Construction Plan Review: Getting Everyone on the Same Page

A Framework for Reducing Friction, Risk, and Cost in the AEC Workflow

Executive Summary

Construction projects rarely fail outright. Most are completed, with significantly more cost, friction, and delay than anticipated. A recurring pattern behind this is surprisingly simple: project teams are not consistently working from the same plans, the same understanding, or the same view of the work.

Plan review is the discipline that keeps everyone aligned. When handled informally - as a series of ad hoc meetings, markups, and email threads - misalignment creeps in. People work from different drawings, interpret the same sheet in different ways, and struggle to see enough detail to spot problems in time.

This whitepaper explains:

- **The Business Impact:** How ad hoc review drives RFIs and change orders.
- **The Three Foundations:** Same Information, Same Interpretation, Same View.
- **The Process:** A repeatable "Prepare, Run, Follow Through" framework applicable across all 7 stages of the AEC Plan Workflow.

1. Why Plan Review Matters More Than Ever

On most projects, plan review happens constantly, but in a fragmented way. Coordination meetings start with the question, *"What sheet are you on?"* Different versions circulate via email, and field teams often build from outdated plans. While these issues feel like everyday friction, they carry quantifiable costs.

1.1 The Cost of Ad Hoc Review

Most organizations track RFIs, change orders, rework, and schedule performance, but rarely link those metrics back to weaknesses in their plan review process. When review is informal and fragmented, small misalignments in drawings compound into measurable business impacts:

- **RFIs and Change Orders:** Frequently originate in drawing ambiguity, missing information, or misalignment between stakeholders.
- **Field Rework:** Occurs when errors are discovered only after installation, forcing crews to tear out and redo work that could have been caught in a structured digital review session.
- **Schedule Slips:** Result from crews pausing to clarify scope, wait for decisions, or redo completed work.
- **Reputational Risk:** Disputes arise when parties disagree on what was issued, what was “for construction,” or what was actually agreed upon in review.

For example, a misinterpreted equipment clearance on a plan can trigger a late-stage RFI, field rework across several rooms, and a week of schedule delay involving multiple trades, costs that trace directly back to ad hoc, fragmented plan review rather than a shared digital environment.

1.2 Why the Problem is Intensifying

Long-standing, informal habits for managing drawings are failing to scale under current industry trends:

1. **Complexity:** Projects feature denser drawings and more systems to coordinate.
2. **Compression:** Schedules leave less time to catch errors before construction begins.
3. **Distribution:** Hybrid work and multi-organization teams make "over-the-shoulder" collaboration difficult.

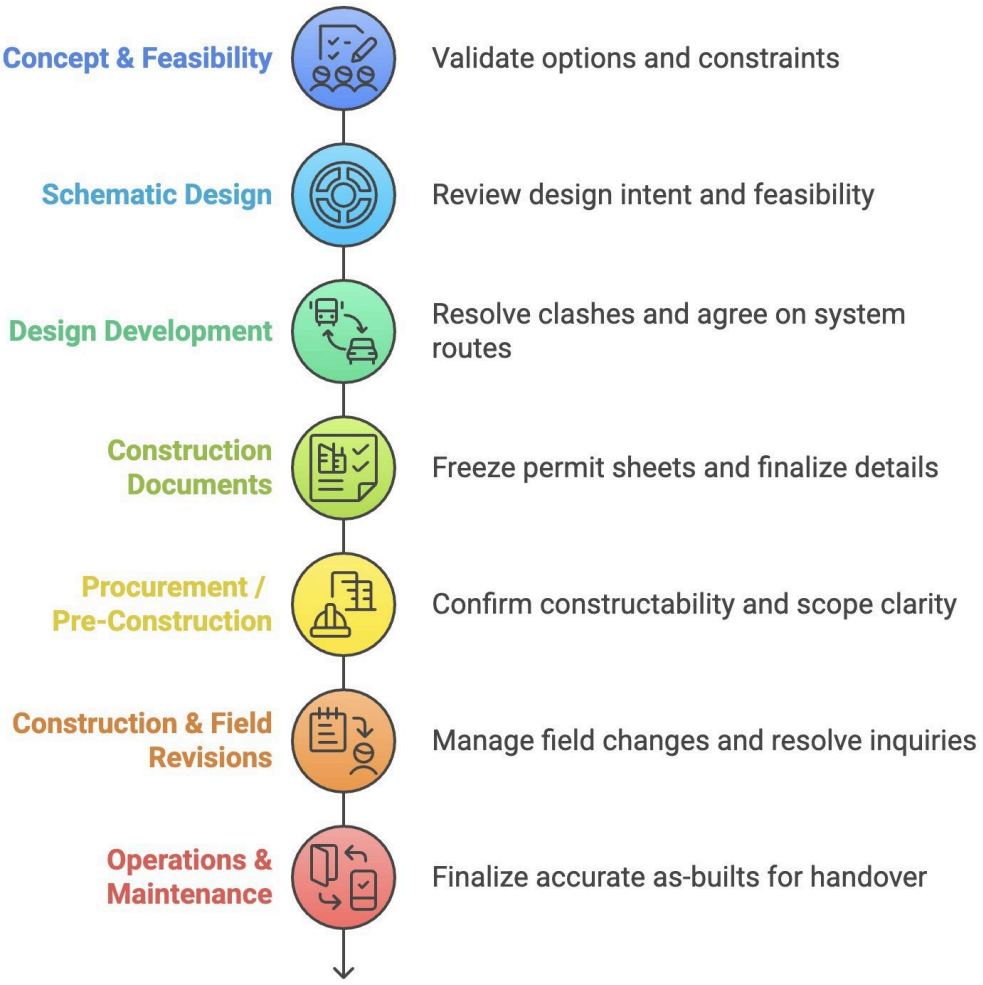
2. Three Foundations of Effective Plan Review

