



Prefabricated X-LAM timber structures

Technical guide

Illustrated Technical Guide

X-LAM Walls

X-LAM (CLT) construction system, building envelope, construction details, specifications, inspections and catalog of public case studies

IN-DEPTH WORKING EDITION – 27 October 2026

Basis: 14 attached PDF documents, covering the G. Marconi school, the Polo Dinamico in Bologna and the Tassoni school.

WARNING: individual project data are presented as case studies, not as generally applicable designs. Standard specifications must be completed for the specific project and checked against the applicable regulatory framework.

English translation of the Italian original, provided for information. Italian legal references are quoted in their original form; in case of doubt the Italian text prevails.



Also available online at www.xlam.com/en/clt-technical-guide.html

Contents

Introduction, method and reading criteria

Provenance legend

Overview of available sources

Part I – Analytical technical sheets

1. Overview of the structural system
2. Structural material and panel composition
3. Identification, traceability and material control
4. External wall build-up
5. Internal lining walls and finishes
6. Hygrothermal performance and air-tightness
7. Wall acoustics
8. Fire resistance and reaction to fire
9. Base connection, plinth and moisture
10. Timber-to-foundation connections: tension and shear
11. Wall-to-wall connections
12. Wall-to-floor and floor-to-floor connections
13. Glulam beam to X-LAM wall connection
14. Steel elements and protection
15. Erection tolerances and prefabrication
16. Logistics, storage, lifting and safety
17. Windows, doors and thresholds
18. Roof and parapet
19. Service penetrations and openings

20. Acceptance testing, inspections and maintenance

Part II – Catalog of construction details and checks

- N01 – Wall bearing on foundation
- N02 – Hold-down against uplift
- N03 – Angle brackets/shear at the base
- N04 – In-line wall-to-wall joint
- N05 – Corner wall-to-wall joint
- N06 – T-joint
- N07 – Floor-to-wall connection
- N08 – Floor panel joint
- N09 – Floor bearing on beam
- N10 – Beam-to-wall, orthogonal
- N11 – Beam-to-wall, parallel
- N12 – Window/door base connection
- N13 – Perimeter base protection
- N14 – Roof and parapet
- N15 – Window reveal/ETICS
- N16 – Building services interferences

Part III – Dimensional examples and limits of transferability

Part IV – Checklist for designer, contractor and DL

Part V – Legal and technical references and time-related caution

Introduction, method and reading criteria

This guide combines descriptive specifications derived from the reports, specific data from the drawings and editorial recommendations. Dimensions in mm, hardware codes and performance values refer solely to the project cited. No new structural, fire or hygrothermal verifications are performed in this guide.

Provenance legend

Marking	Meaning
DESIGN DATA	An explicit specification in the attached drawings or reports.
TECHNICAL CRITERION	A design implication or proposed check, not a verbatim statement of the source.
TO BE DEFINED	Data requiring specification and design verification for the individual project.

Overview of available sources

Code	Document and location
AR1B	Marconi, architectural report AR1B, pp. 8–12
A09A	Marconi, wall schedule A09A, single sheet
A11B	Marconi, details booklet A11B, pp. 2–9
SR1B	Marconi, structural report SR1B, pp. 2–9
SR2A	Marconi, materials report SR2A, pp. 2–4 (subsequent commercial attachments separate)
S07B	Marconi, foundations S07B, single sheet
S08A	Marconi, panel list S08A, single sheet
S09A	Marconi, panel list S09A, single sheet
S10A	Marconi, structural details S10A, single sheet
S11A	Marconi, structural details S11A, single sheet
B003	Bologna, Polo Dinamico ST-D 03, single sheet
B004	Bologna, Polo Dinamico ST-D 04, single sheet
B005	Bologna, Polo Dinamico ST-D 05, single sheet
TAS	Castelfranco Emilia, Tassoni school, CSA 2014 (Italian special tender specifications), arts. 43–49, pp. 41–53

Part I – Analytical technical sheets

1. Overview of the structural system

DATA VERIFIED IN THE DOCUMENTS

The cross-laminated solid timber panel system can perform load-bearing and bracing functions, with a behavior that depends on layer orientation, openings and, above all, the design of the connections. The Marconi school is a single-storey building with load-bearing shear walls and X-LAM floors bearing on glulam beams; the Polo Dinamico in Bologna instead shows a distribution of walls across several structural units.

