BUILDFLOWS · FIELD GUIDE FOR GENERAL CONTRACTORS

PUBLIC EDITION · NOV 2026

# Governed AI agents on Procore data, for GCs building on Google Cloud

Where general contractors lose time and margin, what agents with governed Procore access can take off their plates, how the pieces fit with Gemini Enterprise and the agent platform, and a 90-day path from one pilot to production.

Written for GC operations, project and IT leaders, and the teams building agents with them.
Download the PDF.

| | |
|---|---|
| PROJECT<br>**Procore MCP + GC agents** | PREPARED BY<br>**Charley Forey, BuildFlows**<br>charley@buildflows.ai |
| WRITTEN FOR<br>**General contractors on Procore** | DATE<br>**November 16, 2026** |
| BASIS<br>Open-source Procore MCP server, tested live on a Procore developer sandbox | STATUS<br>Public edition. Figures are sourced; estimates are marked. |
| SHEET<br>**G-000** | |

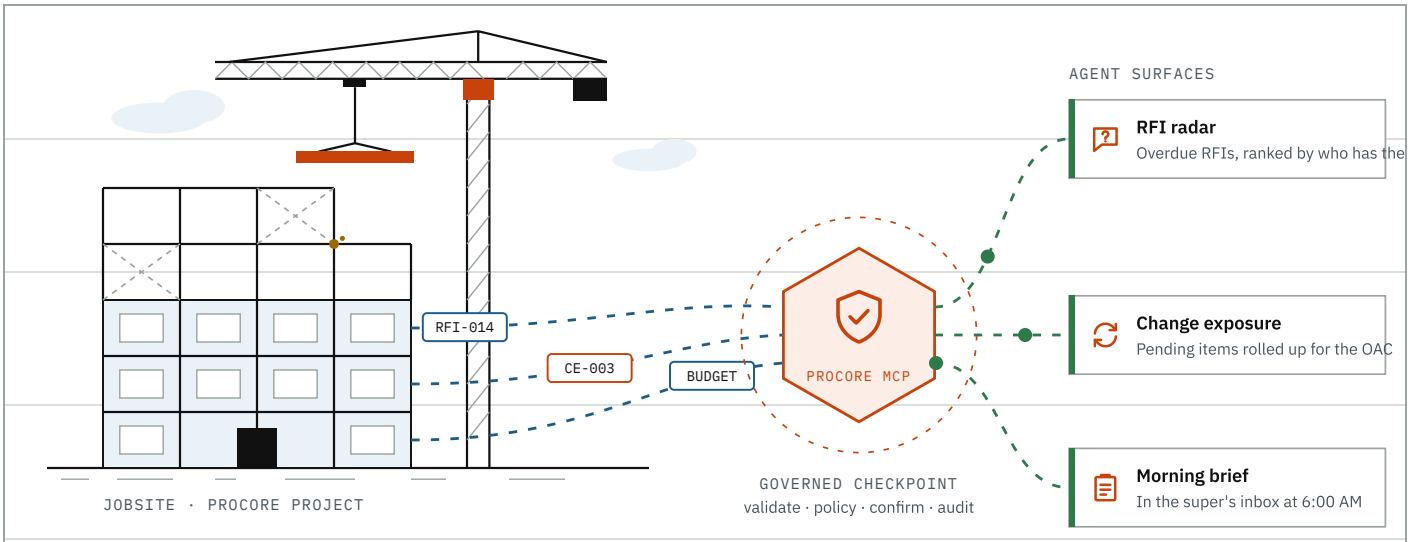



**Illustration.** Project records leave Procore, pass one governed checkpoint, and reach people as answers they can act on.

Live sandbox results: sheet S-300


| | | | | | |
|---|---|---|---|---|---|
| G-001 | The short version | A-100 | Where GC time and margin leak | A-110 | A day on the job, with agents |
| A-200 | What changed in 2026 | S-100 | How it works | S-110 | Inside the checkpoint |
| S-200 | Use-case catalog | S-300 | Live sandbox demo | S-400 | Workflow blueprints |
| M-100 | Pilot to production | E-100 | Where BuildFlows plugs in | E-200 | Next steps |
| Z-100 | Questions GC teams ask | Z-200 | Glossary | Z-900 | Sources |

GENERAL · SUMMARY

# G-001 The short version

THE LEAK

## GC teams spend their week hunting for information

Field and office staff report about 5.5 hours a week just looking for project data, and bad data drives an estimated 14% of all rework.[31] At typical GC net margins, every dollar of avoided waste is worth many dollars of new revenue.

