Cabinets & Closets Procurement White Paper

Material choices, dimensional checks, equipment interfaces and traceable orders



Cabinetry display published by GEORGE Group Foshan.

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The purchasing decisions this book supports

A cabinet package connects manufactured parts to a building and equipment whose dimensions may still change. This paper develops the purchasing choices behind that coordination: which material description matters, how much usable space remains, which alternative changes the assembly, and what can actually be released.

Evidence used in this edition

Evidence	What it contributes
Four GEORGE product records	Published component descriptions for GK-002, GK-062, GW-023 and GL-014; compared in Chapter 3.
Manufacturer and industry documents	Named applications, installation conditions and the boundaries of testing or certification.
Lebanon site photographs	Visible cabinetry and adjacent finishes during installation; separated from undocumented decisions or outcomes.
Teaching calculations	Stated geometric assumptions carried through to a result. The numbers are illustrative, not NOVARMIA order specifications.

Published by NOVARMIA, a GEORGE Group brand. This edition contributes document comparisons, geometric checks and purchasing analysis. It does not report original laboratory testing or a measured post-handover project study.

The five companion worksheets connect cabinet IDs, components, equipment, decisions and received packages. Printed forms summarize their fields; the editable workbook carries the detailed registers. An entered status is a record, not independent technical approval.

Edition and market scope

Version 1.1, reviewed October 29, 2026. U.S. composite-wood requirements are discussed as a destination-specific example. Order commitments and performance remain tied to the identified product, project and approved documents.

Six decisions to settle before an order

Decision	Why it changes the purchase	Record that resolves it
Define the complete assembly	A front, cabinet box, countertop and appliance can have different materials, suppliers and approval dates.	Cabinet schedule plus responsibility matrix.
Identify materials by component	"Melamine," "Shaker" and "wood look" describe different aspects of a product. None identifies every layer.	Box, front, back, edge and finish schedule.
Freeze equipment interfaces	An equipment substitution can change openings, ventilation, supports and access.	Full appliance model and its current installation document.
Approve usable movement	A door can open while a drawer behind it remains trapped.	Swing, overlap and pullout checks on the relevant drawing.
Name the approved revision	A signed image and a later unsigned dimension sheet can describe different orders.	Linked drawing, material and change revisions.
Trace delivery by cabinet ID	An aggregate carton count does not identify which room is missing a hinge pack.	Cabinet-to-carton register and receipt record.

A practical release rule

Release information by cabinet or clearly defined production group. If the kitchen is ready but the laundry equipment is unresolved, retain that distinction in the schedule. A single approval label for the entire house hides the unresolved interface and makes later changes difficult to isolate.

The strongest quotation is one whose scope can be reconciled to the drawings and delivered items. A lower total with unspecified fillers, appliance panels or support work is an unresolved comparison until those differences are recorded.

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Chapters follow the order in which purchasing information becomes more specific. Room-specific sections can also be read independently. The companion workbook uses the same cabinet IDs and approval concepts as the printed tools.

Define the ten applications and the package boundary

Start with the application and the assembly boundary. A cabinet that serves a basin has a different service envelope from a media cabinet, even when both use the same decorative panel. Separate those functional requirements before selecting a shared finish.

Application	Distinct purchasing condition
Kitchen cabinets	Cooking equipment, sink, countertop, fillers and service access.
Closets and wardrobes	Garment space, door travel, internal pullouts and lighting.
Bathroom vanities	Basin geometry, drain route, mounting and wet-area edges.
Laundry cabinets	Equipment movement, utilities, ventilation and removable access.
Entryway and mudroom	Wet footwear, boot space, bench use and wall fixing.
TV and media	Equipment depth, airflow, controls, cables and wall support.
Dining and bar	Glassware, bottle storage, appliance grilles and work surfaces.
Office and commercial	Working equipment, cable routes, duty of use and access needs.
Outdoor kitchen	Exposure, water management, corrosion and cooking heat.
Custom millwork	Site geometry, scribing, visible joints and door-wall-cabinet junctions.

Assign the adjacent work

Cabinet units, finish panels and fittings form one scope. Countertop fabrication, equipment, utilities, wall/floor preparation, survey, installation and delivery each need an identified owner. Shared appearance does not make those separate assemblies interchangeable.

Use a stable cabinet ID on the quotation, drawings, component schedule, equipment interface and packing record. Record Materials Schedule ID, Hardware Schedule ID and the decision reference against it. A changed room name or replacement front can then be traced without renaming the unit.

Specify the cabinet as layers and connections

A cabinet specification needs more than a panel name. The box sides, back, shelves, doors and exposed end panels may use different constructions. A decorative surface describes the visible layer; it does not identify the substrate, its grade or the way a joint transfers load.



Joint and fixing details belong to the complete assembly.

Component specification: keep surface, substrate, edge and connection separate.

Component	Information that belongs in the schedule
Box side, top and bottom	Substrate, nominal thickness, finish faces, joint and support arrangement.
Back panel	Material, fixing method, service openings and structural role.
Shelf	Material, span, support type, retained/adjustable arrangement and intended contents.
Door or drawer front	Construction, finish, edge treatment, hardware preparation and direction.
Exposed end and filler	Visible finish, grain direction, scribe allowance and relationship to adjacent fronts.

Use a section or component schedule to resolve differences that an elevation cannot show. A thicker decorative end panel, a different back construction or a changed shelf support can affect the usable internal space and the selected fittings. Industry guidance also identifies the decorative surface separately from its substrate. [19]

Sources: [19].

Compare panel choices at assembly level

Compare core products with core products, then choose the decorative surface and edge construction. A moisture grade, a machining advantage and a wood-look finish answer different questions.

Core / named example	Where it helps	Trade-off that changes the choice
Particleboard: EGGER P2 example [24]	Dry interior furniture bodies, fronts and moderate-stress surfaces in the named product range.	A dry-room selection does not become a wet-area assembly by adding the same decor.
Particleboard: EGGER P3 example [25]	The named range addresses humid interior furniture, including bathroom applications.	Humid-condition use is not permission for exterior exposure, standing water or every cut-edge condition.
MDF: EGGER ST example [26]	A uniform face and profileable edges suit shaped fronts and decorative components.	The cited ST product is for dry interiors. MDF evidence does not automatically describe HDF or a moisture-resistant grade.
Plywood: declared veneer panel [27]	A veneer face or deliberately exposed laminated edge can be part of the design, subject to the selected panel and sample.	The exposed layer pattern needs an agreed finish or edge cover. Bond classification is a separate property; APA structural-panel classes do not rank every furniture panel.

The decorative surface is a separate choice

CPA describes TFL as resin-treated decorative paper fused to a panel substrate. It can be combined with different core products and normally needs an edge solution. A matching wood print therefore settles appearance while leaving the core, edge and connection to be specified. [19]

Selection result

For a dry wardrobe and a bathroom cabinet, the shared decor may stay while the core/exposure selection changes. Choose the named product for the environment, then review penetrations, fixings and edges. These manufacturer examples establish distinctions, not a declared NOVARMIA supply relationship.

Sources: [19], [24], [25], [26], [27].

Build an emissions evidence chain

For U.S. projects involving regulated composite wood, EPA guidance distinguishes panel producers, fabricators, importers and other supply-chain participants. The relevant evidence needs to connect the applicable panel product to the finished goods and the transaction records. A generic company brochure cannot make that connection. [7]

Evidence link	What the purchasing file records
Material identity	Panel product, producer and the cabinet components using it.
Document identity	Report or certification reference, issuer, scope, version and date.
Goods identity	Product and lot references connecting the material to the supplied cabinet package.
Transaction identity	Supplier, purchase record and applicable finished-goods labeling or documentation.
Market review	Destination, responsible party and unresolved documentation before release.