IMPLICATIONS FOR DESIGN AND CONTROL

Do not automatically treat load-bearing walls, infill walls and panels with a bracing-only function as equivalent: floor plans and structural calculation reports define their roles.

Sources: Marconi, structural report SR1B, pp. 2–9; Bologna, Polo Dinamico ST-D 03, single sheet; Bologna, Polo Dinamico ST-D 04, single sheet; Bologna, Polo Dinamico ST-D 05, single sheet

2. Structural material and panel composition

DATA VERIFIED IN THE DOCUMENTS

In the Marconi case, the materials report specifies 120 mm cross-laminated glued board panels in three layers 40+40+40, C24 timber according to UNI EN 338, as well as GL24h glued laminated timber. Panel lists S08A and S09A show panels identified by M. codes and located along the design gridlines. The Polo Dinamico specifies 16 cm X-LAM panels: this is an example of a different design solution, not a minimum requirement.

IMPLICATIONS FOR DESIGN AND CONTROL

Specify geometry, lay-up, material class, declared product performance, orientations, CNC machining, openings, tolerances, joints and the performance required by the calculations, without always prescribing 12 or 16 cm.

Sources: Marconi, materials report SR2A, pp. 2–4 (subsequent commercial attachments separate); Marconi, panel list S08A, single sheet; Marconi, panel list S09A, single sheet; Bologna, Polo Dinamico ST-D 03, single sheet

3. Identification, traceability and material control

DATA VERIFIED IN THE DOCUMENTS

SR2A refers to qualification in accordance with NTC 2018 (Italian technical standards for construction) and to marking or appropriate equivalent documentation. The Bologna drawings include documentation requirements concerning CE marking, ETA/EOTA and PEFC: these wordings, dating from the time of the project, must be checked against current regulations and linked to the actual qualification route of the product.

IMPLICATIONS FOR DESIGN AND CONTROL

For each panel, verify manufacturer, batch, intended use, technical assessment document where relevant, declaration of performance and correspondence with the erection schedule. Do not assume that every CLT panel is always covered by a harmonized standard.

Sources: Marconi, materials report SR2A, pp. 2–4 (subsequent commercial attachments separate); Bologna, Polo Dinamico ST-D 03, single sheet; Bologna, Polo Dinamico ST-D 04, single sheet; Bologna, Polo Dinamico ST-D 05, single sheet

4. External wall build-up

DATA VERIFIED IN THE DOCUMENTS

For some E1/E2 walls, the Marconi schedule specifies a 12 cm X-LAM shear wall with an external thermal insulation composite system (ETICS) made of dual-density rock wool boards, 14 cm thick, with a stated λ of 0.035 W/(m·K), reaction-to-fire class A1 for the insulation, mechanical fixings, adhesive/base coat and silicone finish. Specific reveal details with 4 cm high-density insulation are provided. Variants with 10 cm and 5 cm thickness exist for specific areas and are to be read on the schedule.

IMPLICATIONS FOR DESIGN AND CONTROL

Define the insulation build-up as a verified system (compatibility, anchors suitable for timber substrates, wind resistance, details at reveals, base zone, joints, water). Avoid mandating a brand named in the historical project.

Sources: Marconi, wall schedule A09A, single sheet; Marconi, architectural report AR1B, pp. 8–12

