Engineering: how-to guide

IntraSync
November 14, 2026

Engineering runs the plant's engineering department: shop drawings and design calcs from in-house drafters and outside firms, their review with the contractor, and the engineering release production checks before it releases a job. The internal engineer works the queue and signs releases; managers and coordinators assign jobs, follow submittals and keep the firms and checklists set up.

Written for: Internal engineer, Engineering manager, Drafting coordinator, Production planner, Administrator.

In the pictures, a numbered red box marks where to click or type. Where a picture has more than one box, the numbers give the order.

In this guide

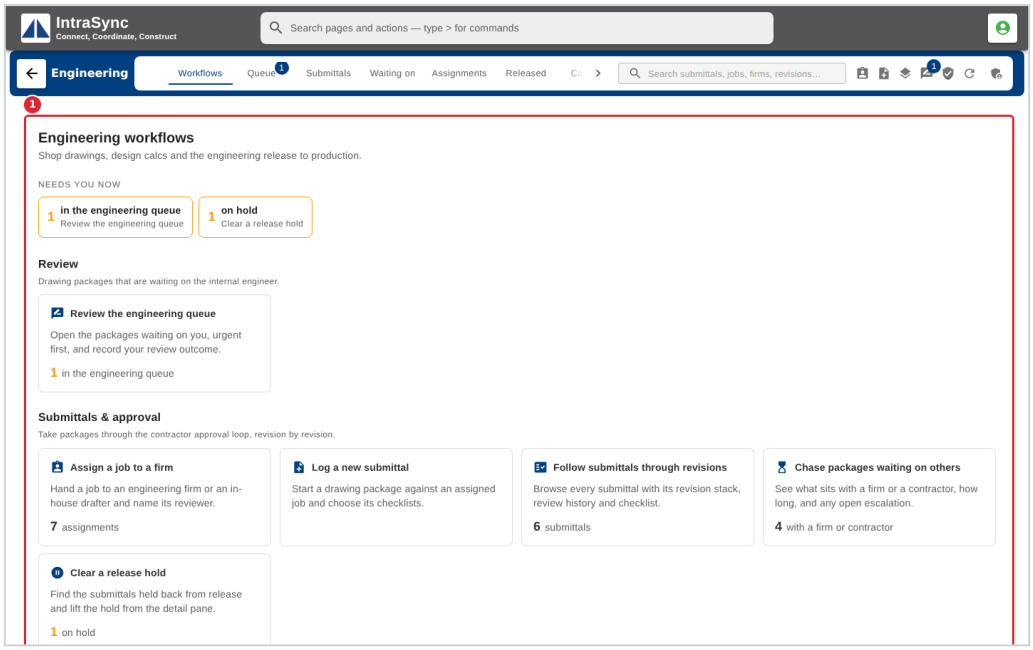
- 1. Find your way around the Engineering hub
- 2. Work the internal engineer's queue
- 3. Fill a checklist from the job's own documents
- 4. Check off checklist items
- 5. Find a submittal
- 6. See who each submittal is waiting on
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1. Find your way around the Engineering hub

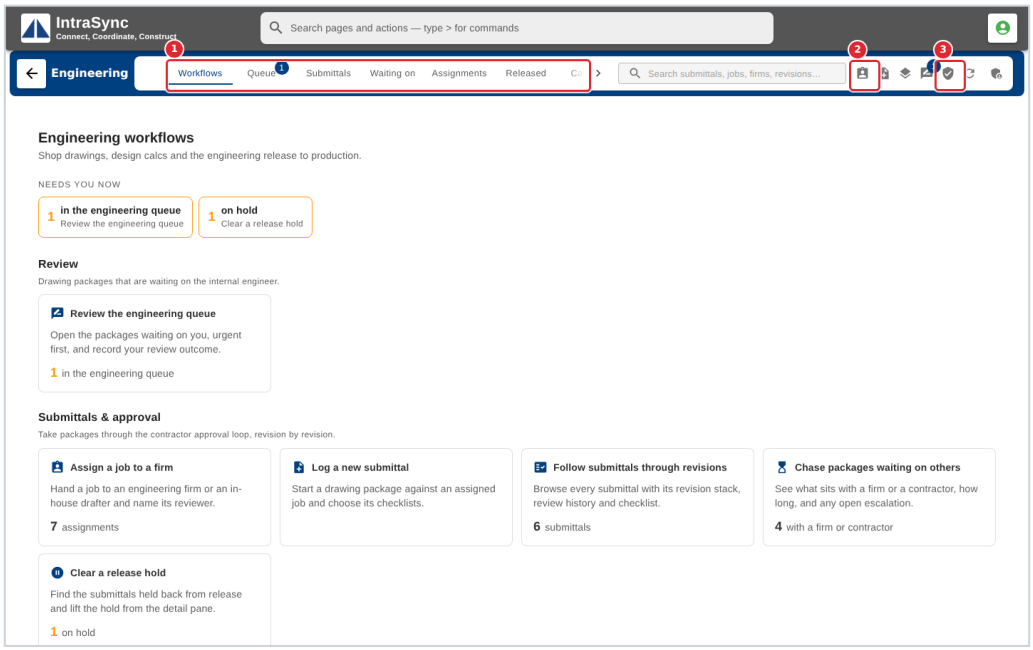
Know where each list lives and where the everyday actions are, before you start work.

Before you start:

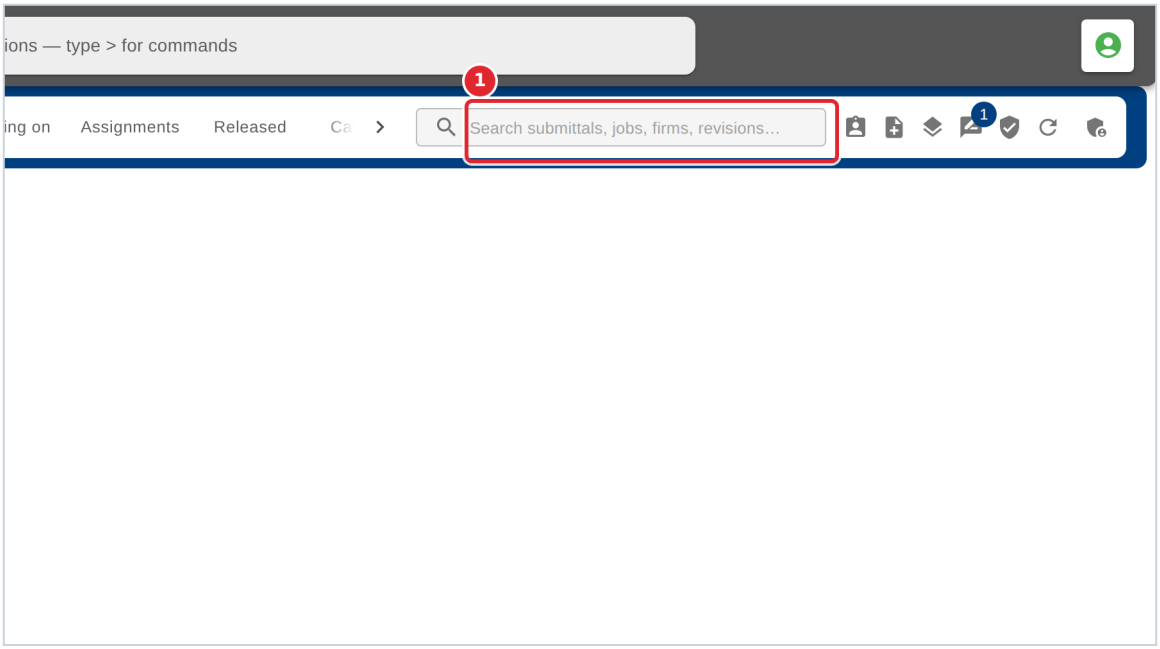
– Access to the Engineering hub (its page permission).



Step 1. Open Engineering. The hub opens on the Workflows tab, a dashboard of the department's work grouped by what needs doing now.



Step 2. Use the tabs to move between lists: Queue, Submittals, Waiting on, Assignments, Released, Calendar, Drawing vs order and BOM drafts. The buttons at the right of the tabs are the everyday actions: New assignment, New submittal, Add revision, Advance review, Engineering release, and Refresh.



Step 3. Use the search field at the right of the hub to find any engineering record.

Tips:

- Hover over a button at the right of the tabs to see its name.
- Some tabs appear only when your system turns them on: Drawing vs order and BOM drafts are off unless switched on.

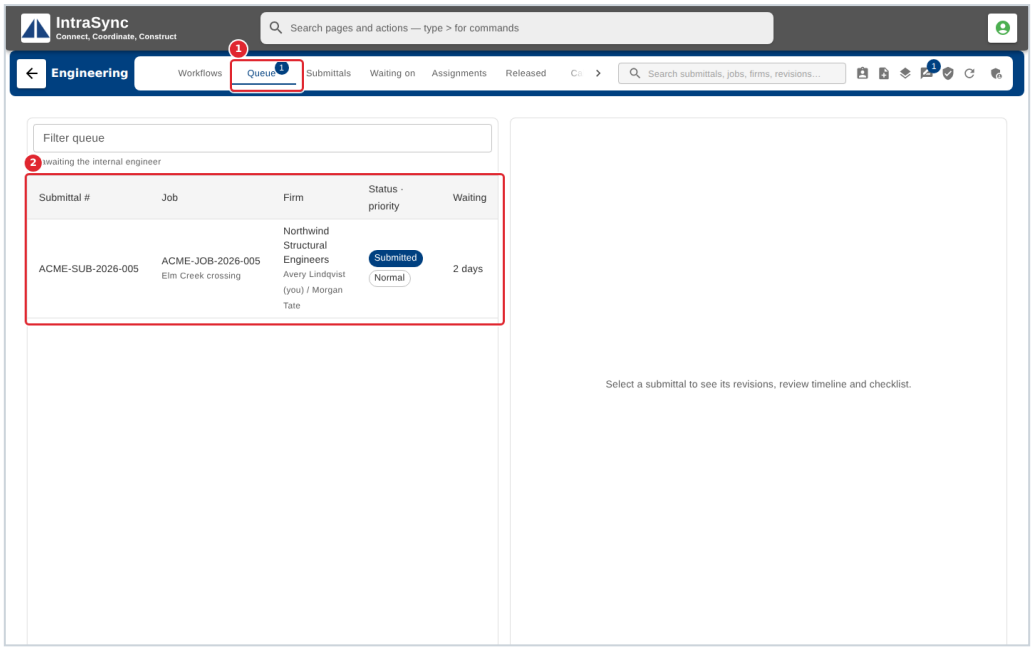
This is shown in the Engineering video at 0:03.

2. Work the internal engineer's queue

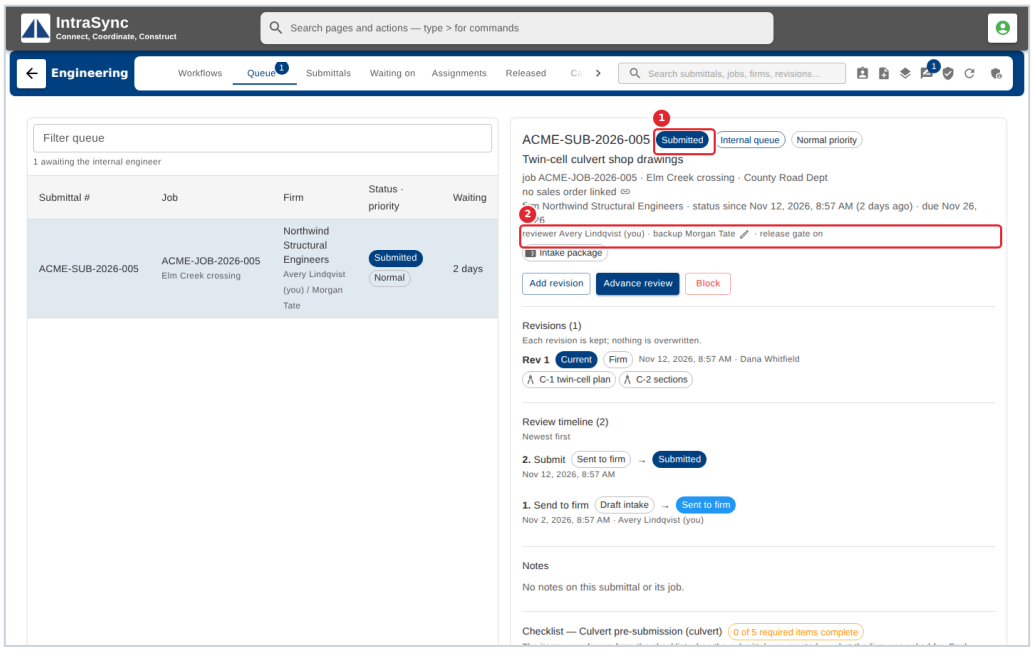
See every submittal waiting on the internal engineer and open one to act on it.

Before you start:

– Access to the Engineering hub (its page permission).



Step 1. Select the Queue tab. It lists the submittals waiting on the internal engineer, with the firm, status and how long each has waited.



Step 2. Select a submittal. Its detail opens beside the list: its current status, the reviewer and backup, its revisions, review timeline, notes and checklist.

Tips:

– Type in the queue's filter to narrow the list by number, job, firm or person.

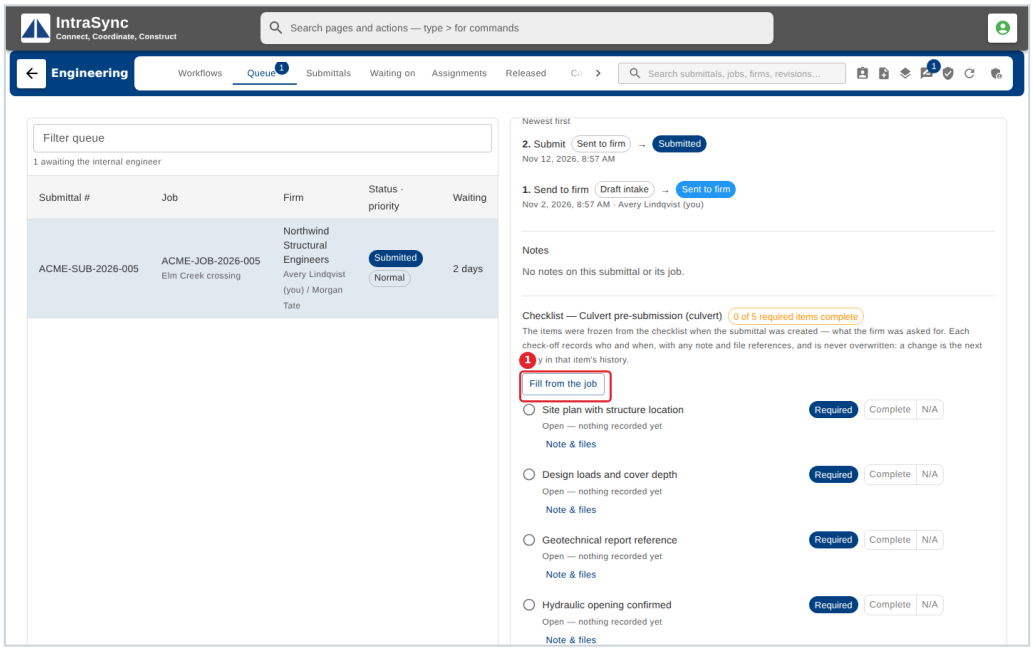
This is shown in the Engineering video at 0:06.

3. Fill a checklist from the job's own documents

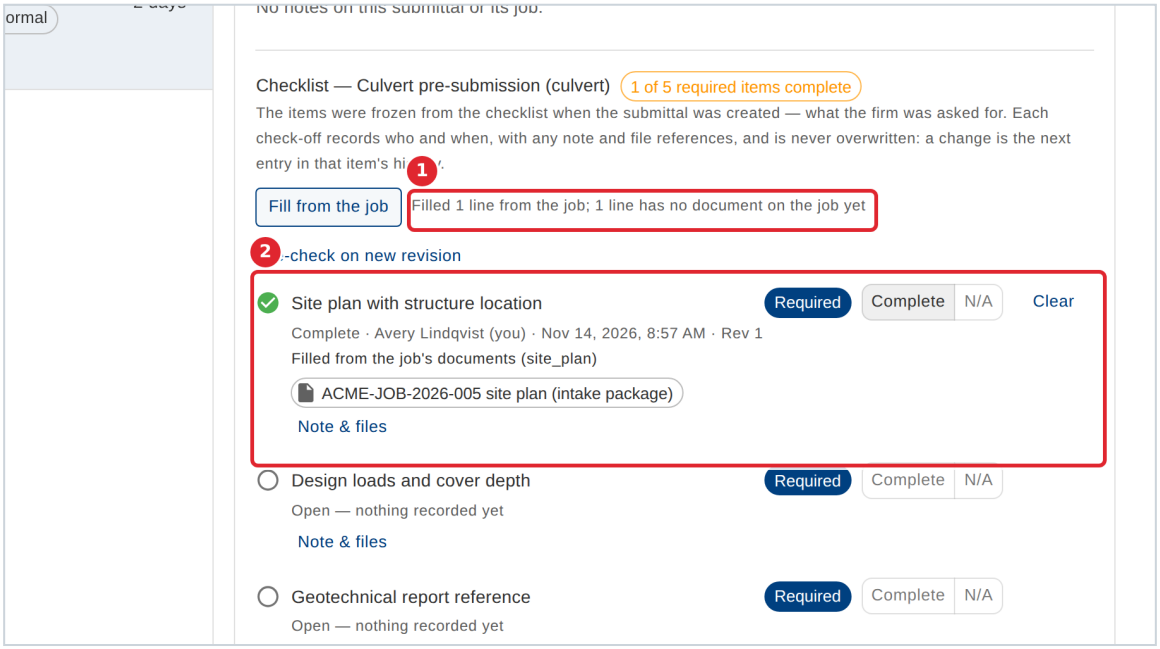
Check off the checklist lines the job's documents already answer, without hunting for the files by hand.

Before you start:

- Access to the Engineering hub (its page permission).
- The submittal has a pre-submission checklist whose items name a job document to fill from.



Step 1. Open the submittal and scroll to its checklist. Select Fill from the job.



Step 2. Read the result beside the button. Lines whose document is on the job are checked off with the file attached; lines whose document is not on the job yet stay open for a person.

Tips:

- Filling never overwrites an item a person has already answered.
- Filling is refused on a released submittal.

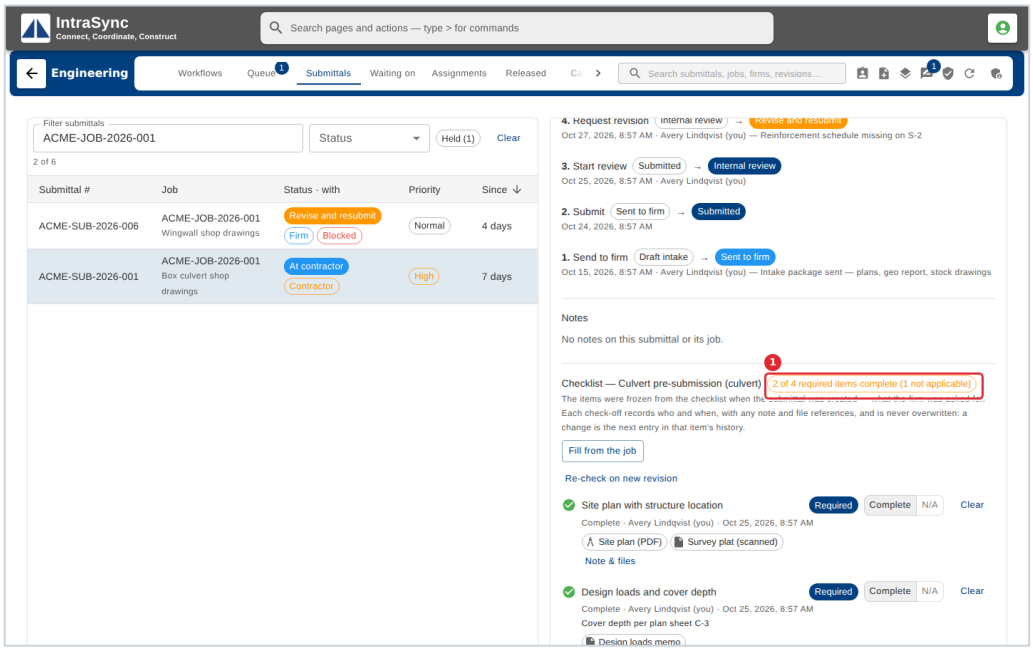
This is shown in the Engineering video at 0:13.

