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FIELD MANUAL · VOLUME 04

Panels. Pre-Wall. Standards.

Stone, wood and metal panel coordination for luxury residential construction. The template is the trade.

PREPARED FOR

Architects · Stone Fabricators · Millworkers · Framers · GCs · Owner's Reps

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MANIFESTO

The template is the trade.

Hold the line on paper before the stone is cut. Stone, wood and metal panel trim-outs succeed or fail before the first slab is laid. They succeed when the substrate behind the panel is matched to the panel material per ANSI A108 and AWI ANSI/AWI 0642, when back-blocking is continuous behind every device, when back-box depth is registered to the finished panel face — not the substrate face — and when the CAD template is signed and released before the first sheet is fabricated. They fail when any of those decisions slides downstream to the panel installer at trim-out — by then the saw has cut, the seam has set, and the bezel is fighting the cut-line on every device for the life of the wall.

Substrate-first by design: cement backerboard or Type X gypsum with a waterproof membrane behind stone, per ANSI A108 / A118; 3/4 in. CDX or moisture-stabilized MDF behind wood veneer per AWI ANSI/AWI 0642; an 18 mm aluminum honeycomb backer behind metal composite per the panel manufacturer. Wood-based substrate (particle, OSB, lauan, softwood ply) is explicitly disallowed behind stone and tile — the standards do not permit it and the Restrepo standard never asks. Back-boxes register to the finished panel face: Lutron Palladiom EBB-1-RD/SQ/3COL per AppNote #705, Crestron Cameo on MMK-G1-CBF-T or MMK-CBF-T mud rings, Crestron BB-5000 with the manufacturer template included as-is, Hubbell HBL869AMR adjustable mud rings where panel + substrate stack varies. Speakers behind panels — Sonance Invisible, Stealth Linea, Amina Mobius — register the bezel face to the finished panel face. Every panel has a substrate, a back-box, a template, and a cut-line — and every one of them is a framing-stage commitment.

HOW TO USE THIS MANUAL

Sections are numbered §01–§13. Each section opens with a kicker, explains the operating principle, lists the standards, and ends with field rules and inspection callouts. The speakers-behind-panels chapter (§10) is treated as its own discipline because back-box geometry, plaster-cure windows, and bezel registration behave differently from a keypad. The QC gate at the back of the manual matches the gate on the one-page reference card.

CALLOUT LEGEND

FIELD RULE	A non-negotiable rule applied on site, every job.

BEST PRACTICE	Restrepo standard above code minimum. Default unless waived in writing.
DO NOT	Defects we refuse to ship. Pull and rework, no exceptions.
INSPECTION	What the architect, designer, or owner's rep checks at QC.
NOTE	Context, citation, or product clarification.
SPECIFICATION	A number, tolerance, or model that must be matched exactly.

CONTENTS

Table of Contents

Five parts, thirteen sections, one QC gate. Linked to bookmarks in this PDF.

PART 1

Operating Principles

Sections 01–03 — pre-wall mindset, the substrate baseline, what we refuse

§ 01

Operating Principles

THE TEMPLATE IS THE TRADE

Stone, wood and metal panels are framing-stage decisions performed at finish. The substrate behind the panel, the back-blocking behind every device, the back-box depth registered to the finished panel face, and the CAD template that governs every cutout are committed when stud bays are open — before drywall, before panel fabrication, before the first sheet is cut. Field-cutting a panel to fit a back-box that landed late is a recovery move, not a method. There is no retrofit path that holds the same bezel-coverage tolerance as a properly templated cut.

Restrepo treats every panel run as a coordinated framing detail. The architect publishes the panel material, the elevation, and the device schedule. The framer sets blocking behind every device perimeter and confirms substrate compatibility per ANSI A108 or AWI ANSI/AWI 0642. The electrician pre-mounts back-boxes deeper than drywall to absorb panel build-up, registered to the finished panel face. The Restrepo CAD template is signed and released before the panel shop drawing. The panel fabricator cuts to the released template — no field improvisation. Only then does the panel installer's hand land on the substrate.

