

Architectural
Woodwork Standards

CASEWORK

10

SECTION

SECTION 10

Casework

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Guide Specifications

Are available through the Sponsor Associations in interactive digital format including unique and individual quality control options.

The Guide Specifications are located at:

Architectural Woodwork Institute (AWI)

www.awinet.org

Architectural Woodwork Manufacturers Association of Canada (AWMAC)

<http://awmac.com/aws-guide-specifications>

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Woodwork Institute (WI)

www.woodworkinstitute.com/publications/aws_guide_specs.asp

introductory information

INTRODUCTION

Section 10 includes information on Wood, Decorative Laminate, and Solid Phenolic Faced Casework and their related parts.

Quality assurance can be achieved by adherence to the AWS and will provide the owner a quality product at competitive pricing. Use of a qualified Sponsor Member firm to provide your woodwork will help ensure the manufacturer's understanding of the quality level required. Illustrations in this Section are not intended to be all inclusive. Other engineered solutions are acceptable. In the absence of specifications; methods of fabrication shall be manufacturer's choice. The design professional, by specifying compliance to the AWS increases the probability of receiving the product quality expected.

CASEWORK CATEGORIES

This section addresses three distinct categories of casework based on the exterior exposed face:

- **WOOD CASEWORK** with wood faces for transparent or opaque finish.
- **DECORATIVE LAMINATE CASEWORK** with HPDL or LPDL faces.
- **SOLID PHENOLIC CASEWORK** with solid phenolic faces.

CONTRACT DOCUMENTS

Shall clearly indicate or delineate all material, fabrication, installation, and applicable building code/regulation requirements, and:

- It is the design professional's responsibility to evaluate the fastening methods required and modify as appropriate to ensure adequate in wall blocking and fasteners are used for the project conditions.
- Compliance to **SEISMIC** requirements for casework fabrication and restraint, where required, shall be so specified. Within the United States, the International Building Code (IBC) establishes these minimum requirements; however, some states have expanded on the U.S. requirements. Within Canada, the National Building Code (NBC) establishes these minimum requirements; however, some provinces and cities have expanded on the Canadian requirements.

- Any **CHEMICAL** or **STAIN RESISTANT** surface requirements must be specified. Consider the chemical and staining agents that might be used on or near the surfaces. Chemical resistance and stain resistance are affected by concentration, time, temperature, humidity, housekeeping, and other factors. It is recommended that actual samples are tested in a similar environment with those agents.
- Any **ABRASION RESISTANT** surface requirements must be specified. Consider the abrasive elements that might be used on or near the surfaces. Common guidelines can be found at:
 - ASTM C501 (latest edition).
 - NEMA LD3-3.13 (latest edition).
 - NEMA LD3.7 (latest edition).

UNLESS SPECIFIED OTHERWISE

- **CORNERS** created by tall, wall, or base casework will create non usable space.
- **FINISHED ENDS** shall be integral, not applied secondarily, except:
 - **APPLIED END PANELS** are allowed at Solid Phenolic casework and at teaching wall assemblies.
- **BASE/TOE** shall be integral (constructed as an integral part of the cabinet body) or separate (constructed as a separate member) at manufacturer's choice.
- **STORAGE, JANITOR CLOSET, and/or UTILITY ROOM CABINETS** shall be built in conformance to Economy Grade, regardless of the overall project's Grade requirement, unless specified otherwise.
- Surfaces behind **PRESENTATION PANELS** (such as white board or tack board) are treated as:
 - Semi Exposed at Economy Grade and Custom Grade.
 - Exposed at Premium Grade.

- **TOE BASE HEIGHT VARIANCE** due to floor variations is not considered a defect. Casework is required to be installed level; shimming of the toe base, not to exceed 1/2" (12.7 mm), is acceptable. Floor variations exceeding 1/2" (12.7 mm) shall be corrected before cabinets are installed; however, correction of such is not the responsibility of the cabinet installer.

SURFACE TERMINOLOGIES

Cabinet surfaces are defined in four distinct categories, three for exposed surfaces with very specific minimum surface requirements and one for concealed surfaces subject to manufacturer's choice, as follows:

- **EXPOSED EXTERIOR SURFACES**, defined as all exterior surfaces exposed to view, including:
 - All surfaces visible when doors and drawers are closed, including knee spaces.
 - Underside of cabinet bottoms over 42" (1067 mm) above the finished floor, including cabinet bottoms behind light valances and the bottom edge of light valances.
 - Cabinet tops under 80" (2032 mm) above the finished floor, or if 80" (2032 mm) and over and visible from an upper building level or floor.
 - Front edges of stretchers, ends, divisions, tops, and bottoms.
 - Sloping tops of cabinets that are visible.

