

# Clark County Department of Building & Fire Prevention 4701 West Russell Road, Las Vegas, NV 89118 ~ (702) 455-3000

## **Complex Facilities Building Permit Guide**

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#### Part I. General Information

This Complex Facilities Building Guide is intended to provide applicants an understanding of the policies, procedures, and requirements needed to help achieve a quality, timely, review/approval of projects to be constructed within the unincorporated area of Clark County, Nevada.

This document provides an overview of how the various departments within Clark County organize and coordinate the review and approval process for complex facilities (e.g. high-rises, casinos, malls, atria, hospitals, convention facilities, amusement buildings and similar structures).

This document references a number of technical guides that provide more detailed information on a specific topic. These guides are available over the Internet at the links provided or can be obtained from the respective county agency.

Although every attempt has been made to provide sufficient information, some projects will have unique conditions that are not addressed herein and will require special consideration.

#### Part II. Applicant's Responsibility

- Thoroughly review this document and other referenced information as applicable.
- Complete and submit applicable form(s).
- Schedule indicated meeting(s).
- Submit complete documents prepared by appropriately licensed Nevada design professional(s).

### Part III. Pre-Design / Pre Submittal Conference

To help applicants understand the policies, procedures, requirements and guidelines that are part of the complex facilities process, Clark County established a pre-design/pre-submittal conference. For scheduling, contact the Department of Building, Plans Examination Administrative Secretary, at (702) 455-3000 (Option 3) and provide the following information:

- **Project Scope**
- Assessor's Parcel Number(s)
- Name and contact information for the design professional in responsible charge
- Design team members that will be in attendance, along with their roles

- Clark County departments anticipated in attendance
- Proposed conference date(s)
- Conference agenda
- Expected meeting length
- A completed Pre-Submittal Conference Information form, which can be obtained from our website on our Forms page titled: "Pre-Submittal Meeting Information Form". Form number 1015.

Please allow one to two weeks for this conference to be scheduled and confirmed.

The following items, along with a plan of action, will be discussed to help the project transition through the review and approval process with minimum difficulties and delays:

- Project scope:
  - Building location
  - Size and height
  - Occupancy type(s)
  - Construction type(s)
  - Unique aspects
  - Design and construction time frames
- County department-specific items:
  - Local code and ordinance information
  - Project submittal requirements
  - Special public works requirements
  - Land use requirements
  - Fire and life safety requirements
  - Fire Department requirements
  - Available handouts
  - Unique aspects
  - Other Clark County expectations
- Work products will include:
  - Contact list(s) of the applicable design team and County staff members
  - Fee estimates may be established

## Part IV. Phased Design & Construction

The Phased Design and Construction Program were established to allow large and/or complex developments to start construction prior to completion of final design documents. Our phasing process follows the normal and logical construction process. If your schedule requires design documents to be reviewed in phases to allow construction to begin while other documents are still being developed, complete a Phased Design Agreement and return it to the Clark County Department of Building.

Our Phased Design Application can be obtained from our website on our Forms page titled: "Phased Design Application". Form number 1012.

Based upon information provided at the pre-design/pre-submittal conference, a Phased Design Agreement will be developed for the project that will identify all appropriate submittal breakdowns (e.g. structural permits are allowed to be separated into at most foundation and structural balance), groupings, sequences and timelines. This Agreement requires signatures of both the applicant and the Clark County Department of Building. Any deviation from this approved Agreement may require approval of a new Agreement.

Grading, foundation and structural documents (plans) may be submitted and approved prior to submission and approval of mechanical, plumbing and electrical documents. However, construction cannot begin until all sub-permits containing work either within or beneath the foundation (or other affected areas) have been reviewed approved and permitted. Grading and foundation permits may be approved prior to submission and/or approval of architectural documents. Permits will not be issued until the Fire Protection Report (FPR) has been reviewed and is in substantial agreement relative to the extent of work outlined in the respective construction documents. The guide can be obtained from our website on our How-To Guides page titled: "Phased Design Buildings - Building Permit Guide". Guide number BPG-152.

#### Part V. Express Plan Review Program

The Clark County Building Administrative Code establishes an Express Plan Review Program to help expedite review without adversely impacting the normal plan review process. An entire facility or any phase of the project (foundation, structural, etc.) may be eligible for an express plan review.