FIELD RULE

FIELD RULE — No retrofit cuts

Every panel cutout is committed at the released CAD template. We do not cut a finished panel to fit a back-box that landed late, and we do not field-relocate a back-box to fit a panel that was cut wrong. If the program changes after the template is released, the template is reissued in writing — the field never improvises the cut.

INSPECTION STANDARD

INSPECTION — Substrate walkthrough

Architect walks the substrate with the GC, the panel fabricator, and the Restrepo PM before any panel ships. Confirm substrate matches the panel material per ANSI A108 or AWI ANSI/AWI 0642, back-blocking is continuous behind every device perimeter, every back-box is fastened to stud and registered to the finished panel face, and the CAD template release log matches the shop drawing.

§ 02

Substrate by Panel Material — Restrepo Baseline

STONE, WOOD AND METAL EACH SET THEIR OWN SUBSTRATE

The substrate behind a panel is a panel-material decision, not a framing convenience. Stone (slab, large-format tile, dimension stone veneer) requires cement backerboard or Type X gypsum with a waterproof membrane per ANSI A108 / A118 — never bare drywall, never wood-based substrate. Wood veneer panels require 3/4 in. CDX or moisture-stabilized MDF per AWI ANSI/AWI 0642 — flat, dry, sealed before veneer fabrication. Metal composite panels (aluminum honeycomb, anodized) require an 18 mm aluminum honeycomb backer or stable substrate per the panel manufacturer, with substrate flat to ±1.0 mm per StoneSheets 044200.

Substrate flatness is the most critical pre-install factor. Lutron Palladiom AppNote #705 calls it out by name: substrate flatness drives whether the bezel face will land flush to the finished panel face. A 4 ft. straightedge across the substrate at three points across each panel opening is the Restrepo minimum check — out-of-plane greater than 1/8 in. in 6 ft. is rejected and re-skimmed before the panel template is signed.

BEST PRACTICE

BEST PRACTICE — Back-blocking continuous

Back-blocking is present and continuous behind every device cutout perimeter, not just at the corners. Substrate alone does not carry the torque a Crestron Cameo, Palladiom keypad, or Sonance Invisible back-box puts on the wall. Continuous blocking is the difference between a device that holds level for a decade and one that telegraphs as a hairline crack on every cycle.

DO NOT

DO NOT — Wood-based substrate behind stone

Particleboard, OSB, lauan, softwood plywood are explicitly disallowed behind stone slab, large-format tile, or dimension stone veneer per ANSI A108 / A118. We do not install stone over wood-based sheet goods even when 'it has worked before.' The industry standards do not permit it; the Restrepo standard does not ask.

§ 03

Without Written Direction — Do Not Default

VARIANCES LIVE ON PAPER, NOT ON THE WALL

Every panel project has variances — a substrate the architect spec'd off the manufacturer's recommendation, a back-box at a non-standard depth, a cut-line tolerance the fabricator wants loosened. The Restrepo standard accepts variances on paper, signed, with the design team's name on them. We do not accept variances by phone call, by site memo, or by 'the GC said it was fine.' Without written direction, the default is the published industry standard.

Hardibacker behind stone where Type X gyp + waterproof membrane was spec'd, marine ply behind veneer where stabilized MDF was spec'd, plaster-on-stone where back-blocking was spec'd — all are specifier-driven alternates that may be acceptable, but only when written into the panel shop drawing or a signed RFI response. A field substitution to fit a panel that landed wrong is not a variance — it is a defect.

FIELD RULE

FIELD RULE — Verbal is not a variance

If a variance is not on paper, it does not exist. The framer, the panel fabricator, the GC, and the Restrepo PM all work from the same released template. A change called in by phone is recorded as an RFI, answered in writing, logged against the template release, and only then released to the field.

NOTE

NOTE — Vol 02 still applies behind the stone

Class 2 SELV/PELV separation from line-voltage holds inside any back-box that lands behind a panel. Vol 02 (Electrical Rough-In) governs the wire path; Vol 04 governs the panel cut. Both apply, neither replaces the other.

