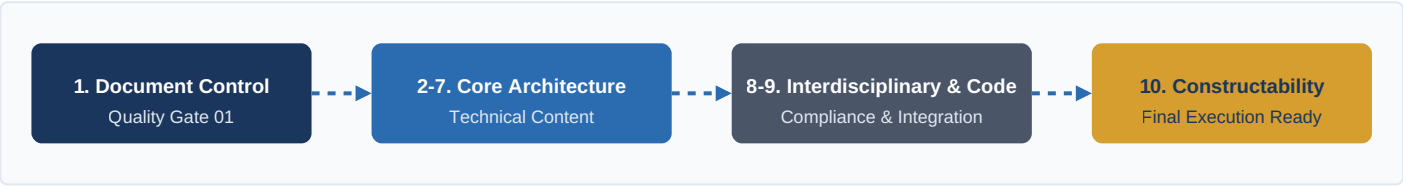
TECHNICAL REFERENCE GUIDE

The 100-Point Architectural Drawing Review Checklist

A Practical Framework for Professional Submittal Reviewers

Introduction: Architectural drawings are the foundation of every construction project. A single omission, coordination error, or code violation can lead to costly rework, delays, contractual disputes, and safety risks. Therefore, the role of the architectural submittal reviewer is far more than a procedural approval—it is a critical quality gate that safeguards the project's technical integrity and constructability. An effective review process should be systematic, auditable, and comprehensive. This article outlines a structured framework covering ten major review categories and one hundred essential checkpoints.



1. Document Control – The First Line of Defense

10 Checkpoints

1.1	Verify correct project title and unique drawing title block metadata.
1.2	Validate latest revision number corresponds accurately with design progression.
1.3	Ensure issue date matches the formal schedule log.
1.4	Confirm revision history is detailed and modification clouds are explicitly indicated.
1.5	Check drawing status tags are explicitly defined (e.g., For Approval, IFC, As-Built).
1.6	Cross-examine submission against the transmittal form and document control register.
1.7	Verify consistency with the master sheet index map.
1.8	Confirm structural, MEP, and specialized consultant detail links match cross-references.
1.9	Verify correct professional seals, signatures, and organizational certifications.
1.10	Check template scales and paper sizing standards conform to submittal requirements.

2. Drawing Quality and Presentation

10 Checkpoints

2.1	Verify drawing scales are appropriate for the level of detail presented.
2.2	Confirm north arrow is clearly provided and correctly oriented across all plans.
2.3	Verify legends and material/architectural symbols are complete and unified.
2.4	Ensure text font, sizing, and contrast are completely readable for field personnel.
2.5	Confirm line weights are consistent, defining cut elements versus background items properly.
2.6	Cross-check detail references and callout markers point to valid destination sheets.
2.7	Eliminate drafting anomalies, overlapping text entities, and unpurged geometric artifacts.
2.8	Check abbreviation usage aligns with standard architectural glossaries.
2.9	Verify metric or imperial multi-unit annotations are uniform across the pack.
2.10	Confirm boundary lines, setbacks, and limits of work are precisely displayed.

3. Architectural Plans Review

10 Checkpoints

3.1	Confirm floor plans exist for all levels including foundation, podiums, and roofs.
3.2	Validate room names and unique numbering schema across every zone.
3.3	Verify wall types and structural partition references match specification charts.
3.4	Check door and window tags coordinate perfectly with schedules.
3.5	Cross-reference floor finish materials and transition thresholds on plans.
3.6	Verify reflected ceiling plan references match primary spatial arrangements.
3.7	Confirm key levels, benchmark reference datums, and primary structural gridlines.
3.8	Check localized programmatic requirements (e.g., equipment layouts, special storage).
3.9	Ensure demising walls and acoustic rating lines are continuous and properly called out.
3.10	Confirm major structural shear walls and column orientations align with structural inputs.

