) will be performed.
- Notes indicating soil classification (Unified Soil Classification), limiting bearing capacity, design lateral loading for retaining walls (active, at-rest, and passive), pile design and construction recommendations, and other design and construction requirements specified in the geotechnical report.
- Submit Geotechnical/Soil Engineer's Report with plans for review

4.2 Foundation plan

The foundation plan typically includes the following information:

- Size and location of under-slab drainage piping and foundation wall drainage systems, the point of outfall or discharge for the drainage, and references to details.
- Under-slab drainage piping and foundation wall drainage system details to match references.
- Sizes and locations of slab and foundation wall penetrations for pipes and conduits and references to penetration details.
- Slab and foundation wall penetration details to match references.

- Design soil bearing pressure, pile capacity and lengths, lateral design loads, backfill requirements, and footing embedment requirements (unless shown on Structural Cover Sheet).
- Footing and foundation wall layout location dimensions, grid lines, and references to cross-sections and construction details.
- Step foundation locations and references to details.
- Step foundation details to match references.
- Details for footings on or adjacent to slopes or alternative engineered setbacks and clearances to slopes.
- Top-of-slab and top-of-foundation elevations.
- Column location and schedule.
- Locations of shear walls, anchors and hold downs, braced frames, moment frames, and embedded baseplates, and references to details for each type.
- Details for shear walls, anchors and hold downs, braced frames, moment frames and embedded baseplates to match references.
- Control joint and expansion joint location and details.
- Vapor barrier and ground cover details.
- References to, and details for, elevator pits, fireplaces, special equipment and any other architectural and structural features.

4.3 Under-slab mechanical plan

The under-slab mechanical plan typically includes the following information:

- Duct or piping location(s) including depth, and distance to footings, piers, pilings or other structural load bearing elements.
- Duct or piping size and material.
- Duct or piping insulation and/or sleeve material.

4.4. Under-slab electrical plan

The under-slab electrical plan typically includes the following information:

- Conduit location(s) including depth, and distance to footings, piers, pilings or other structural load bearing elements.
- Conduit size and material.
- Conduit insulation and/or sleeve material.
- Service UFER ground attachments that will be inaccessible for inspection after cover.

Please Note: The Foundation Plan should show the location, type, and sizes of all under-slab electrical conduit systems, and service UFER ground attachments.

4.5 Under-slab plumbing plan

The under-slab plumbing plan typically includes the following information:

- Piping location(s) including depth, and distance to footings, piers, pilings or other structural load bearing elements.
- Piping size and material.

- Piping insulation and/or sleeve material.

4.6 Floor framing plan

The floor framing plan typically includes the following information:

- Locations, sizes, spacing, material types for all structural members supporting a floor.
- Columns, shear walls, bearing walls, and braced and moment frame locations, with references to type and size. Provide references to details.
- Details of columns, shear walls, bearing walls, and braced and moment frames, to match references.
- Beam to column connections and references to details.
- Details of beam and column connections to match references.
- References to connection details for attachment of posts and columns to piers and bases.
- Details of connections for posts and columns, to piers and bases, to match references.
- References to cross-section and details of decking (wood frame, metal, concrete).
- Cross sectional and construction details of decking (wood frame, metal concrete) to match references.
- Fastener schedule and hold-down schedule.
- References to floor/shaft details (including elevator, dumbwaiters, mechanical, etc.).
- References to exterior balcony details.
- Details of floor/shaft details (including elevator, dumbwaiters, mechanical, etc.) to match references.
- Exterior balcony details to match references.
- Expansion joint locations and references to details.

4.7 Structural wall framing plan

The lateral plan is to include plans and details for brace walls, shear, etc.

Provide a complete plan showing complete path from foundation to roof as required for method used.

- Columns, shear walls, bearing walls, and other framing member locations, with references to types and sizes, and references details.
- Details for columns, shear walls, bearing walls, other framing members, and roof/wall/floor connections, to match references.

4.8 Roof framing plan

The roof framing plan typically includes the following information:

- Columns, shear walls, bearing walls, and other framing member locations, with references to types and sizes, and references to roof connection details.