THE OPENING

## A Gemini-shaped gap into Procore

Procore's new first-party MCP connects only to enterprise Claude today. Support for other AI providers is "coming in 2027."[12] A GC standardizing on Gemini Enterprise has no first-party route to Procore right now.

THE PATTERN

## One governed layer between agents and Procore

An MCP server that keeps credentials on the server, shows the model a small set of tools instead of 2,755 endpoints, and sends every call through one checkpoint for validation, policy, approval, redaction and audit. It fits Gemini Enterprise's custom MCP connector limits.[16]

THE ASK

## One GC, one workflow, 90 days

Pick one account and one painful workflow (RFI aging or change exposure are the strongest starts). Run read-only first, measure hours saved, then add approved writes. BuildFlows brings the Procore depth; your cloud team or agent-build partner brings the platform.

ARCHITECTURE OF THE PROBLEM

# A-100 Where GC time and margin leak

These are industry numbers. Some are old, so the year is shown on each. In a pilot we replace them with the GC's own figures, pulled straight out of Procore.

## 5.5 hrs

per person, per week, spent looking for project data

FMI / PlanGrid, 2018[3]

## 14%

of all rework is caused by bad data, about $88.7B globally

Autodesk / FMI, 2021[1]

## 9.7 days

median RFI response time; about $1,080 to process each RFI; 21.9% never answered

Navigant study, 2013[5]

## 6.3%

average pre-tax net income across contractors; GC-only margins usually run lower

CFMA Benchmarker, 2024[10]

## $165M

modeled annual cost of bad data for a $1B contractor, including $7.1M of avoidable rework

FMI, 2021[2]

## 92%

of firms struggle to hire; 45% name worker shortages as the top cause of project delays

AGC / NCCER, 2025[6]

## 29.3%

of planned activities start on time; projects deliver 63% of planned weekly work

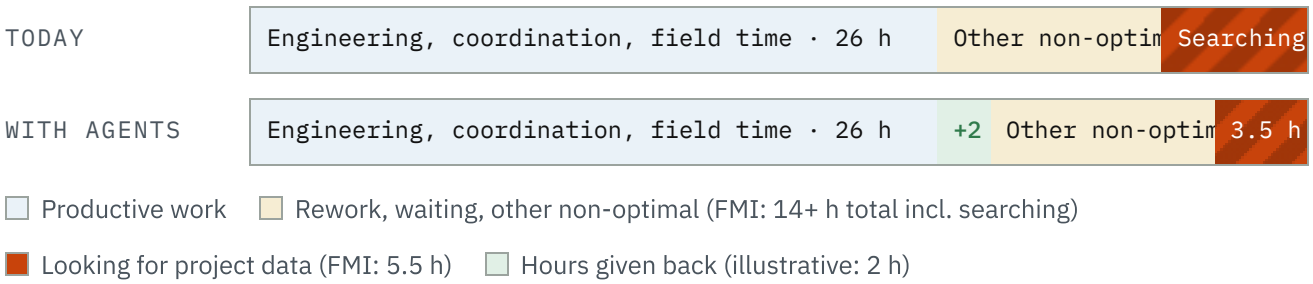
Buildots benchmark[13]

## 26%

of contractors rate their data quality as high, while 87% expect AI to matter to their business

Dodge / CMiC, 2025[9]

