

# Industry Quality Standard Checklist - Cabinets

ILG must comply with all industry quality standards, and therefore all of ILG's independent contractors must do so as well. These quality standards include supplier/manufacturer requirements for their products, standards published by industry trade associations and similar bodies, and other common and generally followed standards in the industry (collectively "Industry Quality Standards").

Below is the checklist corresponding to the Critical to Quality (CTQ) items:

## 1. Finish Quality (CTQ):

- All finishes should be smooth, even, and free from blemishes, scratches, imperfections, or damage.

## 2. Component Integrity (CTQ):

- No warping or deformation in the frames, toe kicks, drawers, or doors.

## 3. Level and Plumb:

- Cabinets must be installed at a perfect level and plumb to ensure stability and proper alignment.

## 4. Secure Attachment:

- Cabinets should be securely fastened to wall studs and adjacent cabinets to prevent movement and ensure safety.

## 5. Gap Consistency (CTQ):

- Gaps between cabinet doors, drawers, and between cabinets should be uniform and consistent.

## 6. Alignment:

- All cabinet faces, doors, and drawer fronts should be aligned with each other for a seamless appearance.

## 7. Trim and Moldings:

- Trim and moldings should be installed neatly, with tight joints and seamless transitions.

## 8. Symmetry:

- Ensure symmetrical installation of cabinets, especially in visible and focal areas of the kitchen.

## 9. Smooth Operation:

- Doors and drawers should open and close smoothly without sticking or rubbing.

## 10. Load Bearing:

- Cabinets should be capable of supporting the intended load without sagging or deformation.

## 11. Accessibility:

- Cabinets should be easily accessible and functional, adhering to ergonomic standards and user convenience.

## 12. Regulatory Compliance:

- Installation should comply with local building codes, safety regulations, and manufacturer guidelines.

## 13. Fire Safety:

- Maintain proper clearances from heat sources and ensure materials used are fire-resistant where necessary.

## 14. Electrical and Plumbing:

- Ensure that cabinet installation does not obstruct or interfere with electrical wiring, outlets, and plumbing fixtures.

## 15. Drills, nails,

- or other penetrating devices WILL NOT be used as a "stud finder."

## 16. All fasteners

- used in open shelves, furniture, built-in and glass or open-faced cabinet WILL NOT BE VISIBLE.

# Industry Quality Standard Checklist - Cabinets (cont.)

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## 17. All toe kick runs

- shall die into flat profile of scribe with radius edge set flush to cabinet end panel.

## 18. All tops of cabinets

- that are viewable from overhangs or loft will be finished with panel stock and scribe.

## 19. All over-refrigerator cabinets

- and/or gaps viewable in "dead" corners will be finished with panel and scribe. (Currently CA market ONLY.)

## 20. Face frames

- will be flush and level.

## 21. Long lengths

- are to be matched prior to cutting and assembled with a miter cut. Use a dark touch up marker at each cut on raw cut prior to glue and pin assembly.

## 22. Shims

- are to be used outside of plane wall at the connection point and fixed between fastener, cabinet, and wall with the mechanical fastener. No cabinet should have its frame pulled to an out-of-plane wall.

## 23. Cabinets and accessory trims

- must be plumb, level, and square to within 1/16" in four feet (4').

## 24. All corners

- are to be set at ninety-degree (90) angles unless otherwise specified.

## 25. Sub top

- of 5/8" CDX, if specified and per market, will be applied and attached to not blowout any cabinetry or accessory component. Overhang for islands and peninsulas should be confirmed.

## 26. Decorative hardware

- must be confirmed and verified as to style, finish, and location. NO hardware should be installed prior to adjusting doors and drawers for level, plumb, and square. Hardware MUST be installed at time of original installation.

## 27. "Stacked" wall cabinet assemblies,

- unless otherwise noted on the lot specific layout, are to have a filler or trim laid "flat" and pulled proud to align with cabinet doors between the lower wall and stacked wall cabinet projecting through the open ends of the wall cabinet at same reveal.

## 28. Corner "pulls"

- should be no LESS than 3" to allow for drawer and hardware clearance.