Do not translate CARB, TSCA, E-class terminology or a low-emission marketing label into one another without the applicable product and test framework. Compare the named requirement with the actual evidence. This keeps a material-level statement from becoming an unsupported claim about every finished cabinet. [7]

Record versions when requirements change

EPA announced a technical update on October 23, 2026 and supplied a prepublication final-rule document. The announcement is a reason to recheck the operative rule and effective dates for the transaction, rather than assume every older report has become invalid. [8]

Scope of this section

Destination: United States. Link the applicable panel product and lot to the finished goods and transaction. Review another destination under its own requirements.

Sources: [7], [8].

Door style, construction and finish are different choices

The four public GEORGE records below describe different component combinations. Reading the front and box separately reveals decisions that a color or room image cannot settle.

Group reference	Published component description	Procurement consequence
GK-002 [1]	PVC with HDF fronts; melamine-faced particleboard or plywood box options.	A Shaker-like appearance does not establish five-piece joinery or a painted finish.
GK-062 [2]	UV lacquer with particleboard fronts; separately listed box options.	A lacquered panel is not the same front system as PVC/HDF, even where the room style is similar.
GW-023 [3]	Melamine with particleboard fronts; particleboard/plywood box options; sliding storage described.	The interior layout and sliding system remain separate specifications.
GL-014 [4]	Melamine with particleboard laundry fronts; separately listed carcass and worktop choices.	Material identity does not establish an appliance opening or equipment compatibility.

Use a component description to price an alternative

If the front changes, keep the cabinet ID and identify what else changes: edge, machining, hinge preparation, exposed ends and finish approval. If only the carcass changes, review connections and usable space without silently changing the approved front. This is a more useful comparison than treating two white cabinets as equivalent.

The records do not give a universal board thickness, fitting capacity or common order terms. Those items are requested for the identified assembly rather than copied from another product family.

Sources: [1], [2], [3], [4].

Approve the finish under the conditions that reveal differences

An approval sample should show a useful portion of the assembly: the main surface, a visible edge, a corner and the proposed handle or finger-pull detail. A color chip alone leaves edge appearance and profile reflections unresolved. Use the same sample reference in the drawing notes and the quotation.

Review condition	Decision to record
Normal room lighting	Color, texture, sheen and the appearance at an agreed viewing position.
Raking light	How gloss, shallow marks and edge lines appear on larger surfaces.
Adjacent materials	Relationship to the countertop, flooring, wall panels and metal finishes.
Hand contact	Handle feel, finger-pull access, exposed edge comfort and cleaning access.
Expected exposure	Location near steam, standing water, a cooking source or exterior weather.

Heat and moisture belong in the layout review as well as the material discussion. The Door Maker warns about direct heat and steam around thermofoil fronts; a selected front system and appliance instruction still govern the actual arrangement. Do not turn a generic material name into a universal clearance value. [20]

Preserve the approval reference for the full order and any spare fronts. If a replacement will be made later, color and sheen can be easier to compare when the original approved sample, batch record and neighboring front IDs are available.

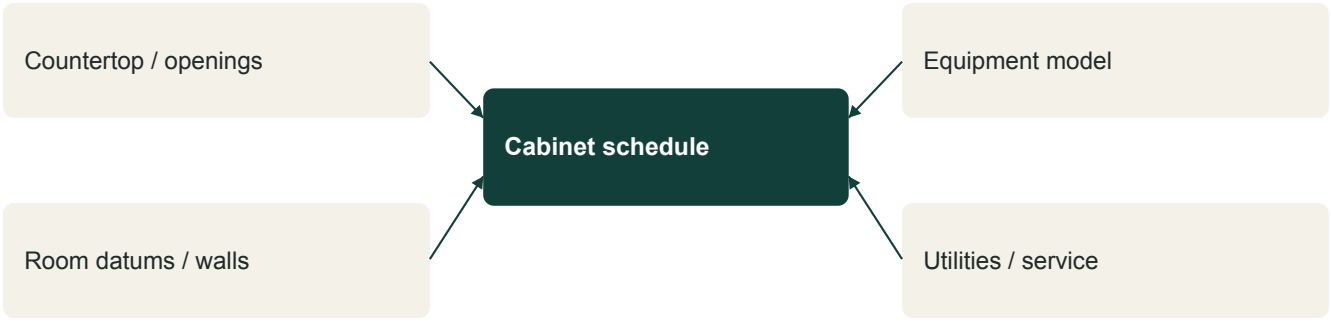
Close the sample record

Record what was approved, which components it covers, any accepted variation, the approval date and the drawing revision. A later material change reopens the affected approval.

Sources: [20].

Organize the kitchen by units and interfaces

A kitchen elevation is a useful visual summary, but procurement needs identifiable units. Separate sink bases, drawer bases, tall appliance units, wall cabinets, corners, island cabinets and finish panels. Include fillers, plinths, cover panels and exposed backs as priced components or explicitly assigned work.



A kitchen package has cabinet, countertop, equipment and service interfaces. The arrows identify information exchanges, not a fabrication sequence.

Unit or detail	What changes its specification
Sink base	Bowl depth, mounting parts, drain and trap, waste sorting and usable access.
Drawer base	Runner arrangement, contents, front division and interference with adjacent doors.
Tall appliance unit	Full equipment model, opening, supports, ventilation and removable service access.
Corner unit	Door opening, internal mechanism, usable reach and collision with the next front.
Island	Exposed faces, utility entry, countertop support and seating-side clearances.

Identify which parts touch the floor, walls, countertop and adjacent appliances. The complete unit description then survives a layout change without turning every cabinet into a new unnamed item.

Freeze equipment data before final openings

The equipment envelope includes more than the visible appliance width. Installation instructions can distinguish the cabinet opening, the machine body, ventilation routes, door movement and access for connection or removal. Record those items against the full model, including the destination-market version.

Interface	Cabinet decision	Release evidence
Refrigeration	Opening, panels, hinge movement, grille and service route.	Selected model installation document and coordinated section.
Dishwasher	Opening, adjacent fixing, door panel, plinth and hose route.	Model, door/opening arrangement and plumbing/electrical interface.
Oven or cooktop	Cutout, support, ventilation, heat exposure and adjacent fronts.	Current model drawings and the complete material/clearance review.
Sink and faucet	Bowl, clips, tap holes, trap and drawer keep-out space.	Equipment drawings plus the cabinet/countertop interface.
Extractor	Duct path, filters, service access and enclosure limits.	Equipment instruction and a coordinated cabinet section.

A substitution with the same advertised size can change several rows. Treat the replacement as a new interface review. The previous approval can remain valid for unaffected cabinet units while the changed equipment bay is held.

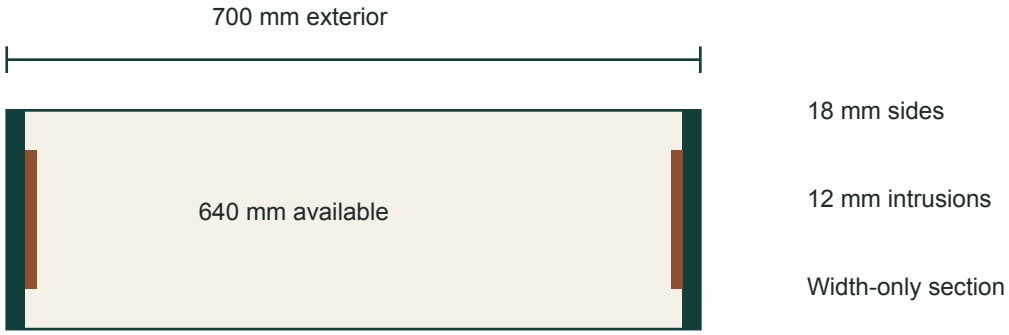
Refrigeration reference

Keep the selected model's intake/exhaust route open after the grille, front and toe-kick are fitted. A physically fitting appliance can still have an obstructed airflow path. [22]

Sources: [22].