4. Check off checklist items

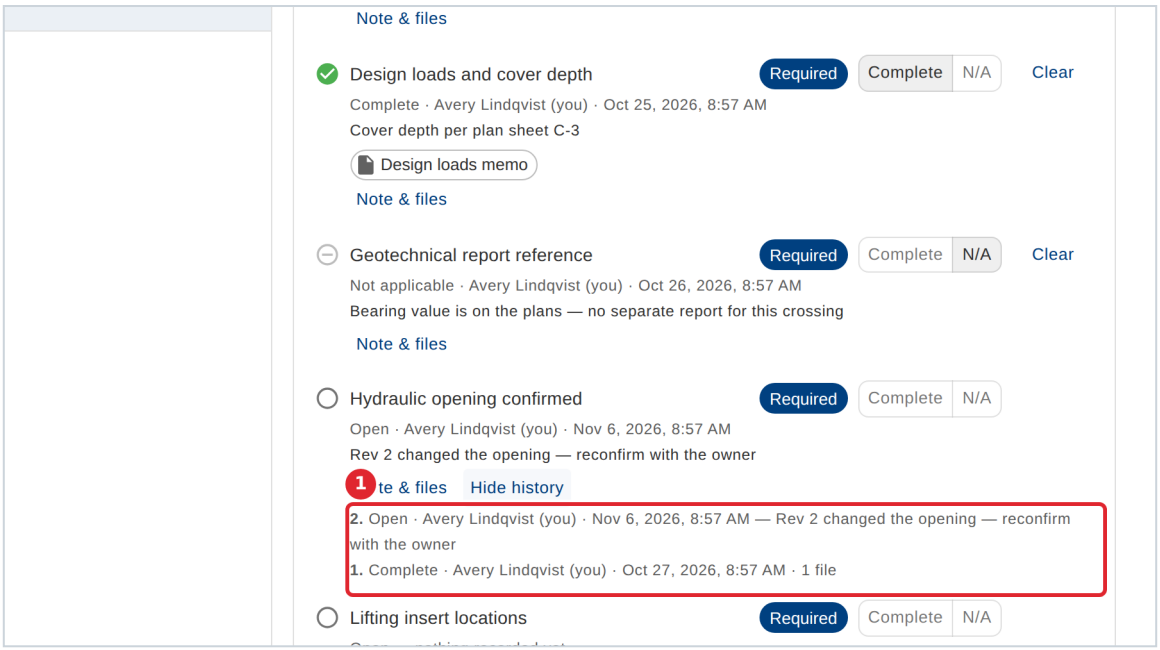
Record, item by item, what the firm's package brought back before the submittal moves on.

Before you start:

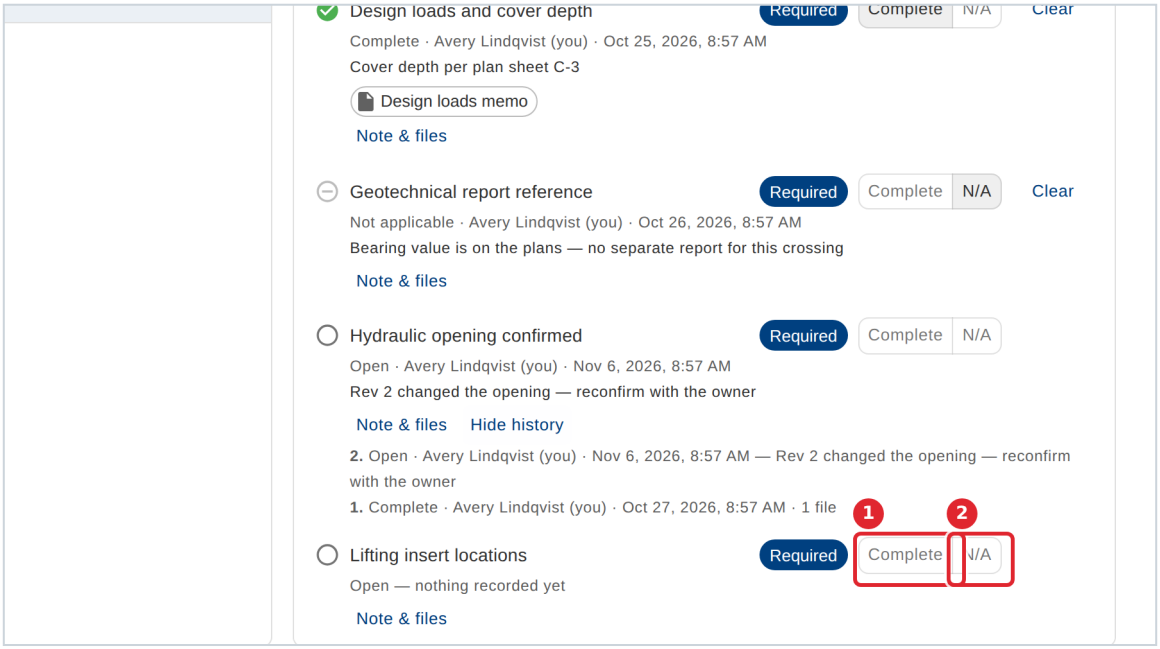
- Access to the Engineering hub (its page permission).
- The submittal carries a pre-submission checklist.



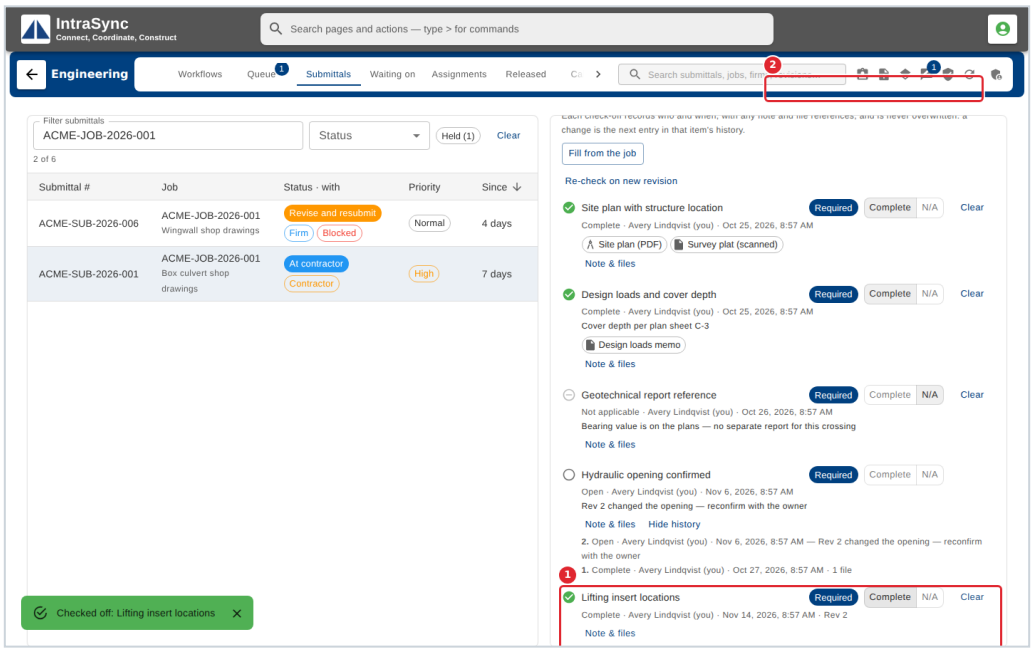
Step 1. Open the submittal. The checklist summary says how many required items are complete.



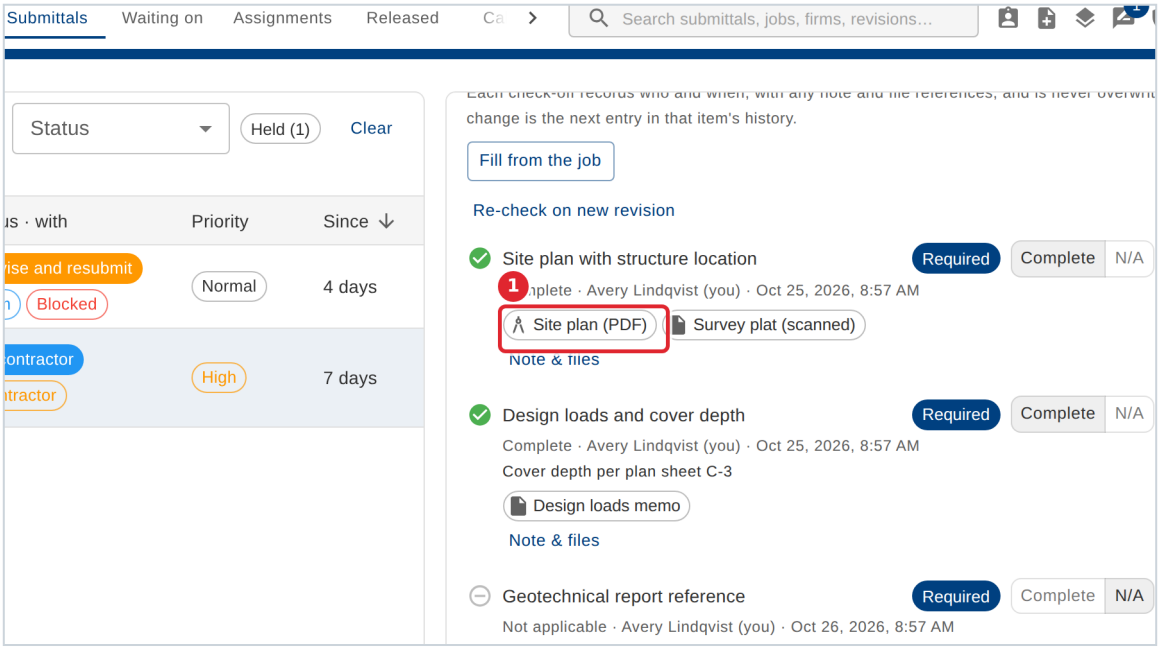
Step 2. Select History on an item to see every check-off and reopening, with who recorded it and when.



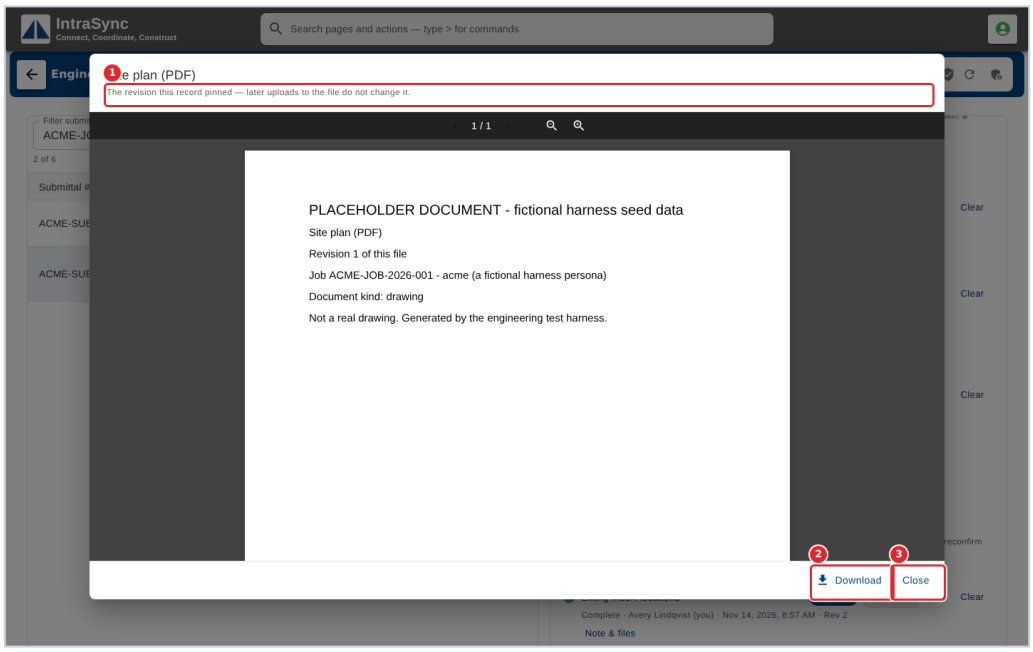
Step 3. On an open item, select Complete, or N/A when it does not apply.



Step 4. The item is checked off and the summary updates.



Step 5. Select a document chip on an item to open the file it refers to.



Step 6. The viewer opens the exact version that was filed. Select Download to save it, or Close to go back.

Tips:

- Each check-off adds a new entry to the item's record. Nothing is edited in place, so the history always shows who decided what.
- When a new revision changes something an item covered, the item reopens and says why.
- On a job that uses the release gate, every required item must be complete before the engineering release can be signed.

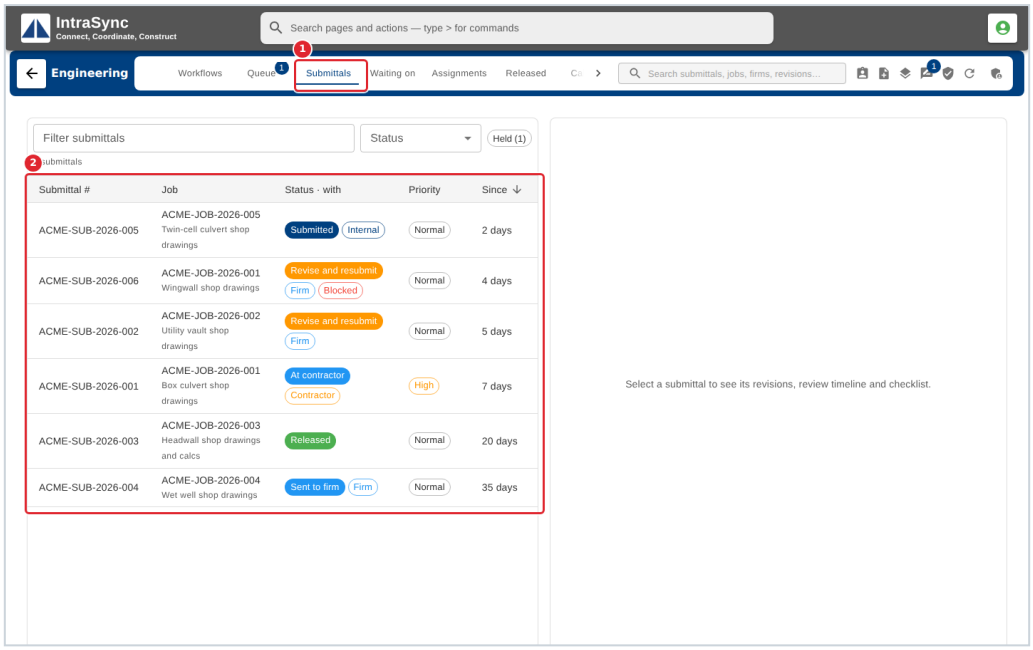
This is shown in the Engineering video at 0:25.

5. Find a submittal

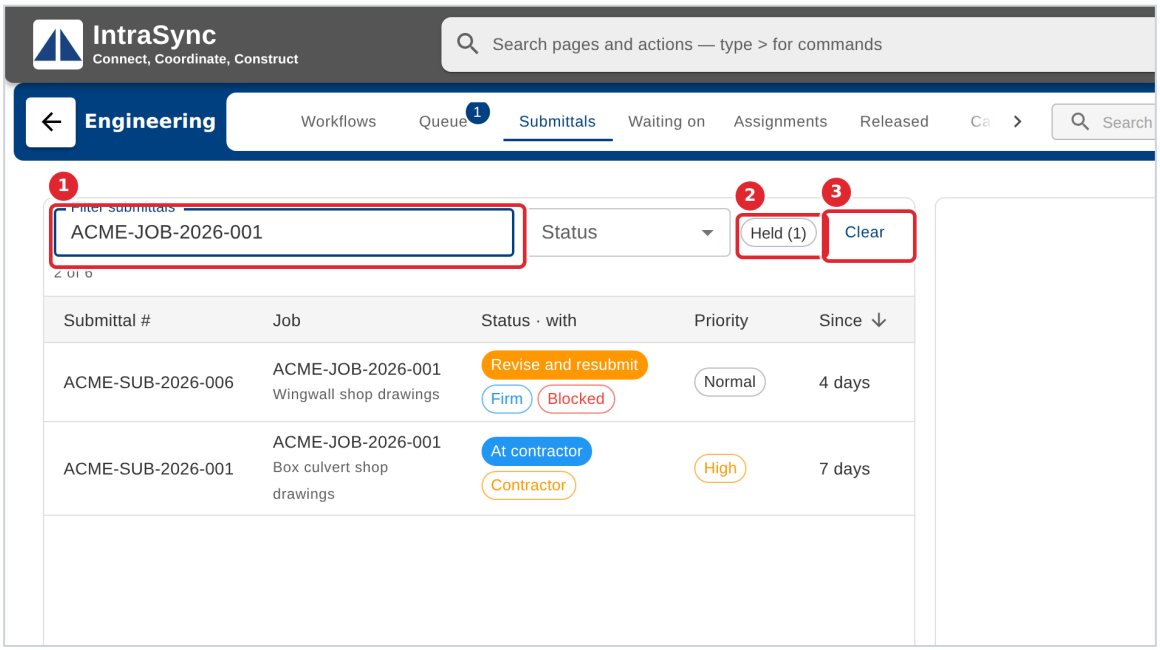
Get to any submittal quickly, whatever stage it is in.

Before you start:

– Access to the Engineering hub (its page permission).



Step 1. Select the Submittals tab to see every submittal, with its status, who it is with, its priority and how long it has been there.



Step 2. Type a submittal number, job number, firm or person in the filter. Narrow further with Status, or select Held to show only submittals on hold. Select Clear to see them all again.

Tips:

– Every list's filter matches across its columns, so a salesperson's or firm's name works as well as a number.

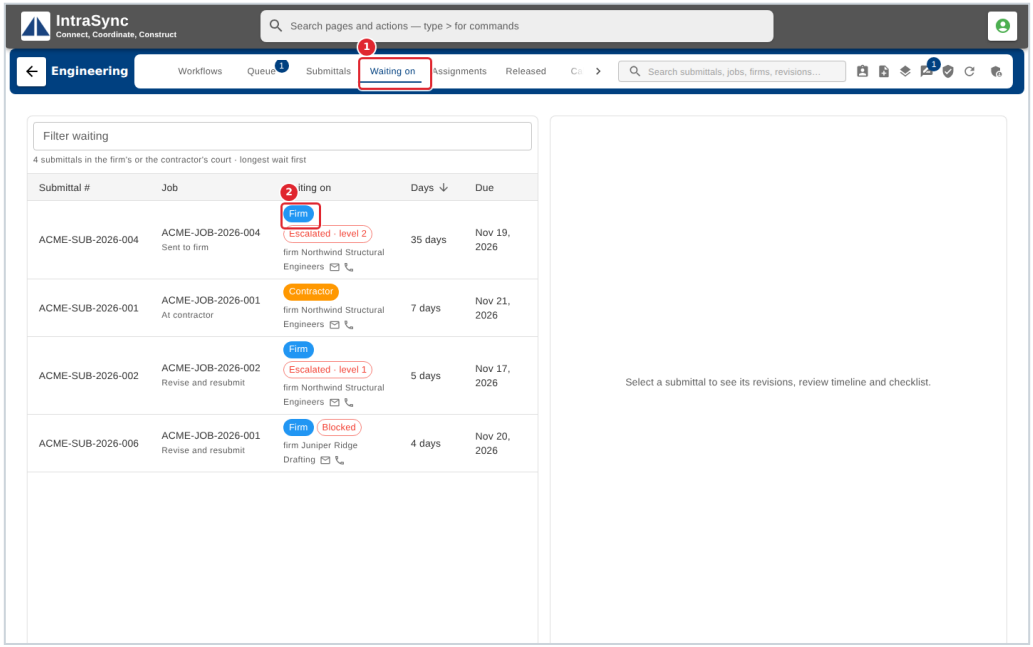
This is shown in the Engineering video at 0:20.

6. See who each submittal is waiting on

Know whose court the ball is in, how long it has waited and which submittals have been escalated.

Before you start:

– Access to the Engineering hub (its page permission).



Step 1. Select the Waiting on tab. Each row says who the submittal is waiting on (the firm or the contractor), how many days it has waited, when it is due, and any escalation level.

Tips:

– Select a row to open the submittal's detail and act on it from there.