## A project engineer's 40-hour week




## The leak map

| WORKFLOW | WHERE IT LEAKS TODAY | WHAT AN AGENT WITH GOVERNED PROCORE ACCE |
|---|---|---|
| **RFIs** | Aging RFIs sit with the wrong person. Nobody sees the ones blocking work until a super calls. | Daily ranked list of overdue RFIs by days oper court and the trade or activity they block. Cha written and queued for a human to send. |
| **Change management** | Exposure lives across change events, PCOs, commitments and spreadsheets. Owners and PMs get different numbers. | One rollup of open exposure by status and ag what's still unpriced and what's sitting un-sub the owner. |
| **Budget variance** | Variance gets found at month-end close, weeks after the cost hit. | Weekly variance narrative by cost code, with t that moved and the commitments or direct co them. |
| **Submittals** | Long-lead items slip because a submittal sits in review while the procurement clock runs. | A list of submittals in review against required- dates, flagging which ones now threaten proc |

| WORKFLOW | WHERE IT LEAKS TODAY | WHAT AN AGENT WITH GOVERNED PROCORE ACCE |
| --- | --- | --- |
| **Field/office gap** | Supers spend the first hour of the day pulling yesterday's log, open RFIs and inspections into their heads. | A morning brief in Chat or email: weather, ma open items, inspections due, delays logged. |
| **Closeout** | Punch, warranties and retainage drag on for months after substantial completion. | Punch items open by trade and ball-in-court, documents still missing for closeout. |

STORYBOARD

# A-110 A day on the job, with agents

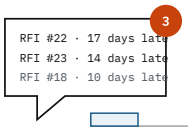
The same project, the same people, the same Procore. What changes is that the right information finds each person at the moment they need it, and nobody has to go looking.



## 6:00 AM

SUPERINTENDENT

The morning brief is waiting: yesterday's manpower, today's inspections, and the RFI that has the curtain wall crew on hold.




## 9:15 AM

PROJECT ENGINEER

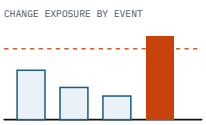
RFI radar flags the RFIs more than a week late and who holds them. Chase notes are drafted; the PE edits and sends.




## 11:30 AM

PROCUREMENT

A long-lead submittal is still in review. The agent works back from the required-on-site date and flags that it now threatens the install.




## 2:30 PM

PROJECT MANAGER

Before the OAC meeting, open change exposure is rolled up: what's priced, what's pending, and what hasn't gone to the owner.



## Fri 4:00 PM

PROJECT EXECUTIVE

The weekly owner report drafts itself from live Procore data. The PX reviews it, adjusts the tone, and sends it.

Scenario drawn from the demo project seeded in the Procore sandbox (sheet S-300): RFIs #18–#23, the curtain wall submittal and three change events.

MARKET CONTEXT

# A-200 What changed in 2026

PROCORE

## Procore now ships its own agents

- Datagrid acquisition (Jan 2026), then agents built into Procore: Deep Search, Submittal Reviewer, RFI, Daily Log and Contract Review.[14]
- Paid packages generally available since July 2026, with Agent Studio for custom agents and usage-based pricing.[15]
- Groundbreak, Oct 2026: **Procore AI MCP** connects an enterprise Claude environment to Procore AI, with other providers "coming in 2027."[12]

GOOGLE CLOUD

## The agent platform now takes outside MCP servers

- Gemini Enterprise's custom MCP server connector became generally available in Aug 2026. It requires Streamable HTTP and OAuth 2.0, and allows at most 100 enabled actions.[16]
- Vertex AI is now Gemini Enterprise Agent Platform. ADK agents run on Agent Runtime; Agent Registry catalogs MCP servers; Agent Gateway governs what agents can reach outside.[17]
- Google offers managed MCP servers for BigQuery and Looker, so Procore history can sit next to ERP and schedule data.[18]