4. Dimensions and Levels — 10 Checkpoints

4.1	Verify overall building footprint dimensions and exterior boundary offsets.
4.2	Confirm internal room clearances and finish-to-finish masonry dimensions.
4.3	Check rough structural opening sizes for doors and window frame insertions.
4.4	Ensure corridor widths meet minimum functional and operational egress requirements.
4.5	Verify stair geometry: precise tread runs, risers, and structural landing dimensions.
4.6	Confirm finished floor levels (FFL) and structural slab levels (SSL) on all stories.
4.7	Verify high-point and low-point ceiling levels across complex plenums.
4.8	Check exterior threshold elevations to prevent moisture/water ingress.
4.9	Confirm critical vertical clearances underneath structural beams or HVAC drop-downs.
4.10	Validate arithmetic accuracy of cumulative dimension strings against overall totals.

5. Door and Window Review — 10 Checkpoints

5.1	Audit door schedules for complete mapping against floor plans.
5.2	Audit window schedules for precise dimension and location matches.
5.3	Verify fire-rated door markers, seals, and compliance certificates match safety plans.
5.4	Check door swing directions for functional operation and egress obstruction paths.
5.5	Validate accessibility strike-side clearances and push/pull approach requirements.
5.6	Cross-check hardware group codes and ironmongery schedule connections.
5.7	Confirm performance glazing parameters (U-value, SHGC, acoustic thresholds).
5.8	Verify safety impact glass installations in hazardous locations (e.g., side-lites).
5.9	Check window opening mechanisms, safety limiters, and maintenance constraints.
5.10	Ensure louvers, frame depths, and sub-frame thermal breaks are defined.

6. Elevations, Sections and Façade Review — 10 Checkpoints

6.1	Verify comprehensive exterior elevations are provided for all major orientations.
6.2	Confirm overall building heights match planning envelopes and maximum datums.
6.3	Check explicit architectural material callouts and surface finish codes.
6.4	Ensure longitudinal and transverse structural sections pass through critical steps.
6.5	Verify continuous weatherproofing barrier pathways and drainage overlaps.
6.6	Confirm structural expansion joints run cleanly through the entire building envelope.
6.7	Check roof parapet terminations, flashing details, and coping slope designs.
6.8	Ensure cross-referencing markers linking plans to structural elevation details are valid.
6.9	Verify curtain wall spandrel locations align with internal slab edges.
6.10	Check weep holes, panel joints, and ventilation cavities on rainscreen systems.

7. Architectural Details — 10 Checkpoints

7.1	Verify detail drawings for door jambs, heads, and weather-sealed thresholds.
7.2	Confirm window head, sill, and structural anchoring details are included.
7.3	Check multilayered wall assemblies for thermal insulation and acoustic linings.
7.4	Verify flooring material transitions (e.g., wood to tile) use proper divider strips.
7.5	Check ceiling framing, perimeter moldings, and light cove integration profiles.
7.6	Verify wet area slope-to-drain details and recessed floor slab configurations.
7.7	Confirm waterproofing membranes turn up walls at minimum specified heights.
7.8	Check roof valley gutters, primary drains, and overflow scupper details.
7.9	Verify floor and wall expansion joint profile covers match structural configurations.
7.10	Ensure material boundary interfaces utilize galvanic isolation separating dissimilar metals.

8. Interdisciplinary Coordination Review — 10 Checkpoints

8.1	Verify architectural grid coordinates align perfectly with structural designs.
8.2	Check column sizes and profile rotations do not protrude into clear layouts.
8.3	Confirm beam depths do not drop below clear headroom requirements.
8.4	Verify major structural slab penetrations accommodate services routes.
8.5	Check vertical service shafts provide required fire-rated volume capacity.
8.6	Confirm ceiling spaces allow clearance for gravity drainage slopes and duct intersections.
8.7	Verify heavy MEP equipment paths and adequate maintenance clearances.
8.8	Check builder’s work openings (BWO) are documented on structural sheets.
8.9	Review automated BIM clash detection summaries for unresolved conflicts.
8.10	Confirm external civil utilities match internal facility entry piping networks.