Keep dimensions in a shared coordinate system

Exterior dimensions and usable internal space differ whenever panels or fittings occupy the opening. The following width-only example makes that deduction visible. All values are chosen for arithmetic, not a product or order specification.



Illustrative width section: external width, side panels and local intrusions are different quantities.

Width term	Illustrative value	Calculation / result
Cabinet exterior W	700 mm	Starting envelope.
Two sides, thickness t	18 mm each	Subtract 2 x 18 = 36 mm.
Two local intrusions i	12 mm each	Subtract 2 x 12 = 24 mm at the controlling location.
Available clear width	W - 2t - 2i	700 - 36 - 24 = 640 mm.
Required clear width	650 mm	640 is 10 mm short: this width test fails.

For the same sides and intrusions, the exterior width must reach at least 650 + 36 + 24 = 710 mm for this test. Alternatively, keep the envelope and review a verified fitting arrangement with less intrusion. A wider unit is only feasible if the room layout can accommodate it.

What the result does and does not resolve

The example resolves one local width conflict. Height, depth, front travel, equipment instructions, support and service access still need their own checks. Production tolerances and allowances are not supplied by this arithmetic.

Design storage around what must fit

Divide the wardrobe into functions before selecting a repeated bay width. Long garments, short hanging, folded items, drawers, shoes, luggage and accessories need different usable spaces. Use the actual items or an agreed storage brief to establish those spaces rather than rely on a single universal closet depth.

Storage function	Information to capture	Interface to resolve
Hanging	Garment length, hanger arrangement and occupied depth.	Door travel, rail supports and lighting location.
Drawers	Contents, usable interior and chosen runner.	Clear pullout path after doors and handles.
Adjustable shelves	Contents, clear span and support arrangement.	Adjustment access and shelf retention.
Shoes and bags	Item size, shelf angle and cleaning access.	Door opening and removable fittings.
Luggage or seasonal storage	Item envelope and intended access.	Reach, lifting and overhead arrangements.

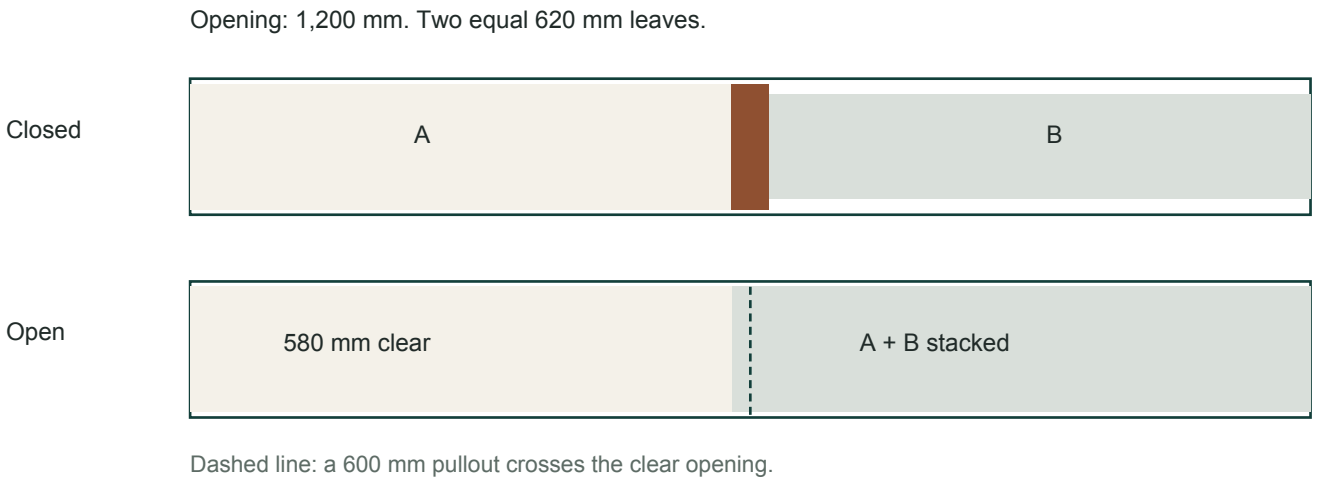
The public GW-023 record describes a melamine-panel wardrobe with sliding doors and selectable internal storage. It establishes a product-family example, not a particular track system or a full-width clear opening. The complete door arrangement still needs its own drawing and fittings schedule. [3]

For integrated lighting, preserve access to the driver and connections. A decorative light channel is only one component of the electrical assembly; its position should be coordinated with shelves, doors and removable panels.

Sources: [3].

Check access with the doors in position

A closed elevation cannot show whether an internal pullout can leave the wardrobe. Compare the closed and open positions. The diagram uses an idealized two-leaf bypass geometry; frames, stops and handles are excluded from its assumptions.



Teaching geometry only. Door-system instructions and the actual moving envelope govern the project.

Geometry check	Calculation	Decision
Opening W = 1,200 mm; equal leaf L = 620 mm	Closed overlap = 2L - W = 40 mm.	Two leaf widths cover the opening with a 40 mm overlap.
Both leaves stacked at the right	Ideal left clear opening = W - L = 580 mm.	A 600 mm pullout envelope cannot pass: short by 20 mm.
Alternative 560 mm pullout envelope	580 - 560 = 20 mm remaining.	Passes this width-only test before real-system obstructions and margins.

The design response is to reposition or resize the pullout, change the division of storage, or select another door arrangement. Simply widening the drawer behind a closed front makes the access problem worse. Hettich distinguishes matched running systems and their specific geometry; the selected arrangement must replace the idealized assumptions before release. [15]

Sources: [15].

Choose vanity storage around the basin, trap and support

Two vanities with the same fronts can provide very different storage. The basin projects down from the top; the trap, valves and connections occupy space behind it. The useful comparison is the moving drawer envelope against those fixed obstructions.

Storage layout	What it gives you	Construction consequence
Full-depth drawer	An uninterrupted container for everyday items.	Works only where the bowl and plumbing stay outside the drawer and runner travel. A matching front does not prove that clearance.
U-shaped drawer	Storage beside the trap while keeping a drawer front.	The center cutout reduces usable area. Its position and depth follow the basin and plumbing; the remaining drawer and runner arrangement must be designed together.
Door with shelf/access space	A more open route to valves and the trap.	A fixed shelf can still obstruct servicing. A removable or interrupted shelf trades some storage for access to the connections.

Wall-hung and floor-supported are different support designs

A wall-hung vanity leaves the floor below open, but the cabinet rail, fixings and wall structure carry the assembly. A floor-supported unit carries load through its base or legs; it still needs the wall attachment specified for that product. Kohler instruction 1470606-2-B treats wall-hung and legged arrangements separately while requiring attachment to suitable wall support. [18]

Select the internal layout before fabrication. If a full-depth drawer conflicts with the trap, the choices are a purpose-designed reduced or U-shaped drawer, a different approved plumbing layout, or a door-access compartment. Cutting a finished drawer or cabinet on site is not an interchangeable solution: it can remove structural members, finishes or hardware space.

For the final comparison, look at the storage left after plumbing, the route for removing the trap, and the supporting assembly. A shallower drawer can be the better purchase when it stays usable and serviceable without disturbing the worktop.

Sources: [18].

Choose the laundry enclosure for the loading and drying system

The same cabinet opening cannot serve every laundry arrangement. Loading direction controls the surface above or in front of the machine; dryer technology controls the exhaust and enclosure design. Keep these decisions separate from the decorative finish.

