



Review façade stone cladding support and panel restraint

Review façade stone cladding support concept and panel restraint design with an interactive checklist; commentable, export as PDF/Excel, and ready for approvals.

Project:

Date:

Filled by:

Design Basis and Loads

1	Confirm design actions: wind pressure/suction and specified seismic where applicable; method: review wind study and loading combinations; acceptance: loads tabulated with governing cases; evidence: upload report excerpt and engineer sign-off.
2	Verify dead-load path from each stone panel to brackets and primary structure; method: mark up load-path diagram; acceptance: no unintended bearing on rails; evidence: annotated drawing and referenced calculations.
3	Check serviceability deflection of rails/brackets under SLS; method: span/FE calculations; acceptance: max deflection $\leq L/360$ and ≤ 3 mm; evidence: signed calculation sheet.
4	Validate anchor pull-out and shear versus design actions; method: compare test/ETA data to demands; acceptance: demand/capacity ≤ 0.6 , edge distances within manufacturer limits; evidence: capacity table and highlighted margins.
5	Confirm panel size, aspect ratio, and thickness suit spans and fixings; method: compare to manufacturer tested ranges; acceptance: within approved chart limits; evidence: attach product chart with selected ranges highlighted.

Materials and Components

6	Specify corrosion-resistant grades: A4/316 stainless for fixings, suitable alloy/temper for rails; method: review specifications; acceptance: materials match corrosion category; evidence: spec extract and supplier datasheet.
7	Verify stone properties (density, flexural strength) from quarry/DoP certificates; method: document check; acceptance: values meet design inputs; evidence: upload CE/DoP PDFs with properties marked.
8	Confirm isolators/thermal breaks between dissimilar metals and structure; method: detail review; acceptance: non-conductive pads at all brackets; evidence: detail callouts and product datasheet attached.
9	Approve coatings/finishes for rails/brackets and fastener protection; method: system datasheet review; acceptance: coating thickness and system per spec; evidence: coating schedule and datasheets uploaded.

Support Brackets and Rails	
10	Set bracket stand-off to accommodate substrate tolerance ± 15 mm; method: survey vs slot adjustment check; acceptance: adjustment range $\geq$ measured deviation; evidence: survey report and bracket schedule.
11	Determine bracket spacing from loads and substrate capacity; method: span and anchor group calculations; acceptance: spacing $\leq$ calculated maximum; evidence: calc excerpt and bracket layout drawing.
12	Verify substrate fixings: type, embedment, and torque; method: anchor schedule; acceptance: embedment $\geq$ manufacturer minimum, torque value specified; evidence: anchor table with values highlighted.
13	Detail rail joints and thermal expansion gaps; method: rail shop drawings; acceptance: joints at calculated intervals with gap dimension shown; evidence: annotated drawing and movement calc.
14	Maintain ventilation/drainage continuity behind rails; method: section detail review; acceptance: unobstructed cavity and top/bottom openings; evidence: section markup and airflow/drain path notes.

Panel Restraint and Fixings	
15	Select a single fixing system (undercut anchors or kerf clips) across the façade; method: design decision log; acceptance: fully compatible components listed; evidence: decision memo and supplier confirmation.
16	Design primary dead-load supports at defined points; method: fixing layout with load share; acceptance: dead load carried only by designated supports; evidence: layout drawing and calc note.
17	Size restraint fixings for wind actions (pressure/suction) in all zones; method: calculation; acceptance: demand/capacity ≤ 0.6 ; evidence: calculation PDF and capacity reference.
18	Check stone edge distances and fixing spacing; method: overlay template on shop drawing; acceptance: values within manufacturer/tested limits; evidence: marked shop drawing and template reference.
19	Control hole/kerf tolerances and alignment; method: jig drawing and sample measurement; acceptance: diameter/kerf width within ± 0.5 mm; evidence: measurement photo with scale.
20	Define joint width and sealant/backer (if used) for movement; method: thermal/differential movement calc; acceptance: joint $\geq$ required movement plus erection tolerance; evidence: calc sheet and sealant datasheet.

Interfaces and Documentation	
21	Coordinate with windows, fire barriers, and waterproofing membranes; method: 3D clash and section review; acceptance: continuous barriers and unbroken drainage planes; evidence: model screenshots and marked sections.
22	Plan safe access/replacement of individual panels; method: maintenance strategy; acceptance: replace a panel without removing more than two adjacent; evidence: O&M; draft with sequence noted.
23	Compile full calculations, tests, and product approvals; method: document index; acceptance: single controlled register with revisions; evidence: uploaded index and file links.
24	Obtain formal design approval per approved project specifications and authority requirements; method: submit coordinated package; acceptance: stamped approval received; evidence: approval letter and dates recorded.

Comments:

Filled by:

Signature:

Introduction	How to use this checklist
Review façade stone cladding support concept and panel restraint design establishes a robust, buildable rainscreen solution before fabrication and installation. This checklist helps verify the stone support system, panel fixings, and restraint details against design loads, thermal and differential movement, and substrate conditions. It focuses on a ventilated vertical façade with adjustable brackets, continuous rails, and mechanical panel anchors (e.g., undercut anchors or kerf clips). By confirming material grades, corrosion control, anchor capacities, and joint movement allowances, teams avoid cracked stone, loose fixings, water ingress, and misaligned rails. The scope covers design basis, components, support framing, panel restraint layout, drainage/ventilation continuity, and coordination with fire barriers and fenestration—without delving into unrelated installation sequencing or unrelated cladding systems. Outcomes include coordinated drawings, calculation evidence, and documented approvals per approved project specifications and authority requirements. Use this interactive tool to tick items, add comments, attach evidence, and export PDF/Excel with an embedded QR for swift review and transparent sign-off.	1. Preparation: gather architectural elevations, structural loads, stone data, manufacturer anchor/rail manuals, substrate survey, corrosion category, and required approvals. Equip with PDF markup tool, calculator, and document control access. 2. Set design assumptions: define temperature range, erection tolerances, target deflections, and bracket stand-off limits. Enter these parameters into your project notes for consistent acceptance decisions. 3. Using the Interactive Checklist: start interactive mode, assign owners and due dates, then progress item-by-item. Tick completed checks, attach calculations, marked drawings, and photos as evidence. 4. Collaborate: use comments to resolve clashes or queries with engineers, suppliers, and contractors. Mention stakeholders, capture decisions, and lock revisions to preserve an auditable trail. 5. Export and share: generate an export as PDF/Excel for submittals, including embedded QR for verification. Distribute to reviewers and link back to the live checklist for context. 6. Sign-Off: obtain digital signatures from responsible engineers and the contractor. Archive approved packages per project procedures and authority requirements, with QR-authenticated records stored in your CDE.