PART 2

Substrate, Back-Box & Depth

Sections 04–06 — stone, wood and metal substrate, back-box geometry, mud-rings

§ 04

Stone — Substrate, Joints & Tolerance

CEMENT BACKERBOARD OR TYPE X GYP + MEMBRANE, ANSI A108

Stone slab, large-format tile, and dimension stone veneer install over cement backerboard or Type X gypsum with a waterproof membrane per ANSI A108 / A118. The Marble Institute Dimension Stone Design Manual is the authoritative reference for cut-line tolerance, joint width, and substrate compatibility. Cut-line tolerance for natural stone slab and large-format tile is ±1/16 in. (1.6 mm) — held at the saw, not at the wall.

Stone tile field cuts are kept ≥ 1 full course off any device cutout perimeter to eliminate sliver-cut grout joints adjacent to bezels. Dimension stone veneer over cement backerboard is the Restrepo default behind a Crestron Cameo or Palladiom keypad in a stone wall — the cement backerboard takes the back-box torque, the membrane takes the moisture, the stone takes the finish.

SPECIFICATION

SPECIFICATION — Stone cut-line tolerance

±1/16 in. (1.6 mm) per Marble Institute Dimension Stone Design Manual on natural stone slab and large-format tile. Held at the saw. Bezel coverage is dimensioned against this tolerance — if the bezel does not cover ±1/16 in. on every side of the device family, reissue the template before the run is fabricated.

INSPECTION STANDARD

INSPECTION — Substrate face plane

Stand a 4 ft. straightedge across the cement backerboard or Type X gyp at three points across each panel opening. Out-of-plane greater than 1/8 in. in 6 ft. is rejected and re-skimmed before the panel template is signed. Out-of-plane substrate telegraphs as a rocking panel on every cycle.

§ 05

Wood Veneer — Substrate & Cut-Line

3/4 IN. CDX OR STABILIZED MDF, AWI ANSI/AWI 0642

Wood veneer panels (sliced veneer over MDF or CDX core) install per AWI ANSI/AWI 0642 — the Architectural Woodwork Standards custom-grade reference for substrate, veneer, cut-line, and finish tolerance. Substrate is 3/4 in. CDX plywood or moisture-stabilized MDF, flat, dry, and sanded off before veneer fabrication. Cut-line tolerance on visible cutouts is ±1/32 in. (0.8 mm); book-match and slip-match panels are held tighter where the seam reads against the cut.

Wood veneer panels are book-matched and slip-matched against an elevation drawing. The Restrepo template overlay flags any device cutout that lands within 1 in. of a seam, miter, or book-match centerline. The panel layout is reissued — not the device location — when the conflict is identified at shop-drawing review. Sliver cuts adjacent to grain reversals telegraph as a permanent visual defect; the standard rejects them at the saw.

BEST PRACTICE

BEST PRACTICE — Pre-stabilize MDF in HVAC envelope

Moisture-stabilized MDF is conditioned to the building's HVAC envelope for 72 hours minimum before veneer fabrication. Panels installed into a different humidity than the substrate was stabilized in will telegraph the moisture differential as a cup or a crown on every cycle.

SPECIFICATION

SPECIFICATION — Wood veneer cut-line tolerance

±1/32 in. (0.8 mm) on visible cutouts per AWI ANSI/AWI 0642 custom grade. Book-match and slip-match panels held tighter where the seam reads against the cut. First-panel inspection signed before the run continues.

§ 06

Metal Composite — Substrate & Cut-Line

ALUMINUM HONEYCOMB BACKER, ±0.5 MM AT THE BEZEL

Metal composite panels (aluminum honeycomb, anodized aluminum, stainless composite) install over an 18 mm aluminum honeycomb backer or stable substrate per the panel manufacturer. Substrate is flat to ±1.0 mm per StoneSheets 044200 spec. Panel dimensional tolerance per the manufacturer spec is width ±1.0 mm, length ±2.0 mm, thickness ±0.2 mm. Cutout tolerance at the bezel line is ±0.5 mm — the tightest of the three panel materials.

Metal composite panels are CNC-cut from the released CAD template — no field cuts, no shop-routed against the released template, no jobsite trim. Cuts are made at the fabricator with a programmed tool path against the manufacturer template that is included as-is on the shop drawing. Field deviations require written authorization before the cut is made.

DO NOT

DO NOT — Field-cut metal composite

Field-cutting an aluminum honeycomb panel to fit a back-box that landed late will not hold the manufacturer's cut-line tolerance, will not hold the bezel coverage spec, and will not hold the warranty. If the back-box is wrong, the back-box is reissued — not the panel.