- Details for columns, shear walls, bearing walls, other framing members, and roof/wall connections, to match references.
- Diaphragm sheathing materials and details including a diaphragm nailing schedule.
- Roof framing members and support beam types, sizes, and locations and references to details.
- Details for roof framing members and support beams, to match references.
- Beam to column connections and details.
- Truss details.
- Rafter details.
- Sheathing details.
- Drag struts and strapping with locations shown and references to details.
- Drag strut and strapping details, to match references.
- Mansard details.
- Attic and roof access framing.
- Draft stop location and construction details.
- Parapet top elevations and references to details.
- Parapet construction details, to match references.
- Scupper and roof drain locations and references to details.
- Scupper and roof drain details, to match references.
- Elevator penthouse location and references to details.
- Elevator penthouse construction details, to match references.
- Mechanical well, equipment screen-walls, equipment locations and references to details.
- Mechanical well construction details, equipment screen-wall construction and attachment details, and equipment installation details, to match references.
- Expansion joint locations and references to details.

4.9 Structural elevations

Structural elevations typically include the following information:

- Building height, with dimensions to each floor, eaves, and ridgeline or parapet.
- Grade beam elevations.
- Special wall framing elevations and references to details.
- Special wall framing details, to match references.
- Braced and moment frame elevations with references to connection details.
- Braced and moment frame connection details, to match references.
- Shaft framing and references to details (to include elevator).
- Shaft framing details, to match references.
- Elevation drawing and details of bearing walls, shear walls, diaphragms, stairs, roof framing, etc.

4.10 Structural details and cross sections

Structural details and cross sections typically include the following information:

- Footing, foundation, and wall details showing reinforcement.
- Beam, slab, column, and girder details and schedules.
- Plinth details (spread footing).
- Pile details and schedule.
- Column and base plate connection details including anchors and hold downs.
- Column to beam, column to column, and other framing member connection details.
- Foundation, wall, floor, and roof construction and framing details.
- Details of bolted and welded connections.
- Structural details for stairs and stair connections to structure.
- Beam connections schedule.
- Beam to column schedule.
- Details of floor to wall and wall to roof connections.

4.11 Special inspector/structural observation matrix

Reference Chapter 17 for complete requirements The Special Inspection Matrix (SIM) typically includes the minimum information:

- Conformance with State of New Mexico's Special Inspection requirements.
- Reference Section 1704.3.2. A Structural Observation Matrix (SOM) is required

when one or more of the following applies:

1. The structure is included in Seismic Use Group.
2. The height of the structure is greater than 75 feet above the base.
3. When so designated by the registered design professional responsible charge of the design.
4. When such observation is specifically required by the building official.

If a Structural Observation Matrix is required, then provide the information in the matrix, on the plan cover sheet or the structural cover sheet. Note on plans if no special inspections are required, **if none required note on plans**

- Type(s) of work requiring structural observation.
- Timeline for structural observation(s).
- Name(s) of individual(s) or Firm(s) who are to perform the structural observation.

Supporting Documents

No: Item:

4.20 Design narrative

The design narrative must be a written description of the structural design concept for each structure. The narrative includes a detailed description of the vertical and

lateral load resisting systems. The narrative must also include a brief and concise description of the vertical and lateral load paths from the roof to the foundation.

4.21 Structural calculations

Structural calculations must include analysis for gravity, lateral, and special loads, and typically address the following:

- Identification and classification of the structure as it pertains to regularity and type in accordance with IBC 1615.
- Provide a gridline diagram or other reference system.
- Compare load combinations in accordance with IBC 1605, as applicable.
- Determine permanent equipment loads.
- Provide an importance factor matrix in accordance with IBC 1604.5.
- Distribute base shears to all levels in accordance with the selected design base shear calculation.
- Provide a roof diaphragm analysis
- Provide a floor diaphragm analysis
- Show the distribution of loads to lateral load resisting elements (shear walls, braced frames, moment frames, etc.).
- Provide an analysis of gravity and lateral load resisting elements.
- Provide an analysis of any drag struts and their connections to lateral-load resisting elements.