An application must be completed and approved by the Clark County Department of Building prior to being eligible for express service. For complex facilities, eligibility typically requires all land use issues to be resolved, review and approval of off-site improvements and technical studies, and approved Master Exit Plan, Fire Protection Report and Site Utility Plan. If a project is determined to be eligible, four (4) times the normal plan review fee will be assessed with one-half (1/2) of that fee being collected prior to start of the review.

A copy of the Express Plan Review Application can be obtained from our website on our Forms page titled: "Express Plan Review Application". Form number 1007.

The Express Plan Review Program Guideline can be obtained from our website on our How-To Guides page titled: "Express Building Plan Review – Building Permit Guide". Guide number BPG-044.

## Part VI. Applicable Codes

See the associated web page(s) for the code(s) enforced by the respective Clark County Departments that are located on the Clark County website at: <a href="http://www.ClarkCountyNV.gov">http://www.ClarkCountyNV.gov</a>.

Select departments, select the appropriate department.

Comprehensive Planning Department, Title 30, Department of Building, Fire Department

## **Part VII. Conceptual Documents**

It is critical that the following documents be submitted to the Clark County Department of Building prior to submission of the actual construction documents/drawings:

Master Egress Plan

- Fire Protection Report
- Any Alternate Materials / Methods Application
- Site Utility Plan

These documents will be used to assist the owners' development team and Clark County in coordinating the design with the adopted building and fire codes, local ordinances and amendments. These documents may address maintenance or performance issues to help ensure long-term compliance with codes. They will also be useful during remodels, additions, and tenant improvements.

These documents are required to be submitted for review no less than thirty (30) days prior to submission of the construction documents. This allows Clark County to review the material and provide feedback to the design team prior to submission of the construction documents.

- Master Egress Plan The Master Egress Plan includes drawings to depict all information necessary to ensure a compliant egress system. All construction details do not need to be determined; however, the conceptual design of the structure must be understood. The guide can be obtained from our website on our How-To Guides page titled: "Master Egress - Building Permit Guide". Guide number BPG-121.
- Fire Protection Report

  A Fire Protection Report (FPR) is required for facilities with complex fire protection aspects. It is
  intended to describe all active and passive fire protection aspects to ensure compliance with the
  applicable codes. Most importantly, these submittals are intended to describe how the different
  fire protection features (e.g. sprinklers, fire detection/alarms, smoke control and passive
  construction) interact to provide the level of protection intended by Clark County codes.
  Fire Protection Reports are conceptual documents and are the basis for developing the:
  - Construction documents
  - Specifications
  - Testing scenarios

The Fire Protection Report Guide outlines the primary topics to be addressed in the report. Since these documents are only required to address the extent of work and impacted fire protection aspects, shortened versions may be submitted for renovations, expansions and tenant improvements. The Clark County Department of Building Fire Protection Report Guide can be obtained from our website on our How-To Guides pages titled: "Fire Protection Report Design - Building Permit Guide". Guide number BPG-052.

The Clark County Fire Department guidelines for FPRs can be located on the Clark County website at: <a href="http://www.ClarkCountyNV.gov">http://www.ClarkCountyNV.gov</a>. Select departments, select Fire Department.

#### **Alternate Materials & Methods of Construction:**

The Clark County Building Administrative Code allows the Building Official to accept alternate materials and alternate methods of construction. The intent is to allow state-of-the-art concepts in the design, construction, or materials as long as they provide equivalency to the prescriptive codes adopted. Modifications may be granted for existing buildings under a similar approach when there are practical difficulties in complying with the specific code provision(s). The guide can be obtained from our website on our How-To Guides pages titled: "Alternate Materials & Methods of Construction - Building Permit Guide". Guide number BPG-002.

When alternates are determined to be necessary during the design phase, it is recommended that they be submitted and approved prior to submission of the related construction documents. This will help expedite the plan review, approval and permitting processes. Nationally recognized evaluation reports are intended to allow the use of products that are not specifically referenced in the model codes. Specific testing and product evaluation are determined by the code organization that issues the report. The Clark County Department of Building relies on evaluation reports as one method of product approval. These reports are subject to recognition by the Clark County Department of Building through the Alternate Materials/Methods process and must be evaluated to the same code edition for which a permit is requested. A number of evaluation reports can be obtained from the ICC ES and IAPMO ES websites at: <a href="http://www.icc-es.org">http://www.icc-es.org</a> and <a href="http://www.icc-es.org">http://www.icc-es.org</a> and

#### Site Utility Plan:

Until the Master Site Utility Plan is approved by the Clark County Fire Department, a building permit cannot be issued. Two (2) copies must be submitted to the Clark County Fire Department and two (2) copies to the Clark County Public Works, Development Review Division. At a minimum, the following four items must be included on the Fire Department submittal.