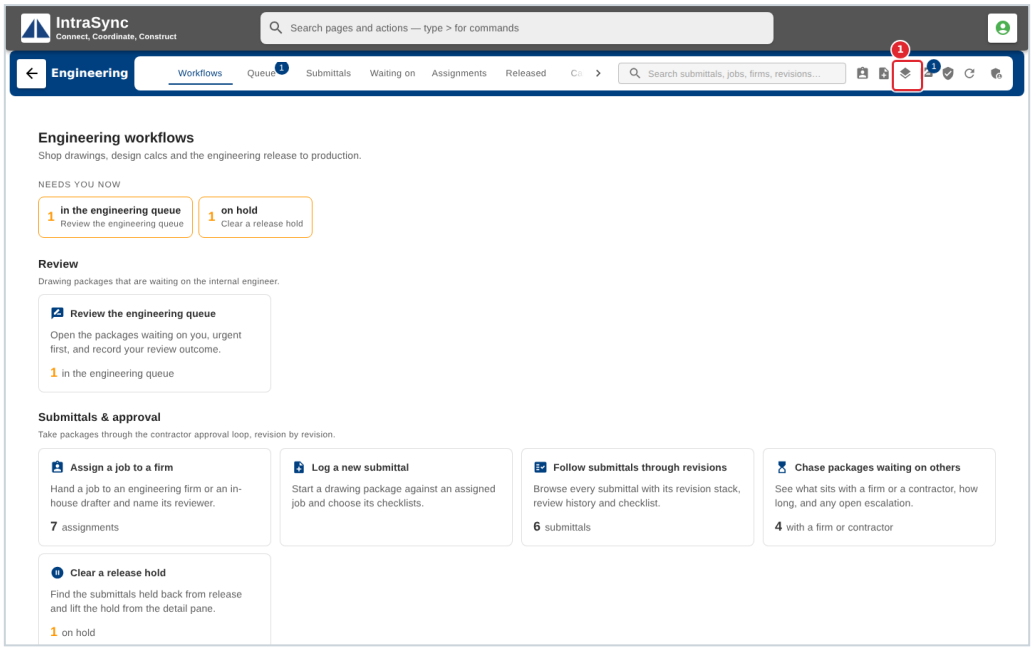
This is shown in the Engineering video at 0:39.

7. Add a firm's revision

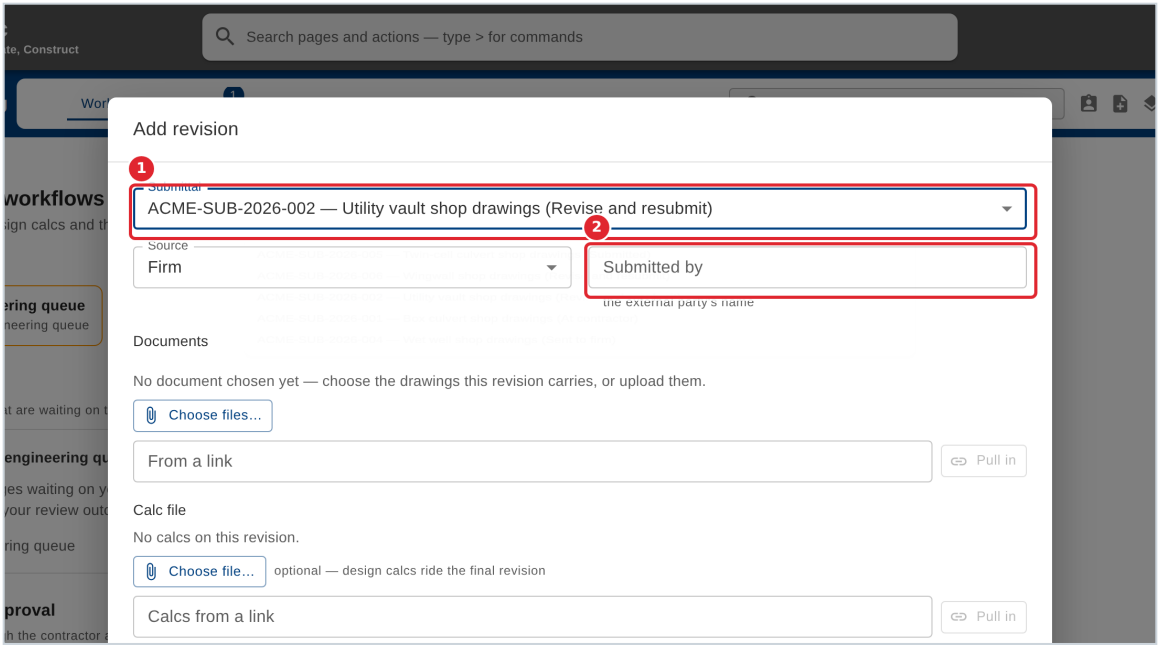
Record the firm's updated drawings as a new revision and send it back for review.

Before you start:

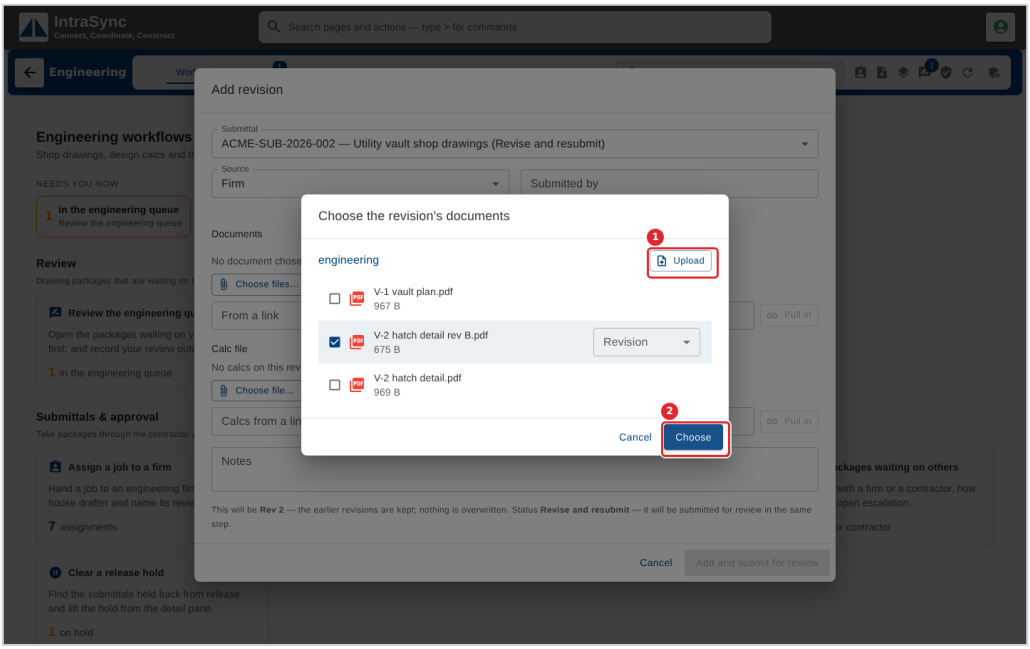
– Access to the Engineering hub (its page permission).



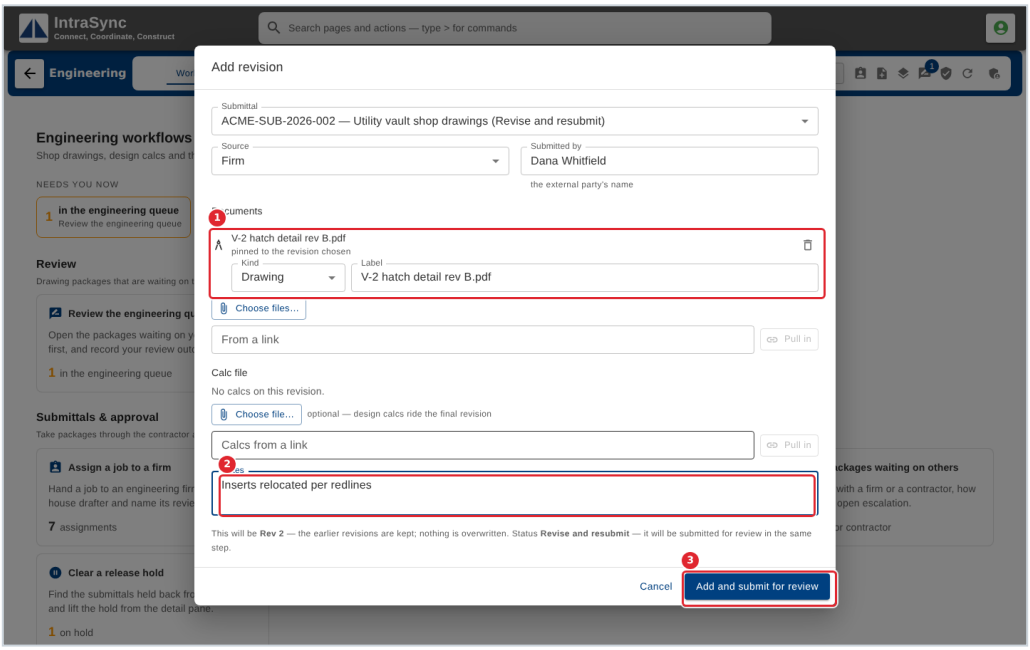
Step 1. Select Add revision.



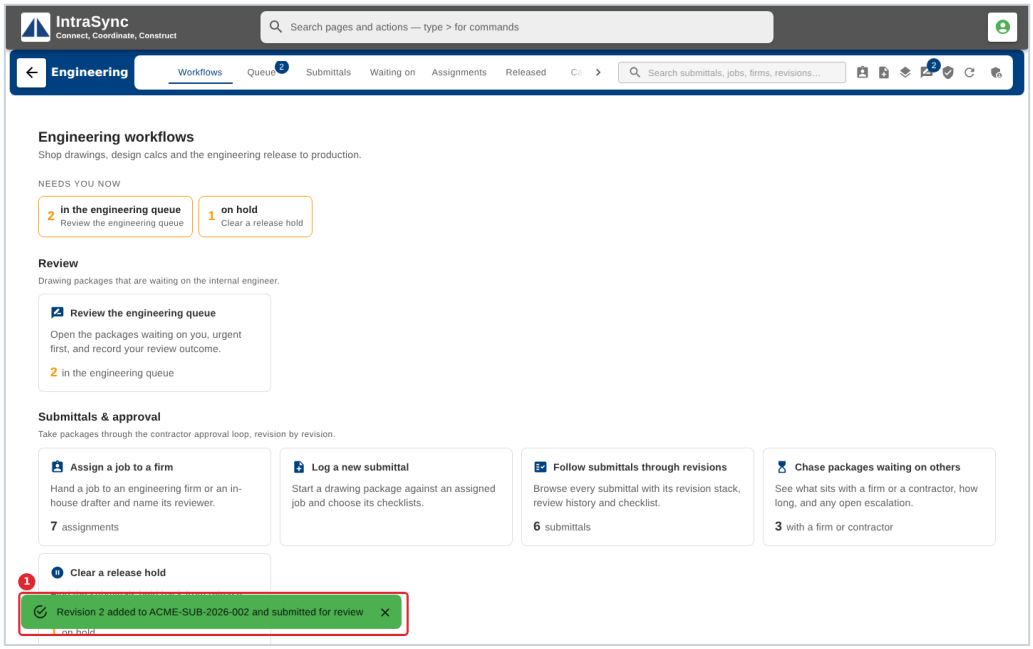
Step 2. Choose the submittal the revision belongs to, and enter who submitted it.



Step 3. Select Choose files. Tick drawings already filed with the submittal, or select Upload to add new ones, then select Choose.



Step 4. Check the documents and add notes, then select Add and submit for review.



Step 5. A message confirms the revision was added and submitted. The submittal goes back into the internal queue.

Tips:

- Earlier revisions are kept, never overwritten. Each revision records the exact version of every file it carries.
- Design calcs are optional on a revision and usually ride the final one.
- You can also bring a document in from a link instead of uploading it.

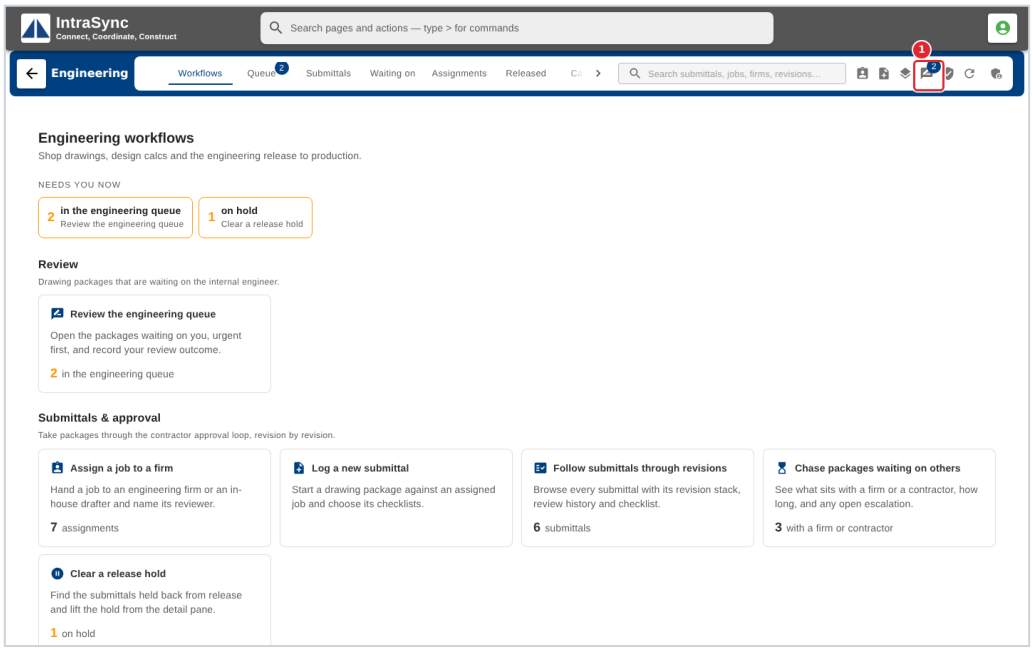
This is shown in the Engineering video at 0:51.

8. Move a submittal through review

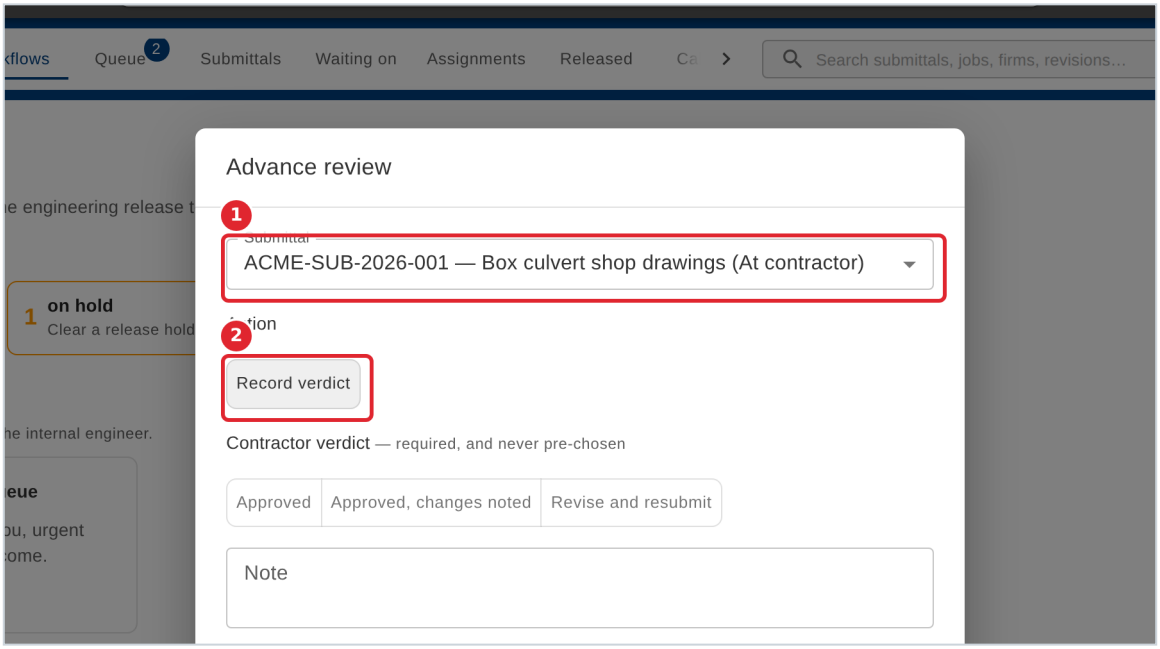
Record each review step, including the contractor's verdict, so the timeline always shows where the submittal stands.

Before you start:

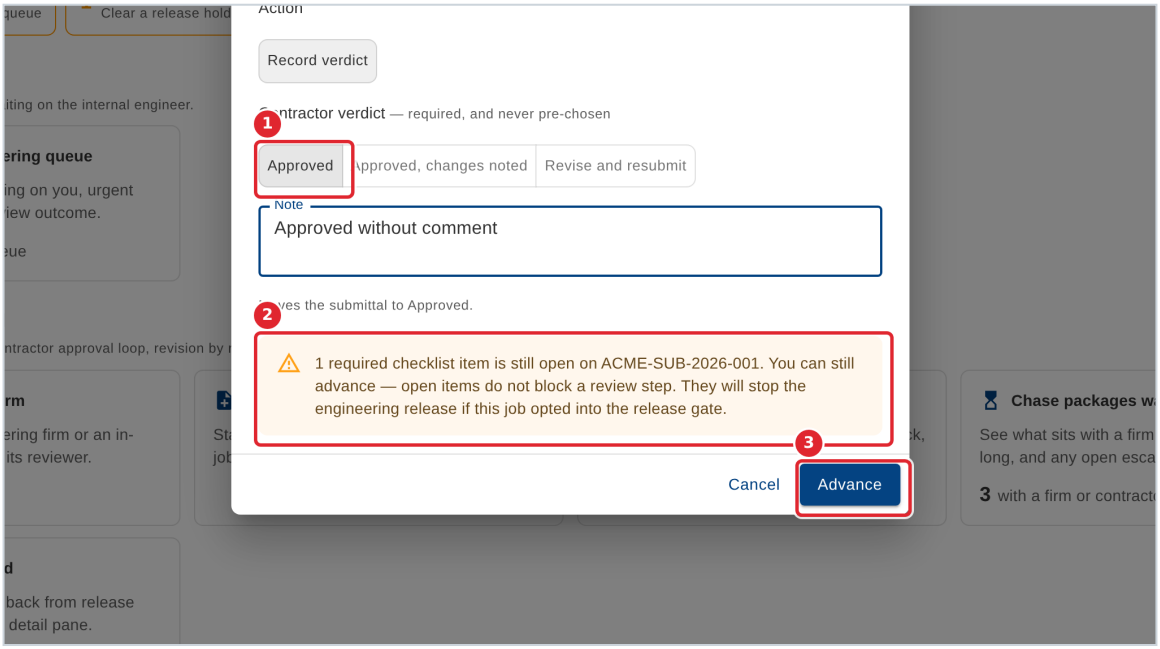
– Access to the Engineering hub (its page permission).



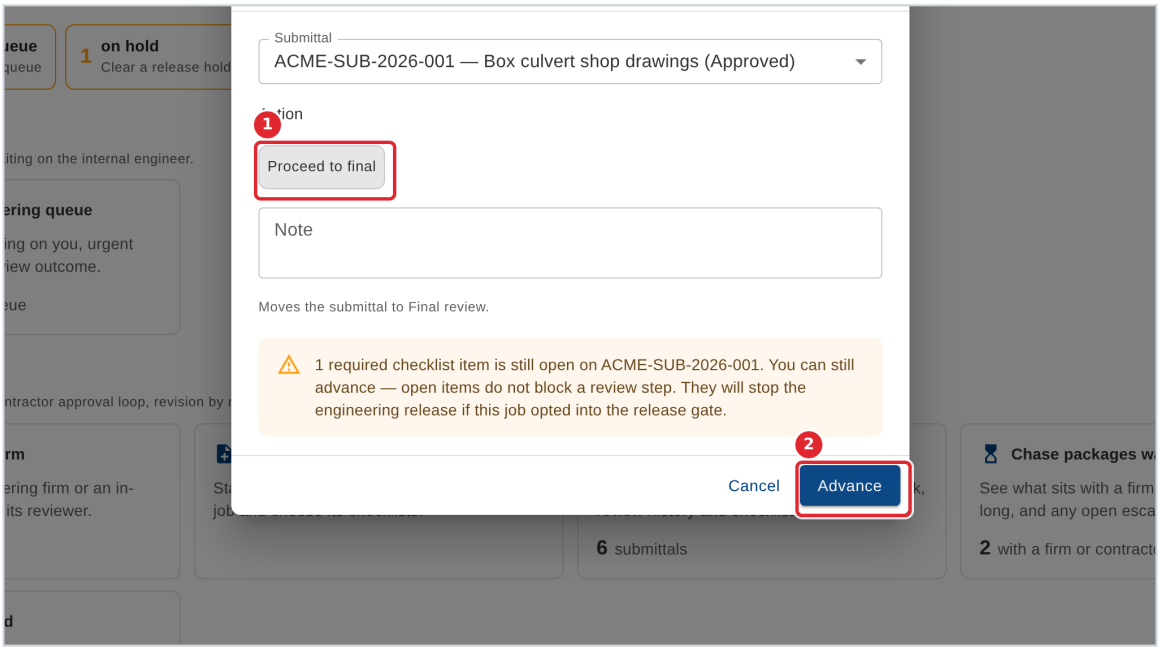
Step 1. Select Advance review.