Supplemental Section 5.0 -- Mechanical Data

New Construction, tenant improvement, gas piping permits (**Plans Required**)

Construction Documents

No: Item:

5.1 REQUIRED Floor plan

The floor plan typically includes the following information:

- Location and rating of all fire-resistive construction such as walls, floors, shafts, smoke control walls, etc.
- Location of all equipment-related penetrations in fire-resistive construction.
- Location of all fire and smoke dampers.
- Location of all floor and wall-mounted mechanical equipment.

5.2 REQUIRED Equipment schedule

The equipment schedule typically includes the following information:

- A complete list of all mechanical equipment, including the weight of each piece of equipment.
- A legend showing the symbol or identifier used on the plans to designate each piece of equipment.
- BTU rating of each piece of equipment so rated.
- Equipment listing information.

5.3 Site plan

The site plan typically includes the following information:

- All site related improvements affected by mechanical work with distances to all property lines.

5.4 Under slab mechanical plan

The under-slab mechanical plan typically includes the following information:

- Duct or piping location(s) including depth.
- Duct or piping size and material.
- Duct or piping insulation and/or sleeve material.

5.5 Roof plan

The roof plan typically includes the following information:

- Location of all roofs mounted equipment.
- Location of roof access including scuttles, ladders, stairs, catwalks, and guardrails.

5.6 Fuel gas piping plan

Plans that indicate the configuration and layout of the fuel gas piping system typically provide the following information:

- Size and location of all fuel gas piping.
- Design pressure.
- Type and location of all shut-off/control valves and point of connection to all equipment/appliances.
- Location of regulators.
- Meter location.

5.7 HVAC equipment and duct plan(s)

Plans indicating the location of HVAC equipment and ductwork typically include the following information:

- Locations of all HVAC equipment including all suspended equipment, floor-mounted equipment, or roof-mounted equipment.
- Ventilation air calculations to show compliance with code required quantities based on uses and occupant load.
- Size and location of all ductwork. Include fire, smoke, and volume damper locations and smoke detectors. Use of rigid ducts throughout except the last 5'.
- Locations for all supply and return registers and indicate CFM requirement at each supply.

5.8 Outside air (OSA) calculations

The ventilation occupancy load and occupancy ventilation design methods and calculations must be provided. Information determined by the calculations must be indicated on the plans.

5.9 Refrigeration equipment and piping plan

Plans that indicate the location of refrigeration equipment and refrigerant piping typically include the following information:

- Refrigeration system classification.
- Refrigerant classification and allowable quantities.
- System enclosure requirements. Indicate locations of enclosures with details and specifications for construction and alarm requirements.
- Location of all refrigeration equipment and appliances.
- Location and routing of all refrigerant piping.
- Location of penetrations of all fire-resistive construction.
- Material specifications and testing procedures for piping.

5.10 Kitchen equipment plan

This information may be included on the floor plan if that plan is of sufficiently large scale and detail to be clear and understandable. Plans that indicate the locations of all kitchen equipment and ductwork/vents typically include the following information:

- Locations of all kitchen equipment including ranges, cook tops, hot plates, steam tables, dishwashers, hoods, etc.
- Locations of all ducts/vents serving kitchen equipment or direct-vent appliances and that provide make-up air.
- Location of penetrations of all fire resistive construction.
- Provide an equipment schedule listing all kitchen equipment.

5.11 Type I and / or II Kitchen Hood Plan

Reference Section 7.0 - Mechanical Datatype I and II Kitchen Hood Permits for detailed requirements.

5.12 Fume/vapor hood plan

This information may be included on the floor plan if that plan is of sufficiently large scale and detail to be clear and understandable. Plans indicating the location of all fume / vapor hoods and ductwork/vents serving those hoods typically include the following information:

- Locations of all fume hoods.
- Locations and routing of all ducts/vents serving the fume hoods.
- Notes that provide information on materials/processes that will be served by the fume hoods.
- Indicate where fume hood vents terminate outside of the building.
- Indicate how make-up air is provided for fume hoods.