SECTION 10

Casework

introductory information

SURFACE TERMINOLOGIES (continued)

- **EXPOSED INTERIOR SURFACES**, defined as all interior surfaces exposed to view in open casework or behind transparent doors, include:

- Shelves, including edgebanding.
- Divisions and partitions (front edge is an exposed surface).
- Interior face of ends (sides), backs, and bottoms (including pull outs). Also included are the interior surfaces of cabinet top members 36" (914 mm) or more above the finished floor.
- Interior face of door and applied drawer fronts.

- **SEMI-EXPOSED SURFACES**, defined as those interior surfaces only exposed to view when doors or drawers are opened, include:

- Tops and bottoms of shelves, including front edgebanding (front edge is an exposed surface).
- Divisions and partitions (front edge is an exposed surface).
- Interior face of ends (sides), backs, and bottoms (including a bank of drawers). Also included are the interior surfaces of cabinet top members 36" (914 mm) or more above the finished floor.
- Drawer sides, sub fronts, backs, and bottoms.

- The underside of cabinet bottoms between 24" (610 mm) and 42" (1067 mm) above the finished floor.

- Security and dust panels or drawer stretchers.

- **CONCEALED SURFACES**, defined as those exterior or interior surfaces that are covered or not normally exposed to view including:

- Toe space unless otherwise specified.
- Sleepers, stretchers, and solid sub tops.
- The underside of cabinet bottoms less than 24" (610 mm) above the finished floor.

- The underside of countertops, knee spaces, and drawer aprons.

- The flat tops of cabinets 80" (2032 mm) or more above the finished floor, except if visible from an upper floor or building level.

- The three non visible edges of adjustable shelves.
- The faces of cabinet ends of adjoining units that butt together.