- Fire Department vehicle access
- Locations of all fire hydrants and fire lines (on-site and off-site)
- Type and size of fire lines
- Exact location of all easements

In addition to the preceding, the following must be submitted to the Clark County Public Works Development Review Division.

- Location of all underground gas lines
- Location of all underground or overhead power lines, transformers, etc.
- Location of all underground or overhead telephone lines
- Location of all cable television and fiber optic lines
- Location of all sewer lines and storm sewers

An approved water main/hydrant system with the required water flow for fire protection is required for all facilities, buildings or portions of buildings. All required fire hydrants must be installed and determined serviceable prior to placement of any combustible construction material on the site. Associated Clark County Fire Department guidelines can be obtained from The Clark County Fire Department guidelines for FPRs can be located on the Clark County website at: <a href="http://www.ClarkCountyNV.gov">http://www.ClarkCountyNV.gov</a>. Select departments, select Fire Department.

All documents for the Clark County Fire Department must be submitted at Fire Station 18, 575 East Flamingo Road, Las Vegas, Nevada 89119 (702) 455-7316.

#### Part VIII. Construction Documents

Complete submittals are required on all projects not processed under a Phased Design and Construction Agreement (see Part III of this guide for information on the Phased Design process). A complete construction document submittal contains the following design documents, which are discussed in more

#### detail below:

- Grading plans/civil package
- Structural plans
- Steel fireproofing plans and schedules
- Architectural/accessibility plans
- Mechanical plans
- Plumbing plans
- Electrical plans

All plans shall be drawn to scale on the same size sheets of substantial paper. Clark County Department of Building prefers sheet size not exceed 30 by 42 inches. The location, nature and extent of work shall be clearly indicated. Sufficient detail shall be provided to substantiate compliance with the technical codes and all relevant laws, ordinances, rules, and regulations of Clark County. The construction document submittal must be approved prior to building permit issuance. For additional information and details, see the Commercial, Industrial and Multi-Family Development Building Permit Guide that can be obtained from our website on our How-To Guides pages titled: "Commercial, Industrial & Multi-Family Development - Building Permit Guide". Guide number BPG-024.

Prior to the issuance of building permits, a land use application may need to be submitted to the Department of Comprehensive Planning. Typically, these applications are acted on by the Board of County Commissioners and/or the Planning Commission during a public meeting. Conditions of approval proposed by Comprehensive Planning, Public Works, Fire Department, and other applicable departments/agencies may be included as part of any land use approval. The Clark County Comprehensive Planning Zoning Plans Check reviews the construction document submittal for conformance with the Clark County Unified Development Code or other applicable County codes, state statutes, land use approvals and imposed conditions.

More information about the Department of Comprehensive Planning Zoning Plans Check and the Unified Development Code can be obtained from the Clark County website at: <a href="http://www.ClarkCountyNV.gov">http://www.ClarkCountyNV.gov</a>. Select departments, select the appropriate department.

<u>Comprehensive Planning Forms, Clark County Department of Building Plan Review, Comprehensive Planning Title 30</u>

The Clark County Public Works Development Review Division also reviews all permit applications for complex facilities. Reviews construction plans to ensure coordination with all off-site applications for street and drainage improvements, along with technical studies (drainage and traffic) for conformance to applicable County codes and adopted standards. Although the technical studies and off-site applications must be approved prior to the Clark County Public Works Development Review Division releasing approval(s) of the construction document submittal and allowing building permit issuance, the technical studies and off-site applications must be submitted to the Clark County Public Works Development Review Division independent of the construction documents. The Clark County Public Works Development Review Division guides and checklists can be obtained from the Department of Public Works Development Review: <a href="Public Works Development Forms">Public Works Development Forms</a>

#### **Grading Plans/Public Works Development Review Package**

Grading plans must be prepared by a Nevada licensed civil engineer and submitted to the Clark County Public Works, Development Review Division for review. The grading plans must be consistent with the

Clark County Public Works Development Review Division approved drainage study, off-site plans and any land use conditions. The plans must also demonstrate compliance with adopted codes.