Conceptual section of external wall

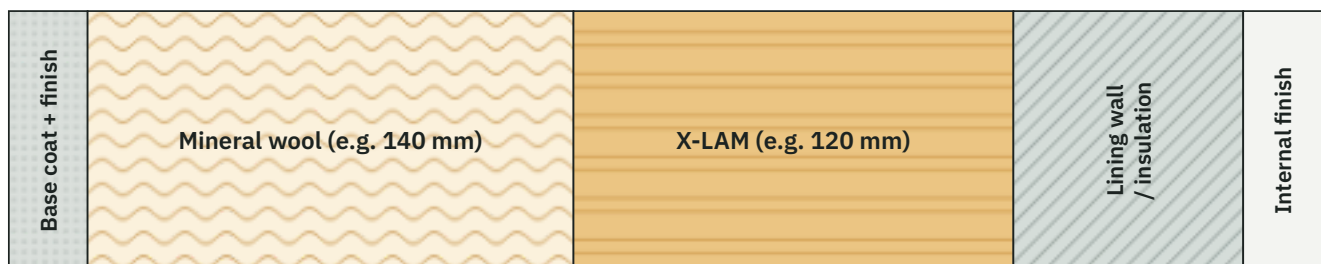


Figure 1. Not to scale: example of wall family E1, from schedule A09A.

5. Internal lining walls and finishes

DATA VERIFIED IN THE DOCUMENTS

Schedule A09A and report AR1B document lining walls on metal stud framing with mineral insulation boards, dry-lining boards and impact-resistant paints. The school is described as having non-load-bearing self-supporting internal partitions with double boards on each side and insulation infill. The finishes are related to the school uses of the spaces.

IMPLICATIONS FOR DESIGN AND CONTROL

Finishes must meet acoustic, fire, impact, building services, moisture and maintenance requirements; the structural panel must not be drilled arbitrarily for installations.

Sources: Marconi, architectural report AR1B, pp. 8–12; Marconi, wall schedule A09A, single sheet

6. Hygrothermal performance and air-tightness

DATA VERIFIED IN THE DOCUMENTS

The X-LAM panel and the ETICS form a layered system: performance must be verified on the whole build-up and at the junctions. Interruptions of waterproofing and air-tightness at joints, anchorages, windows/doors and service penetrations are a critical point.

IMPLICATIONS FOR DESIGN AND CONTROL

Design the continuity of the air-tightness layer, hygrothermal verification according to site conditions, vapor management and control of thermal bridges; do not report U or Sd values not contained in the sources.

Sources: Marconi, wall schedule A09A, single sheet; Marconi, details booklet A11B, pp. 2–9; Marconi, architectural report AR1B, pp. 8–12

7. Wall acoustics

DATA VERIFIED IN THE DOCUMENTS

The schedule shows at least one wall with a stated minimum sound reduction index R_w of 62 dB, in the context of the project schedule: this is not equivalent to a guaranteed performance for every X-LAM wall. Junctions, lining walls and penetrations can reduce in-situ performance.

IMPLICATIONS FOR DESIGN AND CONTROL

Distinguish between the laboratory performance of the system and the passive acoustic requirements in situ, including joints, acoustic decoupling layers and building services.

Sources: Marconi, wall schedule A09A, single sheet; Marconi, structural details S11A, single sheet

8. Fire resistance and reaction to fire

DATA VERIFIED IN THE DOCUMENTS

In the Marconi schedule, the rock wool ETICS is stated as Euroclass A1; the reaction-to-fire performance of the insulation does not by itself demonstrate the fire resistance of the composite wall. Lining walls and protective layers may be essential components of the required performance.

IMPLICATIONS FOR DESIGN AND CONTROL

Require a fire safety design, a classification of the wall or an accepted verification method, continuity of protective layers and sealing of penetrations; assess charring and connections.

Sources: Marconi, wall schedule A09A, single sheet; Marconi, architectural report AR1B, pp. 8–12

9. Base connection, plinth and moisture

DATA VERIFIED IN THE DOCUMENTS

AR1B describes a 30×18 cm plinth topped by a ventilated sill to keep the timber away from moisture. In the base connection details, A11B shows a waterproofing membrane turned up onto the X-LAM panel to a minimum height of 30 cm. The solution is project-specific and must be verified for thermal bridges and service conditions.

IMPLICATIONS FOR DESIGN AND CONTROL

Provide a capillary break, drainage, separation from the ground, continuity with thresholds and ETICS, mechanical protection of membranes and accessibility for inspection.

