

**ENGINEERED STEEL JOIST  
PROCEDURES  
& APPLICATION GUIDELINES**



**CITY OF**  
**NORTH LAS VEGAS**  
*Your Community of Choice*

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# Engineered Steel Joist Procedures & Application Guidelines

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# City of North Las Vegas

## Engineered Steel Joist PROCEDURES & APPLICATION GUIDELINES

This guide will assist in outlining the requirements for *Engineered Steel Joists*. The City of North Las Vegas Building Safety Division requires steel joist engineering for all residential and multi-family projects to be reviewed prior to issuance of permits and before construction can begin. All commercial projects must submit prior to issuance of permits and before construction can begin, or fill out the Prefabricated Steel Joist Deferred Submittal.

### I. DEFINITIONS

A. **Engineered** - Items such as plans, calculations, and documents prepared by a Nevada registered engineer or design professional.

B. **Steel Joist** - Unitary pre-fabricated floor or roof framing items.

C. **Steel Joist Package** - Includes a joist placement plan, engineered joist design drawings, and engineered calculations.

D. **Engineered Construction Method** - Structural frame of the building has been designed by an appropriately licensed design professional and is based on an engineered analysis of the structure.

### II. SUBMITTAL REQUIREMENTS

A. An engineered steel joist package must be included with the submittal of required plans and documents as part of the application for a building permit. This steel joist package shall include all generic joist repair calculations.

B. Steel Joist are typically pre-fabricated and engineered by registered engineers working for the fabricator. The building frame is typically designed by engineers or other design professionals, depending on the construction method selected.

### III. ENGINEERED CONSTRUCTION METHOD PROCEDURES

A. Two (2) sets of the following documents shall be delivered to the licensed design professional of record for review:

- \_\_\_\_\_ 1. Final steel joist placement plans
- \_\_\_\_\_ 2. Engineered, wet sealed steel joist design drawings and calculations

B. The building designer shall review the steel joist design drawings, calculations, and placement plans for conformance with the construction design documents. Upon acceptance, the licensed design professional shall:

- \_\_\_\_\_ 1. Place a signed and dated “shop drawing review” stamp on the steel joist package; **OR**
- \_\_\_\_\_ 2. Issue a signed letter of approval for a dated steel joist calculation package

C. The items reviewed by the Building Plans Examination Division include:

- \_\_\_\_\_ 1. Nevada professional engineer’s seal, signature and date on the steel joist design drawings and calculations
- \_\_\_\_\_ 2. “Shop drawing review” stamp or signed letter of approval from the licensed design professional of record on the project
- \_\_\_\_\_ 3. Steel joist placement for general conformance to the submitted plans
- \_\_\_\_\_ 4. Location of the steel joist bearing points for consistency with bearing walls, beams, headers, posts, etc.
- \_\_\_\_\_ 5. Location and magnitude of concentrated gravity loads for consistency with the design documents
- \_\_\_\_\_ 6. Location and magnitude of lateral/drag loads for consistency with the design documents
- \_\_\_\_\_ 7. Verification that the fabricator is approved by the Building Inspection Division as a steel joist manufacturer
- \_\_\_\_\_ 8. Design and calculations for “generic steel joist repairs”

#### IV. SUBSTANTIAL DESIGN CHANGES

When substantial design changes occur after the review is completed and modifications to the steel joists are made due to framing plan changes, the Plans Examination Division shall require submittal of revised plans, calculations, and steel joist design as appropriate.

#### V. TRUSS REPAIRS AND/OR FIXES

When repairs or fixes are required, the applicant shall submit the appropriate documentation to the Inspection Division. The Inspection Division will determine if the repair or fix is substantial enough to require additional plan review by the Plan Examination staff. The Inspection Division will then approve the repairs and/or fixes and forward copies to the construction site and the Building Records

Office, or the applicant will be sent to the Plans Examination Division for approval.

Generic steel joist repairs may be submitted at the time of initial plan review.

#### VI. CHANGE OF ENGINEER

When an engineer other than the original engineer prepares or modifies steel joist plans and calculations for final construction, a complete steel joist design package must be resubmitted with the new engineer's stamp and signature. This submittal shall follow the procedures above and will be processed as a revision and assessed hourly fees as allowed in the City of North Las Vegas Administrative Code.

## DEPARTMENTAL LISTINGS

### **PLANNING AND ZONING DEPARTMENT**

(planning, coordinating, and promoting land development in the community)

- **Planning Division** (land use, setbacks, zoning, height limitations)  
☎ 633-2243

### **PUBLIC WORKS DEPARTMENT**

(Development & monitoring of long range planning for roadways, water and sewer utilities, flood control, commercial and residential development and resource acquisition)

- ☎ 633-1200
- **Building Safety Division** (plan review and inspection services to ensure minimum standards of all codes and ordinances are met for all construction and issuance of all building permits)
  - ☎ Plan Check (front counter) 633-1550
  - ☎ Inspections 633-1576
  - ☎ Permit Application Center 633-1536
- **Development & Flood Control Division** (Plot & grading plan review, drainage review, flood zone determinations)  
☎ 633-2312
- **Property Management Division** (property acquisition & disposal, relocation, demolition, Geographic Information Services, final map processes)  
☎ 633-2087
- **Quality Control Division** (testing & inspection of public installations within the City)  
☎ 633-1388
- **Technical Services / Utilities / Environmental Division** (Environmental issues, water supplies, and the planning & design of utilities)  
☎ 633-1561
- **Transportation Services Division** (Traffic engineering, transportation planning, performs traffic counts and transportation studies, telecommunications fiber optic network, nuclear waste repository activities)  
☎ 633-1235

### **FIRE DEPARTMENT**

(Building and fire protection plans review)

☎ 633-1107

### **UTILITIES**

<b>Clark County Health District</b>	625 Shadow Lane	☎ 702-385-1291
<b>Clark County Sanitation District</b>	5857 E. Flamingo Rd.	☎ 702-434-6600
<b>North Las Vegas Water Billing</b>	2200 Civic Center Dr.	☎ 702-633-1484
<b>Nevada Power</b>		☎ 702-367-5555
<b>Southwest Gas</b>	4300 W. Tropicana Ave.	☎ 702-365-1555
<b>North Las Vegas Fire Dept.</b>	Operations Personnel	☎ 702-633-1102