#### **Structural Plans**

Structural plans and calculations must be prepared by an appropriately licensed Nevada professional engineer and submitted to the Clark County Department of Building for review. A Nevada licensed structural engineer must analyze and design buildings over three stories, or more than 45 feet, measured from the bottom of the foundation to the peak of the roof. At a minimum, structural plans must include:

- Geotechnical Report
- Structural calculations and details
- General structural notes
- Foundation plan
- Floor framing plan(s)
- Roof framing plan(s)
- Location of property lines (real and assumed)

Prior to release of any structural permits, the Master Egress Plan must be approved and the Fire Protection Report must be in "substantial agreement" relative to the proposed permits. When structural steel is being used for the structural frame, the engineer of record must submit all connection details. The Clark County Department of Building does not allow deferred submittal of welded and bolted connections or submission by the fabricator. When a phased design and construction process is used and protection of structural steel is required, a fireproofing schedule must accompany the structural submittal as described in the following item.

#### **Steel Fireproofing Plans & Schedules**

Steel fireproofing plans and supporting documents shall be prepared by a Nevada registered architect or professional engineer (as applicable) and submitted to the Clark County Department of Building for review. At a minimum, steel fireproofing plans and schedules must include:

- A complete building code analysis
- Structural framing backgrounds with hourly fire-resistance ratings
- Fireproofing schedules

Fireproofing submittals may be broken out as one of the deferred items for projects approved under a Phased Design and Construction Program (see Part IV of this guide). A handout titled "Fireproofing for Steel Construction Guide" can be obtained from our website on our How-To Guides pages titled: "Fireproofing for Steel Construction - Building Permit Guide". Guide number BPG-053.

Additional submittal requirements for Structural Steel Fireproofing Plans can be obtained from our website on our Plan Review Division, Standard Designs page titled: "Requirements for Structural Steel Fireproofing Plan". Standard Design number F-101.

#### **Architectural/Accessibility Plans**

Architectural plans must be prepared by a Nevada registered architect and submitted to the Clark County Department of Building for review. The architectural plans must be consistent with the pre-approved Master Egress Plan and Fire Protection Report. The plans must also be in compliance with all adopted

codes, including local amendments. At a minimum, architectural plans must include:

- Code analysis
- Plot/site plan
- Floor plans
- Fire protection plans that show all rated construction
- Details of through / membrane penetrations, joint systems and edge of slab protection
- Window and door schedules
- Finish schedules
- Elevations
- Cross-sections
- Details for construction
- Energy calculations and schedules for building envelope
- Accessibility

#### **Mechanical Plans**

Mechanical plans for large commercial projects must be prepared by a Nevada licensed mechanical engineer and submitted to the Clark County Department of Building for review. Equipment providing mechanical smoke control must be included on the mechanical plans. A coordinated effort between the mechanical engineer, the architect, and the fire protection engineer is essential to ensure the project's success. At a minimum, mechanical plans must include:

- Duct and register sizes, type of material and support methods
- Location and function of all duct detectors
- Equipment sizes, locations, capacities and BTU ratings
- Identification and location of all shutoffs
- Location and size of all fire and smoke dampers
- Location and programming for all control devices
- Energy calculations and schedules for HVAC

#### **Plumbing Plans**

Plumbing plans for large commercial projects must be prepared by a Nevada licensed mechanical engineer and submitted to the Clark County Department of Building for review. At a minimum, plumbing plans must include:

- Piping material and configuration of all horizontal and vertical piping runs
- Pipe sizing and listing for special uses
- All fixtures within the systems, location and type
- All gas piping, type, size and system pressure
- All roof drain systems and overflow aspects
- Location and BTU rating of all appliances
- Location and sizing of oil, grease and sand separators/interceptors

#### **Electrical Plans**

Electrical plans must be prepared by a Nevada licensed electrical engineer and submitted to the Clark County Department of Building for review. At a minimum, electrical plans must include:

- Power plan(s)
- Lighting plan(s)
- Low voltage plan(s)
- Panel board schedules
- Lighting fixture schedule
- Switchboard schedule
- Single-line diagrams
- Wiring methods
- Overcurrent protection
- Bus bracing
- Electrical load calculations
- Protection of emergency and standby systems
- Location of generators
- Smoke alarms as required for residential units