Sources: Marconi, architectural report AR1B, pp. 8–12; Marconi, details booklet A11B, pp. 2–9; Marconi, foundations S07B, single sheet

Wall-to-foundation node



Figure 2. Simplified functional diagram: S07B + A11B, no construction dimensions.

10. Timber-to-foundation connections: tension and shear

DATA VERIFIED IN THE DOCUMENTS

S07B shows separate tension and shear anchorages; for the tension node it specifies an HD1 130×340 mm hold-down, 24 LBA Ø4×60 nails, M16 8.8 rod, 17 mm hole and 400 mm anchorage; distance from the wall end 15 cm. For shear anchors, families B1–B4 are described, with the number of nails and rods linked to the panel length. These are design examples only.

IMPLICATIONS FOR DESIGN AND CONTROL

Size the anchorage and its support according to actions, distances, effective depths, concrete cracking, seismic action, installation conditions and the anchor technical data sheets; survey the actual position of the reinforcing bars.

Sources: Marconi, foundations S07B, single sheet; Marconi, materials report SR2A, pp. 2–4 (subsequent commercial attachments separate)

11. Wall-to-wall connections

DATA VERIFIED IN THE DOCUMENTS

S11A shows details for in-line, corner and T-joints. For one of the solutions drawn, pairs of VGZ 9×160 screws at 150 mm spacing are specified; other connections use 9×240 with specific spacings. The drawings distinguish plan and elevation to highlight the axes and orientation of the elements.

IMPLICATIONS FOR DESIGN AND CONTROL

Design the transfer of shear, tension and rotation and deformation compatibility; specify screws by type, direction, spacing, edge distances, pre-drilling where required, and construction checks.

Sources: Marconi, structural details S11A, single sheet

Wall-to-wall T-joint



Figure 3. Conceptual diagram: verification of actions and spacing left to design S11A.

12. Wall-to-floor and floor-to-floor connections

DATA VERIFIED IN THE DOCUMENTS

S11A contains connections between X-LAM floor and X-LAM panel with VGZ 9×280 screws at 250 mm spacing for the solutions shown, floor-to-floor joints with VGZ Ø9×160 screws at 200 mm spacing and floor-to-beam connections with Ø9×240 at 300 mm spacing. An acoustic decoupling layer is shown at some junctions.

IMPLICATIONS FOR DESIGN AND CONTROL

Verify diaphragm behavior, forces along the edge and collectors, slip, uplift and installation of the acoustic decoupling layer without altering structural behavior.

Sources: Marconi, structural details S11A, single sheet; Marconi, structural details S10A, single sheet

Wall-to-floor interface

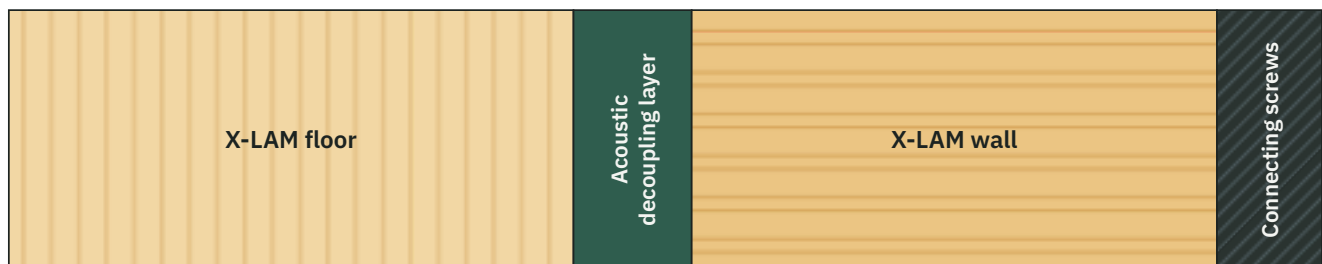


Figure 4. Schematic connection section, not a substitute for drawings S11A.

13. Glulam beam to X-LAM wall connection

DATA VERIFIED IN THE DOCUMENTS

S10A shows AluMIDI 120 brackets or equivalent (with an example of 3 STA Ø12×120 dowels and 22 LBA Ø4×60 nails), orthogonal and parallel connections, local reinforcements and HBS 8×240 screws. Connection types and reinforcement schemes vary with beam size and orientation.