Arrangement	Useful layout	What the cabinet must leave free
Top-load washer	Open machine top, with folding space beside it.	The lid and loading space above. A fixed countertop across the machine can block its operation. Whirlpool WTW4100SW/WTW4105SW guidance illustrates this upper-space requirement. [16]
Front-load pair	A continuous folding surface may span independently supported cabinetry.	Door travel, detergent access, connections and a forward removal route. The worktop must not rely on the machines as improvised supports.
Stacked pair	A tall bay uses less floor width than a side-by-side pair.	A manufacturer-compatible stack and kit, usable controls, utility access and a way to separate/remove the machines. Decorative shelves are not a stacking system. [29]

Exhaust ducting and enclosure airflow are different

A vented dryer needs its specified exhaust route to outdoors. The cabinet back cannot become a discharge cavity, and reducing cabinet depth must not crush the duct. Whirlpool describes this outdoor air path separately from its ventless HybridCare heat-pump system, which recirculates drying air. [28]

A condenser or heat-pump dryer removes the need for that exhaust duct only where its own design permits. It does not automatically permit an airtight cupboard. Bosch WTG86400UC is a concrete condensation-dryer example: its 05/20 specification sheet includes installation details calling for ventilation openings and clearances when the front is covered. [29]

The layout consequence is direct: choose an open top for a top-loader, a coordinated worktop for a suitable front-load pair, or an accessible tall bay for a compatible stack. Then preserve the exact dryer air path and service access in that arrangement.

Sources: [16], [28], [29].

Choose shoe storage and bench construction for the entry

An entry cabinet handles grit, damp footwear, coats and the occasional seated user. A continuous front can hide these different duties. Choose the shoe insert and the seat structure separately so that easy cleaning does not depend on dismantling the cabinet.

Construction	Useful when	Tradeoff to accept
Removable shoe tray	Wet or dirty footwear needs a surface that can be taken out and cleaned.	The tray occupies storage space and needs room to lift out past doors and hinges. It contains ordinary drips only within its shape; overflow can still reach the cabinet.
Fixed shoe shelves	Dry footwear is stored in simple, visible compartments.	There is no moving mechanism, but the cabinet interior remains the cleaning surface. Deep rear corners and fixed divisions are harder to reach than a removable insert.
Pullout shoe fitting	A deeper compartment needs to bring its contents forward.	The open fitting consumes hallway space. Door opening, runner travel and nearby house-door movement must work in the same position.

Build the seat as a seat

A bench needs a continuous load path from the seat through supporting sides, partitions or a frame to the base and building connections. A projecting shelf with shoe-storage fittings beneath it does not establish that path. Adding a cushion changes comfort, not support.

A partition below the seat can shorten the unsupported span but divides boot storage. A separate supporting frame can keep larger compartments open but adds members and connections. These are construction choices to resolve with the intended seat use, rather than assign the bench the rating of a nearby drawer runner.

For a muddy entry, a supported bench above removable trays can separate seating from the dirty surface. For a dry hallway, fixed shelves may be simpler. In either arrangement, a removable tray must clear the front opening and the floor edge must remain reachable for cleaning.

Separate media, dry storage, refrigeration and wet-bar bays

A media wall and a bar can share a finish while needing different cabinet interiors. An open shelf, a closed electronics bay, a built-in refrigerator and a sink cabinet are not interchangeable storage boxes.

Bay	What the enclosure changes	Design consequence
Media with an open front	One front obstruction is removed, but shelves and the back can still trap heat or block plugs.	Keep the selected device vents clear and allow cable bends, connectors and removal without dismantling neighboring units.
Media behind a closed front	A solid door can interrupt infrared commands as well as the intended air path.	Resolve control and airflow separately. A remote-control accessory does not ventilate a cabinet.
Dry glassware/bottle storage	Shelf divisions and door openings set what fits and can be reached.	Choose racks and shelf supports for the actual contents. The cabinet provides storage, not temperature control.
Built-in refrigeration	The cabinet front, grille and toe-kick can obstruct the appliance air path.	Use a model approved for the arrangement and preserve its ventilation route, door movement and service withdrawal.
Wet bar	Basin, trap and shutoffs displace storage and need access.	Separate the plumbing compartment from dry storage; make the trap and connections reachable without removing the worktop.

Denon describes a separate remote-control receiver for HEOS AVR when cabinet placement blocks infrared signals. That is a specific solution to the control path, not evidence that another device or a sealed bay will work. [21]

Liebherr under-counter guidance links the selected refrigeration model to the grille and toe-kick design. A furniture plinth must not replace or cover that working interface merely to continue a horizontal line. [22]

Where these functions meet, divide the interior by service need. Put removable connection access behind electronics, preserve the refrigerator air path, and keep plumbing access within the wet bay. A shared door color can remain continuous while the construction behind it changes.

Sources: [21], [22].

Install commercial casework and millwork without trapping access

A reception counter, printer bay and fitted wall run need different equipment, wear and access arrangements. Custom millwork adds the wall returns and closures that connect them to the building. Those pieces can hide a fixing or connection before it has been secured or checked.

A workable sequence for a service-backed cabinet run

Step	Work completed	Access kept open
1. Prepare	Establish finished datums, support locations and service routes. Install required concealed backing before the wall closes.	Fixing substrate and the route to each connection.
2. Position and fix	Level and align the cabinet structure; make the specified building and unit-to-unit connections.	Fixing points that a back, side return or countertop would conceal.
3. Connect and check	The responsible trades complete connections; check equipment movement, cable routes and the stated operating functions.	Connection points and removable equipment parts.
4. Fit closures	Scribe and fit end panels, ceiling closures and trim after the supporting structure is fixed.	Designated access covers and the fasteners needed to remove them.
5. Demonstrate access	Remove and refit each service cover with adjacent components in their final positions.	The actual route for later servicing, not an opening that existed only during assembly.

Permanent finish or removable service face

A permanently bonded closure can give a continuous appearance at a dry, service-free junction. It is a poor choice across a connection that needs later access: opening it may damage the finish. A removable back or front service panel adds a visible joint and fastening detail, but can preserve access without disturbing the countertop or adjacent units.

Use that distinction by task. A printer bay needs access for consumables, connectors and removal; a records cabinet may need security and usable shelf access; a reception counter needs the project's approach and transaction arrangement. Equipment access and fixing access must survive any decorative wall return or ceiling closure added around them.

A service panel also belongs in the construction review. AWI explains that performance results attach to the tested method and core material; replacing a structural back with a removable panel can change that assembly. [11]

Sources: [11].

Define the outdoor exposure before choosing a cabinet

Outdoor exposure is a set of conditions, not a finish name. Record whether the installation is sheltered, open to rain, exposed to sunlight, near a pool or coast, or subject to freezing conditions. Include the ground and wall conditions, cooking equipment and drainage route.

Exposure or function	Cabinet-related decision
Rain and cleaning water	Drainage, horizontal surfaces, penetrations and drying paths.
Sunlight and heat	Material and finish suitability, including cooking-related exposure.
Corrosive environment	Named metal/material choice, fittings and compatible connections.
Wet work	Sink, plumbing access, work surface and enclosed service space.
Cooking appliance	Approved enclosure materials, liner and installation conditions for the exact model.
Ground and supports	Leveling, structural support, fixings and access beneath the assembly.

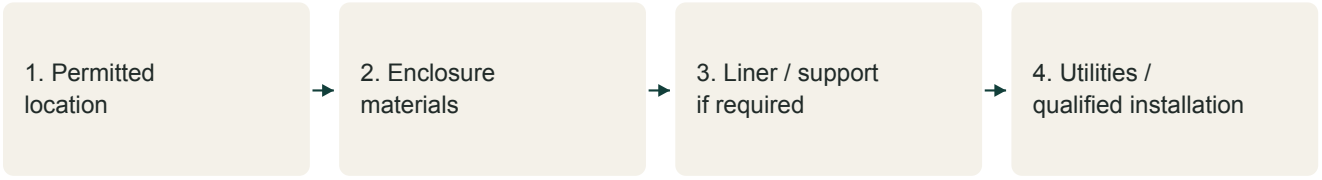
Do not extend the acceptance of an indoor melamine or PVC-faced cabinet to an exterior location simply because it sits under a roof. Ask for the actual outdoor assembly and the material/finish evidence for its stated exposure. The countertop, hardware and connections need the same review.