Step 2. Choose the submittal, then the action. The actions offered depend on where the submittal is: for example Start review, Send to contractor, Record verdict or Proceed to final.



Step 3. To record the contractor's answer, choose the verdict (Approved, Approved with changes noted, or Revise and resubmit) and add a note. Read any warning about open checklist items, then select Advance.



Step 4. For an approved submittal, choose Proceed to final, then select Advance.

Tips:

- The verdict is required and is never pre-chosen.
- Open checklist items do not block a review step, but on a job that uses the release gate they stop the engineering release.
- A message after each step names the submittal and where it went.

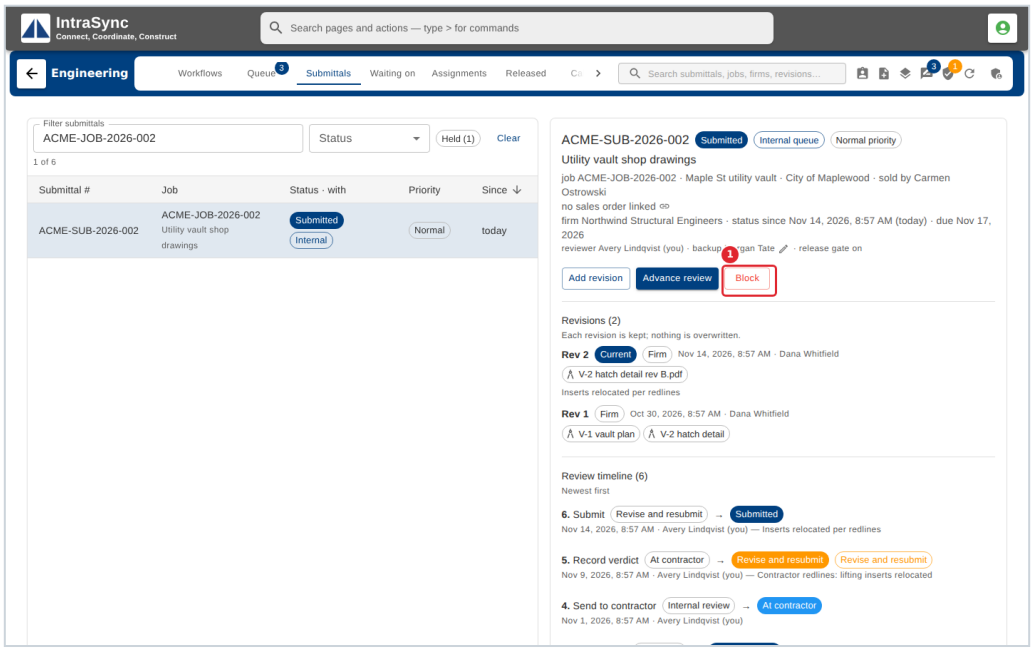
This is shown in the Engineering video at 1:12.

9. Put a submittal on hold, and clear the hold

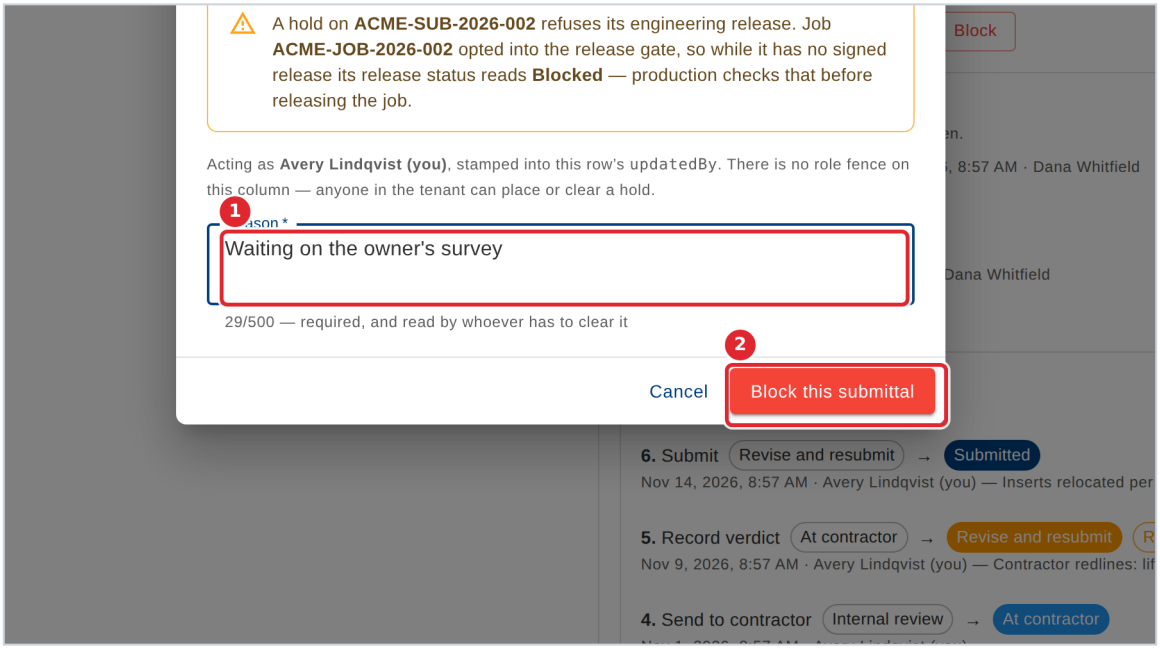
Stop a submittal from being released while something outside engineering is unresolved, and say why.

Before you start:

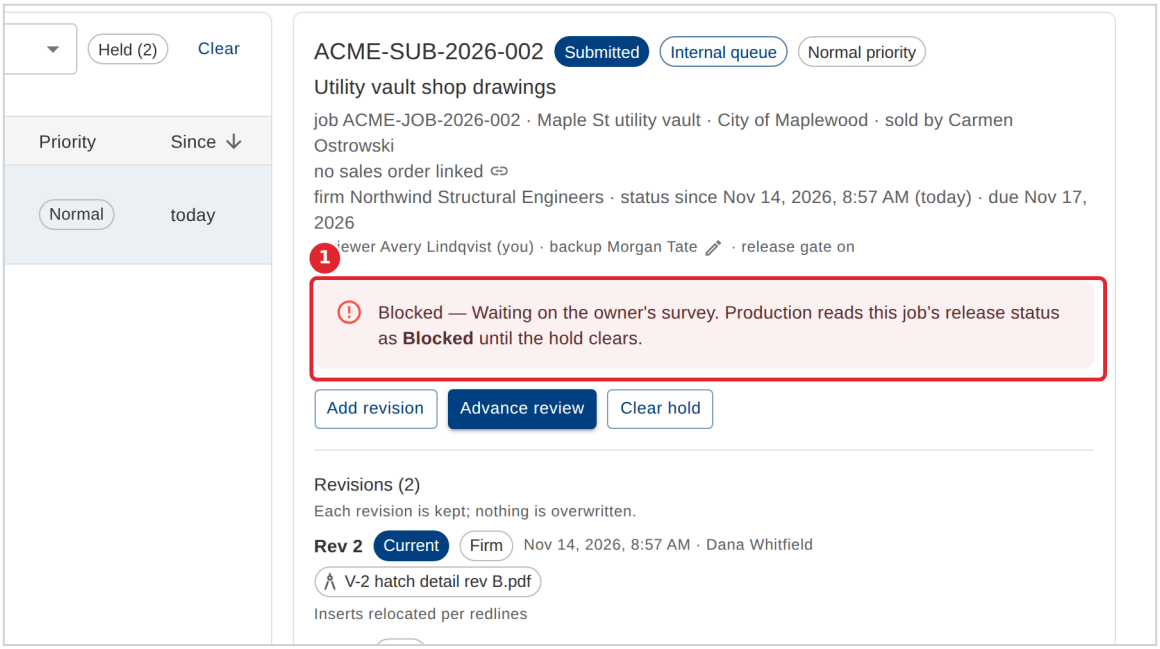
– Access to the Engineering hub (its page permission).



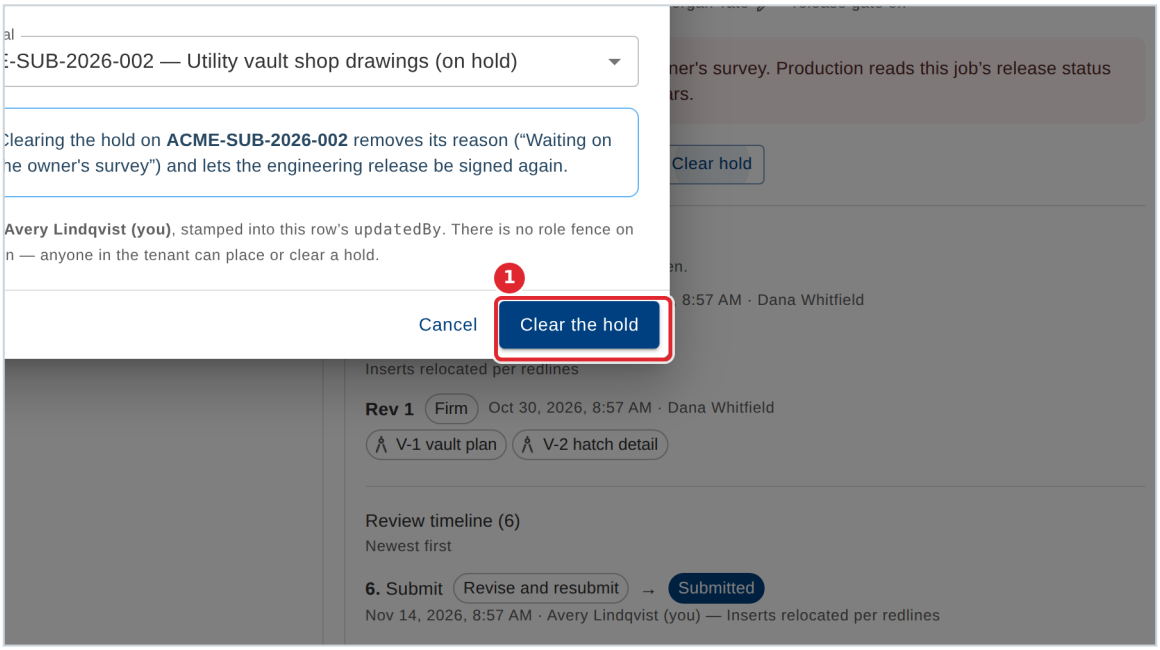
Step 1. Open the submittal and select Block.



Step 2. Say why it is on hold; the reason is required. Then select Block this submittal.



Step 3. The submittal shows the hold and its reason. Production reads the job's release status as Blocked until the hold clears.



Step 4. To clear it, select Clear hold, then Clear the hold.

Tips:

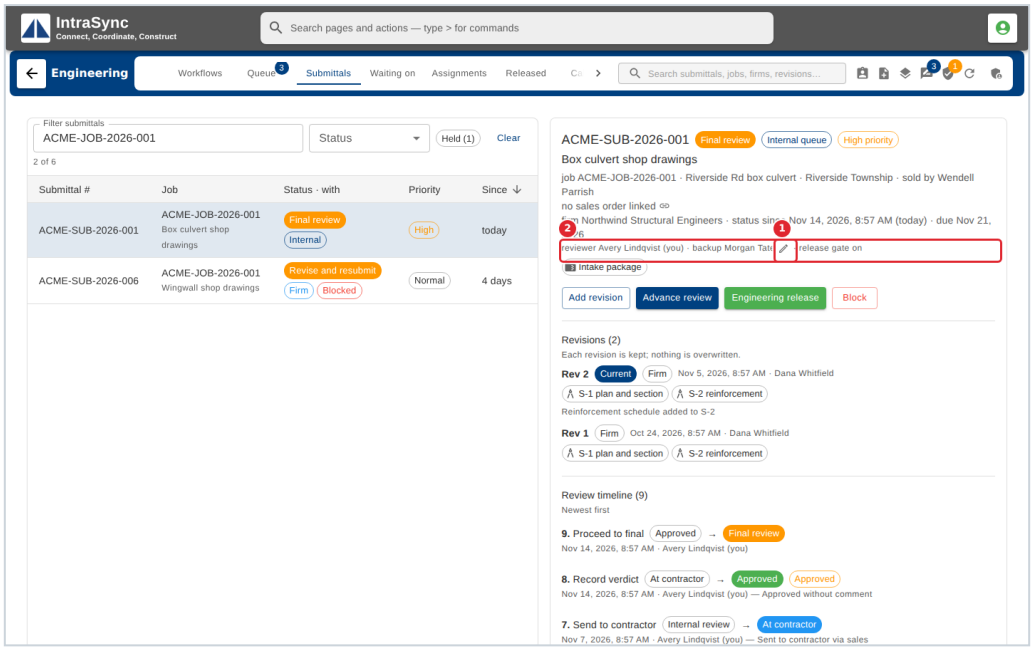
- The reason is shown wherever the hold is read, so write it for someone outside engineering.
- Held submittals are counted on the Submittals tab's Held filter and on the Workflows dashboard.

10. Change the reviewer and backup

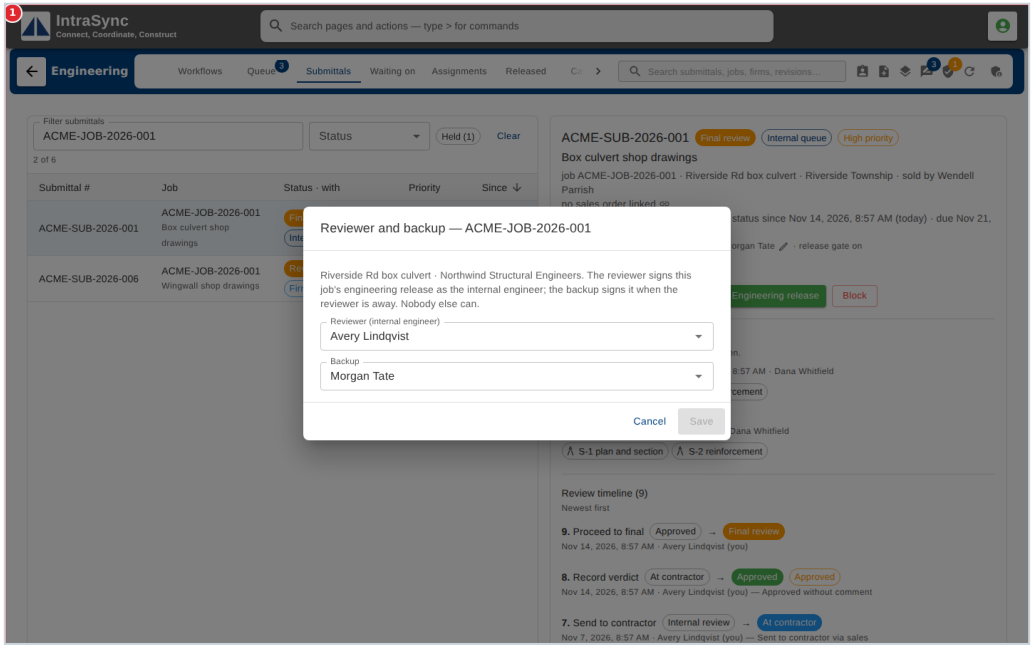
Choose who signs the engineering release, and who can sign in their place.

Before you start:

– Access to the Engineering hub (its page permission).



Step 1. Open the submittal and select the edit button beside the reviewer and backup.



Step 2. Pick the reviewer (the internal engineer) and the backup, then save. Cancel leaves them as they were.

Tips:

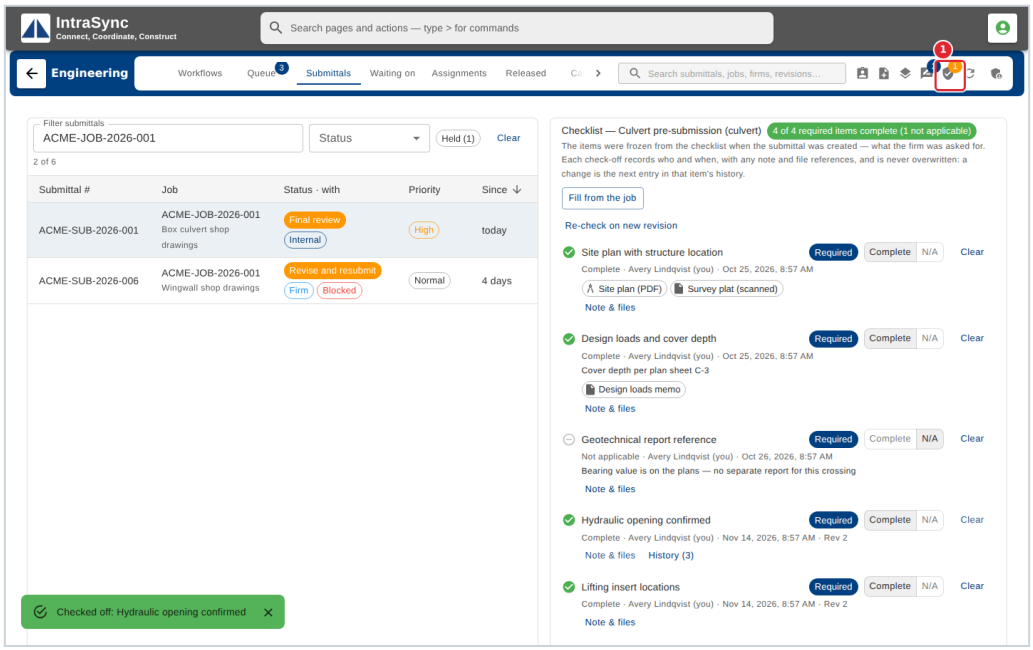
– Either the reviewer or the backup can sign the release; the signoff records which role signed.

11. Sign the engineering release

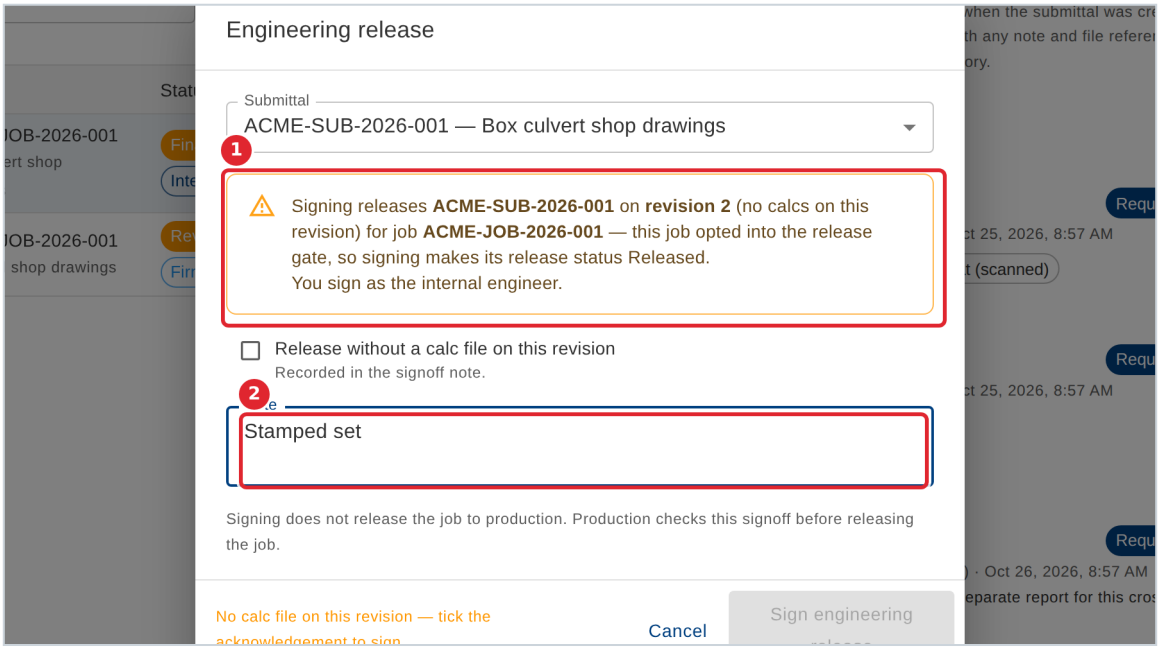
Sign off a submittal's final revision so production knows the job is released by engineering.

