

tech-check specs architectural | Division 05

This is a template, so some items will apply to your project, and others won't or will be missing. When using the list, make the changes needed for your project.

The content of the Tech-Check Lists is based on our specs and MASTERSPEC®.

DIVISION 05 - METALS

□ STRUCTURAL SECTIONS

- Titles and numbers vary with some consultants.
- Section 052100 - Structural Steel Framing - Include the following under Related Sections and coordinate with architectural sections, as applicable:
 - Section xxxxxx - Architecturally Exposed Structural Steel Framing.
 - Section xxxxxx - Applied Fireproofing.
 - Section xxxxxx - Intumescent Fireproofing.
 - Section xxxxxx - High Performance Coatings for Steel.
- Section 052100 - Joist Framing - If exposed, check finish to coordinate with painting systems.
- Section 053100 - Steel Decking:
 - Floors: Check concrete finish and leveling to coordinate with floor finishes.
 - Roof: Check that roofing system matches roof deck types (i.e. roof deck at penthouses is different.)
 - If exposed, check finish to coordinate with painting systems - **no paint on vented decks.**
- Section 054000 - Cold-Formed Metal Framing (steel studs assemblies)
 - This section requires calculations so it is either in our scope and our consultant takes care of it, or it is "delegated design" and the Contractor takes care of it.
 - These assemblies are typically for building exterior but they can be interior when the assemblies are too high, not vertical, or the weight to support exceeds the capacity of drywall type framing.
- **LEED PROJECTS:** Requirements and Submittals included at the beginning of the section.

□ 051213 - ARCHITECTURALLY EXPOSED STRUCTURAL STEEL FRAMING (AESS)

- **ALWAYS:** Coordinate with the structural so that the structural engineer does not duplicate requirements regarding finishes of exposed steel (which are possible not adequate or contradict what we want).
- **ALWAYS:** Have the structural structural engineer review this section.
- AESS is clearly marked in the structural and architectural drawings.
 - Required finishes are specified according to location and distance from observers.
 - Coordinate with shop primers - important.
- If samples are needed check that the description is adequate.
- If mockups are needed check that the description is adequate and the location is shown on the Drawings.
- **LEED PROJECTS:** Requirements and Submittals included at the beginning of the section.

□ 055000 - METAL FABRICATIONS

- These section includes:
 - Concealed steel miscellaneous framing and supports not part of the building's structural framing.
 - Exposed steel miscellaneous fabrications.
- Ladders:
 - **Basis of Design Product:** O'keeffe's.
 - **ALWAYS:** Include cut-sheet image.
 - **NEVER:** Design or have the contractor design, a ladder. Ladders are regulated by OSHA with precise requirements.
- Metal Bollards: Coordinate type (fixed or removable), installation, and looks with the drawings.
- **LEED PROJECTS:** Requirements and Submittals included at the beginning of the section.



055113 - METAL PAN STAIRS

- This section specifies pre-manufactured stairs, exterior and interior, designed and calculated by the manufacturer.
 - **Basis of Design Manufacturer:** American Stair.
- **ALWAYS:** Specify pre-manufactured stairs for fire stairs and other cases where specially designed stairs are not required (i.e. lobbies and other "feature" stairs.)
 - Pre-manufactured Stairs should be provided by a stair manufacturer, not an iron worker, because stairs have very strict functional and code requirements that a regular steel worker is not familiar with. Also, the manufacturer should be based in California, so that it is familiar with the CBC.
- Construction:
 - Metal plate with concrete finish for interiors; metal plate with tread finish for exteriors.
 - Stringers: Preferably tube or plate (cheaper look). Avoid channels because they accumulate dirt.
 - Railing Infill: Tubes or mesh. If mesh, show how it is oriented (parallel to stringers or vertical/horizontal) - consider waste.
 - Cable railings: Stainless steel and steel. Check code requirements for distance limits between cables.
- Stairs are factory primed and field finish, galvanized only when recommended by stair manufacturer.
- **LEED PROJECTS:** Requirements and Submittals included at the beginning of the section.