Coordinate water and replacement access

Water can reach a cabinet through a worktop joint, an equipment opening or the ground below. Follow its likely path through the complete assembly. Keep removable access to shutoffs and equipment where required, and identify the parts that can be replaced without dismantling the whole run.

Let the cooking appliance control its enclosure detail

Screen the equipment location before choosing the cabinet enclosure. An insulating liner addresses a specified enclosure condition; it cannot cancel a restriction on the proposed location.



Review sequence: permitted location first, then enclosure materials, liner/support details and utility installation.

Wolf's current OG/SB/BM guidance excludes enclosed or covered areas with a roof or overhang, including roof eaves. For that named example, an under-roof proposal is not resolved by adding a liner or changing the cabinet finish. The location or equipment selection has to change. [17]

For a permitted combustible built-in enclosure, the corresponding Wolf OG guidance requires the matching insulating liner and model instructions. Wolf also states that its liner FAQ does not prescribe a quantity or size of enclosure ventilation holes. A cabinet drawing should not invent those dimensions. [17]

Stage	Decision before proceeding
Location	Does the full model permit the proposed roof, wall and surrounding conditions?
Enclosure	Are the actual visible and hidden materials acceptable for that installation?
Liner / support / openings	Use the compatible configuration and current installation detail.
Utilities	Assign qualified connection, access and commissioning work.

Sources: [17].

Specify hardware as a compatible assembly

A brand name is not a hardware schedule. Identify the hinge or runner series, the actual component references, the mounting arrangement and the motion function. Include plates, connectors, retainers, adapters and any additional components required for the selected application.

Hardware group	Fields that resolve the purchase
Hinges	Front construction, thickness/weight, overlay or inset, opening, plate and quantity.
Drawer runners	Complete system, length, drawer construction, mounting, load basis and motion.
Sliding doors	Track arrangement, running gear, guides, stops, retention and damping.
Lift-up fronts	Front data, mechanism selection, mounting and service access.
Handles and pulls	Projection, fixing centers, screw arrangement and adjacent movement.

Blum provides a hinge-quantity method that considers front dimensions and weight. The selection also needs the correct hinge application. A soft-closing description alone does not determine the hinge count or validate every door material. [13]

Control substitutions through the whole system

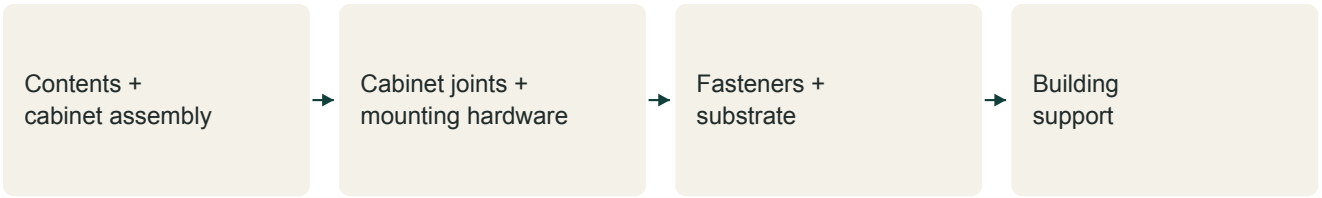
A replacement that appears equivalent can change drilling, opening geometry, adjustment, soft-close behavior and availability of spares. Review the full kit and its installation instructions before accepting the change. Preserve the original and replacement references against the affected cabinet IDs.

> **Order wording**
>
> State a named component or an explicitly reviewed alternative. An unqualified "or equivalent" line leaves the acceptance criteria undefined.

Sources: [13].

Keep load evidence attached to the tested arrangement

A cabinet can have several different load questions: a drawer carrying contents, a shelf spanning between supports, a bench supporting a person, a wall cabinet hanging from a substrate, or a countertop bridging an opening. One rating does not resolve all five.



Component tests and building attachment answer different questions.

A wall-hung assembly transfers load through several connections. Each link must match the approved design.

AWI states that its test loads are not normal-use loads and that construction-method results have defined material and assembly boundaries. Blum publishes MOVENTO information using specific test and market terminology; its U.S. static-load wording and another market's carrying-capacity classes should not be merged into a universal assembled-cabinet rating. [11, 14]

Question	Evidence to request
What is being rated?	Runner, drawer assembly, shelf, cabinet body, bracket or complete installation.
Under which conditions?	Test method, geometry, material, fasteners and support arrangement.
What reaches the building?	Connection details and the actual wall/floor/support construction.
What changes the result?	Different substrate, span, drilling, fixings, mounting or loading.

For freestanding clothing-storage furniture, assess the applicable CPSC scope separately. Units intended as permanent built-ins are excluded from that particular clothing-storage-unit rule; the exclusion does not design or approve the cabinet's attachment to the building. [12]

Sources: [11], [12], [14].

Measure the finished conditions and identify what can change

A survey record should identify the room, measurement date, person responsible, reference surfaces and unresolved work. Include the critical heights and depths, wall returns, out-of-square conditions, openings and service locations. A single wall length is not a complete cabinet survey.

Survey element	Why it matters
Finished floor and ceiling	Vertical fit, leveling, plinth and closure dimensions.
Walls at controlling levels	A wall can differ at floor, worktop and wall-cabinet height.
Corners and returns	Fit, fillers, swing and the depth available after trim.
Openings and fixtures	Windows, doors, radiators, outlets, valves, drains and ducts.
Wall construction	Fixing method, support and any concealed reinforcement.
Delivery route	Largest component, turns, stairs, lifts and assembly location.



Cabinet measurement shown in GEORGE Group China's quality-assurance gallery. No measured value or acceptance result is established by the photograph.

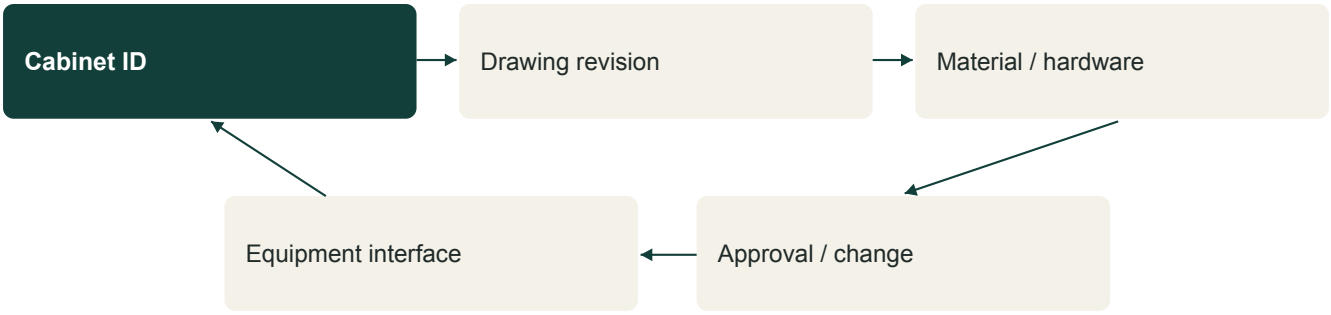
Put uncertain dimensions on an issue list with an owner and the date needed. If the floor finish or appliance model is still open, link that uncertainty to the affected cabinet. An approval for another part of the package should not silently close it.

Units and tolerances

Declare the drawing units and the project's agreed measurement/acceptance conventions. This book prescribes no universal panel thickness, room allowance or installation tolerance.