INSPECTION STANDARD

INSPECTION — Cut-out tolerance at the bezel line

±0.5 mm (0.020 in.) at the bezel line. Dry-fit a sample bezel + mud-ring against the released CAD template before the first panel ships. If the bezel does not cover the cut-line by full coverage on every side, reissue the template.

PART 3

Template & Cut-Line

Section 07–09 — CAD template release, cut-line tolerance, seam coordination

§ 07

Back-Box Geometry & Depth

DEVICES REGISTER TO THE FINISHED PANEL FACE

Devices register to the finished panel face, not the substrate face. The back-box is set deeper than drywall to absorb panel build-up; the mud-ring is matched to the device family; the depth is verified against the published manufacturer table before any panel ships. Lutron Palladiom international uses the EBB-1-RD (round), EBB-1-SQ (square), or EBB-1-3COL (3-column) pre-drywall back-box per AppNote #705, with a minimum wallboard depth of 25 mm (1 in.).

Crestron Cameo mounts via drywall spring-clamp (no back-box) or 1-gang with the MMK-G1-CBF-T mud ring — the Restrepo preferred mount where panel build-up creates an irregular cutout. Crestron Cameo 2 and Horizon keypads use the MMK-CBF-T adjustable mud ring per the Cameo 2 install. Crestron BB-5000 lectern/wall back-box mounts pre-drywall, fastened to stud or supplied template. The Hubbell HBL869AMR adjustable mud ring (1/2 in. – 1-3/8 in.) is the Restrepo standard where panel + substrate stack varies inch-to-inch across a project.

SPECIFICATION

SPECIFICATION — Palladiom international back-box

Lutron Palladiom keypad international: EBB-1-RD (round), EBB-1-SQ (square), or EBB-1-3COL (3-column gang). Minimum wallboard depth 25 mm (1 in.) per AppNote #705. Substrate flatness called out as the most critical pre-install factor in the AppNote.

FIELD RULE

FIELD RULE — Depth gauge before template signs

With substrate complete and before any panel template is signed, register a depth gauge or scrap of the panel build-up against every back-box. If the device face will not land flush within bezel coverage, re-shim the back-box — never trim the bezel to fit.

§ 08

CAD Template Release & Cut-Line Tolerance

THE TEMPLATE IS THE TRADE

Restrepo issues a CAD template package per project covering every device cutout, every penetration, every blocking note, and every back-box depth before the panel shop drawing is released for fabrication. Templates are dimensioned from two reference edges per opening — never from a centerline alone — to eliminate rotational drift on rectangular cutouts (Crestron BB-5000, Cameo, Palladiom EBB-1-3COL). The manufacturer template (BB-5000, MMK-G1-CBF-T, Palladiom EBB-1-3COL) is included as-is on the shop drawing — not photocopied, not redrawn.

The template release log captures file name, revision, date, and recipient — kept in the project record. Every template change reissues the log entry. Field deviations from the released template require written authorization before the cut is made; verbal field changes are not authorized cuts. Cut-line tolerance is dimensioned from the substrate to the panel face and held by panel material: stone ±1/16 in., wood veneer ±1/32 in., metal composite ±0.5 mm.

BEST PRACTICE

BEST PRACTICE — First-panel inspection signed

On every run, the first panel installed is walked, photographed, and signed before the run continues. Damaged or out-of-tolerance cuts are replaced from the spare archive — never field-patched. The signed first-panel record lives in the project closeout.

INSPECTION STANDARD

INSPECTION — Bezel coverage dry-fit

Before the first panel ships, dry-fit a sample bezel + mud-ring against the released CAD template. If the bezel does not cover the cut-line by full coverage on every side, the cut is too loose for the chosen device family. Reissue the template before the run is fabricated.

§ 09

Seam, Joint & Symmetry Coordination

DEVICES LAND IN THE FIELD OF A PANEL — NEVER ON A SEAM

Devices never land in the field of a panel where they will read against a vertical seam, a horizontal break, or a book-match centerline. The panel layout reviewed against device location is a Restrepo template overlay flagging seam conflicts at the shop-drawing review — not at the wall. Multi-device gangs (paired keypads, gang of three Palladiom) are sized to a single panel face — never split across a seam, even where geometry permits.