055119 - METAL GRATING STAIRS

- This section specifies pre-manufactured grating stairs, exterior, designed and calculated by the manufacturer.
 - **Basis of Design Manufacturer:** American Stair.
- Check roof plan for roof stairs. Check site drawings and loading docks for stairs.
- **ALWAYS:** Specify pre-manufactured grating stairs, provided by a stair manufacturer, not an iron worker, because stairs have very strict functional, OSHA, and code requirements that a regular steel worker is not familiar with. Also, the manufacturer should be based in California, so that it is familiar with the CBC.
- Construction:
 - Grating at treads - check opening between bars.
 - Stringers: Plate.
 - Railing Infill: Tubes.
- Stairs are factory primed and field finish, galvanized only when recommended by stair manufacturer.
- **LEED PROJECTS:** Requirements and Submittals included at the beginning of the section.



055213 - PIPE AND TUBE RAILINGS

- This section specifies exterior or interior stand-alone railings. Railings are delegated design calculated by the fabricator. Parameter should be included in either this section or the delegated-design section.
 - Railings are shop-primed and painted in interiors and galvanized and field painted in exteriors.
 - The details should match the spec. In exterior locations, if not using base caps for posts, show base sloping away from the posts.
 - **LEED PROJECTS:** Requirements and Submittals included at the beginning of the section.
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□ 055813 - COLUMN COVERS

- This section specifies aluminum column covers.
- If the project includes aluminum composite material (ACM) panels, include column covers in that section - we want single source for both.
- Details should match product in installation, shape, and joints.
- Unless the finish of columns is different from other aluminum finishes in the project, note it as "match aluminum panels". (When there are aluminum panels in the project, column covers, mullions, and other aluminum fabrications are noted as "match aluminum panels").
- **LEED PROJECTS:** Requirements and Submittals included at the beginning of the section.

□ 057000 - DECORATIVE METAL

- This section specifies decorative metal fabrications (i.e. metal reveals) made from steel, copper, bronze, stainless steel, nickel, and brass.
- Finish type is included in this section.
- Check samples required by the section to make sure that is what you want.
- **LEED PROJECTS:** Requirements and Submittals included at the beginning of the section.

□ 057300 - DECORATIVE METAL RAILINGS

- This section specifies railings fabricated with metal components (stainless steel, aluminum, or steel) by a fabricator or custom designed .
 - **Basis of Design Manufacturer:** C.R. Laurence Co., Inc.
- If calculations are needed, these are by the fabricator (delegated design - preferred)) or by the structural engineer.
- If delegated design, include structural parameters in the delegated design section.
- Finish type is included in this section. Color and sheen might be scheduled on the Drawings or included here.
- When selecting finishes, talk to the specifier.
- If mockups are required, check requirement in the section and show location on the Drawings.
- Check samples required by the section to make sure that is what you want.
- Check that details showing installation match the section.
- **LEED PROJECTS:** Requirements and Submittals included at the beginning of the section.

□ 057313 - GLAZED DECORATIVE METAL RAILINGS

- This section specifies railings fabricated with metal components and glass inserts or glass supporting panels by a fabricator or custom designed.
 - **Basis of Design Manufacturer:** Julius Blum & Co.
- Glass is at least 1/2 thick for full panels.
- Glass is labeled "safety glass", either fully tempered or laminated.
- If calculations are needed, these are by the fabricator (delegated design - preferred)) or by the structural engineer.
- If delegated design, include structural parameters in the delegated design section.
- Finish type is included in this section.
- If mockups are required, check requirement in the section and show location on the Drawings.
- Check samples required by the section to make sure that is what you want.
- Check that details showing installation match section.
- **LEED PROJECTS:** Requirements and Submittals included at the beginning of the section.

□ 057500 - DECORATIVE FORMED METAL

- This section specifies decorative metal fabrications made from sheet metal which is folded, shaped, perforated, etc. Metal can be steel, copper, bronze, stainless steel, nickel, and brass.
 - If calculations are needed, these are by the fabricator (delegated design) or by the structural engineer.
 - If delegated design, include structural parameters in the delegated design section.
 - Finish type is included in this section. Color and sheen might be scheduled on the Drawings or included here.
 - Finishes should be preferably shop applied.
 - Check finishes in the spec section.
 - Check that details showing installation match section.
 - **LEED PROJECTS:** Requirements and Submittals included at the beginning of the section.
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END OF TECH-CHECKLIST