Freeze a set of linked records, not a single image

An order can contain a current elevation, an outdated section and a later sample change. Approval works when the related documents identify the same configuration. Give drawings, materials, equipment interfaces and changes their own references and link them through the cabinet ID.



Linked release records. A later change identifies the affected records before production or replacement work is released.

Release record	What it resolves
Plans/elevations/sections	Overall geometry, orientation, openings and critical junctions.
Cabinet schedule	Unit IDs, quantities, exterior dimensions and configuration.
Material and hardware schedule	Approved components, finish/sample references and fittings.
Equipment interface schedule	Full models, document versions and resolved service/opening conditions.
Approval/change record	Decision, exclusions, effect on scope and the superseded revision.

Distinguish "for quotation," "for coordination" and "approved for the stated scope." Those labels serve different tasks. An approval can have a limited boundary; name that boundary instead of allowing a general stamp to imply every interface is resolved.

> **Superseded information**
>
> Keep the earlier revision for traceability, mark it as superseded and distribute the replacement to the parties using it. A revision number without the changed content is an incomplete instruction.

Issue an RFQ that produces comparable quotations

Normalize scope before comparing totals. The following two offer summaries are a teaching example with no prices or actual supplier quotations. Both cover the same hypothetical cabinet units; their apparent totals still describe different work.

Requested scope	Offer A	Offer B
Cabinet units and named hardware	Included	Included
Fillers and exposed finish panels	Excluded: obtain F_A and E_A	Included
Countertop and appliances	Excluded	Excluded
Packing and delivery to the same place	Packing included; delivery D_A pending	Included for the stated place
Installation and connection	Excluded	Excluded
Currency, tax and validity	Must be aligned	Must be aligned

Carry the missing scope into the comparison

For this requested supply-and-delivery scope: comparable A = Q_A + F_A + E_A + D_A. Comparable B = Q_B, provided its listed inclusions and delivery basis are confirmed. Q is the quoted amount; F and E are actual filler/end-panel supplements; D is the delivery supplement. Deduct any verified duplicate item rather than paying for it twice.

Until A's missing items are priced and the commercial bases match, the offers cannot be ranked by their headline totals. Keep the excluded countertop, equipment and installation outside both comparisons, or add the same defined work to both. Obtain those missing scope prices before selecting an offer.

> **RFQ attachment**
>
> Use the same cabinet IDs, quantities, drawings and component references for each offer. Log departures against the specific requested item, not a general "equivalent" statement.

Decide which changes reopen an approval

An approval is reopened by the part of a change that affects its basis. Identify that effect before deciding whether to retain, revise or supersede the earlier record.

Proposed change	Reopen these checks	What may remain valid
Same decor, different core	Exposure suitability, thickness, fixings, machining and usable space.	Color approval only if the same surface/edge reference still applies.
Different hinge or runner	Mounting pattern, motion, intrusion, front compatibility and full-kit references.	Unaffected cabinet geometry if the verified new system preserves it.
New appliance model	Opening, airflow, doors/panels, supports, utility and service routes.	Unrelated cabinet units with no affected interface.
Revised room dimension	Affected unit widths, fillers, end panels, worktop and neighboring junctions.	Components outside the changed geometry.

Keep old, proposed and released references separate. A supplier proposal is not the released drawing. Record the actual price effect and currency, delivery effect and start event, the named decision maker, the implemented record and any required recheck.

Sample review belongs to Chapter 3; this register links that approved sample to the changed components. Closure follows implementation and recheck, with the outcome and person recorded. A date entered beside "Approved" does not close an unimplemented change.

Inspect appearance, operation and identity separately

A useful inspection record identifies the cabinet or component, the revision, the observed condition and the disposition. Keep dimensional, material, appearance, functional and packing checks distinct. A good surface finish does not close a missing-component issue, and an operating drawer does not identify the panel inside it.

Check group	Examples of observable checks
Identity	Cabinet ID, handedness, component references and approved revision.
Dimensions	Dimensions called out for the inspected condition and agreed measurement method.
Appearance	Approved finish, exposed edges, damage, alignment and agreed visual conventions.
Operation	Door/drawer travel, interference, soft-close function and installed fittings.
Completeness	Shelves, fixing packs, handles, accessories, labels and documents.
Disposition	Accept, hold, repair/rework or replacement, with a responsible party and recheck.

KCMA describes separate cabinet test categories involving structure, operation and finish. Its certification program is a reference for the distinction between evidence categories; this white paper makes no KCMA certification claim for NOVARMIA or a specific supplied cabinet. [9, 10]



A cabinet check being recorded in GEORGE Group China's published gallery. The inspected model and acceptance result are not identified.

Agree the inspection coverage and acceptance criteria for the actual order. Photographs support an identified record; they do not replace the record's scope and decision.

Sources: [9], [10].

Pack for cabinet-level receipt and later service

The packing register should connect the physical cartons to the cabinet schedule. A cabinet may occupy several cartons; one carton may contain fittings for several cabinets. Record the relationship so that receiving staff can identify completeness without opening every package at once.

Packing record	What it connects
Shipment and carton ID	The physical package to the shipping and receiving record.
Room and cabinet IDs	The package to its installation destination.
Contents and count	Panels, fronts, fittings, loose parts and related cartons.
Handling and orientation	The actual package requirements and visible protection.
Receipt condition	Count, visible damage, images, shortages and agreed next action.
Spare/component references	Replacement parts to the approved material and hardware record.



Package-label recording in GEORGE Group China's warehousing gallery. The pictured crate is not identified as a Lebanon project shipment.

Packaging for international transport also needs its material scope checked. IPPC ISPM 15 addresses relevant raw-wood packaging and dunnage, with defined exclusions for processed materials. The destination's implementation and the actual packaging construction still need review. [23]

At receipt, separate count discrepancies, visible transport damage and later-discovered assembly issues. Preserve cabinet/carton IDs, photographs and dates, then follow the agreed reporting and remedy process. A clean outer carton does not establish that every internal component is correct.

Sources: [23].

Lebanon villa: what the site photographs establish

The GEORGE Group Lebanon record supplies installation-stage photographs. They show cabinetry, work surfaces and adjacent construction; no drawing, selected material report, change decision or handover result is reproduced here. This is a site-photo observation, not a completed case study of decisions and outcomes. [5, 6]



Lebanon kitchen during fit-out: cabinet runs, horizontal work surfaces and the adjacent glazed opening are visible.



Island and worktop area with protective wrapping and site materials still present. The photograph records installation-stage conditions.

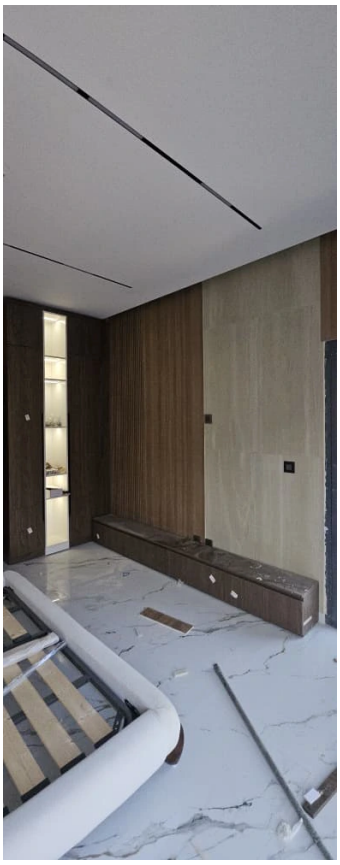
The upper/lower front appearances and island relationship identify questions for the component schedule and coordinated section. The images cannot identify the hidden substrate, exact worktop material or approved support. Those would require the actual product and project records.

Sources: [5], [6].

Wardrobe and wall junctions: observations and missing evidence



Tall enclosed storage beside open shelving in the Lebanon installation record.



Low fitted cabinetry beside wall panels, electrical points and a tall display/storage unit.