#### Part IX. Pre-Construction Conference

Prior to construction commencing or as soon thereafter as practical, contact the Clark County Department of Building Inspection Services to schedule a pre-construction meeting that includes applicable contractors and/or subcontractors. The purpose of this meeting is to bring together all parties associated with the project to introduce key personnel, along with their respective roles and responsibilities. This meeting typically includes all of the project inspectors, the QAA, the mechanical QAA and whoever else the permit holder, owner, or owner's representative would like to attend. The intent of this meeting is to:

- Identify point(s) of contact
- Exchange contact information (phone, cell & fax numbers, e-mail addresses)
- Determine location of approved plans, permit and gray book(s)
- Determine parking for inspection staff
- Discuss QAA requirements
  - Structural OAA
  - Mechanical QAA
- Construction schedule and intended opening date(s)

In addition to the preceding meeting, a structural and grading inspection pre-construction meeting is required as outlined in TG-21, which can be obtained from our website on our Engineering Division, Technical Guidelines page titled: "TG-021 Special Inspection Responsibilities".

#### Part X. Deferred Submittals

- Curtain wall/exterior cladding
- Open web steel joists
- Wood trusses
- Structural stairs
- Interior design packages
- Smoke management control diagrams
- Alternate methods/alternate materials
- Clark County Fire Department submittals

#### Curtain Walls/Exterior Cladding; Open Web Steel Joists; Wood Trusses; Structural Stairs

Normally, curtain walls/exterior cladding, open web steel joists, wood trusses and structural stairs are deferred structural submittals. The professional responsible for the design must seal the deferred submittal and these documents must also be reviewed by the engineer of record for compliance to the design intent of the overall structure. Drawings are required along with structural calculations to confirm compliance of the members and connections. The scope of the deferred submittal must match the scope of the phased structural permit.

#### **Interior Design Packages**

Interior Design Packages are generally not completed when the architectural plans are submitted for review. Interior designs may include, but are not limited to:

- Trim
- Wall applications (including draperies)
- Ceilings
- Decorative structures within buildings

When the size or quantity of decorative items exceeds the intent of the Fire Code, they must meet the requirements of the building code. The structural and fire protection aspects of these decorative items shall be prepared by an appropriate Nevada licensed design professional. A handout titled Unique Building Interiors Design can be obtained from our website How-To Guides page titled: "<u>Unique Interiors - Building Permit Guide</u>". Guide number BPG-201.

#### **Smoke Management Control Diagrams**

Smoke Management Control Diagrams are deferred submittals required to be approved prior to the start of the rough mechanical inspections. Control diagrams will not be reviewed by the Clark County Department of Building prior to approval of the Fire Protection Report. Control diagrams are required to show all devices and equipment that make up the smoke-control system. The location of all such devices must be indicated on control diagrams and building drawings in a plan view and/or section view as appropriate. The control diagrams are also required to show how the system functions by coordinating automatic/manual activation with fan, damper and door operation. A matrix, flow chart or other approved method is required to tie together all fire alarm initiating devices, all intermediate steps and the final output functions. Technical Guideline 60 provides additional information and can be obtained from our website on our Engineering Division, Technical Guidelines page titled: "TG-060 IBC Smoke Control and Related Topics".

#### **Alternate Materials/Methods**

At times, alternate materials/methods may be necessary to address unique conditions and code issues. Alternate materials/methods as deferred submittals are often due to design changes or unforeseeable situations that occur during construction. Proposed alternates must meet the same criteria for alternates as described in the Conceptual Documents portion of this guide. See Part VI of this guide for additional information and links to the Alternate Materials & Methods Guide.

#### **Clark County Fire Department Deferred Submittals**

The Clark County Fire Department reviews submittals for the following items and requires them to be submitted independently of the previously described construction documents.

- Suppression systems (sprinklers, kitchen hood & duct, clean agent systems, alternate extinguishing systems)
- Standpipes
- Fire pumps

- Fire detection & alarms
- Flammable liquid storage tanks
- Spray paint storage
- High piled storage
- LPG storage tanks
- Alternate materials and methods
- Medical gas systems
- Emergency vehicle access gates
- Fire hydrants
- Fire lines
- Monitoring special effect (pyrotechnics, open flame, etc.)
- Firefighter's graphics panel(s)

All documents for the Clark County Fire Department must be submitted at Fire Station 18, 575 East Flamingo Road, Las Vegas, Nevada 89119 (702) 455-7316.