SURFACE TERMINOLOGY BY ILLUSTRATION

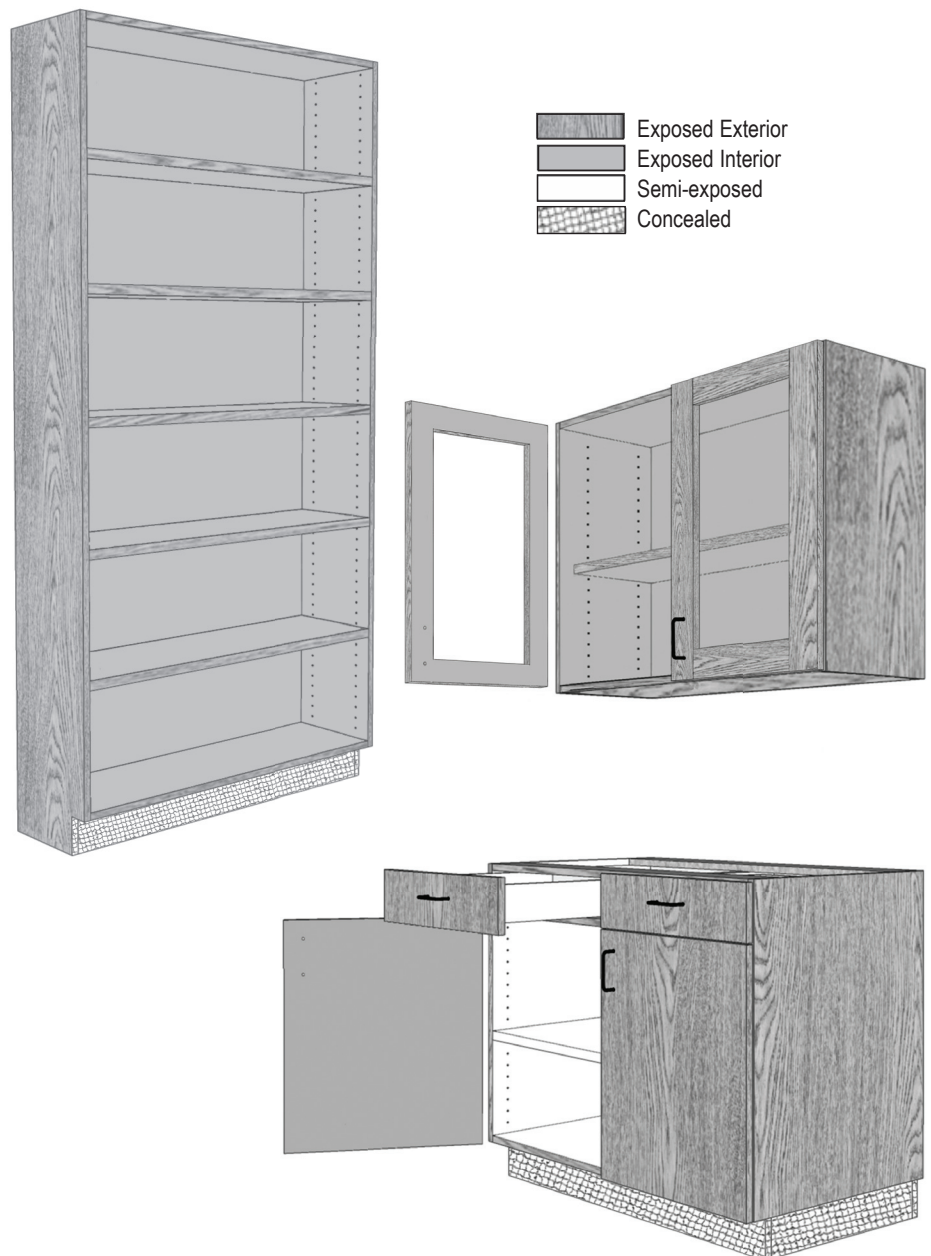


Figure: 10-001

introductory information

SURFACE FINISH REQUIREMENTS

- **EXPOSED EXTERIOR SURFACES** for:
 - **WOOD** casework requires:
 - For **TRANSPARENT** finish, wood of specified species, cut, and match.
 - For **OPAQUE** finish at:
 - **ECONOMY GRADE**, Particleboard, MDF, MDO, softwood plywood, hardwood plywood, or solid stock.
 - **CUSTOM GRADE**, MDF, MDO, close grain hardwood plywood, or solid stock.
 - **PREMIUM GRADE**, MDF and MDO.
 - **DECORATIVE LAMINATE** casework requires at:
 - **ECONOMY GRADE**, LPDL of specified color or pattern.
 - **CUSTOM** and **PREMIUM GRADE**, HPDL of specified color or pattern.
 - **SOLID PHENOLIC** casework requires for **PREMIUM GRADE**, solid phenolic of specified color or pattern.
- **EXPOSED INTERIOR SURFACES** for:
 - **ECONOMY GRADE** at:
 - **WOOD** casework requires:
 - For **TRANSPARENT** finish, LPDL or wood of the manufacturer's choice.
 - For **OPAQUE** finish at, Particleboard, MDF, MDO, softwood plywood, hardwood plywood, or solid stock of manufacturer's choice.
 - **DECORATIVE LAMINATE** casework requires, LPDL of the manufacturer's choice.
 - **CUSTOM GRADE** at:
 - **WOOD** casework requires:
 - For **TRANSPARENT** finish, wood of the same species as the exposed exterior surface.
 - For **OPAQUE** finish at, MDF, MDO, close grain hardwood plywood, or solid stock of manufacturer's choice.
 - **DECORATIVE LAMINATE** casework requires HPDL or LPDL compatible to exposed exterior surface in color, grain, or pattern of manufacturer's choice.
 - **PREMIUM GRADE** at:
 - **WOOD** casework requires:
 - For **TRANSPARENT** finish, wood of same the species and cut as the exposed exterior surface.
 - For **OPAQUE** finish, use of MDF and MDO of manufacturer's choice.
 - **DECORATIVE LAMINATE** casework requires, HPDL, the same as the exposed exterior surface.
 - **SOLID PHENOLIC** casework requires, solid phenolic, the same as the exposed exterior surface.
- **SEMI-EXPOSED SURFACES** for:
 - **WOOD** casework require for both **TRANSPARENT** and **OPAQUE** finish at:
 - **ECONOMY GRADE**, wood of the manufacturer's choice of species, MDO, MDF, particleboard, or LPDL of the manufacturer's choice of color.
 - **CUSTOM GRADE**, wood of the manufacturer's choice of species, or LPDL of the manufacturer's choice of color.
 - **PREMIUM GRADE**, wood of a compatible species to the exposed.
 - **DECORATIVE LAMINATE** casework at all grades requires, LPDL of the manufacturer's choice of color.
 - **SOLID PHENOLIC** casework requires, solid phenolic of the mill's choice of color.
 - **CONCEALED SURFACES** for all grades at, decorative laminate, wood, and solid phenolic casework require the manufacturer's choice.