The tall storage image makes the junction between closed fronts and open shelving easy to see. The purchasing record would identify the front construction, internal layout, shelf supports and fixing arrangement. Those details cannot be recovered reliably from a closed elevation photograph.

The lower cabinetry image shows why the room survey includes wall panels, electrical-point locations and the finished-floor datum. Their relative positions affect the cabinet height, returns and access. A shared room elevation and the cabinet schedule keep those interfaces linked.

Evidence boundary

The original group and installation stage are retained. Drawings, approved samples, measurements and acceptance records would be needed to explain the project's actual choices and results. They are not replaced by the teaching calculations in this paper. [5, 6]

Sources: [5], [6].

Worked example: one equipment revision, several records

> **Illustrative calculation**
>
> K-02, the DW codes and all dimensions are teaching values. They are not an order, equipment specification or fabrication approval.

K-02 was coordinated around a 640 mm clear-width requirement. A proposed equipment revision requires 650 mm. Keep the cabinet ID stable while checking whether the surrounding envelope can change.

Quantity / record	Before	Width-resolved option
Equipment reference	DW-A: assumed 640 mm requirement.	DW-B: assumed 650 mm requirement.
Cabinet exterior width	700 mm	710 mm, subject to available room space.
Two side panels	2 x 18 = 36 mm	Unchanged: 36 mm.
Two local intrusions	2 x 12 = 24 mm	Unchanged: 24 mm.
Available clear width	700 - 36 - 24 = 640 mm	710 - 36 - 24 = 650 mm.
Geometry decision	Fails proposed requirement by 10 mm.	Passes this local width test.
Drawing / release	Q-01 Rev A; old coordination.	Q-01 Rev B records the wider option; other checks remain open.

If the room cannot accept 710 mm, reject this option and assess a different verified arrangement or equipment choice. If it can, update the filler/end-panel and worktop interfaces affected by the wider unit, obtain real supplier scope effects, and complete height, depth, movement and service checks.

Record the wider option and its remaining conditions against K-02 before the project decision. Keep the released drawing separate from a coordinated option until the responsible parties have completed their reviews.

Cabinet RFQ worksheet

One cabinet or inseparable assembly per Cabinet ID. The workbook separates the main register from its specification/service-scope module; physical cabinet quantity is kept distinct from pricing measures.

Cabinet ID / room / physical quantity / quantity unit

Materials Schedule ID / Hardware Schedule ID

Interface ID / Approval Record ID

Drawing / revision / approval scope / status

Responsible party / required date / scope document

Destination / exterior width, depth, height / dimension unit

Box construction / front construction / finish and Sample ID

Fillers / plinth / exposed ends / supports

Countertop / sink / lighting interfaces

Survey / installation / delivery scope

Exclusions / unresolved item / owner

Cabinet RFQ: main register at row 7; specification and service scope at row 117. Reuse its Schedule IDs, Interface IDs and Approval Record IDs in the corresponding registers. Required action flags missing links; it does not approve the design.

Materials and hardware register

Use a unique Component Line ID for the cabinet-specific component entry. Schedule ID groups the material or hardware set; Component ID and revision identify the part. Record quantity and whether it is per cabinet, per assembly or an order total.

Component Line ID / Cabinet ID / Schedule ID / schedule type

Component ID / component revision / location

Quantity / unit / quantity basis

Approval Record ID / status / drawing revision / Sample ID

Material producer / product or grade / thickness and unit

Hardware maker / exact system and part / size and unit

Decor / texture / sheen / direction / edge and joint

Evidence document / issuer / reference and revision / date

Exact product and evidence scope / lot traceability

Sample coverage / actual approval date

Alternative / affected interfaces

Materials Hardware: main register at row 7; construction/finish at row 117; evidence/sample/traceability at row 227. Join the lower modules using Component Line ID. Do not use a hardware brand as the Schedule ID without its actual component list.

Equipment-interface worksheet

One Interface ID links equipment to a cabinet. Compare required net dimensions against available net dimensions in the same unit and controlling condition. A dimensional match is only one part of the review.

Interface ID / Cabinet ID / status

Equipment brand / full model / market version

Source document / source revision and date

Dimension unit / required net width, depth and height

Available net width, depth and height

Body dimensions / obstructions / available-size source

Ventilation or exhaust / utilities

Movement / service and removal / support or liner

Affected drawing / neighboring cabinet IDs

Decision Record ID / decision owner / decision date

Outstanding action / owner / due date

Equipment Interfaces: main dimensions at row 7; interface details and decision at row 117. The Decision Record ID must exist in Approvals Changes. Required action identifies missing information; the responsible reviewer still decides the complete interface.

Approval and change register

Record the decision separately from the proposed and implemented work. The workbook has four linked modules so that one approval status cannot conceal an unissued drawing, unpriced effect or unfinished recheck.

Record ID / source record / Cabinet ID / record type

Requested from / decision / decision person / date

Approved scope / conditions / unresolved items

Action owner / due / superseded record / release state

Old / proposed / released drawing revisions

Old / proposed / released material and Sample IDs

Affected components / reason / notified parties / date

Actual price effect / currency / agreed effect state

Delivery effect / units / start event / dependencies

Implementation reference / owner / date

Recheck evidence / outcome / person / date

Closure state / actual closed-by / date / replacement record

Approvals Changes: decision row 7; versions row 117; commercial/delivery effects row 227; implementation/recheck/closure row 337. Link every module by Record ID. Required action prompts missing evidence; it is not an independent technical or contractual approval.

Packing and receipt register

One Packing Line ID identifies a component allocation to a shipment/carton. Record each receipt as its own Receipt Event ID. This preserves partial deliveries and separates unshipped quantities from a possible transit discrepancy.

Packing Line ID / Cabinet ID / Component ID and revision

Component Line ID / Shipment ID / Carton ID

Count unit / ordered allocation / packed quantity

Received total / not shipped / packed-minus-received gap

Confirmed shortage / claim or adjustment reference

Receipt Event ID / Packing Line ID / actual received count

Receipt date / receiver / location / receipt stage

Package condition / damage check / description / images

Inspection date / inspector / claim-action reference

Action owner / agreed action / due / replacement line

Recheck evidence / outcome / person / date

Closure status / actual closed-by / closure date

Packing Receipt: ordered/packed lines at row 7; receipt events at row 117; issue/replacement/recheck/closure at row 227. A gap during partial receipt is not automatically a confirmed shortage. The claim, inspection and closure records establish the actual disposition.

Terms used in the purchasing record

Term	Meaning in this white paper
Assembly	The related parts and connections being supplied or evaluated together.
Cabinet ID	A stable reference connecting a unit to drawings, scope, checks and cartons.
Carcass / cabinet box	The cabinet body; its sides, top/bottom, back and joints require their own specification.
Clear opening	Usable unobstructed space in the stated condition, after relevant hardware and other parts.
Datum	The reference surface or line from which a dimension is taken.
Exposed end	A visible cabinet-side/finish piece whose appearance and construction are specified.
Filler / scribe	A piece resolving the intended junction with adjacent construction; its allowance and finish need definition.
Front	The door or drawer-facing assembly, including its construction and finish.
Overlay / inset	The front relationship to the cabinet opening, which affects hinge and movement selection.
Release	Authorization for a specifically identified scope to proceed using named records.
Sample reference	The identified approved appearance/material reference and its scope.
Superseded	A retained earlier record replaced for the stated scope by a newer identified record.
Traceability	The links between the product/component, its evidence, the order and the delivered items.

Terms can be used differently in a supplier quotation. Reconcile them to the actual assembly, measurement convention and order scope before comparison.

Sources and reading notes

1. GEORGE Cabinetry: Traditional White Kitchen Cabinets PVC with HDF-GK-002

Open original source | georgecabinetry.com

Component-material reference. The source does not identify all construction details or establish NOVARMIA order terms.