5.13 Process piping/product and/or exhaust conveying duct plan

Process piping and layout information may be included on the floor plan if the plan is of sufficiently large scale and detail to be clear and understandable. Plans that indicate the configuration and location of process piping systems typically include the following information:

- Information and documentation of material transported by process piping.
- Location, material composition, and size of all process piping.
- Type and location of all shut-off/control valves and point of connection to all equipment/appliances or other building services.
- Location and size of all duct access and cleanouts.
- Duct fire suppression details.
- Hazardous process piping shall comply with IFC Standards as well as ASME Standard B31.3.

5.14 Fire-rated construction details

Provide complete details and specifications for all penetrations of fire-rated construction. Include listing information, manufacture's installation instructions, and construction details for all fire-stopping material(s) and fire/smoke dampers.

5.15 Equipment hanger / fastener details

Provide details and specifications, including loading capacity, for all equipment hangers and/or fasteners.

Supporting Documents

No: Item:

5.20 REQUIRED Structural calculations for equipment weighing over 400 lbs.

Provide structural calculations for vertical and lateral loads prepared by a licensed engineer verifying adequacy/design of the support structure for additional or replacement equipment weighing more than 400 lbs. Calculations must include bracing, anchorage, and fastener details for all equipment

5.21 Equipment manufacturer's specifications

Provide equipment manufacturer's installation instructions for all equipment.

5.23 Combustion air calculations

Provide calculations for combustion air volumes for all equipment requiring combustion air. Provide equipment specifications which indicate combustion air requirements for all fuel fire equipment installed on the interior of the structure.

5.24 Boiler information

Provide information that includes BTU input rating and fuel type for all boilers being installed. The local jurisdiction will require mechanical permits for combustion air, stack venting, supply and re-circulation piping, and lateral restrains of both boilers and service piping.

Supplemental Section 6.0 -- Mechanical Data

Additional or replacement rooftop equipment installation permits

Construction Documents

No: Item:

6.1 REQUIRED Roof plan

A roof plan typically includes the following information:

- North arrow.
- Location of all roof mounted equipment.
- Distance to Area separation wall parapets, adjacent buildings, and property lines.
- Location of roof access including scuttles, ladders, stairs, catwalks, and guardrails.
- Location of parapets and roof elevation changes that affect the mechanical design.
- Location of all roof penetrations for ducts, roof access hatch and exhausts.

6.2 Roof framing plan

Roof framing plans/details show all support structure for additional or replacement rooftop equipment. The roof framing plan must clearly indicate how mechanical gravity loads are being distributed over structural members, following down the load path to termination, if necessary, to grade.

6.3 Fuel gas piping plan

Fuel gas piping and layout information may be included on the floor plan if the plan is of sufficiently large scale and detail to be clear and understandable. Plans that indicate the configuration and location of fuel gas piping systems typically include the following information:

- Size and location of all fuel gas piping.
- Design pressure.
- Type and location of all shut-off and/or control valves and points of connection to all equipment/appliances.
- Location of regulators.
- Meter location.

Supporting Documents

No: Item:

6.20 REQUIRED Structural calculations for equipment weighing over 400 lbs.

Provide structural calculations for vertical and lateral loads prepared by a licensed engineer verifying adequacy/design of the support structure for additional or replacement equipment weighing more than 400 lbs. Calculations must include bracing, anchorage, and fastener details for all equipment.

Supplemental Section 7.0 -- Mechanical Data

Type I and II Kitchen Hood Permits

Construction Documents

No: Item:

7.1 REQUIRED Floor plan(s)

The floor plan typically includes the following information:

- Complete building layout with dimensions showing all shafts, rooms, and areas and their uses.
- Location and rating of all fire resistive construction (walls, floors, shafts, smoke control walls, etc.).
- Location of manual activation device for fire suppression system.

7.2 REQUIRED Kitchen equipment plan

This information may be included on the floor plan if that plan is of sufficiently large scale and detail to be clear and understandable. Plans that indicate the location of all kitchen equipment and ductwork/vents typically include the following information:

- Locations of all kitchen equipment including ranges, cook tops, hot plates, steam tables, **dishwashers**, hoods, etc.
- Locations of all ducts/vents serving kitchen equipment or direct-vent appliances and that provide make-up air.
- Location of penetrations of all fire resistive construction.
- Provide an equipment schedule listing all kitchen equipment.