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Casework

introductory information

CABINET CONSTRUCTION TERMINOLOGY

FRAMELESS construction where the front edge of the cabinet body components are edgebanded.

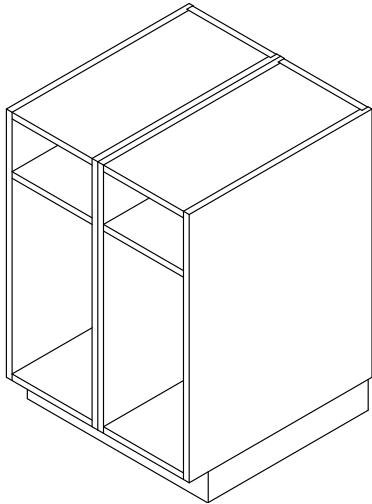


Figure: 10-003

FACE FRAME construction where the front edge of the cabinet body components are overlaid with a frame.

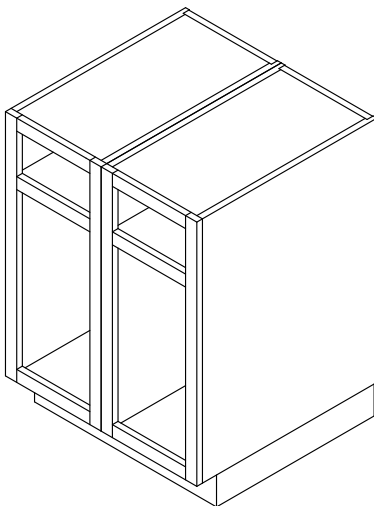


Figure: 10-004

SELECTION shall be manufacturer's choice, unless specified otherwise.

CABINET AND DOOR INTERFACE TERMINOLOGY

FLUSH OVERLAY is the default for either **FRAMELESS** or **FACE FRAME** casework:

• **OVERLAY** including flush, reveal, or lipped, as illustrated below:

• **FRAMELESS Construction:**

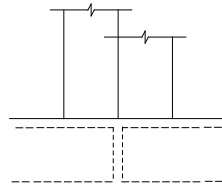


Figure: 10-005

Flush Overlay

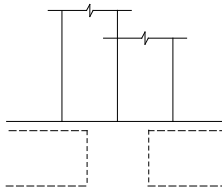


Figure: 10-006

Reveal Overlay

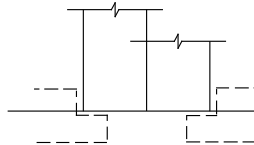


Figure: 10-007

Lipped

• **FACE FRAME Construction:**

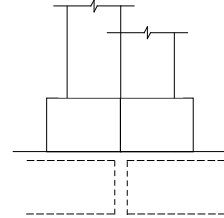


Figure: 10-008

Flush Overlay

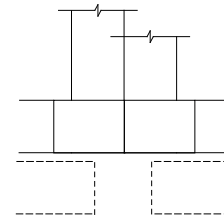


Figure: 10-009

Reveal Overlay

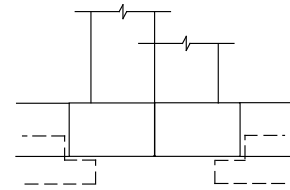


Figure: 10-010

Lipped

• **FLUSH INSET**, as illustrated below:

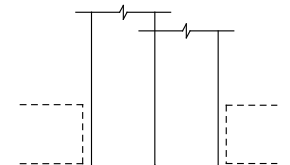


Figure: 10-011

Frameless Construction

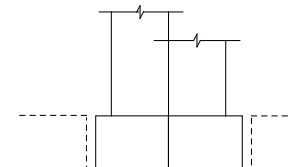


Figure: 10-012

Face Frame Construction

introductory information

LAYOUT REQUIREMENTS OF GRAINED OR PATTERNED FACES BY GRADE

- **STILE** and **RAIL** doors and drawer fronts for all Grades, drawer fronts shall run either vertically or horizontally at the manufacturer's choice for the entire project. Doors shall be vertical.