To make "getting everyone on the same page" operational, organizations must enforce three specific conditions.

Same Information (Source of Truth)	Same Interpretation (Common Language)	Same View (Visual Clarity)
Single Platform One agreed-upon environment must hold the current drawings to ensure everyone pulls from the same location.	**Standardization** Symbols, line types, and abbreviations must be documented so drawings are "read" the same way by all parties.	**Hardware** Displays must be large and sharp enough to show entire sheets without constant zooming to see detail.
Clear Status Naming conventions, revisions, and status (e.g., "For Construction," "Superseded") must be explicit.	**Conventions** Markup protocols must clearly distinguish between questions, known issues, decisions, and instructions.	**Environment** Viewing conditions in the room should be managed to minimize glare and eye strain.
Ownership There should be no doubt as to which sheets are "official" versus draft or reference only.		**Master Views** In meetings, everyone must look at a shared "master view" to prevent individuals from missing context on private screens.

3. The Plan Workflow Context: 7 Stages, One Thread

Plan review is not a one-time event; it is a continuous thread running through the full lifecycle of a project. The diagram on page 4 outlines seven stages, from concept and feasibility through operations and maintenance, where that thread should remain unbroken. The plan review process must be light enough to flex across these stages, yet structured enough to consistently protect the three foundations.



Project Phase	Primary Review Focus
Early Stages	Options, constraints, and feasibility.
Middle Stages	Coordination, constructability, and code compliance.
Late Stages	Scope clarity, field changes, and accurate as-builts.

4. A Practical Plan Review Process

This section details a repeatable protocol: **Prepare, Run, Follow Through**. This pattern applies to everything from a one-hour design check to a full coordination workshop.

4.1 Prepare: Alignment

Preparation is where the value is created.

- **Define the Objective:** Clearly state whether the goal is to choose options, resolve clashes, or freeze permit sheets.
- **Lock the Source of Truth:** Identify the exact set or model "in play" and ensure it is published and labeled.
- **Prepare Views:** Create bookmarks, overlays, or side-by-side comparisons for complex topics.
- **Align Participants:** Send a pre-read clarifying who makes decisions vs. who advises.

4.2 Run the Session: Discipline

Focus on the disciplined use of plans.

- **Single Master View:** Display one shared view to avoid independent scrolling.
- **Explicit Referencing:** Always cite sheets precisely (e.g., "Referencing A101, Detail 3").
- **Live Logging:** Assign a note-taker or use digital tools to log markups in real-time. Do not rely on separate paper “parking lots” or side notes.
- **Check Interpretation:** Ask participants to restate agreed decisions to confirm shared understanding.

4.3 Follow Through: Accuracy

Ensure alignment survives contact with daily work.

- **Update the Source:** Integrate approved markups into the working set immediately.
- **Publish Deliberately:** Issue clearly labeled bulletins; avoid "silent" changes in models.
- **Communicate to the Field:** Ensure superintendents know the set has changed and replace physical sets where necessary.

5. Conclusion: Putting It Into Practice

Implementing a strong plan review process does not require a major digital transformation. It requires deliberate choices:

1. **Enforce** a source-of-truth platform.
2. **Define** lightweight standards for symbols and markups.
3. **Upgrade** the viewing environment for critical reviews.
4. **Standardize** the rhythm: Prepare, Run, Follow Through.

The benefit extends beyond fewer technical problems. A proper plan review process creates faster, clearer decisions, allowing teams to spend more time building and less time fighting their drawings.

The Final Test
On any future project, ask this simple question:

"Are we truly on the same page, in information, interpretation, and view?"

If the honest answer is "not quite," you know exactly where to improve. Start by piloting this framework on a single coordination cycle and refine it based on feedback from both office and field teams.