2. GEORGE Cabinetry: Modern Kitchen UV Lacquer with Particle Board-GK-062

Open original source | georgecabinetry.com

Front material reference; coating appearance does not establish a universal performance value.

3. GEORGE Cabinetry: White wardrobe with drawers melamine with particle board-GW-023

Open original source | georgecabinetry.com

A wardrobe-family reference; no exact sliding system or net opening is established.

4. GEORGE Cabinetry: Washing machine cupboard melamine with particle board-GL-014

Open original source | georgecabinetry.com

A laundry-cabinet material reference, not a universal appliance opening.

5. GEORGE Group: Lebanon Private Villa Full House Building Materials Supply Case

Open original source | georgeconstuctiongroup.com

Source project attribution and installation-stage photographs. No handover, dimensions or test result inferred.

6. GeorgeBuildPro: Lebanon Villa Whole Home Project

Open original source | georgebuildpro.com

Supplementary project reference. Archive paths/dates are not treated as completion dates.

7. U.S. Environmental Protection Agency: Frequent Questions for Regulated Stakeholders about Implementing the Formaldehyde Standards for Composite Wood Products Act

Open original source | www.epa.gov

U.S. TSCA Title VI guidance. Applies to defined material/product and supply-chain roles; no specific supplied cabinet is certified here.

8. U.S. Environmental Protection Agency: EPA Finalizes Updates to Formaldehyde Emission Standards, Adds New Quality Control Test Method for Composite Wood Products

Open original source | www.epa.gov

October 23, 2026 announcement with prepublication final rule. This edition does not establish Federal Register publication or effective dates.

Sources and reading notes

9. Kitchen Cabinet Manufacturers Association: KCMA A161.1 Quality Cabinet Certification

Open original source | kcma.org

Public cabinet-certification program description. No claim that NOVARMIA or an identified supplied cabinet holds this certification.

10. Kitchen Cabinet Manufacturers Association: Proof Positive: KCMA Cabinet Certifications

Open original source | kcma.org

Public overview distinguishing cabinet certification programs; used for evidence categories, not inherited certification.

11. Architectural Woodwork Institute: Test Your Casework Construction Method

Open original source | awinet.org

Construction-method and core-material boundaries apply. Test loads are not normal-use loads.

12. U.S. Consumer Product Safety Commission: Clothing Storage Units

Open original source | www.cpsc.gov

Scope of the U.S. clothing-storage-unit rule. Its built-in exclusion is not an attachment design or an exemption for all movable furniture.

13. Blum EASY ASSEMBLY Blog / Julius Blum GmbH: CLIP top BLUMOTION Number of hinges

Open original source | ea.blum.com

Hinge-quantity selection depends on front conditions. No hinge count is prescribed for a NOVARMIA cabinet.

14. Blum: MOVENTO product details (U.S.) and MOVENTO range (U.K.)

Open original source (1) | www.blum.com

Open original source (U.K.) | www.blum.com

Different market/test terminology is preserved; no static-load value or carrying class is transferred to an assembled cabinet.

15. Hettich: Sliding door systems for inset door position

Open original source | shop.hettich.com

Selected system geometry and matching components govern. The source is not evidence that Hettich is included in a NOVARMIA order.

16. Whirlpool: Dimension Guide — Whirlpool Top Load Washer — W11753264A — WTW4100SW, WTW4105SW

Open original source | www.whirlpool.com

WTW4100SW/WTW4105SW top-load washer guide, W11753264A. It is not a dryer, stacking or universal laundry instruction.

Sources and reading notes

17. Wolf: Outdoor Gas Grill Built-In Liners; Combustible or Non-Combustible Surface Information

Open original source (1) | www.subzero-wolf.com

Open original source (2) | www.subzero-wolf.com

Apply the complete current model/liner instructions. A legacy 2011 manual with a different support description was excluded.

18. Kohler: Vanity Installation Instructions, 1470606-2-B (2022)

Open original source | techcomm.kohler.com

Distinguishes wall-hung from legged arrangements. Fixings, backing, dimensions and capacity remain specific to the selected installation.

19. Composite Panel Association: Thermally Fused Laminates (TFL)

Open original source | www.compositepanel.org

Decorative-paper/substrate construction and edge treatment. A surface name does not identify every core or edge assembly.

20. The Door Maker: Care & Maintenance

Open original source | tdm-thedoormaker.com

Thermofoil heat/steam discussion; its product temperature and warranty are not reused.

21. Denon: HEOS AVR: IR repeater

Open original source | manuals.denon.com

A separate remote-control receiver can address this model's blocked IR path. It does not resolve cabinet airflow or another model's installation conditions.

22. Liebherr: Undercounter Design Guide, Release 03/2021

Open original source | assets-cdn.liebherr.com

Historical model-specific example, including UPR 513/UB 501/UF 501/UR 500. Its dimensions and installation details are not generalized.

23. IPPC: Regulation of wood packaging material in international trade (ISPM 15)

Open original source | www.ippc.int

Defined raw-wood packaging scope, including dunnage and processed-material exclusions; destination implementation still requires review.

24. EGGER: Decorative Particleboards E1E05 TSCA P2

Open original source | www.egger.com

Named dry-interior product example; no supply relationship or transferable emissions/strength claim is established.

Sources and reading notes

25. EGGER: Decorative Particleboards E1E05 TSCA P3

Open original source | www.egger.com

Named humid-interior product example; not a blanket waterproof, exterior-use or structural specification.

26. EGGER: Decorative MDF E1E05 TSCA ST

Open original source | www.egger.com

Dry-interior MDF application, uniform surface and profileable edges. This evidence does not establish HDF or every MDF grade.

27. APA - The Engineered Wood Association: Plywood

Open original source | www.apawood.org

APA structural-panel classification example; bond durability is not a universal furniture-panel strength or decay-resistance rating.

28. Whirlpool: Getting the Best Drying Performance from a HybridCare Dryer; How does a Dryer Dry Clothing?

Open original source (1) | producthelp.whirlpool.com

Open original source (2) | producthelp.whirlpool.com

Distinguishes the named heat-pump recirculation from conventional outdoor exhaust. Each selected model still controls its enclosure.

29. Bosch: WTG86400UC Condensation Dryer: Specification Sheet (05/20)

Open original source | media3.bosch-home.com

Named condensation-dryer example requiring the specified enclosure airflow and compatible stacking arrangement. Dimensions and openings are not generalized.

Photography and publication record

1. George Group Foshan - Cabinetry display context

Cabinetry display published by GEORGE Group Foshan. Original image / Source page

2. George Group China - Cabinet measurement activity

Cabinet measurement shown in GEORGE Group China’s quality-assurance gallery. Original image / Source page

3. George Group China - Recording a cabinet check

A cabinet check being recorded in GEORGE Group China’s published gallery. Original image / Source page

4. George Group China - Package and label record

Package-label recording in GEORGE Group China’s warehousing gallery. Original image / Source page

5. GEORGE Group - Kitchen cabinetry and connected openings

Kitchen cabinetry in the GEORGE Lebanon villa fit-out record. Original image / Source page

6. GEORGE Group - Island cabinetry and worktop protection

Protective wrapping remained around the island cabinetry in the Lebanon fit-out photographs. Original image / Source page

7. GEORGE Group - Enclosed wardrobe with open shelving

Wardrobe fronts and an open shelf bay in the Lebanon villa installation record. Original image / Source page

8. GEORGE Group - Low fitted cabinetry and wall-panel interface

Low fitted cabinetry beside the bedroom wall finishes in the Lebanon villa record. Original image / Source page

Original writing, coordination diagrams and purchasing tools: NOVARMIA, 2026. Project photographs remain attributed to their published group sources. Calculations use stated teaching assumptions. Version 1.1, October 29, 2026.