#### Part XI. Manufactured Plant Product

Manufactured plant products are construction materials that are built or assembled off-site. The Clark County Building Administrative Code outlines general requirements to approve facilities that manufacture certain building construction products. The quality assurance processes that the manufacturer uses are intended to meet code mandated special inspection requirements. Typical applications of manufactured plant products are: structural steel, pre-cast/pre-stressed concrete and curtain wall/exterior cladding systems.

#### **Structural Steel Fabricators/Manufacturers**

The process for structural steel fabricators/manufacturers to become recognized as a "Approved Fabricator" is addressed in Technical Guideline 2 (TG-2). Shop welding performed in an approved facility is considered to be inspected. Structural steel members from a Clark County approved steel fabricator still require special inspection in accordance with TG 50, TRG-S. If the facility is not an approved fabricator, a Clark County Department of Building approved special inspection agency shall be retained to perform welding inspections during fabrication and submit the Clark County Building Department Inspection Services Final Report (TG-50). TG's 2 and 50 can be obtained from our website on our Engineering Division page titled: "Technical Guidelines".

#### **Concrete Suppliers**

Pre-cast/pre-stressed concrete plants must be approved in accordance with Technical Guideline 42. Approval of concrete suppliers is based on certification of an established quality control program implemented with a written quality control manual and audited by an approved agency. When a concrete facility is not approved, in-plant inspection shall be performed by a special inspector with prior written authorization from the Clark County Building Department Inspection Services. Contact Inspection Services to establish the inspection criteria. TG-42 can be obtained from our website on our Engineering Division page titled: "Technical Guidelines".

#### **Exterior Cladding/Curtin Wall**

Exterior cladding or curtain wall construction requires special inspection during fabrication. Work that would normally be inspected by the Clark County Building Department shall be documented by an approved special inspector. All welding of the exterior cladding/curtain wall system and all connections of the exterior cladding/curtain wall system to the superstructure shall be inspected. See TRGE, which is contained within TG-50 and can be obtained from our website on our Engineering Division page titled: "Technical Guidelines".

#### Part XII. Quality Assurance Requirements

#### **Special Inspection Requirements**

Certain inspections, critical to the life safety aspects and structural stability of buildings, require special inspections in accordance with Chapter 17 of the IBC and the Clark County Building Administrative Code. These types of inspections are allowed to be performed by an approved agency. When the Clark County Building Department issues a permit and the type of construction includes special inspection, a Quality Assurance Agency (QAA) Special Inspection Agreement is prepared by Plans Examination. This document is an agreement between the Clark County Building Department and the Owner (or owner's representative) that the required special inspections will be performed. The Clark County Building Department Inspection Services approves such firms before they are authorized to perform any inspections.

The general guidelines for special inspections are listed in Technical Guideline 21. This document highlights the responsibility of the owner, permit holder, the Clark County Building Department, the agency and the firms' field inspectors.

TG-021, list of approved agencies and more specific guidelines can be obtained from our website on our Engineering Division page "<u>Technical Guidelines</u>".

#### **QAA Inspection/Testing Obligations**

Quality assurance agencies have specific obligations to the Clark County Building Department when performing inspections required by the QAA Special Inspection Agreement. These obligations can be found in Technical Guideline 16 can be obtained from our website on our Engineering Division page "<u>Technical Guidelines</u>". Guide number TG-016.

#### **Special Inspectors**

In addition to the Clark County Building Department approving the quality assurance agencies, each recognized inspector from each firm is also approved. The inspectors' specific responsibility is addressed in Technical Guideline 20 can be obtained from our website on our Engineering Division page "Technical Guidelines".

#### **Types of Special Inspections**

The various types of quality assurance special inspections include:

- Soils
- Air balance testing
- Amusement and transportation systems
- Gas-Fired Fame Effects Systems
- Structural inspections including reinforced concrete, masonry, pre-tensioned or post-tensioned concrete, welding, bolting, spray-applied fireproofing and structural steel.
- Carbon Monoxide sensors. The Industry Notice Carbon Monoxide Sensors can be obtained from our website on our Inspection Services Division page "Industry Notices".
- Exterior insulation and finish systems (EIFS). See TRG-E which is contained within TG-50 and can be obtained from our website on our Engineering Division page "Technical Guidelines".
- Verification of the smoke control system. These inspections are based on the approved Fire Protection Report (see "Conceptual Documents" Part VI of this guide) and the approved Control Diagrams (see "Deferred Submittals", Part IX). For specific information, refer to Technical

Guideline 60 which can be obtained from our website on our Engineering Division page "<u>Technical Guidelines</u>".