The symmetry rule: if two devices flank a centerline, both land on identically book-matched panel pairs, dimensioned from the centerline outward. Wall-niche / hot-spot devices (intercom, thermostat, scene panel) land on the visually quiet panel — not on the focal book-match or slab feature. Stone tile field cuts kept ≥ 1 full course off any device cutout perimeter eliminate sliver-cut grout joints adjacent to bezels.

FIELD RULE

FIELD RULE — Chalk the elevation flat

Before the first panel hangs, lay the elevation flat in chalk on the substrate. Trace every device location and every panel seam. If any device falls within 1 in. of a seam, miter, or book-match centerline, reissue the panel layout — not the device location.

DO NOT

DO NOT — Split a multi-device gang across a seam

A gang of three Palladiom keypads, a paired Cameo, or a four-up Horizon never splits across a vertical seam or horizontal break. If the panel layout cannot accommodate the gang on a single panel face, the panel layout is reissued. The device is not respaced to fit the panel.

PART 4

Speakers, HVAC & Inspection

Sections 10–11 — invisible speakers behind panels, HVAC trim, substrate inspection

§ 10

Invisible Speakers Behind Panels

SONANCE, STEALTH, AMINA — BEZEL FACE TO PANEL FACE

Invisible speakers behind stone, veneer, or metal composite panels are a discipline of their own. Sonance Invisible Series uses a DISC depth gauge (SKU 93491) loaned to the finish trade for plaster or veneer thickness validation; back-boxes register the bezel face to the finished panel face. Stealth Linea Response and Linea Radiance use Stealth-specified back-boxes and mud widths. Amina Mobius IB and edge-mount invisibles use back-box CV345 with perimeter shim alignment 2–3 mm against the finished panel face.

Behind stone, the speaker mounts on a direct-surface or sound-isolating enclosure with an air-gap chamber per the manufacturer install — not direct-mount to a hard stone slab without an enclosure. Speaker grilles install ≥ 14 days after final paint cure. Spare grilles ≥ 5% of each type at closeout. The Vol 08 Invisible Speakers manual is the governing reference; Vol 04 governs the panel cut and the back-box geometry behind the speaker.

SPECIFICATION

SPECIFICATION — Sonance DISC depth gauge

Sonance DISC depth gauge (SKU 93491) loaned to the finish trade for plaster or veneer thickness validation behind every Invisible Series speaker. The bezel face is registered to the finished panel face per the Invisible Series Install Manual.

FIELD RULE

FIELD RULE — Speaker grilles after paint cure

Speaker grilles install ≥ 14 days after final paint cure on every Restrepo project, every panel material. Spare grilles delivered ≥ 5% of each type at closeout. The cure window is committed in writing before any grille hangs.

§ 11

HVAC, Sprinkler & Substrate Inspection

TRIM PACKAGE PRECEDES PANEL INSTALL

HVAC trim diffusers (linear bar, square diffuser, slot) coordinate on the same panel template package as AV devices — single template per panel. Sprinkler escutcheons are centered to panel field, never on a seam; cover plate diameter held on the template, not field-cut. Smoke / CO detector centerlines pulled to symmetry with adjacent AV devices where ceiling panel run is decorative — coordinated on the reflected ceiling template, not the field.

Substrate inspection before panel install closes the wall: substrate face plane checked with a 6 ft. straightedge, out-of-plane > 1/8 in. in 6 ft. rejected and re-skimmed before panel mount. Back-blocking present, fastened to studs, and continuous around every device cutout perimeter. Back-box face dimension confirmed against panel build-up: deep stone takes deeper boxes; veneer wood takes shallow. Substrate moisture content confirmed dry per panel manufacturer (especially veneer wood, AWI ANSI/AWI 0642 dry-fit window) before adhesive or fastener. Photographs of every substrate opening captured, dated, and filed before panel install closes the wall.

SPECIFICATION

SPECIFICATION — Class 2 SELV/PELV behind panels

Class 2 SELV/PELV separation from line-voltage maintained inside any back-box that lands behind a panel — Vol 02 (Electrical Rough-In) still applies behind the stone. Both volumes apply; neither replaces the other.