## 29. Verify

- all refrigerator widths, depths, and heights to allow minimum clearance requirements and door(s) operation.

# Industry Quality Standard Checklist - Cabinet Layout

ILG must comply with all industry quality standards, and therefore all of ILG's independent contractors must do so as well. These quality standards include supplier/manufacturer requirements for their products, standards published by industry trade associations and similar bodies, and other common and generally followed standards in the industry (collectively "Industry Quality Standards").

## 1. All cabinets, accessories, and assemblies

- must be set to lot specific layout.

## 2. All base cabinets

- should be set above sub floor if indicated on lot-specific layout and in all cases on accessible, designed layouts.

## 3. No butt joints

- should be used in any trim or accessory assembly. All miter cuts should be "finished" on raw cut prior to glue and mechanical assembly.

## 4. Appliance cut out and spaces

- should be per manufacturers requirements. If the layout identifies a 24" dishwasher, allow 24-1/4" space; for a 30" slide in range, allow 30-1/4" space.

## 5. Standard installation heights

- for kitchen wall cabinets with NO light shield shall be the following Above Finished Floor (AFF): 30" Walls- 84" AFF, 36" Walls- 90" AFF and 42" Walls- 96" AFF. Laundry wall cabinets shall be the following Above Finished Floor (AFF): 30" Walls -86" AFF, 36" Walls- 92" AFF and 42" Walls-98" AFF.

**NOTE:** Front Loading Laundry Appliances set on Pedestals require additional clearance AFF.

## 6. Staggered depth wall cabinets

- at hood or micro/hood appliance locations shall have a 1/4" scribe set with flat edge exposed between each staggered depth cabinet and the standard depth cabinet to allow for clearance.

## 7. Refrigerator space

- identified as 36" on layout should be finished at 36-1/2" by setting a 1/4" scribe with flat edge exposed on either side of 36" wall cabinet above the opening.

# Industry Quality Standard Checklist - Cabinet Fasteners

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## 1. All fasteners

- must be approved in writing by ILG.

## 2. Pilot holes

- are to be made prior to driving screws into cabinet frames.

## 3. All fasteners

- are to be set tight and flush without distortion or strain on frames and backs.

## 4. Mis-drilled holes

- should be concealed with complimentary finished cover or screw left in place. If more than two (2) mis-drilled penetrations and/or visible damage to the interior of the cabinet, a "skin" must be installed.

## 5. Screw placement

- in wall cabinets that are not open, or glass door should be no more than one inch (1") from top and bottom of cabinet's interior and must be in the neutral plane of the hang rail(s) or frame.

## 6. In open wall cabinets,

- cabinets with glass doors, furniture assemblies, or built-in, NO fasteners should be visible.

## 7. Screw placement

- in base and vanity cabinets should be no more than one inch (1") from top and bottom of cabinet's interior and must be in the neutral plane of the hang rail(s) or frame. In open base cabinets, cabinets with glass doors, furniture assemblies, or built-in, NO fasteners should be visible.

## 8. "Tall" cabinets; IE:

- Utility, oven, and linen should have a series of three (3) vertical rows of screws.

## 9. All fasteners

- should be placed at the same frequency and determined by width, as wall and base cabinets. Fasteners should be in the neutral plane of the hang rails.

## 10. All cabinets

- are to have a minimum of two (2) screws firmly seated; but not distorting the case, in framing material.

## 11. Cabinets over 30"

- are to have a minimum of four (4) screws, two (2) in each of two (2) framing material.

## 12. Cabinets over 45"

- are to have a minimum of six (6) screws, two (2) in each three (3) framing material.

## 13. Any cabinet frame under 18":

- When assembling a cabinet "run," there should be a minimum of two (2) screws in the neutral plane of the adjacent cabinet.

## 14. Any cabinet frame under 21":

- When assembling a cabinet "run," there should be a minimum of three (3) screws in the neutral plane of the adjacent cabinet.

# Industry Quality Standard Checklist - Cabinet Fasteners (cont.)

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## 15. Any cabinet frame under 24":

- When assembling a cabinet "run," there should be a minimum of four (4) screws in the neutral plane of the adjacent cabinet.