#### **Special Inspection Final Report**

When the inspection work is complete, the approved agency must submit a Special Inspection Final Report. This report includes all the daily inspection reports from the field inspectors, test data from the laboratories and all other pertinent data addressed in Technical Guideline 50 which can be obtained on our website on our Engineering Division page "<u>Technical Guidelines</u>".

### **Part XIII. Inspection Requirements**

Below is a general outline of inspections required on complex facilities:

#### **Building Inspections**

- Foundation
  - Grading/pad certifications
- Shaft construction (framing and interior lath)
- Framing
  - Fire stopping
  - Edge of slab requirements
  - Occupancy separations
  - Special Inspection agency Area Acceptance Report(s)
- Exterior lath/siding
- Insulation
  - Expansion joints
- Interior lath
- Smoke management
  - Passive barriers
  - System and component testing
- Partial final inspections
- Special inspection final report
- Life safety All Systems Test (see below for details)
- Final inspections

#### **Plumbing Inspections**

- Underground inspections
- Rough inspections
- Partial final/final inspections

#### **Mechanical Inspections**

- Rough inspections (not performed without a QAA Agreement on file)
- Mechanical QAA requirements
- Testing of smoke/fire damper operations

- Confirmation of smoke detector activated shutdown and supervision
- Partial final/final inspection:
  - Component testing
  - Air balance report
  - Approved control diagrams
  - QAA Compliance Report
  - Acceptance of the report by the Clark County Building Department

#### **Electrical Inspections**

- Underground inspections
- Conduit only inspections
- Rough electrical inspections
- Pre-final inspections (fire alarm permits only)
- Smoke alarms location and functioning
- Partial final/final inspections

#### **Clark County Fire Department Inspections**

- Suppression systems (sprinklers, kitchen hood & duct, clean agent systems, alternate extinguishing systems)
- Standpipes
- Fire pumps
- Fire alarm systems
- Emergency communication systems
- Underground piping for hydrants and fire flow
- Flammable/combustible liquid storage tanks
- Hazardous materials
- High-piled storage

#### **All Systems Test**

Life safety systems testing is a performance test based upon specific design criteria established by the design professionals in conjunction with the approved Fire Protection Report. The test is witnessed by the Clark County Building Department and the Clark County Fire Department personnel and the performance is verified by the approved mechanical QAA to be in conformance with the approved Fire Protection Report. Life safety requirements inspected and/or tested include, but are not limited to the following:

- Emergency electrical power
- Smoke management systems
- Fire-resistive separations
- Fire alarms
- Operation of fire and smoke dampers
- Elevator recall
- Emergency communications systems
- Automatic closing doors
- Door opening forces
- Manual overrides
- Confirmation of status indicators

#### **Part XIV. Tenant Improvements**

Major facilities frequently contain shell spaces in which the design is not sufficiently developed to be submitted during the construction document phase nor will the build-out qualify as a deferred submittal. Some of these spaces may be intended to be lease spaces. In these situations, a separate permit is required.

The Clark County Building Department considers all such instances tenant improvements (TIs), which are required to be complete submittals. Tenant improvement permits may be applied for and issued in conjunction with the construction of the main building or structure. The handout can be obtained from our website on our How-To Guides page titled: "Tenant Improvements for Commercial Buildings - Building Permit Guide". Guide number BPG-023.

Specific requirements exist for tenant improvements in complex facilities. A Tenant Improvement Fire Protection Report (TI FPR) must be prepared by a design professional licensed in the State of Nevada working in the area of their expertise. This report is expected to provide a written description of the fire protection aspects of the tenant improvement and be submitted with the permit application. The report shall completely describe the extent of work along with all impacts to the existing fire protection approaches for the facility, as well as how the fire protection aspects that are impacted by the work will meet the applicable code requirements.