Before you start:

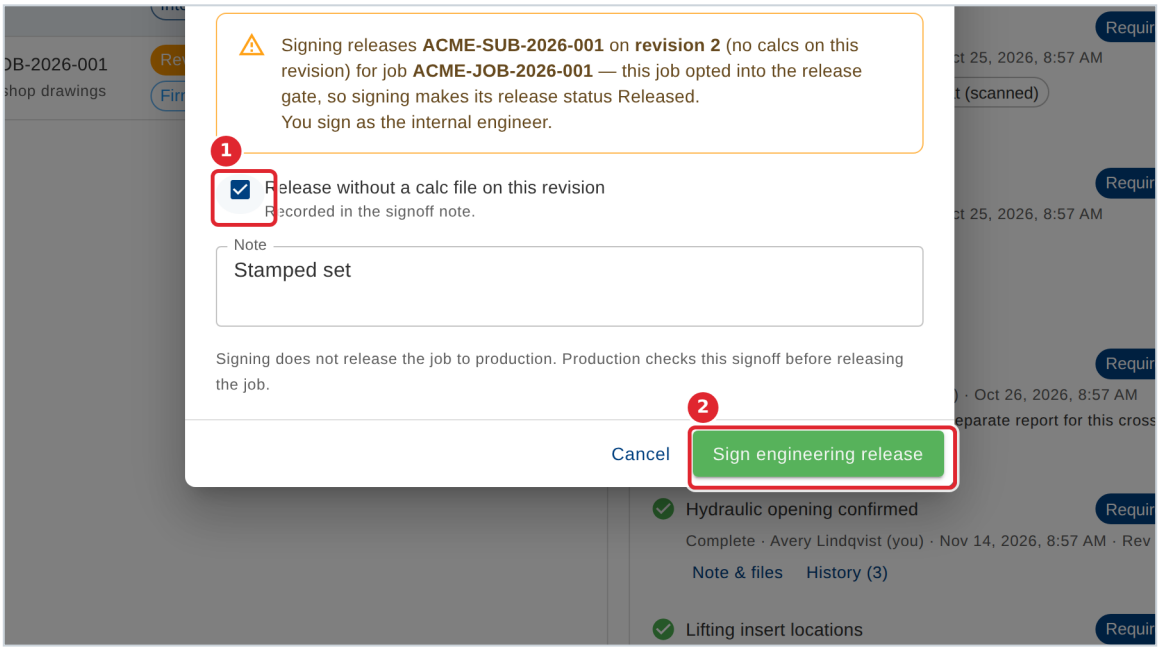
- Access to the Engineering hub (its page permission).
- The submittal is in final review.
- You are its reviewer or backup.
- On a job that uses the release gate, every required checklist item is complete and no hold is on the job.



Step 1. Select Engineering release.



Step 2. Choose the submittal. Read what you are signing: the submittal, the revision and the role you sign as. Add a note.



Step 3. If the revision carries no calc file, tick Release without a calc file on this revision. Then select Sign engineering release.

Tips:

- Signing is refused while the revision has no calc file, unless you tick that box. The choice is recorded in the signoff note.
- Signing does not release the job to production. Production checks this signoff before it releases the job.

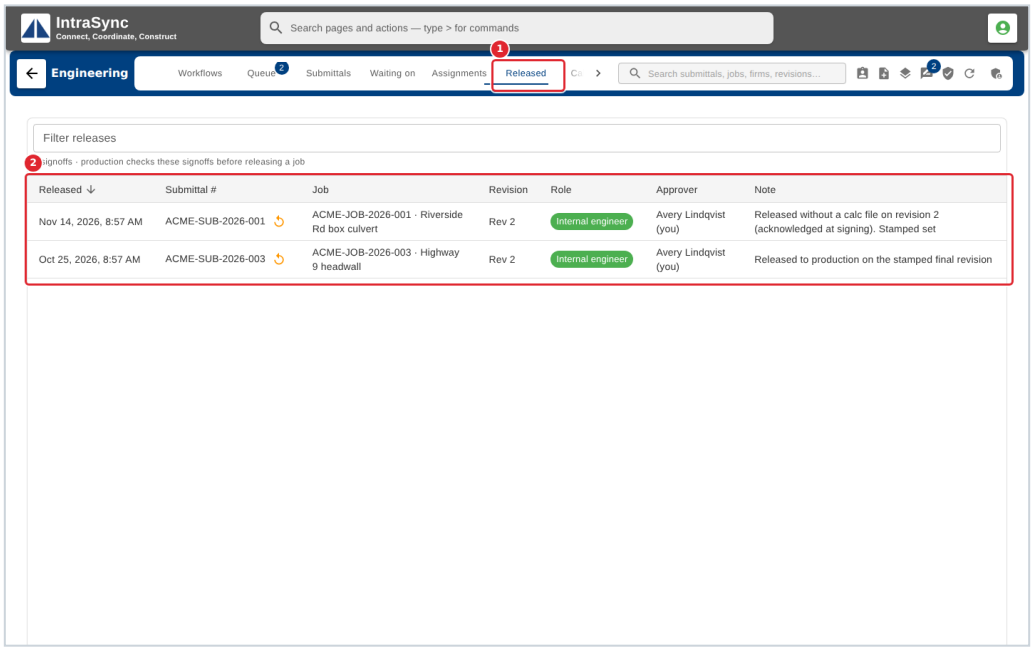
This is shown in the Engineering video at 1:35.

12. Review the release log and reopen a released submittal

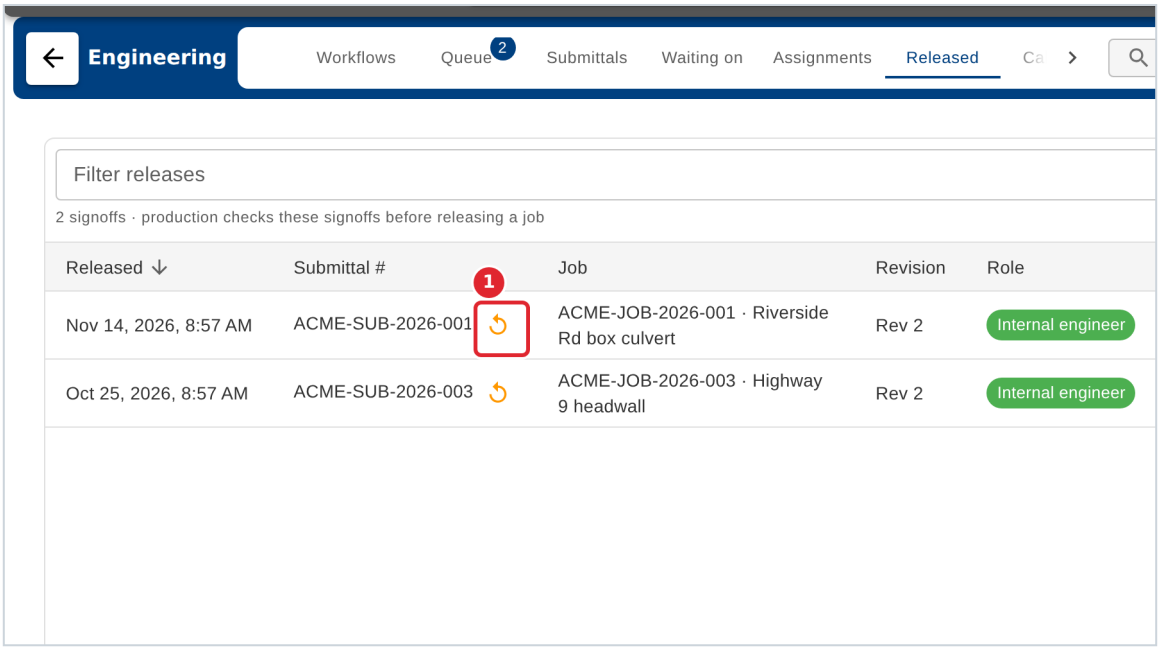
See every signoff, and send a released design back for revision when something changes.

Before you start:

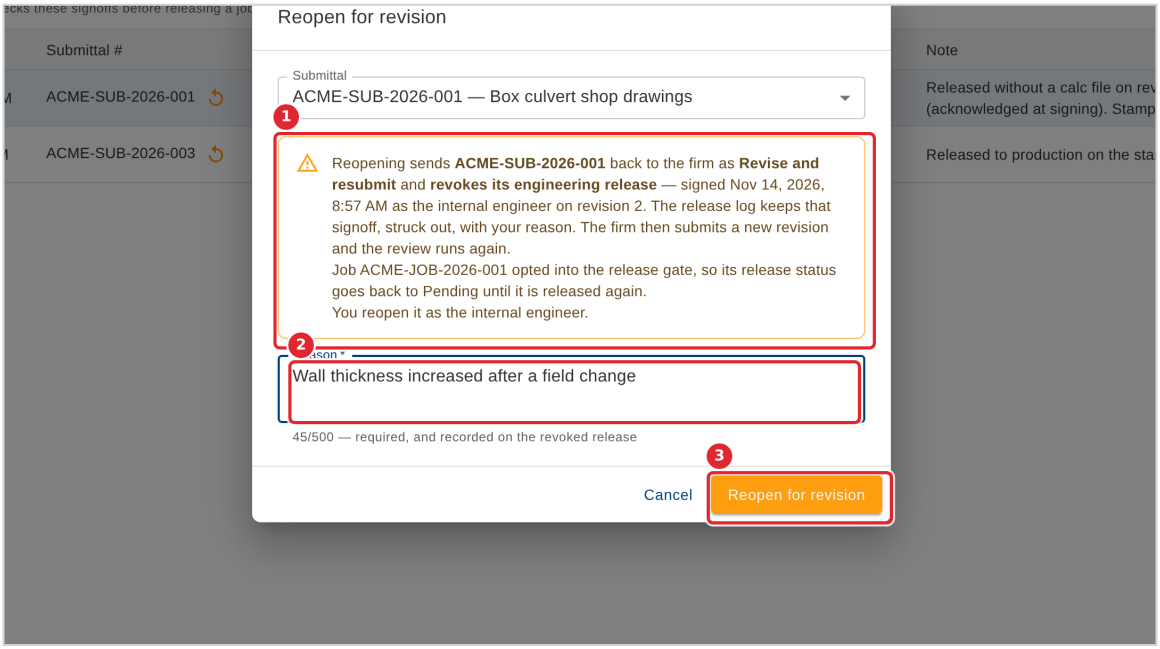
- Access to the Engineering hub (its page permission).
- Reopening is switched on for your system.



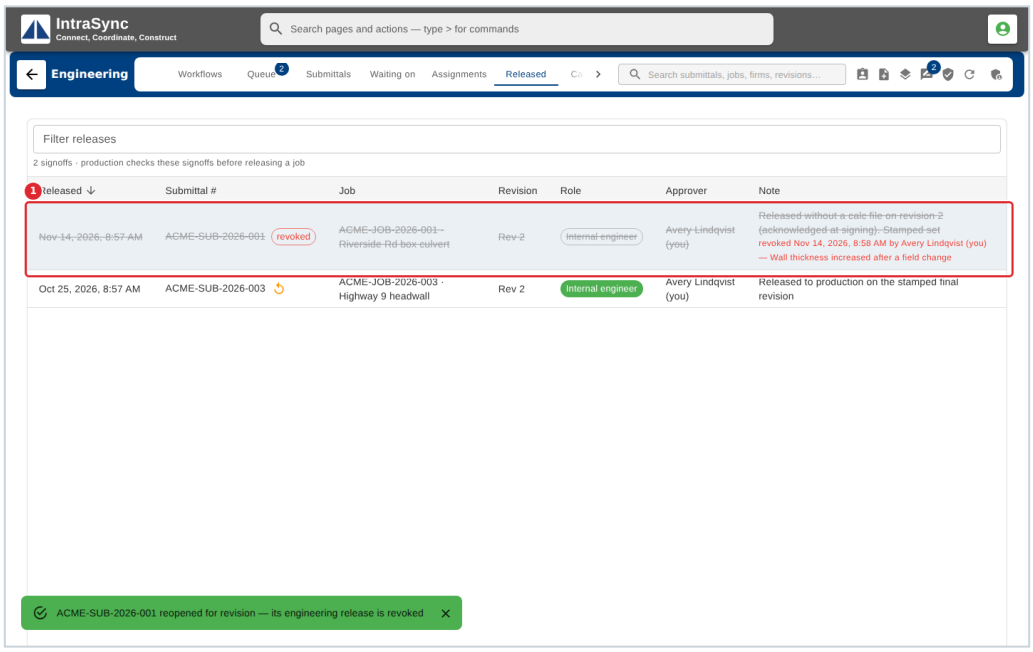
Step 1. Select the Released tab. The log lists every signoff: when, the submittal and job, the revision, the role and who signed.



Step 2. To change a released design, select the reopen button on its row.



Step 3. Read what reopening does, enter the reason, then select Reopen for revision.



Step 4. The signoff stays in the log, struck out, with your reason. The submittal goes back to the firm as revise and resubmit, and the job's release status returns to Pending.

Tips:

- The reason is required, and is kept with the revoked signoff.
- When the new revision is approved, sign the release again. Both signoffs stay in the log.

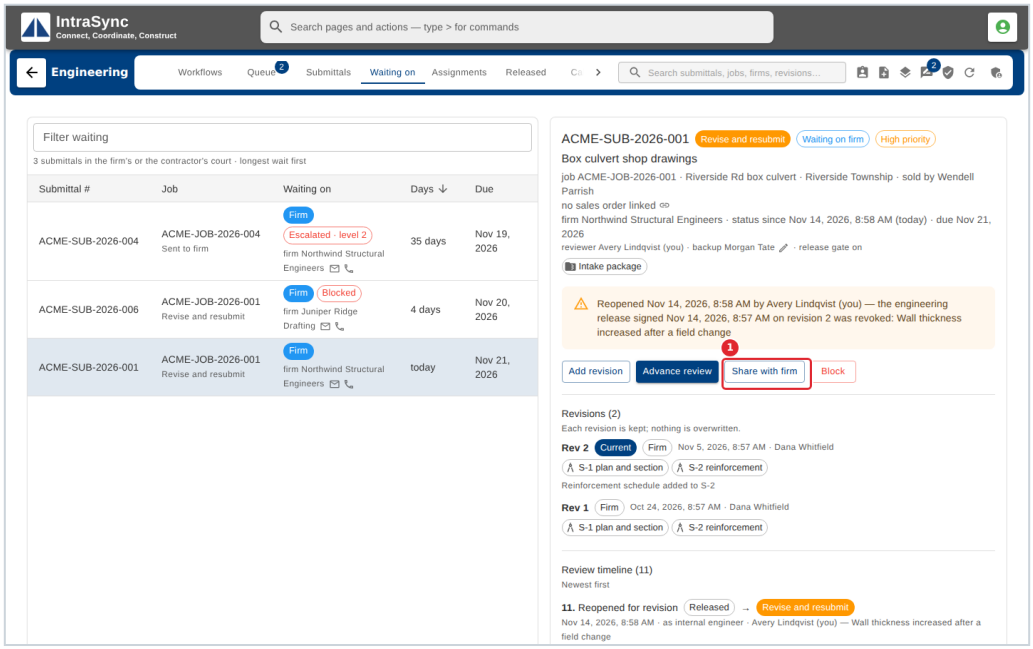
This is shown in the Engineering video at 1:42.

13. Share a submittal's documents with a firm

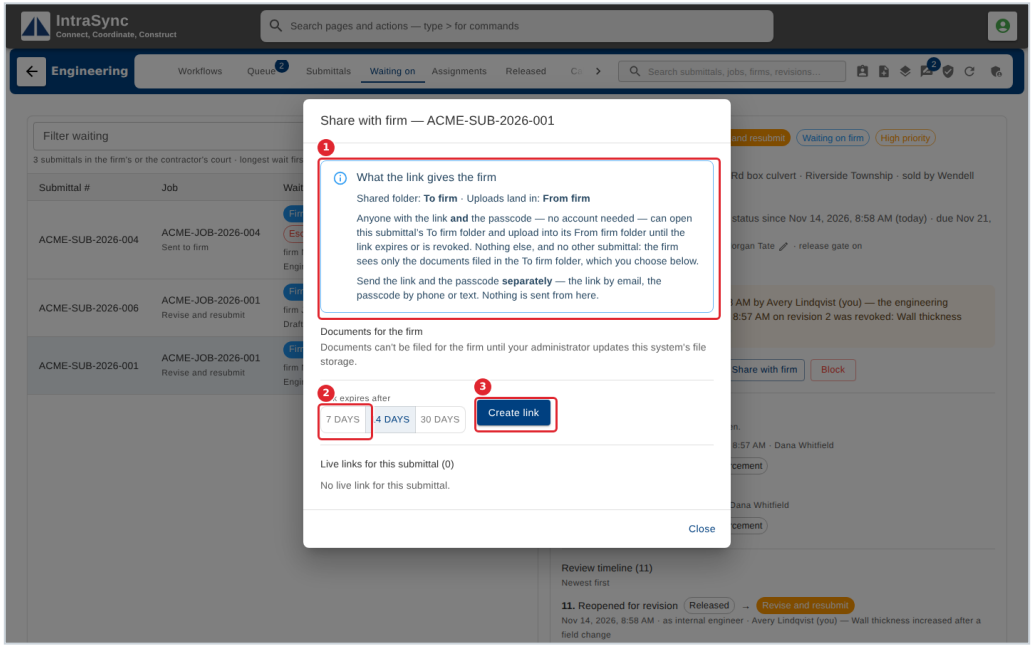
Give an outside firm the drawings sent to it, and a place to upload its own, without an account.

Before you start:

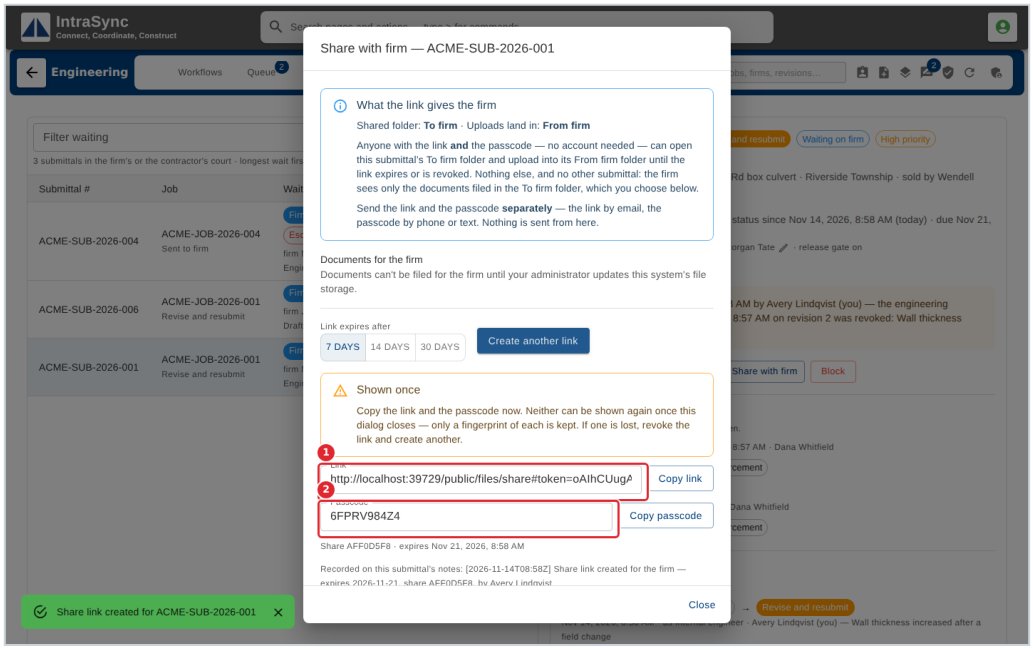
- Access to the Engineering hub (its page permission).
- Sharing is switched on for your system.
- The submittal is with the firm.