## 16. When a wall cabinet

- is not in a run or between walls the above fasteners per width apply PLUS additional fasteners into the ceiling or soffit framing. In no case should any less than six (6) secure fasteners be used. Additional builder-provided backing and/or rated fasteners may be required.

## 17. Base cabinets

- that are part of an island or peninsula should be cleated to the floor with no less than 2" x 4" (nominal) framing material. No fasteners should be visible.

## 18. Deco doors or end panels

- must be secured from INSIDE the cabinet and not penetrate the exposed panel or door plant.

## 19. Light shield

- must be installed to allow a minimum 18" clearance\* above finished countertop. Light shield should be attached at no greater than nine inches (9") on center and in no case should light be visible between the wall cabinet (s) and the light shield. \* High output gas ranges and cooktops may have additional horizontal and/or vertical clearance requirements.

## 20. Prior to installation,

- all trim and accessories should be "color matched" to minimize any variation.

## 21. Trim and accessories

- should be laid out to minimize seams and to not be in primary focal points.

## 22. Cut

- all long dimensions first to minimize waste.

## 23. Crown and built-up assemblies of trim and moldings,

- when over standard lengths, should be miter cut and "white" wood edges applied with touch up pen, glued and back-fastened when possible.

## 24. In no case

- should there be a seam in any length eight feet (8') or less.

## 25. In no case

- should there be seam two feet (2') or less.

## 26. In no case

- should there be more than one (1) seam in sixteen feet (16') or less.

## 27. In no case

- should there be more than two (2) seams in twenty-four feet (24') or less

## 28. Staggered height or width cabinets with crown

- will require the crown to be notched to the abutting cabinet.



# Industry Quality Standard Checklist - Cabinet Trim (may be Regional or Builder Specific)

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## 1. Scribe,

- when requested, is to be installed flush and tight with pin nails and puttied at all cabinet side intersections with wall.

## 2. Scribe,

- when requested, is to be installed flush and tight with pin nails and puttied at all cabinet top intersections with wall or soffit.

## 3. Crown installed

- on frame cabinets is to be installed over scribe applied between frame and wall with flat side visible flush with crown. Do not notch crown or frame in this condition.

## 4. Flush,

- void, furniture base, and/or toe kick must be backed out with a minimum 2" x 4" (nominal) framing material.

# Industry Quality Standard Checklist - Cabinet Penetration

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## 1. Access holes

- are to be cut clean and centered by hole saw, spade bit, or jig saw as to not damage the cabinet or leave frays or burrs.

## 2. All penetrations

- should be concealed by plumbing escutcheon or electric trim plate.

## 3. Acceptable penetration sizes

- are as follow:
  - 1/2" lines- 3/4" spade bit
  - 3/4" lines- 1" spade bit
  - 1-1/2" lines- 2-1/4" hole saw
  - 2" lines- 2-1/2" hole saw
  - 12- 14 Gauge wire – 1/2" spade bit
  - 10 Gauge wire- 3/4" spade bit

## 4. Any oversize cut outs

- will be reskinned prior to leaving.

## 5. Electric wires

- should be pulled into cabinet.

## 6. Cut outs for Micro/Hood or Vent pipes

- should be no more than 1/2" greater than overall length, width, or circumference of required vent.

## 7. Cut outs for toe kick vents

- should be no more than 1/2" greater than vent pipe.

# Industry Quality Standard Checklist - Cabinet Adjustment and Alignment

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## 1. Doors

- are to be aligned level horizontally and vertically and set flush to frame.

## 2. Hinges

- are to be tightened and adjusted as needed, hinge shims used if necessary.

## 3. Butt-doors

- are to be adjusted to maximum 1/8" gap.

## 4. Drawers and false fronts

- are to be aligned level horizontally and vertically.

## 5. Drawers

- are to function smoothly without binding.

## 6. Bumper pads

- are to be in place to contact frame. Reposition as needed.



# Industry Quality Standard Checklist - Countertop Support

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## 1. All "dead" corners,

- including lazy Susan, are to be backed up with a minimum 1' x 2" (nominal) framing material set level and firmly secured to wall framing with no less than two fasteners per.