7.3 REQUIRED Kitchen equipment and hood elevations

Provide elevation drawings showing all cooking equipment, wall construction and the hoods serving them.

7.4 Roof plan

The Roof Plan typically includes the following information:

- Location and clearances of all roof-mounted equipment.

7.5 Cross sections through hoods, ducts and shafts

Provide section drawings through hoods, ducts, and shafts showing construction materials, fire ratings of materials, clearances, duct clean outdoors, hood and duct supports, etc.

7.6 Fire-rated construction details

Provide complete details and specifications for all penetrations of fire-rated construction. Include listing information, manufactures installation instructions, and construction details for all fire-stopping materials and fire/smoke dampers.

Supporting Documents

No: Item:

7.20 REQUIRED Structural calculations weighing over 400 lbs.

Provide structural calculations for vertical and lateral loads prepared by a licensed engineer verifying adequacy/design of the support structure for additional or replacement equipment weighing more than 400 lbs. Calculations must include bracing, anchorage, and fastener details for all equipment.

7.21 REQUIRED Make-up air calculations

Provide calculations for make-up air volumes for all equipment requiring make-up air. Provide equipment specifications which indicate the make-up air requirements for that equipment.

7.22 Equipment manufacturer's specifications

Provide equipment manufacturer's catalog "cut sheets" and installation instructions for all equipment.

7.23 Hood/grease duct sizing calculations

Provide calculations for sizing of hoods and grease ducts.

Supplemental Section 8.0 -- Plumbing Data

Construction Documents

No: Item:

8.1 REQUIRED Floor plan(s)

The floor plan typically includes the following information:

- The use of all rooms or areas.
- All equipment and fixture locations.
- The locations of penetrations of fire-rated assemblies.
- The locations of all fixtures at, or below, the nearest upstream manhole and/or sewer invert.

8.2 REQUIRED Piping and material schedule

Identify the size and type of all interior and exterior plumbing systems.

8.3 REQUIRED Equipment layout plan

The equipment layout plan typically includes the following information:

- A schedule of all equipment.
- Location of equipment.
- Size of hot and cold supply piping required.
- The locations and types of all drainage systems proposed.
- Drain outlet size(s). Specify if the drain outlet is a direct or indirect connection.

8.4 REQUIRED Fixture schedule

The fixture schedule typically includes the following information:

- A fixture list
- Supply and discharge GPM ratings and/or water supply and/or drainage fixture units for all fixtures.
- Drain connection sizes.

8.5 Site utility plan

The site utility plan typically includes the following information:

- North arrow.
- Site property line locations.
- Location on site, invert elevation, and sizes of all existing and proposed potable water supplies, sanitary sewer lines, and storm water lines, on and adjacent to the site, including all public and private services.
- Show the location on site and depth of all manholes, catch basins, interceptors, backflow and backwater devices, cleanouts, vaults, and oil/water separators. Provide invert elevation for all lines serving these items.
- Indicate the proposed fixture unit demand for the potable water, fixture unit loading for the sanitary sewer and storm water piping. Indicate the area served by each storm water system.
- Show the rim and invert elevations of the nearest upstream manhole (if higher than drainage system or part of system)

8.6 Riser diagram

The riser diagram typically includes the following information:

- Piping layout.
- Pipe size.
- Length of pipe.
- Fixture units.
- Water pressure (psi), length of piping run (developed length), and elevation at the source (i.e. meter, pressure tank, etc.).

Please Note: An isometric drawing may be required for complex projects. Contact the building inspection division for complete information.

8.7 Roof plan

The roof plan typically includes the following information:

- North arrow.
- Roof slope.
- Size and location of all roof drains, overflow drains, scuppers, and related piping.
- Tributary roof area for each roof drain or scupper.
- Pertinent information on any vertical walls, which will affect roof drain sizing calculations.
- Slope or grade of all interior roof drain piping.

8.8 Back flow prevention location

Indicate the following:

- Location and type of backflow device if one is provided.
- Degree of hazard.

8.9 Irrigation plan

The irrigation plan typically includes the following information:

- Location and type of all landscape backflow devices.