TI FPRs are abbreviated versions of Fire Protection Reports addressed in Part VI of this guide. To determine if a respective TI FPR requires review and approval by the Clark County Fire Department, contact the Fire Department at (702) 455-7316.

# Part XV. Certificate of Occupancy/Temporary Certificate of Occupancy Certificate of Occupancy (CO)

The Clark County Building Administrative Code requires a CO prior to a building being occupied. A CO is typically the last official act of the Clark County Building Department on a given permit signifying that construction is in substantial compliance with the adopted codes, the fire protection systems have been tested and all required signatory agencies have cleared their specific issues to allow occupancy of the structure. The Building Official will issue a CO after clearance of the items listed in the Occupancy Checklist for Commercial Projects.

A CO is a computer generated action and requires no action on the part of the owner, contractor or the inspection's staff. This document is mailed to the owner after all final inspections are approved. The CO must be posted in a conspicuous place on the premises.

#### **Temporary Certificate of Occupancy (TCO)**

There are times when a portion of a building is ready to occupy and is in substantial compliance with all life safety requirements, but the entire facility has not been completed. The Clark County Building Department and the Clark County Fire Department must find that potential hazards that may result from occupancy of the building or a portion thereof are minimized.

For situations like these a TCO was created. When a TCO is issued, it requires completion of all work on the permit in a specific timeframe agreed to by the owner and the County. All items on the Occupancy Checklist (referenced above) for TCOs must be complete.

A copy of the Clark County Building Department Temporary Certificate of Occupancy application can be obtained from our website on our Forms page titled: "Temporary Certificate of Occupancy Application".

In addition to the preceding, contact the Clark County Fire Department at (702) 455-7316 to obtain a copy of their TCO Fire Protection Report guidelines.

Department of Building & Fire Prevention Locations & Services				
MAIN OFFICE 4701 W. Russell Road Las Vegas, NV 89118 (702)455-3000	On-Site Plan Submittals All "Walk-Through" Plan Review / Permitting Functions Residential Tract Submittal / Permitting All Sub-Trade (Electrical, Plumbing & Mechanical) Permitting Building Inspection Scheduling Functions Records	Temporary Certificate of Occupancy Submittals Building Inspections Building Inspector Inquiries Amusement / Transportation Systems Operation Certificates Approved Fabricators Quality Assurance Agency Listing		
LAUGHLIN OFFICE Regional Government Center 101 Civic Way Laughlin, NV 89029 (702)298-2436	Building Inspection Services Fire Prevention Inspection Services			
OVERTON OFFICE 320 North Moapa Valley Blvd. Overton, NV 89040 (702)397-8089	Building Inspection Services			

## Automated Phone System (702) 455-3000

**Option 1:** For all Inspection services or to report a building code violation.

**Option 2:** For information regarding on-site permits or new plan submittals.

**Option 3:** For the Building Plans Examination division or QAA information.

**Option 4:** For the Zoning Plans Examination division.

**Option 5:** For information or copies regarding land development, construction documents, plans or permits.

Option 6: To speak with Management staff.

**Option #:** For hours of operation, Office location and website information.

Other Clark County Departments/Divisions/Districts				
Air Quality & Environmental Management	500 S. Grand Central Parkway, Las Vegas NV	(702) 455-5942		
Public Works, Development Review Services	500 S. Grand Central Parkway, Las Vegas NV	(702) 455-6000		
Comprehensive Planning	500 S. Grand Central Parkway, Las Vegas NV	(702) 455-4314		
Fire Department	575 E. Flamingo Road, Las Vegas NV	(702) 455-7316		
Las Vegas Valley Water District	1001 S. Valley View Boulevard, Las Vegas NV	(702) 870-2011		
Southern Nevada Health District	625 Shadow Lane, Las Vegas NV	(702) 759-1000		
Water Reclamation District	5857 E. Flamingo Road, Las Vegas NV	(702) 668-8888		
State of Nevada				
Division of Water Resources	400 Shadow Lane, Suite 201, Las Vegas NV	(702) 486-2770		
Nevada State Contractors Board	2310 Corporate Circle, Suite 200, Henderson NV	(702) 486-1100		
Utilities				
Nevada Power	6226 W. Sahara Avenue, Las Vegas NV	(702) 402-5555		
Southwest Gas	5241 Spring Mountain Road, Las Vegas NV	(877) 860-6020		

www.clarkcountynv.gov/building