## 2. Sub top of 5/8" CDX,

- if/as specified and per market, will be applied and attached as to not blowout any cabinetry or accessory component. On tile finished tops a waterproof membrane may be required.

## 3. Sink and appliance cut outs

- are to be provided by Builder prior to installation to allow cut outs to be completed with the installation.

## 4. Farm Sinks:

- Cut out and support per manufacturers specifications to be completed at time of installation.

## 5. End Panels

- are to be cleated to wall and floor with ½" plywood. A temporary support/spreader should be tacked between the End Panel(s) to hold in place until countertop is installed. Fastener penetrations are to be puttied and wiped clean.

## 6. Corbels or "Stealth Braces"

- are to be set level to top of cabinet or sub top. Corbels or "Stealth Braces" should be set level, plumb, and secured to framing.

# Industry Quality Standard Checklist - Over-Refrigerator Cabinets

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## 1. Fillers

- should be "split" to provide equal distance between primary cabinet and adjacent wall(s) or cabinet(s).

## 2. Any gap

- one inch (1") or greater created by inclusion of a filler should be finished by returning a filler miter cut at face to wall.

## 3. As required by Builder:

- Panel bottom of cabinet, finish at face frame with scribe, radius forward, panel butt tight to scribe and adjacent surfaces. (Currently only a CA requirement.)

# Industry Quality Standard Checklist - Decorative Hardware

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## 1. Decorative hardware,

- when specified, will require field drilling. Field drilling is to be completed by protecting the front of the door and drawer from contact with the drill chuck and preventing "blow out" on the back by drilling into a backup block. Hardware must be installed at time of initial installation.

## 2. Confirm hardware

- selection, location, and orientation prior to start.

## 3. Door and drawers

- MUST be adjusted to level, plumb, and flush PRIOR to hardware installation.

## 4. No hardware

- is to be installed in false fronts unless otherwise specified on layout.

## 5. Drawer fronts

- over thirty inches (30") require two (2) pieces of hardware unless otherwise specified on layout.

# Industry Quality Standard Checklist - Touch Up

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## 1. Any issues, shortages, etc.

- NOT communicated as required within one (1) HOUR OF ARRIVAL MUST BE COMMUNICATED PRIOR TO LEAVING JOB SITE.

## 2. All doors and drawers

- are to be level, plumb, and flush to frame.

## 3. All doors, roll out shelves, recycle/garbage trays, and drawers

- are to operate correctly.

## 4. All shelves

- are to be level and set on the shelf pins or clips.

## 5. All bumper pads

- are to be set to meet frame.

## 6. All shipping blocks

- clips, tags/stickers, and materials to be removed and disposed of.

## 7. All interiors of cabinets

- to be free of debris, sawdust, etc.

## 8. All work areas

- are to be broom clean.

## 9. All exterior of cabinetry

- and adjacent surfaces to be wiped clear of any sawdust.

## 10. All exposed finished surfaces

- to be touched up as needed.

## 11. All fastener penetrations

- to be puttied with matching material and wiped clean.

## 12. All shipping materials, cut offs, etc.

- to be placed in Builder-provided receptacle.

## 13. All excess materials

- to be inventoried and reported on Punch Form and placed so as not to be damaged in unit garage or Builder approved location.

## 14. If certain materials

- are to be installed on a subsequent trip, that material should be placed on top of wall cabinets, if possible, or in a secure area provided by Builder.

## 15. Photos

- of interiors of cabinetry, exteriors of cabinetry and cabinet assemblies are required to be taken and submitted and included with punch form.



# INTERIOR LOGIC GROUP

## **Industry Quality Standard: Cabinet Installation**

### **Standard References**

- ANSI/KCMA A161.1 - This standard by the American National Standards Institute and Kitchen Cabinet Manufacturers Association provides performance and construction standards for kitchen and vanity cabinets
- ANSI/NKBA A40 - This standard by the National Kitchen & Bath Association outlines guidelines for kitchen and bathroom design, including cabinet installation
- AWI (Architectural Woodwork Institute) Standards
- NKBA Kitchen and Bathroom Planning Guidelines with Access Standards
- Cabinetmaking: A Professional Approach - By William D. Umstattd