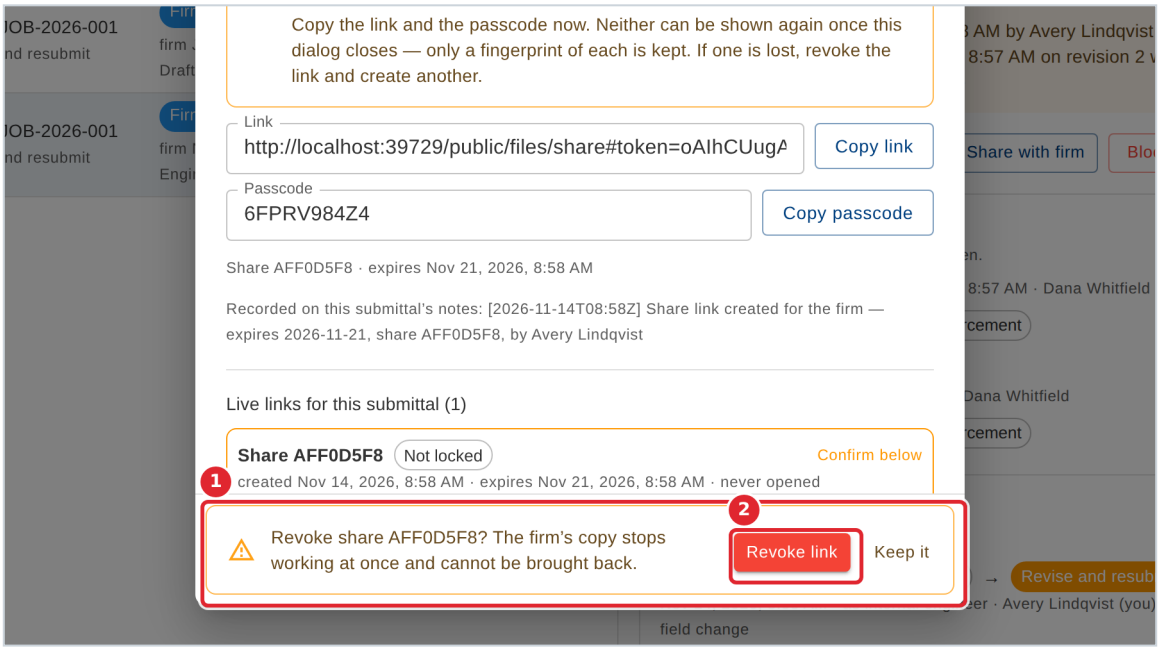
Step 1. Open the submittal and select Share with firm.



Step 2. Read which folder the firm sees and where its uploads land. Choose how long the link lasts, then select Create link.



Step 3. Copy the link and the passcode now: neither can be shown again once the dialog closes. Send them to the firm separately, for example the link by email and the passcode by phone.



Step 4. To stop a link working, select Revoke on it, then Revoke link to confirm.

Tips:

- If you lose the link or passcode, revoke the link and create another one.
- Revoking cannot be undone: the firm's copy stops working at once.
- Each link you create is recorded in the submittal's notes.

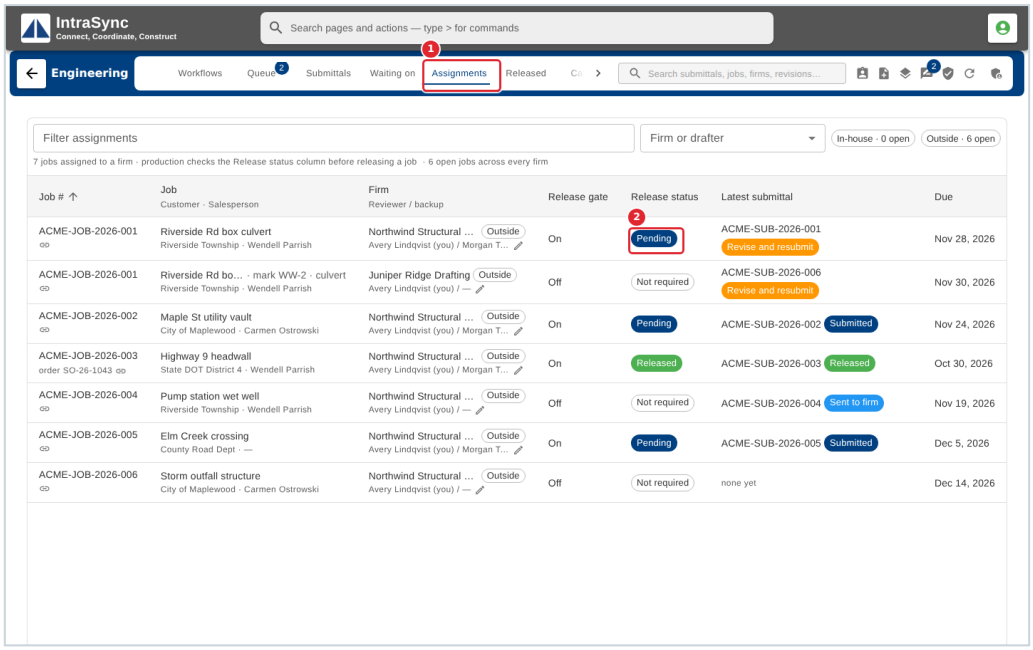
This is shown in the Engineering video at 2:16.

14. Track jobs on the Assignments tab

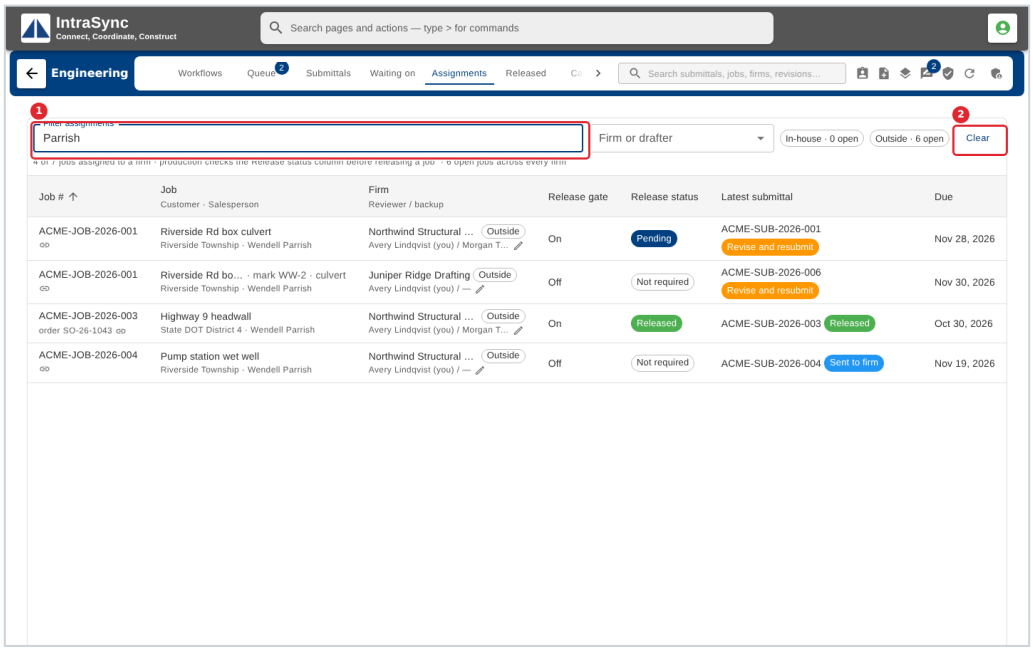
See every job assigned to a firm, its latest submittal and the release status production checks.

Before you start:

– Access to the Engineering hub (its page permission).



Step 1. Select the Assignments tab. Each job shows its customer and salesperson, firm, whether it uses the release gate, its release status, its latest submittal and its due date.



Step 2. Filter by job number, firm, customer or salesperson. Select Clear to see every job again.

Tips:

- Release status reads Released, Pending, Blocked or Not required. Production checks it before releasing a job.
- Use the in-house and outside chips to see the two workloads apart.

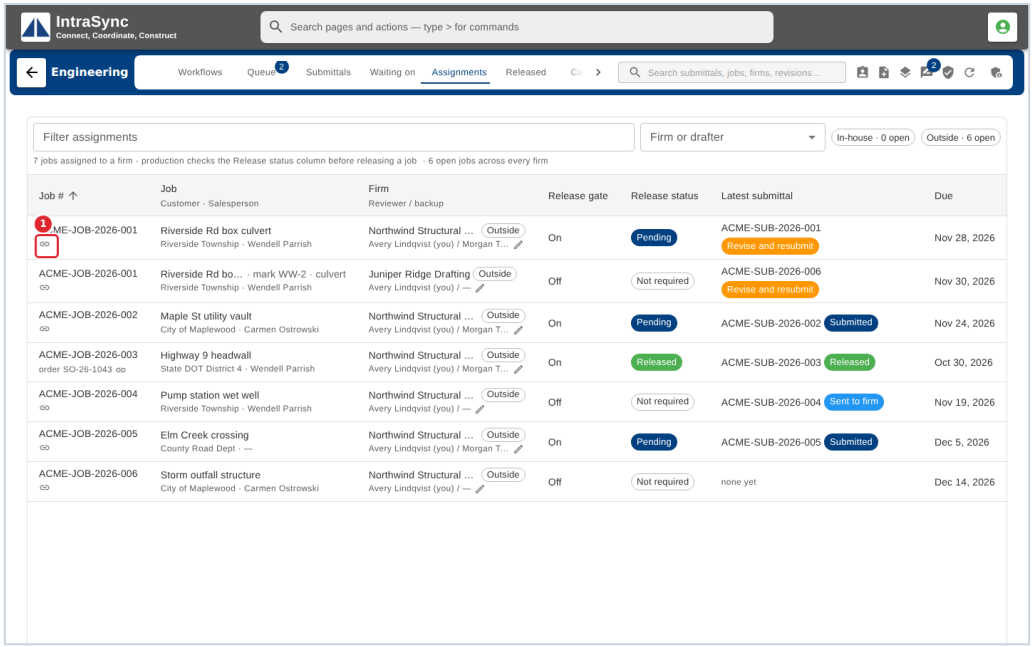
This is shown in the Engineering video at 1:47.

15. Link a job to its sales order

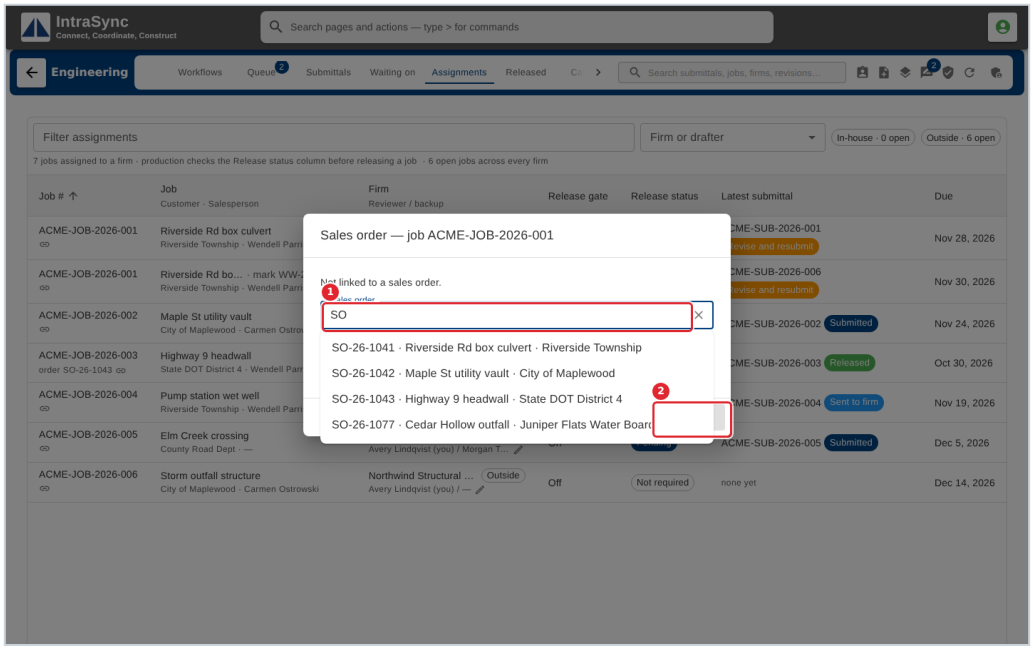
Tie the job to the order it is for, so other parts of the system can ask about that order's engineering status.

Before you start:

- Access to the Engineering hub (its page permission).
- Sales order linking is switched on for your system.



Step 1. On the Assignments tab, find a job with no sales order and select the edit button on its order line.



Step 2. Search for the order by number or customer, pick it from the list, then select Link order.

Tips:

– You can also link the order when you create the assignment.

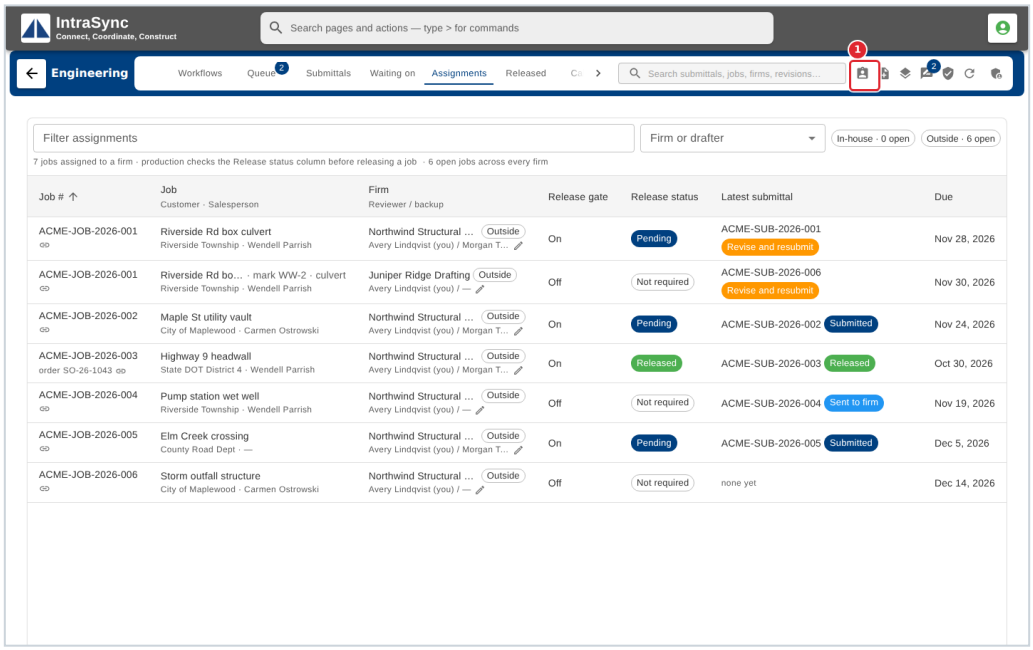
This is shown in the Engineering video at 3:49.

16. Assign a new job to a firm

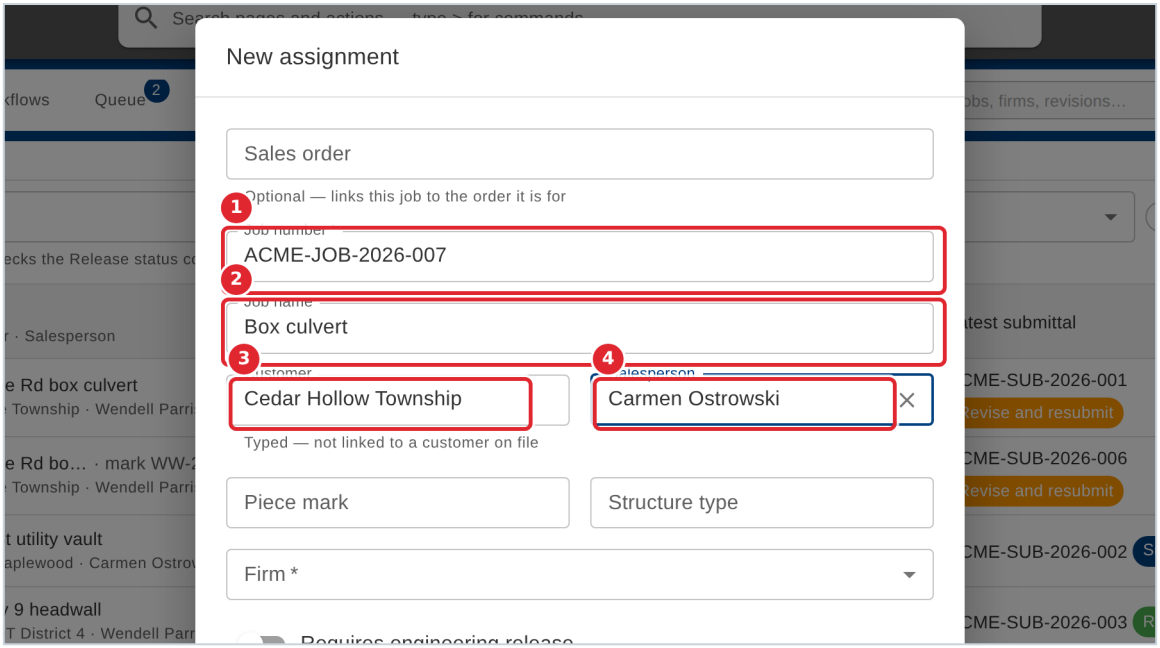
Start engineering work on a job by assigning it to an in-house drafter or an outside firm.

Before you start:

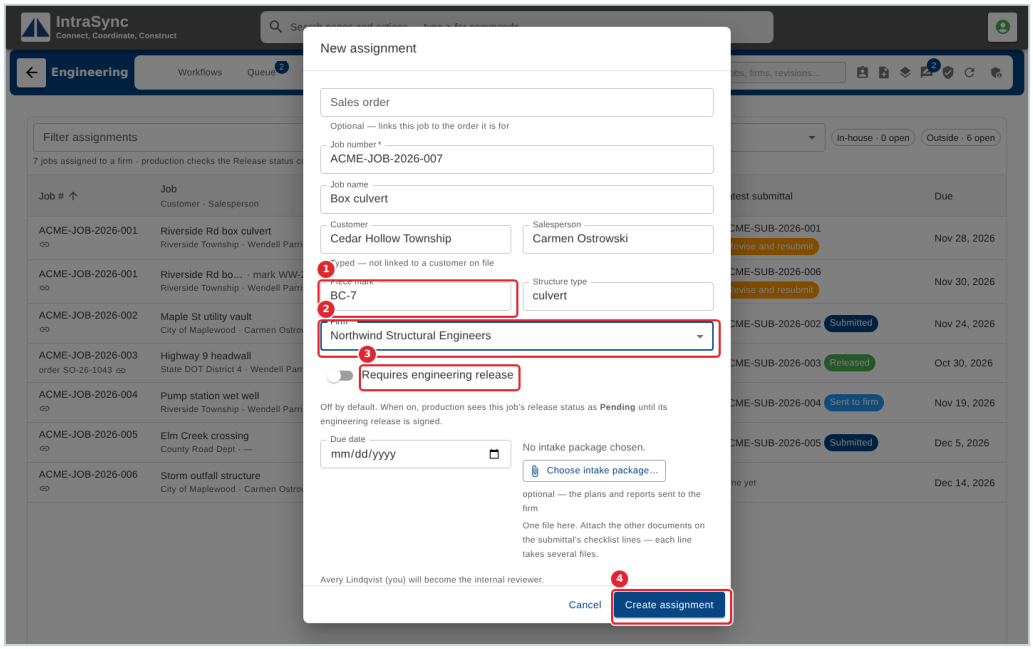
- Access to the Engineering hub (its page permission).
- The firm is set up under Engineering admin > Engineering firms.



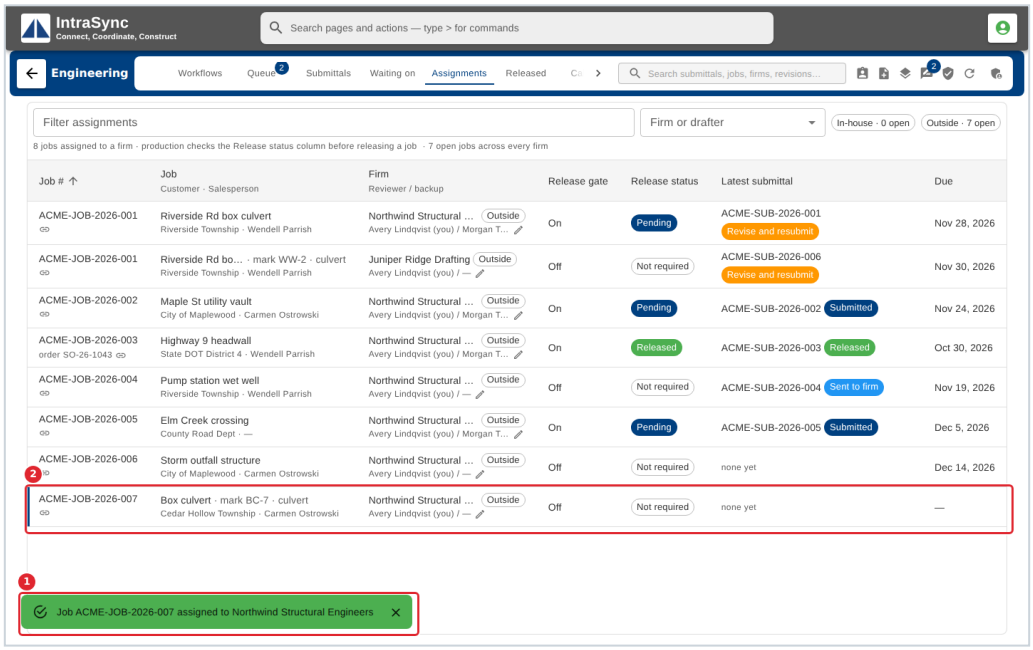
Step 1. Select New assignment.