Figure: 10-013



Figure: 10-014

- **FLUSH PANEL** doors and drawer fronts:

- **ECONOMY GRADE** - drawer fronts shall run either vertically or horizontally at the manufacturer's choice for the entire project. Doors shall be vertical. Mismatch is allowed:

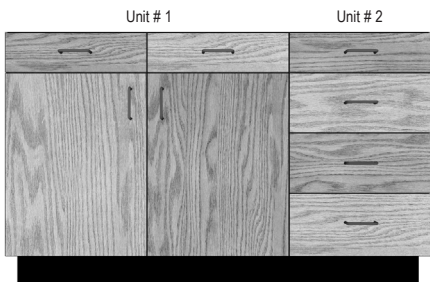


Figure: 10-015

- **CUSTOM GRADE** - doors, drawer fronts, and false fronts shall run and match vertically within each cabinet unit:

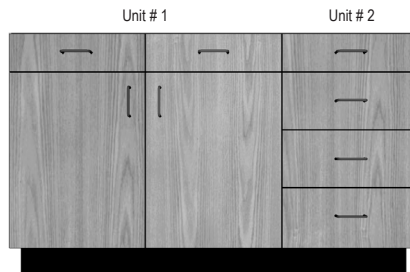


Figure: 10-016

- **PREMIUM GRADE** - doors, drawer fronts, and false fronts shall run and match vertically and be sequenced horizontally within each cabinet unit; and at cathedral grain, the crown shall be pointing up and run in the same direction for the entire project. Doors, drawer fronts, and false fronts shall be well matched for color and grain across multiple cabinet faces in one elevation. Requirement for blueprint or sequencing between cabinet units must be so specified.

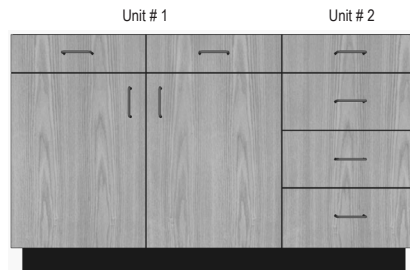


Figure: 10-017

DOOR AND APPLIED DRAWER FRONT PROFILES

For illustration purposes only and are not intended to be duplicated exactly:

- Common **EDGE PROFILES**:

- Square edge with thin applied edgeband.

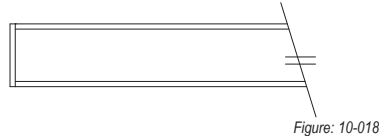


Figure: 10-018

- Radius edge with thick applied edgeband.

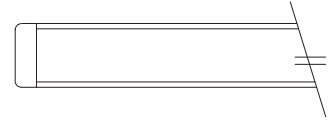


Figure: 10-019

- Square edge with thick applied edgeband:

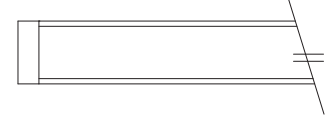


Figure: 10-020

- Square edge with inset edgeband.

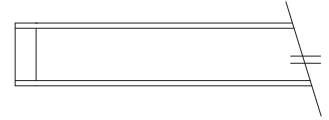


Figure: 10-021

- Lipped edge with inset edgeband:

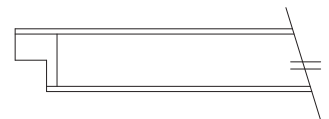


Figure: 10-022

To **PREVENT TELEGRAPHING**, inset solid wood edging when used must have similar moisture content as panel core, be glued securely and calibrated with panel core thickness prior to being laminated with a wood veneer on both faces.

- Common **RETENTION PROFILES**:

- Fixed panel.

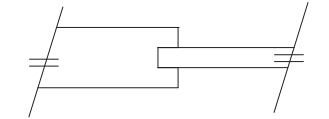


Figure: 10-023

- Removable stop.

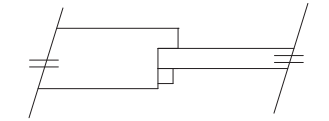


Figure: 10-024

- Removable stop at HPDL face.

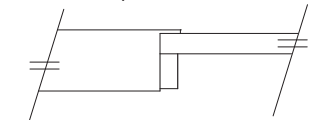


Figure: 10-025