INSPECTION STANDARD

INSPECTION — Photograph every opening

Photographs of every substrate opening — back-blocking, back-box, depth, stud-fastening — are captured, dated, and filed in the project record before panel install closes the wall. Required for closeout, required for warranty.

PART 5

Coordination & Closeout

Sections 12–13 — panel install, bezel registration, panel-stage QC, spares

§ 12

Panel Install Coordination & Bezel Trim-Out

STONE, WOOD AND METAL — FIRST-PANEL INSPECTION SIGNED

Stone panels: thin-set bed per ANSI A108.1A/B, full perimeter coverage at every cutout — no voids around cutouts, no defects. Wood veneer: adhesive + concealed mechanical per AWI ANSI/AWI 0642 — no nails, no pins, no knots around cutouts. Metal composite: rivet pattern per panel maker; rivets stay 25 mm minimum off device perimeter.

First-panel inspection on every run: one panel installed, walked, signed — every project, every panel material. Damaged cuts replaced from spare archive, not field-patched. Out-of-tolerance bezel cutouts are scrap. Bezel registers to the panel face — not the substrate; mud ring or back-box buried below panel face per the bezel coverage tolerance. Engineered-flush bezels (Vol 07) require panel cut-line within ±1/64 in. of the bezel face dimension. Skim-coat or plaster touch-up held to the bezel-face line — no compound on bezel face, no panel scuffing. Flatness check: straightedge across bezel and adjacent panel — gap > 0.5 mm rejected, mud ring re-shimmed. Capacitive keypads (Basalte, Palladiom) checked for back-of-device air-gap maintenance.

BEST PRACTICE

BEST PRACTICE — Bezel face flush within coverage

Bezel face flush to panel face within the device family's bezel coverage tolerance. Engineered-flush bezels (Vol 07) require ±1/64 in. The check is straightedge across bezel and adjacent panel — gap greater than 0.5 mm is rejected and the mud ring re-shimmed.

DO NOT

DO NOT — Compound on bezel face

Plaster, joint compound, or skim-coat material on the bezel face is a defect. The skim-coat or plaster touch-up is held to the bezel-face line, not over it. Compound on bezel face requires bezel replacement from the spare archive — not field cleaning.

§ 13

Panel-Stage QC, Spares & Closeout

5% SPARES, SIGNED CAD TEMPLATE ARCHIVE

Panel-stage QC closes the loop. Substrate confirmed against panel material spec. Back-blocking continuous behind every device cutout. Back-box depth and mud-ring registered to finished panel face. CAD template signed and released before panel fabrication. Cut-line tolerance held per panel material spec. No device cutouts on panel seams, miters, or book-match centerlines. First-panel inspection signed before the run continues. Bezel face flush to panel face within bezel coverage tolerance. 5% spare panels and signed template archive at closeout. Substrate, cutout, and bezel photos filed in the project record.

Spare panels are held at ≥ 5% of each panel material at closeout — one panel from each book-match or slab batch, held for warranty. The signed CAD template archive lives in the project closeout package alongside the substrate inspection photos, the back-box depth log, the first-panel inspection signature, and the bezel coverage check. The owner walkthrough demonstrates the spare archive and the template release log.

INSPECTION STANDARD

INSPECTION — Closeout package

Closeout: 5% spare panels of each material; one panel from each book-match or slab batch; signed CAD template archive; substrate inspection photo log; back-box depth log; first-panel inspection signature; bezel coverage check on every device. Owner walkthrough demonstrates every item before turnover.

FIELD RULE

FIELD RULE — Walk the run, then release

Walk the first installed panel on every run end-to-end before the run continues. If any cut bleeds outside bezel coverage, any seam reads against a device, or any panel rocks on its substrate, do not release the run — reset the template, debug, and re-test before the wall closes.

QC GATE

Verify Before Close-In

Same gate as the one-page reference card. Walked at framing, at rock, and at the first-panel inspection on every run.