8.10 Under slab plumbing plan

The under-slab plumbing typically includes the following information:

- North arrow.
- Piping location(s) including depth and distance to footings, piers, pilings or other structural or load-bearing elements.
- Piping size and material.
- Piping insulation and/or sleeve material.

8.11 Grease traps/Interceptors (FOG):

The grease traps/Interceptors plumbing typically includes the following information:

- Calculations for load
- Piping location(s) and size and material
- Venting of all fixtures loading into trap/interceptor and the unit. UPC 1014.1.1
- Fixtures require tying into the FOG system, floor drains, floor sinks, etc. UPC 1014.1, UPC 1014.3.2 and NMAC 7.6.2
- No Combination waste and vent systems permitted on FOG systems UPC 1014.1.1
- Gravity grease interceptors shall not be inside the structure UPC 1014.3.4

Supporting Documents

No: Item:

8.20 REQUIRED Structural calculations for equipment weighing over 400 lbs.

Provide structural calculations for vertical and lateral loads prepared by a licensed engineer verifying adequacy/design of the support structure for additional or replacement equipment weighing more than 400 lbs. Calculations must include bracing, anchorage, and fastener details for all equipment.

8.21 Water supply calculations

Provide water supply calculations in accordance with Chapter 6 of the UPC.

8.22 Sanitary system calculations

Provide sanitary system calculations in accordance with Chapter 7 of the UPC.

8.23 Roof drain and storm water calculations

Provide storm water calculations in accordance with Chapter 11, and Appendix D of the UPC.

8.24 FOG system calculations

Provide FOG system calculations in accordance with UPC Chapter 10

Supplemental Section 9.0 -- Accessibility Data

Construction Documents (IBC Chapter 11 and ANSI 117.1)

No: Item:

9.1 REQUIRED Floor plan(s)

9.11 Entrances and Exits

Show on Plans

9.12 Clear Path

Show on Plans

9.14 Landing Area at Doors

Show on Details

9.15 Accessible Door Hardware

Accessible door hardware

9.16 Accessible Corridors and Stairs

Every corridor and hallway shall be 44" min. serving an occupant load of 10 or more and 36" min. serving less than 10 persons. Stairways shall have handrails on each side and an intermediate handrail within 30" of required stairway width.

1012.9 Handrails shall extend 12" min. beyond the top nosing and extend 12" plus tread width beyond the bottom nosing.

9.17 Signage and Markings

Tactile floor designation signs shall be located at each floor level landing in all enclosed stairways in buildings two or more stories in height. At exit discharge level, the sign shall include a raised five-pointed star located to the left of the floor level sign. The upper approach and the lower tread of interior stairway shall have contrasted striping.

9.18 Ramps

Pedestrian egress ramps shall have a min. clear width of 44", unless it is the only exit discharge path serving an occupant load of 50 or more and which shall be 36" min. wide. The max slope of an accessible exit ramp shall be 1:15 with a max rise of 30". Top landings of ramps without encroaching door shall be 60" wide x 60" long and bottom landing shall be 72" long in the direction of ramp with same width as the ramp. Intermediate and bottom landings at a change of direction shall be 72" long min. in the direction of ramp with same width as the ramp. Other intermediate landings shall be 60" long min. Doors shall not reduce the landing length to less than 42" and shall not reduce the landing width by more than 3" when fully open. Required ramps shall have a min. 2" high curb or wheel guide rail of 2-4" high when there is a vertical drop exceeding 4". Handrails are required on each side of ramp except at exterior door landings with no more than 6" rise. Top for handrails shall be 34"-38" above the ramp surface extending min. 12" beyond top and bottom of the ramp parallel to the floor.

9.19 Aisles/Walks/Walkways

Every portion of every building shall be provided with aisle 36" min. if serving on one side and 44" min. if serving both sides.

9.20 Parking Lot: Parking and Routes

Accessible parking stall(s) - Locations, dimensions, signage, slope of the stalls. An accessible route from the accessible parking (stall(s) to the building entrance, and public way, including slope of route. Provide an accessible route to the altered area.

9.21 Apartments/Townhouses

Accessible ground floor dwelling units of buildings with four or more dwelling units

Supplemental Section 12.0 -- Electrical Data **Construction Documents- (Plans Required)**

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