Step 2. Enter the job number and job name. Customer and Salesperson suggest the ones already on your jobs; type a new one if it is not listed.



Step 3. Add the piece mark and structure type, and pick the firm. Turn on Requires engineering release if production must wait for a signoff. Then select Create assignment.



Step 4. The job is added to the Assignments list.

Tips:

- When more than one firm is active, none is picked for you, and Create assignment waits until you pick one.
- Requires engineering release is off by default. Off, the job's release status reads Not required.
- A firm marked as needing a purchase order asks for the reference before work starts.

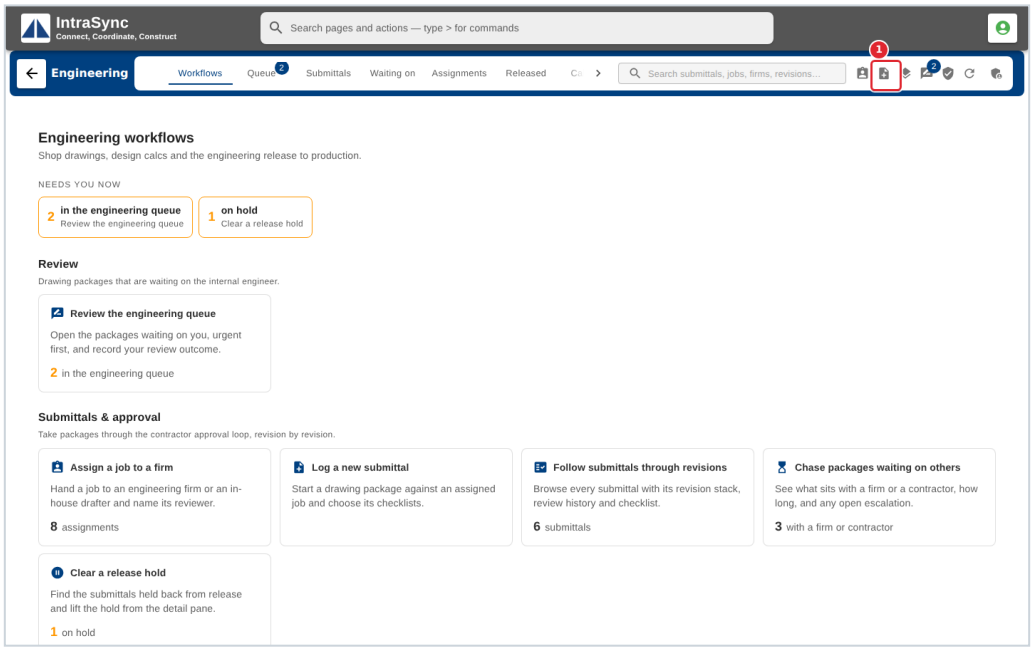
This is shown in the Engineering video at 3:58.

17. File a new submittal against a job

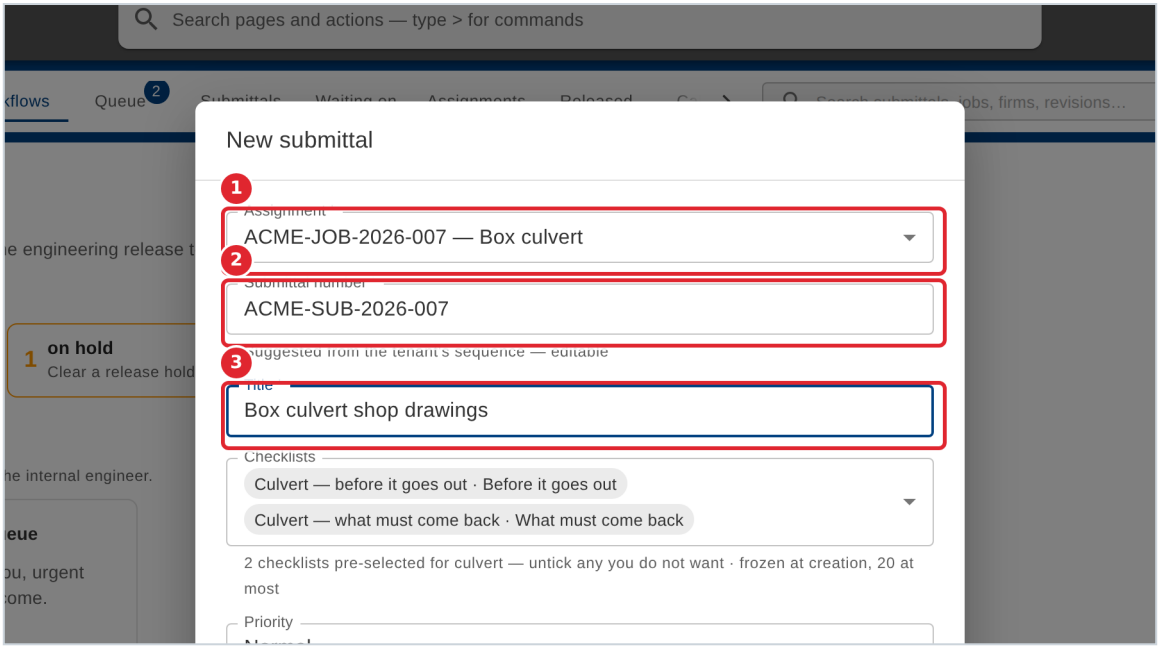
Start a drawing package for a job, with the checklists the firm will be asked to answer.

Before you start:

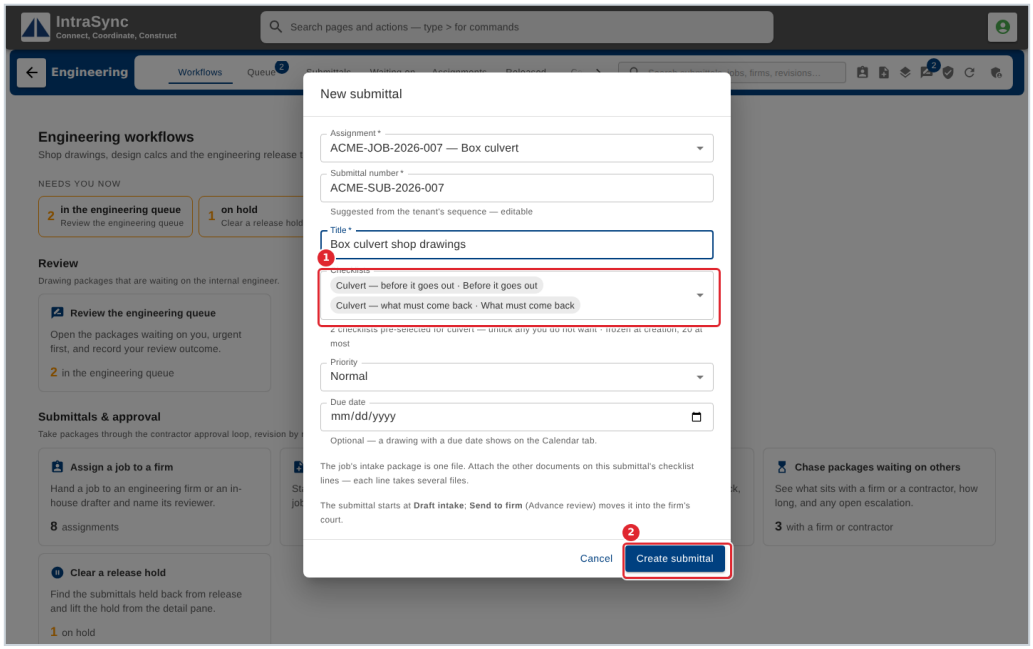
- Access to the Engineering hub (its page permission).
- The job has an assignment.



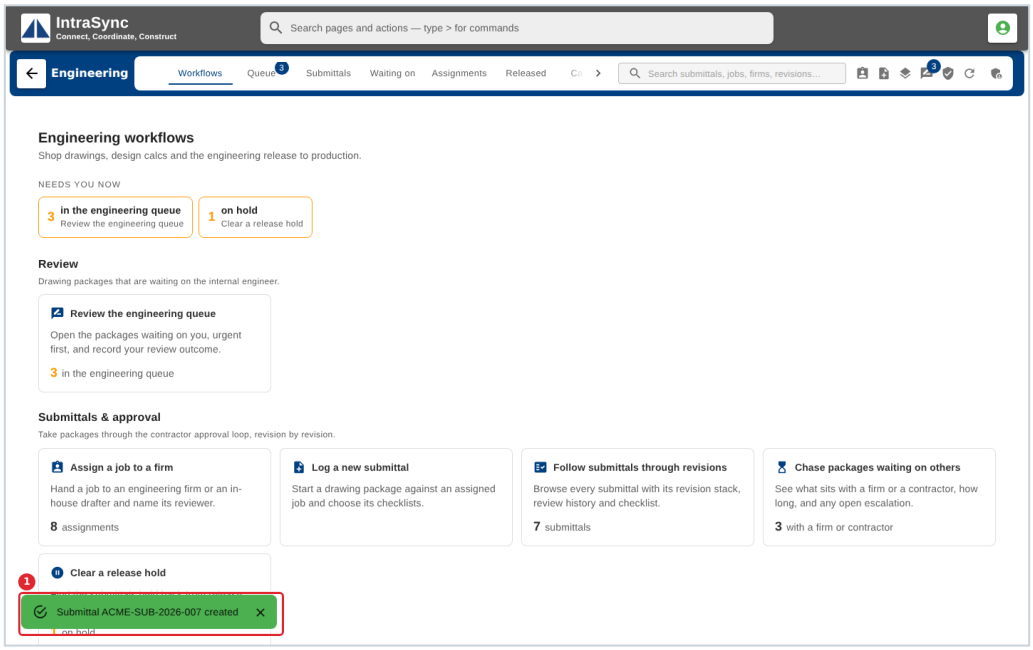
Step 1. Select New submittal.



Step 2. Pick the job. The submittal number is suggested from your sequence; change it if you need to. Enter a title.



Step 3. Check the checklists: the ones for the job's structure type are already selected. Untick any you do not want, add others, then select Create submittal.



Step 4. A message confirms the submittal was created. It starts as a draft intake in the internal queue.

Tips:

- The checklists are frozen when the submittal is created: later edits to a checklist do not change it.
- Attach the job's intake package so Fill from the job can find its documents.

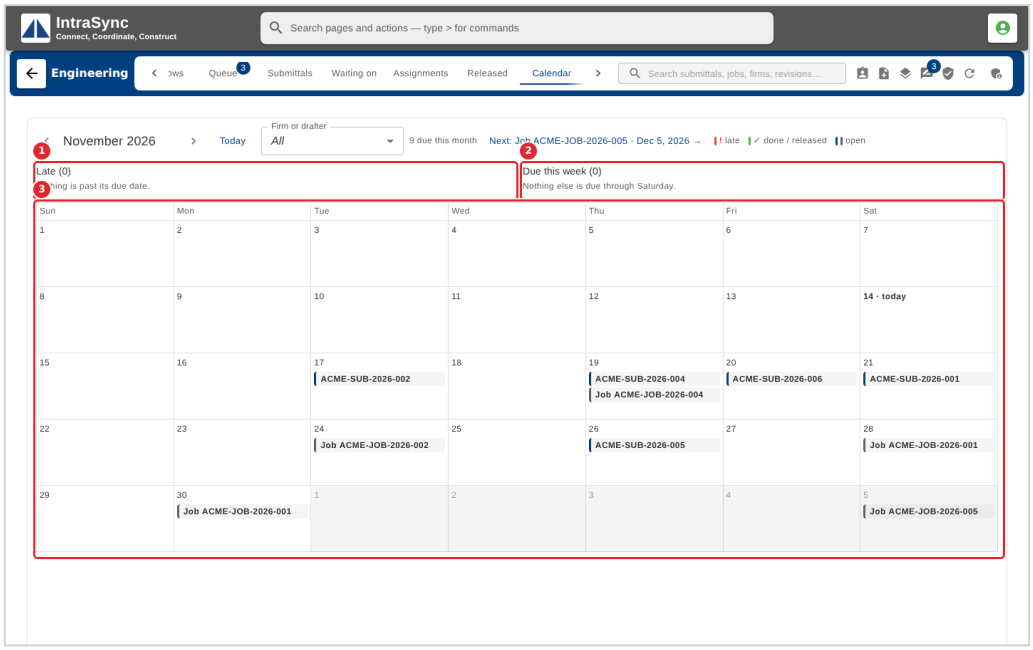
This is shown in the Engineering video at 4:15.

18. See due and late work on the calendar

Plan the week and catch late drawings and jobs.

Before you start:

– Access to the Engineering hub (its page permission).



Step 1. Select the Calendar tab. Drawings and jobs sit on the day they are due. Late work and this week's work are listed above the month.

Tips:

– Use the arrows beside the month to move between months, and Today to come back.
– Filter by firm or drafter to see one workload.
– Late means past due and still open; finished work is never shown as late.

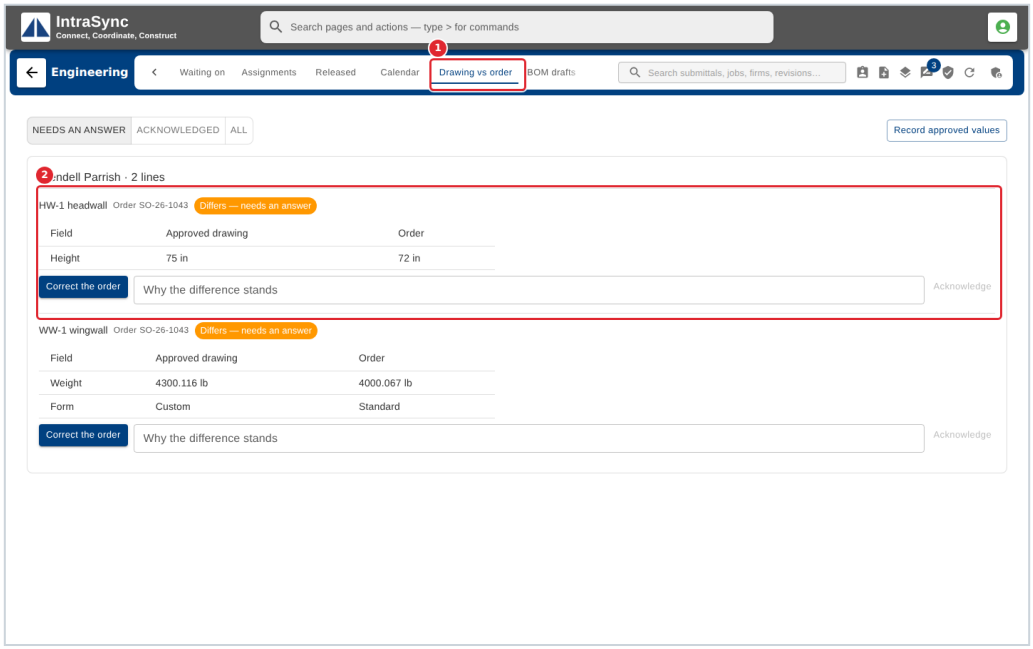
This is shown in the Engineering video at 4:27.

19. Answer differences between the drawing and the order

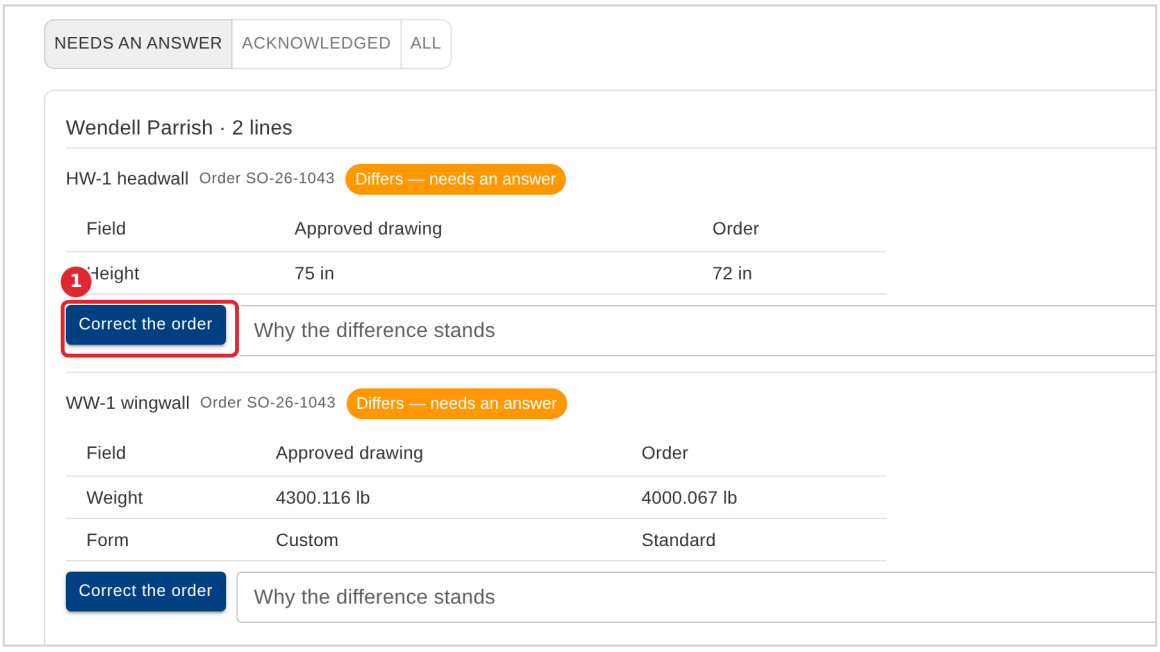
Make sure what is ordered matches what engineering approved, or record why it may differ.

Before you start:

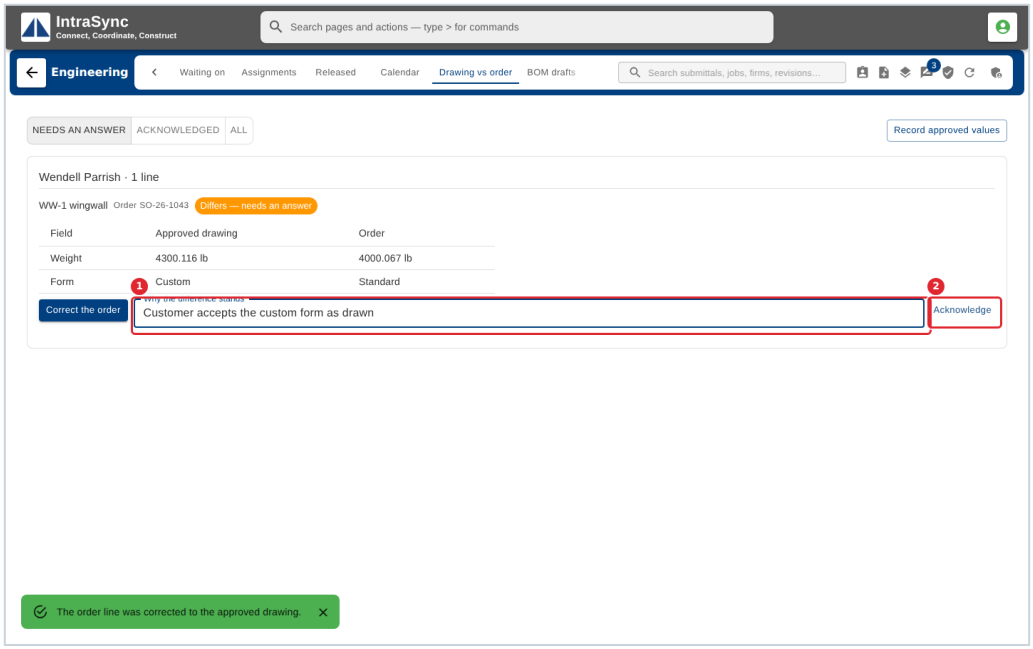
- Access to the Engineering hub (its page permission).
- Drawing vs order is switched on for your system.
- Approved values are recorded for the job, and the job is linked to its sales order.