IMPLICATIONS FOR DESIGN AND CONTROL

The hardware must be taken from the detailed structural design: verify strength, deformability, corrosion, installation and grain orientation; avoid equivalences based on geometry alone.

Sources: Marconi, structural details S10A, single sheet; Marconi, materials report SR2A, pp. 2–4 (subsequent commercial attachments separate)

14. Steel elements and protection

DATA VERIFIED IN THE DOCUMENTS

SR2A specifies S355 steel for plates, 8.8 bolts and rods, hold-down components, perforated straps, plates and brackets; it attaches catalog data sheets for screws and connectors. Catalog characteristics do not replace calculations for the specific combination of actions.

IMPLICATIONS FOR DESIGN AND CONTROL

Define the design corrosivity category, coatings, material compatibility, exposure, inspectable cavities, identification documents and tightening checks where prescribed.

Sources: Marconi, materials report SR2A, pp. 2–4 (subsequent commercial attachments separate); Marconi, foundations S07B, single sheet; Marconi, structural details S10A, single sheet; Marconi, structural details S11A, single sheet

15. Erection tolerances and prefabrication

DATA VERIFIED IN THE DOCUMENTS

Panel lists S08A/S09A identify each panel by M. codes and give positions, overall dimensions, levels and openings. Correct correlation between panel list, piece numbering, loading plan and erection limits geometric errors and unauthorized modifications on site.

IMPLICATIONS FOR DESIGN AND CONTROL

Require verified shop drawings, transport plans, numbering, lifting points, finished dimensions, explicit tolerances, and checks before fixing the connections.

Sources: Marconi, panel list S08A, single sheet; Marconi, panel list S09A, single sheet; Marconi, foundations S07B, single sheet

16. Logistics, storage, lifting and safety

DATA VERIFIED IN THE DOCUMENTS

Prefabricated panels require protection from rainwater and standing water, ventilated packaging, supports raised off the ground and conditions compatible with the lifting device; they must be stabilized during erection and before the diaphragms are completed.

IMPLICATIONS FOR DESIGN AND CONTROL

Erection plan, wind checks, temporary propping and load sequence; coordination with the safety plan and the role of the responsible parties.

Sources: Marconi, panel list S08A, single sheet; Marconi, panel list S09A, single sheet; Castelfranco Emilia, Tassoni school, CSA 2014, arts. 43–49, pp. 41–53

17. Windows, doors and thresholds

DATA VERIFIED IN THE DOCUMENTS

On p. 2, A11B shows the window/door base connection node: 3 cm stone threshold, 9 cm sub-threshold screed, waterproof membrane turned up onto the X-LAM by at least 30 cm and a stated surface slope. The detail must be read together with the floor level and the façade system.

IMPLICATIONS FOR DESIGN AND CONTROL

Continuity of the water/air/vapor layers and drainage is the priority; provide a frame fixing node independent of the finish alone, tests/checks and the connection to the ETICS.

Sources: Marconi, details booklet A11B, pp. 2–9; Marconi, wall schedule A09A, single sheet

18. Roof and parapet

DATA VERIFIED IN THE DOCUMENTS

AR1B describes an X-LAM flat roof with vapor retarder, 8+8 cm rock wool and aluminium metal roofing, 2% roofing slope with adjustable supports and anti-condensation felt. S11A illustrates the anchorage of a parapet in a 12 cm X-LAM panel.

IMPLICATIONS FOR DESIGN AND CONTROL

Verify condensation, ventilation, wind-loaded fixings, roofing expansion, rainwater outlets, joints and protection of the panel edges.

Sources: Marconi, architectural report AR1B, pp. 8–12; Marconi, structural details S11A, single sheet; Marconi, details booklet A11B, pp. 2–9

19. Service penetrations and openings

DATA VERIFIED IN THE DOCUMENTS

The S07B foundation drawing shows holes for service penetrations. For the above-ground panels, drilling and provisions must be coordinated before cutting, preserving resistant zones and connections.

