

v1 Workflow (Email PDF → Workers reply → Supervisor confirms → Signs → Finalize)

State model (3 states)

Draft → Under Review → Final

1) Draft (editable)

Who: Supervisor

Goal: Create the plan

Supervisor can:

- Fill all plan sections (site info, hazards, systems, rescue, etc.)
- Add diagram/photo annotations
- Save draft anytime
- Export a **Draft PDF** (Watermark: “DRAFT”)
- A visible **Plan Reference ID**.

Key actions (buttons):

- **Save Draft**
- **Export Draft PDF**
- **Send for Worker Review** (moves to Under Review)

Rules:

- Editing allowed
- No final approval signature allowed yet
- No finalize allowed yet

2) Under Review (locked / non-editable)

Triggered by: Supervisor clicks “**Send for Worker Review**”

Goal: Freeze content so workers review a stable version

System does:

- Locks the plan content (read-only)
- Records review info:
 - review.sentAt
 - review.emailedTo[] (worker emails entered)
- Generates a **Review PDF** (not “final” yet)

Supervisor can:

- Export the locked PDF
- Share via email (attach PDF)
- Track who it was emailed to
- **Cancel Review** → returns to Draft (only if workers requested changes)

Supervisor cannot:

- Edit any fields
- Edit diagram/markup
- Sign final approval
- Finalize

Key actions (buttons):

- **Export PDF**
- **Share via Email**
- **Cancel Review** (optional)

3) Workers review (outside the app)

Who: Workers

How: Workers receive PDF by email and reply back

Workers do:

- Review PDF
- Reply to supervisor email:
 - “Reviewed” / “Approved”
 - or request changes

App does not need:

- Worker accounts
- Worker signatures
- QR/signing link

4) Supervisor confirms review (still locked)

After workers email back, supervisor returns to the plan (still in **Under Review**) and:

Supervisor does:

- Checks box: **“Workers reviewed (confirmed by email)”**
- Adds optional notes: “All workers replied OK” / “Minor comments addressed next plan”
- Records:
 - `review.confirmedAt`
 - `review.confirmedBy`
 - `review.notes`

Still locked: no editing allowed.

5) Supervisor signs (final approval step)

When: Only after review is confirmed

Goal: Supervisor approval becomes the final “reviewed + finalized” sign-off

Supervisor signs using:

- **Must-have:** drawn signature (Could be autofill from the supervisor account when signed up) + timestamp saved into plan
- **Gate:** Face ID / fingerprint to confirm applying final approval (biometric = unlock/confirm action, not the signature itself)

Records:

- finalApproval.supervisorName
- finalApproval.signatureImage
- finalApproval.signedAt

6) Finalize + Export Final PDF (locked forever)

Triggered by: Sign & Finalize

Goal: Final output that cannot be changed

System does:

- Changes status to **Final**
- Locks forever (no edits)
- Exports **Final PDF** (includes review confirmation + supervisor final approval)

Supervisor can:

- Export/share Final PDF anytime
- Duplicate plan to create a new draft

Supervisor cannot:

- Edit anything
- Delete the form

Optional nice-to-have: “Prepared by” pre-sign (not final)

Draft (optional)

- **Prepared by (Supervisor)**
- Clearly labeled in PDF as “Prepared by” with timestamp

Final (required)

- **Approved/Final (Supervisor)** signature after review confirmation

Backend enforcement (must)

Even if UI is locked, the server must enforce:

- If status != "draft" → reject **PUT /plans/:id** (no edits)
- Only allow:
 - exporting
 - setting review confirmed
 - applying final approval signature
 - finalizing