- [ ] VERIFY Substrate matched to panel material spec (ANSI A108 / AWI ANSI/AWI 0642)
- [ ] VERIFY Back-blocking continuous behind every device cutout perimeter
- [ ] VERIFY Back-box depth and mud-ring registered to finished panel face
- [ ] VERIFY CAD template signed and released before panel fabrication
- [ ] VERIFY Cut-line tolerance held per panel material (stone ±1/16 in., wood ±1/32 in., metal ±0.5 mm)
- [ ] ABSENT No device cutouts on panel seams, miters, or book-match centerlines
- [ ] VERIFY First-panel inspection signed before run continues
- [ ] VERIFY Bezel face flush to panel face within bezel coverage tolerance
- [ ] VERIFY 5% spare panels and signed CAD template archive at closeout
- [ ] VERIFY Substrate, cutout, and bezel photos filed in project record

CITATIONS & FURTHER READING

Standards & Manufacturer References

Marble Institute — Dimension Stone Design Manual (2022)

Authoritative reference for cut-line tolerance, substrate compatibility, and stone panel installation.

https://marble-institute.com/dimension-stone-design-manual/

ANSI A108 / A118 — Stone & Tile Installation

American National Standard for installation of ceramic tile and stone over backerboard, gypsum, and membrane assemblies.

https://www.tcnatile.com/ansi-standards/

Architectural Woodwork Standards (AWS) — Section 4 (AWI ANSI/AWI 0642)

AWI custom architectural woodwork standard — substrate, veneer, cut-line, finish tolerance.

https://awinet.org/standards/aws-section-4/

CSI — Thin Stone Veneer Installation Guidelines

Industry reference for thin-set stone veneer over masonry and gypsum substrates.

https://www.csiresources.org/standards/thin-stone-veneer-guidelines

Natural Stone Council — Installation General Reference

NSC general reference for stone slab and tile installation, joints, and tolerances.

https://www.naturalstoneinstitute.org/installation/

StoneSheets — Spec Sheet 044200

Lightweight stone composite panel — substrate flatness, cut tolerance, fastening guidance.

https://stonesheets.com/spec-044200.pdf

Lutron — Palladiom Keypad International (App Note #705)

Palladiom international back-box (EBB-1-RD/SQ/3COL) — minimum wallboard depth, substrate flatness.

https://www.lutron.com/TechnicalDocumentLibrary/AppNote705.pdf

Lutron — Palladiom Keypad Install (041496)

Palladiom keypad install guide — mounting, fastening, depth registration.

https://www.lutron.com/TechnicalDocumentLibrary/041496.pdf

Crestron — BB-5000 Back-Box Install

Pre-drywall back-box install — fastening, manufacturer template, depth tables.

https://www.crestron.com/getmedia/bb5000-install.pdf

Crestron — Cutout Dimensions & Mounting Guide

Crestron device cutout dimensions and mounting depth tables across product families.

https://www.crestron.com/getmedia/cutout-dimensions.pdf

Crestron — MMK-G1-CBF-T Mud Ring (Cameo 1)

Cameo 1 mud ring — cut-line, fastening, finish coverage.

https://www.crestron.com/getmedia/mmk-g1-cbf-t.pdf

Crestron — MMK-CBF-T Mud Ring (Cameo 2 / Horizon)

Cameo 2 / Horizon adjustable mud ring — mounting, finish coverage.

https://www.crestron.com/getmedia/mmk-cbf-t.pdf

Hubbell — HBL869AMR Adjustable Mud Ring

1/2 in. – 1-3/8 in. adjustable mud ring — the Restrepo standard for variable substrate stack.

https://www.hubbell.com/wiringdevice-kellems/en/Products/Electrical-Electronic/Wallplates-Boxes/Mounting-Brackets/HBL869AMR

Sonance — Invisible Series Install Manual

Invisible Series back-box, depth gauge (SKU 93491), substrate registration behind plaster or veneer.

https://www.sonance.com/manuals/invisible-series-install.pdf

Stealth — Linea Response Quickstart

Stealth Linea Response invisible speaker — back-box, mud width, veneer registration.

https://stealthacoustics.com/manuals/linea-response-quickstart.pdf

Amina — Speaker Handbook v4.5

Amina invisible speaker handbook — substrate, back-box CV345, perimeter shim alignment.

https://www.amina.co.uk/handbook-v4-5.pdf

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One standard.
One execution.

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