IMPLICATIONS FOR DESIGN AND CONTROL

Every new structural opening or chase requires verification/authorization; provide documented upstands, sleeves and fire-stopping and acoustic seals.

Sources: Marconi, foundations S07B, single sheet; Marconi, structural report SR1B, pp. 2–9

20. Acceptance testing, inspections and maintenance

DATA VERIFIED IN THE DOCUMENTS

The Tassoni CSA contains documentation rules and checks for prefabricated/timber structures; it also contains outdated references that should not be reproduced verbatim. Acceptance tests, anchor checks and completion documentation must be consistent with current standards and the inspection plan.

IMPLICATIONS FOR DESIGN AND CONTROL

Establish hold points, photographic records of junctions before close-up, moisture check reports, connections, traceability, as-built documentation, and an inspection plan after water ingress or modifications.

Sources: Castelfranco Emilia, Tassoni school, CSA 2014, arts. 43–49, pp. 41–53; Marconi, materials report SR2A, pp. 2–4 (subsequent commercial attachments separate); Marconi, foundations S07B, single sheet; Marconi, structural details S11A, single sheet

Part II – Catalog of construction details and checks

N01 – Wall bearing on foundation

Drawings/reports: S07B; A11B.

Node analysis: Check separation from the wettable surface, continuity of the moisture barrier and anchorage. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the site supervisor (DL).

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N02 – Hold-down against uplift

Drawings/reports: S07B.

Node analysis: Check type, number of nails, rod, anchor, distances, foundation. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N03 – Angle brackets/shear at the base

Drawings/reports: S07B.

Node analysis: Check spacing and connection to the panel and to the reinforced concrete. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N04 – In-line wall-to-wall joint

Drawings/reports: S11A.

Node analysis: Check slip, screws, spacing, air-tightness. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N05 – Corner wall-to-wall joint

Drawings/reports: S11A.

Node analysis: Check force transfer, corner edge, screw zones. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N06 – T-joint

Drawings/reports: S11A.

Node analysis: Check screw orientation and deformability. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N07 – Floor-to-wall connection

Drawings/reports: S11A.

Node analysis: Check diaphragm action and force transfer. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N08 – Floor panel joint

Drawings/reports: S11A.

Node analysis: Check slip and diaphragm continuity. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N09 – Floor bearing on beam

Drawings/reports: S10A; S11A.

Node analysis: Check brackets/screws and acoustics, if relevant. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N10 – Beam-to-wall, orthogonal

Drawings/reports: S10A.

Node analysis: Check any reinforcement panel. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N11 – Beam-to-wall, parallel

Drawings/reports: S10A.

Node analysis: Check load directions and local crushing. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N12 – Window/door base connection

Drawings/reports: A11B p.2.

Node analysis: Membrane upstands, threshold, drainage. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N13 – Perimeter base protection

Drawings/reports: A11B p.5.

Node analysis: Impact protection, rising damp and capillarity. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N14 – Roof and parapet

Drawings/reports: S11A; AR1B.

Node analysis: Check fixings, water and vapor. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N15 – Window reveal/ETICS

Drawings/reports: A09A.

Node analysis: Check high-density materials and thermal bridges. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

N16 – Building services interferences

Drawings/reports: S07B; AR1B.

Node analysis: Coordination of holes and penetrations. Document the detail, identifying all layers and interfaces; verify load paths and discontinuities at the connection.

Deliverables to be prepared: location plan, dimensioned section, hardware schedule, installation sequence, photographic check before close-up and hold point for the DL.

Parameters not automatically transferable: dimensions, number and spacing of fasteners, anchorage depth, performance classification and substitute materials.