9. Code and Regulatory Compliance — 10 Checkpoints

9.1	Verify structural means of egress provide a continuous uninhibited exit path.
9.2	Confirm exit door aggregate widths satisfy occupant load calculations.
9.3	Verify maximum dead-end and total travel distances stay within code envelopes.
9.4	Check continuity of fire-barrier walls through floor configurations and ceiling spaces.
9.5	Confirm opening protectives match strict envelope ratings.
9.6	Verify accessible pathways connect public arrival zones to internal spaces.
9.7	Check accessible bathroom dimensions include correct turning radii.
9.8	Verify ramp slopes, level landings, and handrail configurations conform to standards.
9.9	Check compliance with minimum habitable area dimensions and ventilation ratios.
9.10	Verify clear vertical headroom metrics under soffits and projections.

10. Constructability and Site Readiness	10 Checkpoints
10.1	Verify complex architectural details can be executed with standard site tools.
10.2	Check material interfaces account for movement tolerances and physical sequencing.
10.3	Ensure installation sequences prevent subsequent trades from damaging completed finishes.
10.4	Confirm dimensional manufacturing tolerances are explicitly provided.
10.5	Verify facility long-term maintenance access points for hidden valves and mechanical components.
10.6	Confirm tactical location of functional access panels in monolithic ceiling planes.
10.7	Define precise mock-up parameters for complex exterior curtain walls or finish systems.
10.8	Verify approved material designations avoid generic ambiguous nomenclature.
10.9	Assess high-risk site execution zones (e.g., deep basement intersections, complex flashing).
10.10	Confirm seasonal conditions or curing time frameworks do not invalidate specifications.

CRITICAL HOLD POINTS – AUTOMATIC REJECTION CRITERIA

Regardless of the total accumulated checklist score, the presence of any singular deficiency below triggers an automatic code-red status, requiring mandatory structural rework and immediate resubmittal rejection.

- Missing fire-rated wall continuity data
- Major unresolved structural-to-architectural clashes
- Non-compliance with building code or regulatory frameworks
- Missing critical section views or detail callout indices
- Incorrect drawing revision or documentation package controls
- Missing or broken waterproofing system detail interfaces
- Core MEP service distribution system interferences
- Omission of essential localized accessibility mandates
- Reference to unapproved or non-specified building materials
- Incomplete drawing packages or partial set drop shipments

APPROVAL MATRIX

A structured, weighted metrics approach establishes objectivity, transparency, and consistency across organizational workflows. The scoring framework establishes explicit action parameters:

SCORE RANGE	SUBMITTAL STATUS DECISION	REQUIRED ACTION PARAMETER
95 – 100	**Approved**	Drawing set is certified for construction. Proceed to IFC stamping.
85 – 94	**Approved with Comments**	Incorporate minor editorial redlines. No resubmittal required.
70 – 84	**Revise and Resubmit**	Address core technical deficiencies and re-issue full set for review.
Below 70	**Rejected**	Complete package overhaul mandatory. Trigger immediate administrative denial.

CONCLUSION

Architectural submittal review is not merely an administrative exercise—it is a structured process of validating design intent, ensuring regulatory compliance, coordinating multidisciplinary interfaces, and confirming constructability. A robust 100-point checklist transforms reviews from subjective judgments into measurable, repeatable, and auditable assessments. It improves drawing quality, reduces RFIs, minimizes rework, and enhances project outcomes.

As construction projects become increasingly complex and digitally connected, organizations are adopting automated systems that manage baseline checklist verification, enabling specialized reviewers to focus on higher-value technical and strategic risk mitigation. Ultimately, the most effective architectural reviewer is not the one who approves drawings quickly, but the one who approves them with absolute technical confidence.

Reference: Unified Guidelines for Submittal Management & Design Integration Frameworks. Code-Standard compliance audit manual.

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PMSPACE AI

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- **AI Strategy & Academic Foundation:** Holds a Graduate Diploma in AI for Business (SUSS Singapore) and a Bachelor of Technology in Electronics and Communication Engineering from Pondicherry University. Fully certified across Cisco Networking, Oracle Primavera, and Trimble Prolog systems.