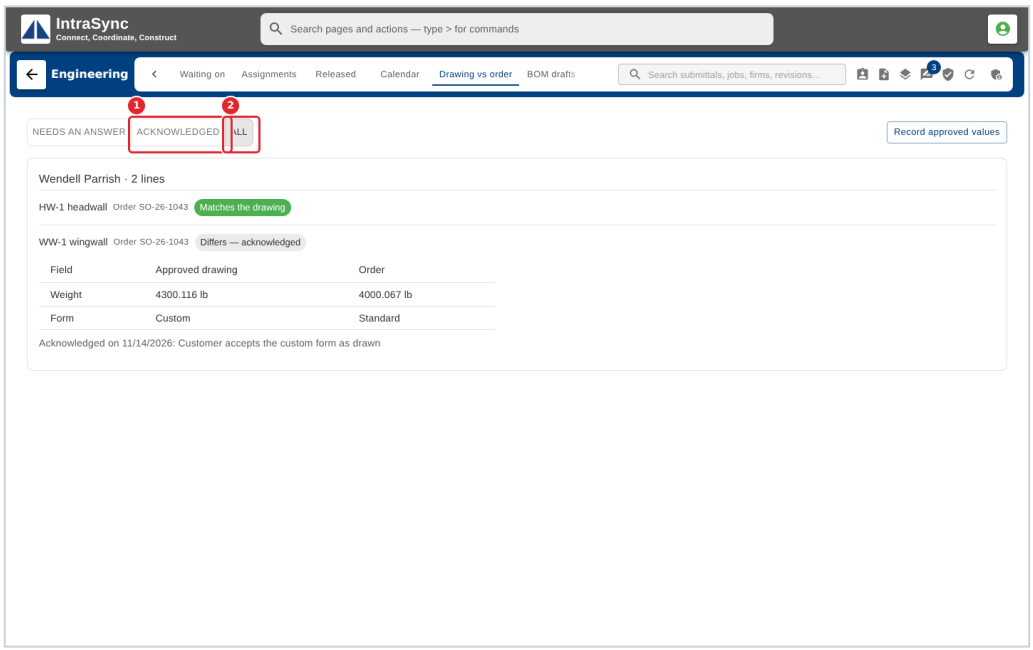
Step 1. Select the Drawing vs order tab. Each order line that differs from the approved drawing is listed field by field, grouped by salesperson.



Step 2. To change the order to match the drawing, select Correct the order.



Step 3. To keep the difference, enter why it stands, then select Acknowledge.



Step 4. Use Needs an answer, Acknowledged and All to choose which lines are shown.

Tips:

- Acknowledge stays unavailable until you give a reason.
- Quantities show in your plant's units.

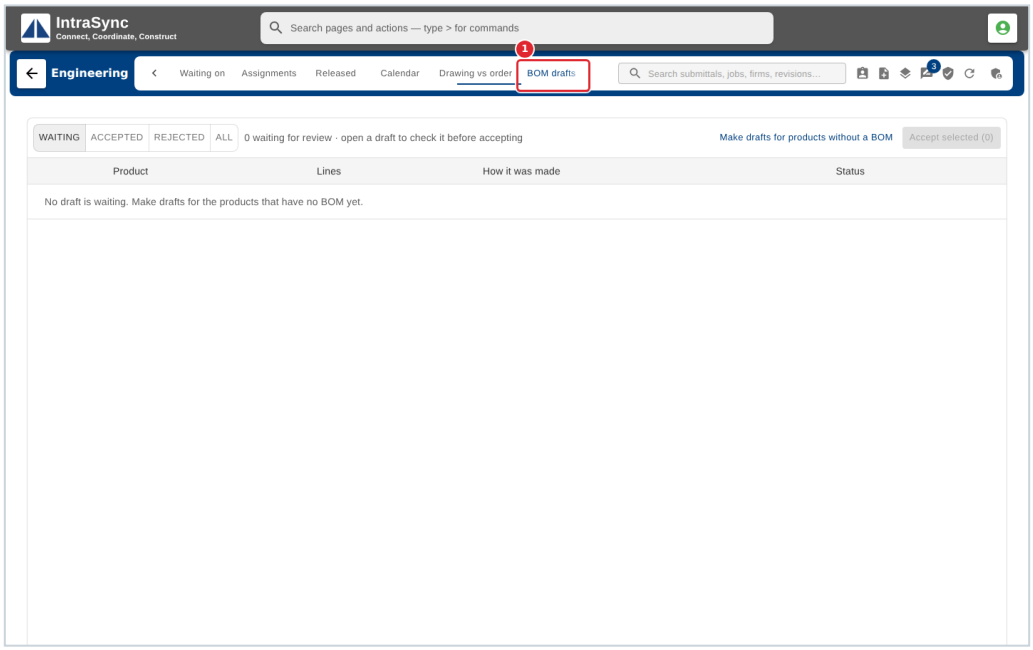
This is shown in the Engineering video at 4:31.

20. Review draft bills of materials

Check and accept the bills of materials drafted for products that have none yet.

Before you start:

- Access to the Engineering hub (its page permission).
- BOM drafts are switched on for your system.



Step 1. Select the BOM drafts tab. When no draft is waiting, select Make drafts for products without a BOM.

- Step 2. Open a draft to check its components and quantities. Change a quantity, remove a line or add a component, then accept the draft.
- Step 3. To accept several at once, tick them and select Accept selected.

Tips:

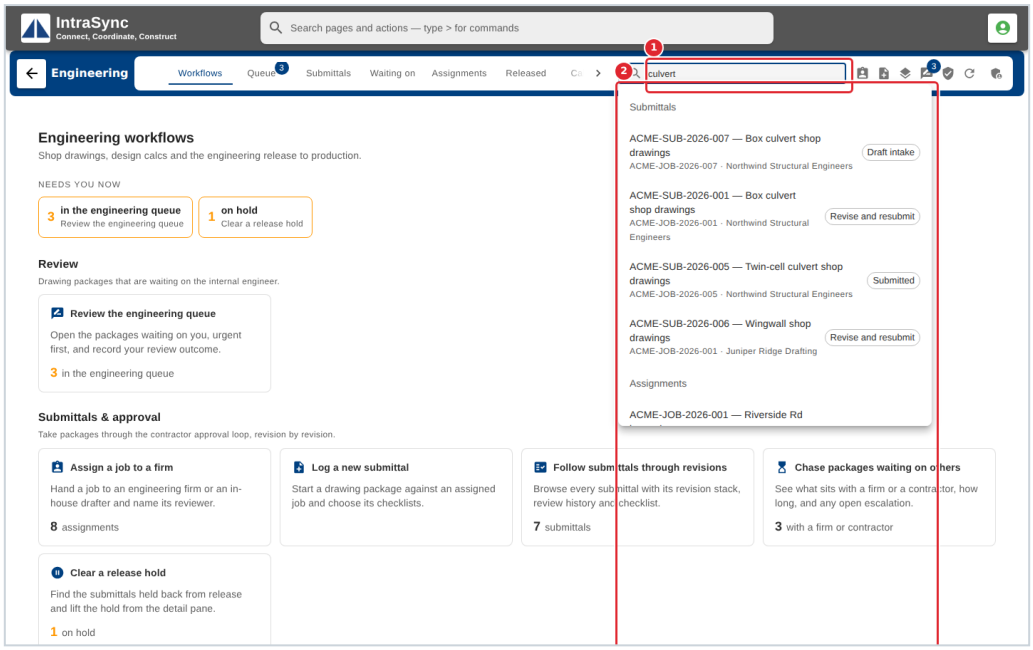
- Drafts copy the closest existing product, plus any BOM rules that apply.
- Use Waiting, Accepted, Rejected and All to choose which drafts are shown.

21. Search engineering records

Jump straight to a submittal, job or firm from anywhere in the hub.

Before you start:

– Access to the Engineering hub (its page permission).



Step 1. Type in the search field. Results are grouped by kind. Use the arrow keys and Enter, or select a result.

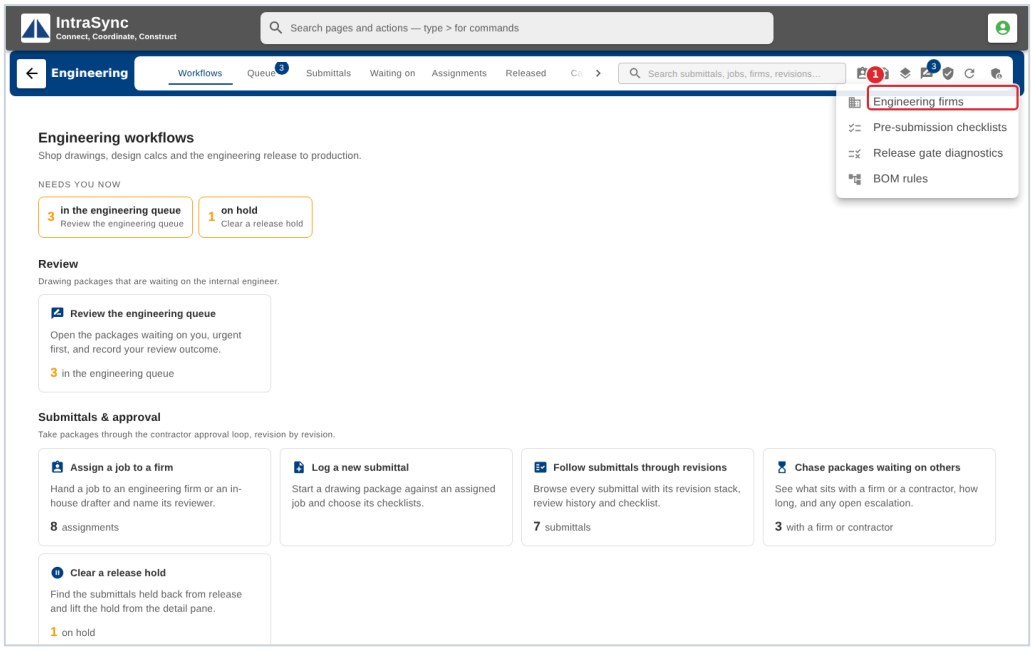
This is shown in the Engineering video at 5:02.

22. Set up engineering firms

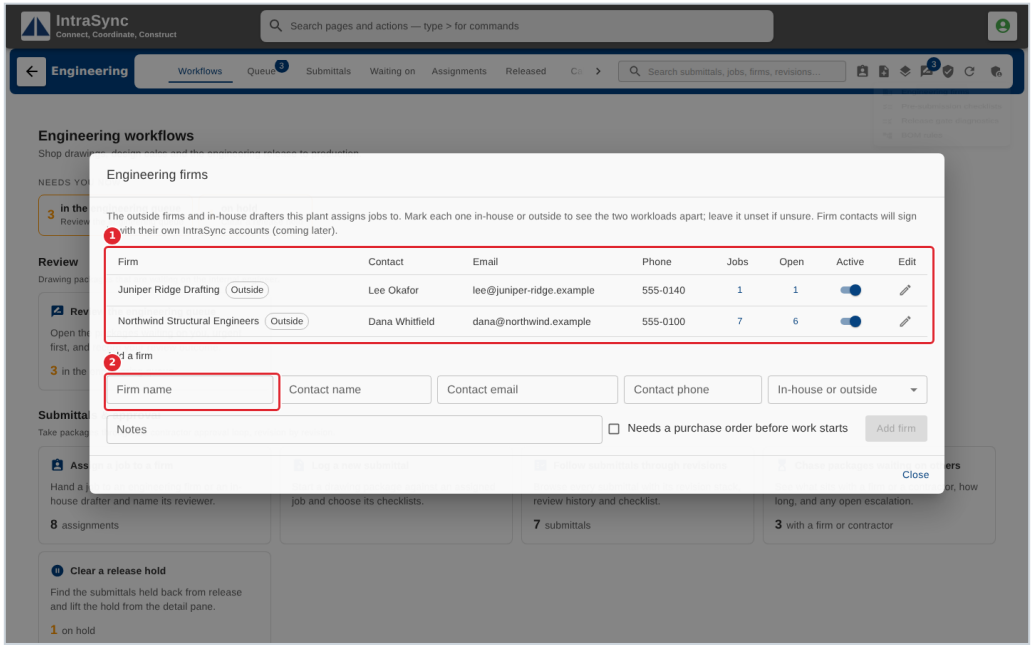
Keep the list of outside firms and in-house drafters that jobs are assigned to.

Before you start:

– An administrator account: the Engineering admin menu is shown to administrators only.



Step 1. Select Engineering admin, then Engineering firms.



Step 2. Add a firm with its contact name, email and phone, mark it in-house or outside, and tick Needs a purchase order before work starts if it does. Edit a firm, or switch it inactive, from its row.

Tips:

– Leave in-house or outside unset if you are unsure.

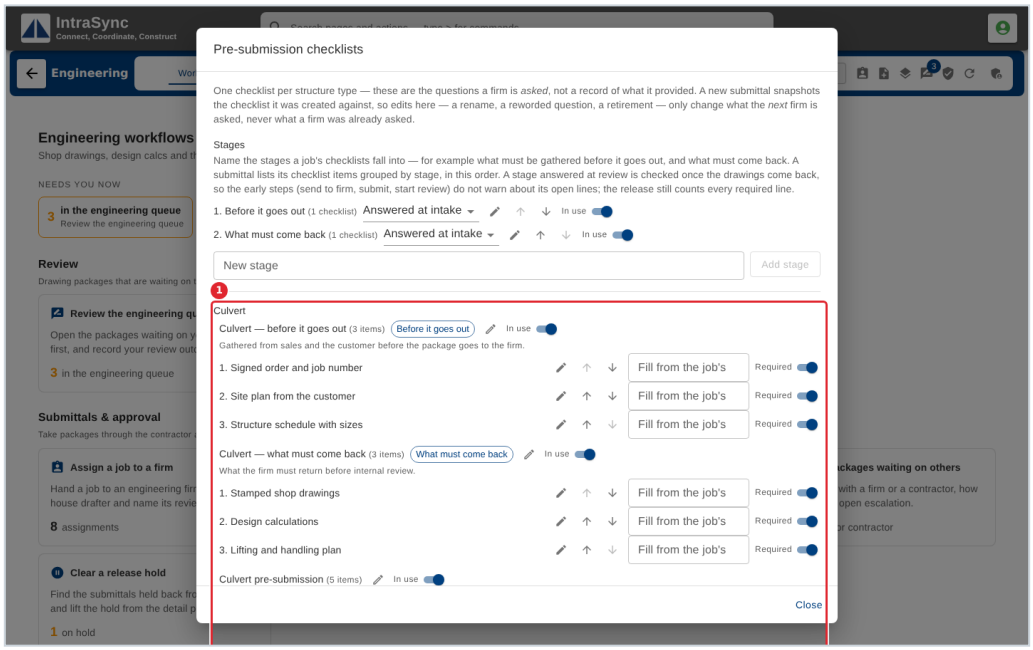
This is shown in the Engineering video at 4:45.

23. Set up pre-submission checklists

Decide what a firm is asked for before and after it sends its package, per structure type.

Before you start:

– An administrator account: the Engineering admin menu is shown to administrators only.



Step 1. Select Engineering admin > Pre-submission checklists. Set up the stages, then each checklist's items: whether an item is required, and which job document can fill it.

Tips:

– A checklist's items are frozen into each submittal when it is created, so edits apply to new submittals only.

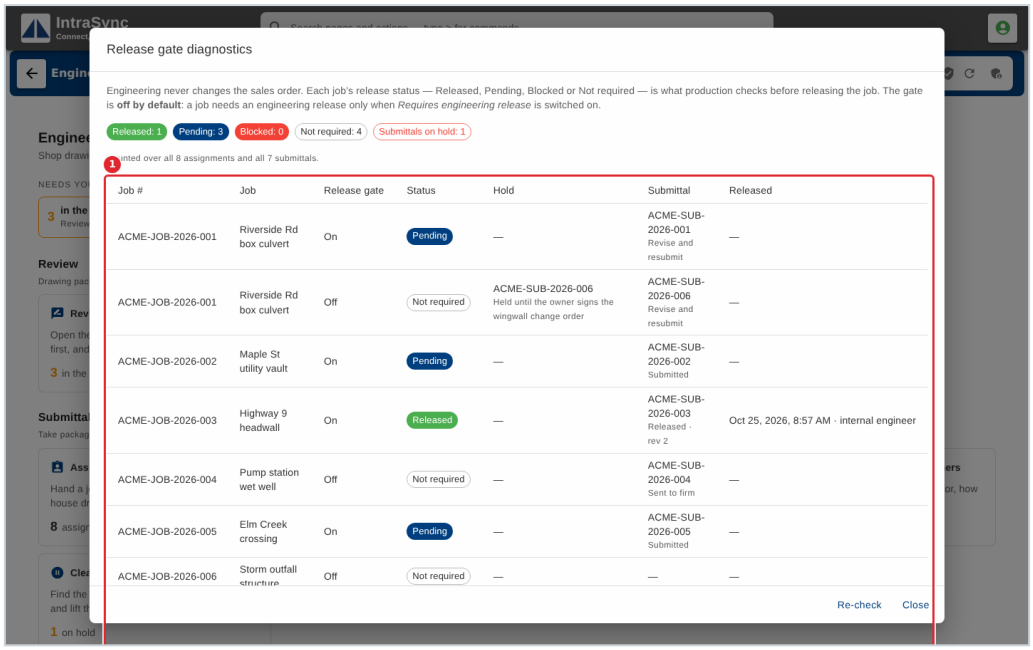
– Switch a checklist off to stop offering it without losing it.

24. Check the release gate

See each job's release status as production reads it, and what is holding a job back.

Before you start:

- An administrator account: the Engineering admin menu is shown to administrators only.



Step 1. Select Engineering admin > Release gate diagnostics. Each job shows whether it uses the release gate, its status, any hold, its submittal and its last release. Select Re-check to read it again.

Tips:

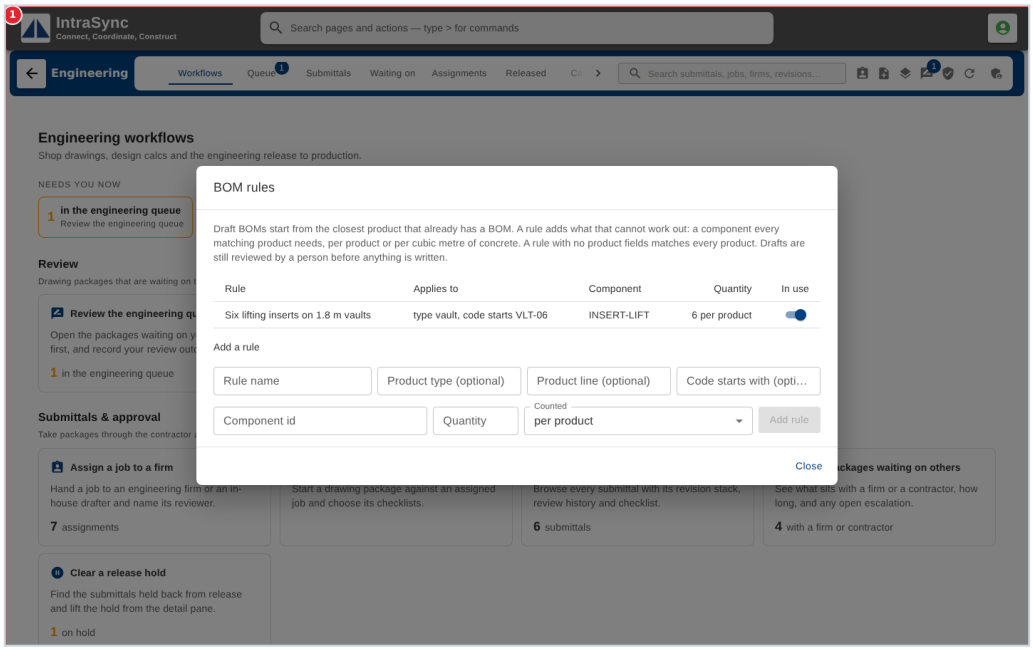
- Engineering never changes the sales order. Production reads the release status before releasing a job.

25. Set up BOM rules

Add the components every matching product needs to new BOM drafts.

Before you start:

- An administrator account: the Engineering admin menu is shown to administrators only.
- BOM drafts are switched on for your system.



Step 1. Select Engineering admin > BOM rules. Give the rule a name, say which products it applies to (product type, product line, or the start of a code), and the component and quantity it adds. Then add the rule.

Tips:

- The quantity must be above zero.
- With no rule, drafts copy the closest product only.

Glossary

- Submittal: A drawing package for a job, sent through review in one or more revisions.
- Revision: One version of a submittal's drawings. Revisions stack; none is overwritten.
- Engineering release: The signoff on a final revision that tells production the job is released by engineering.
- Release gate: An opt-in rule for a job: its release waits for every required checklist item and for any hold to clear.
- Hold: A block on a submittal, with a reason, that keeps its job's release status at Blocked.