Part III – Dimensional examples and limits of transferability

Source	Specific data	Document	Limit
Marconi	X-LAM wall 120 mm / 3 layers of 40 mm	SR2A, S08A–S09A	Project data only
Marconi	ETICS 140 mm rock wool, λ 0.035 W/mK	A09A	Check variants by wall category
Marconi	Hold-down HD1 130×340, 24 LBA Ø4×60, M16; anchorage 400 mm	S07B	Requires new calculation
Marconi	Floor-to-floor joint, screws Ø9×160 at 200 mm spacing	S11A	Requires new calculation
Marconi	Beam/wall, AluMIDI120 bracket, dowels, nails	S10A	Requires new calculation
Bologna	X-LAM panel 160 mm	BO03–05	Project data only
Tassoni	Multilayer X-LAM-type wall core	TAS, art. 48	Historical specifications to be updated

Part IV – Checklist for designer, contractor and DL

- ☐ Panel list identified and consistent with drawings
- ☐ Correspondence between the product offered and the required structural characteristics
- ☐ Identification of the product qualification/documentation route
- ☐ Check of CNC drawings and openings before production
- ☐ Specification of dimensional and erection tolerances
- ☐ Storage plan, temporary covers and moisture protection
- ☐ Temporary stabilization plan and installation sequence
- ☐ Anchor tests/checks as required by the design
- ☐ Continuity of membranes, tapes and capillary break
- ☐ Coordination of ETICS on X-LAM with the system and anchoring pattern
- ☐ Verification of thermal bridges at foundations, reveals and floors
- ☐ Documentation of system fire/acoustic/thermal requirements
- ☐ Check of joints and screws before finishes are closed
- ☐ Management of non-conformities and changes to connections and openings
- ☐ As-built documentation, photos of connections, documents handed over for acceptance testing

☐ Maintenance plan and protocols after water ingress

Part V – Legal and technical references and time-related caution

External sources verified: D.M. 17 gennaio 2018 (ministerial decree; NTC) and Circolare 21 gennaio 2019 n. 7 (explanatory circular); D.Lgs. 36/2023 (Italian Public Contracts Code), as amended; CAM edilizia (Italian minimum environmental criteria for construction) D.M. 24 novembre 2025, in force from 1 February 2026, with transitional provisions and applicability to the project to be ascertained; Regulation (EU) 2024/3110 on construction products, with provisions applicable from different dates. The qualification of the CLT product must be determined through the route actually applicable, without simply equating ETA and CE marking.

Official CAM text: https://www.gazzettaufficiale.it/atto/serie_generale/caricaDettaglioAtto/originario?atto.codiceRedazionale=25A06516&atto.dataPubblicazioneGazzetta=2025-12-03

Regulation (EU) 2024/3110: <https://eur-lex.europa.eu/legal-content/IT/TXT/?uri=CELEX:02024R3110-20241218>

The Tassoni documentation (2014) contains provisions reflecting the legislative framework in force at the date of the project; use only the technical indications that are still relevant, after verification.

XLAM.com services

Prefabricated X-LAM (CLT) timber structures, from the first estimate to installation. We work with private clients, contractors, designers and public clients in three ways.

Construction

The X-LAM structure supplied and installed, as a shell or turnkey.

- Shop drawings and panel lists
- CNC-cut production
- Transport, protected storage and installation
- Documentation for acceptance and maintenance

Consulting

The right technical decisions before they turn into site costs.

- Feasibility and comparison of solutions
- Joints, base connection, envelope, fire and acoustics
- Specifications, price lists, inspection plans
- Support to works supervision and acceptance

Partnership

Long-term cooperation with contractors, designers and producers.

- Supply-and-install subcontracting
- Joint bids for Italian public tenders
- Supply and network agreements
- Entry into the Italian market for foreign producers

Who we work with

Private clients

New house, extension or added storey with a clear cost before you start.

Designers

Preliminary sizing, joints, product specifications, editable specification.

Contractors

Supply and installation as subcontractor, joint tenders, bid support.

Public clients

Model specification in Word, technical information, preliminary market consultations.

How we work

1

Request

2

Free assessment

3

Quote

4

Design and
production

5

Installation and
handover

Request for a quote or information

Fill in the fields directly in this PDF and press "Send request". We reply within 2 working days, free of charge and without obligation.

Company or name *

Contact person

Phone

Email *

Your request * (type of project, location, timing)

Profile

☐

Private client

☐

Contractor

☐

Designer

☐

Public client

Service of interest

☐

Construction

☐

Consulting

☐

Partnership

☐

Specification in Word

☐

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