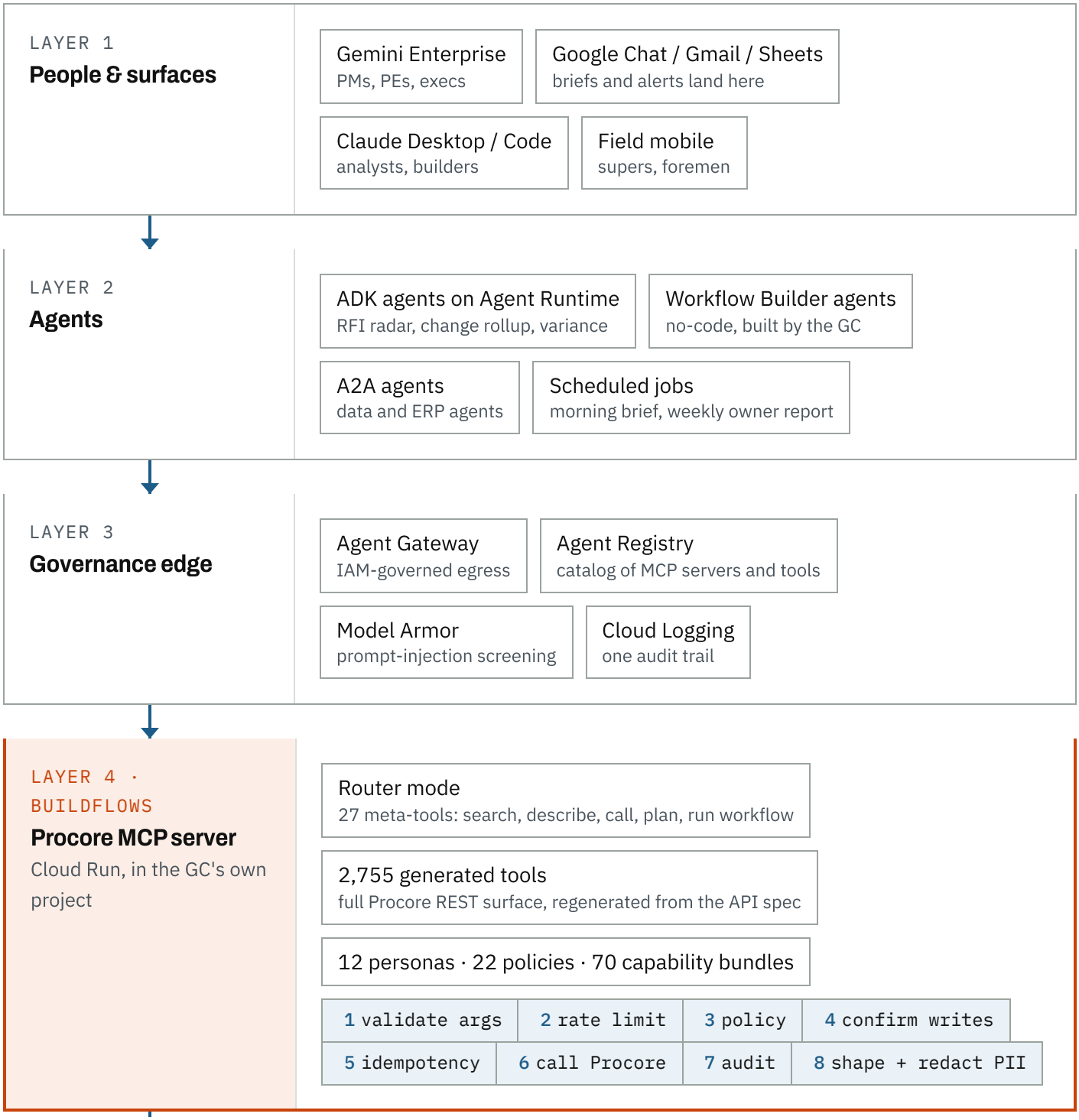
POSITIONING: COMPLEMENT, DON'T COMPETE

**Leave the single-task, inside-Procore work to Procore.** Its agents will keep getting better at drafting an RFI or reviewing one submittal. The open ground is **work that crosses systems**: joining Procore with ERP cost, the schedule, BigQuery history and Workspace, inside the GC's own Google Cloud project, under the GC's own permissions, audit and approval rules. It also works today for Gemini-first GCs, without waiting for 2027.

STRUCTURE

# S-100 How it works

The model never sees Procore credentials and never sees all 2,755 endpoints. It sees a small set of tools, and every action passes through one checkpoint that the GC controls.



LAYER 5

**Systems of record**

Procore
service account, permissions set per tool by the GC admin

ERP
Vista / Sage / CMiC / Acumatica

Schedule
P6 / MS Project

BigQuery + Looker
history, portfolio analytics

WHY ROUTER MODE MATTERS

## Small tool surface, same reach

| MODE | TOOLS THE MODEL SEES |
|---|---|
| **Expanded** | 2,755 |
| **Hybrid** | Persona subset + meta-tools |
| **Router** | 27 meta-tools |

THE QUESTIONS A GC SECURITY TEAM WILL ASK

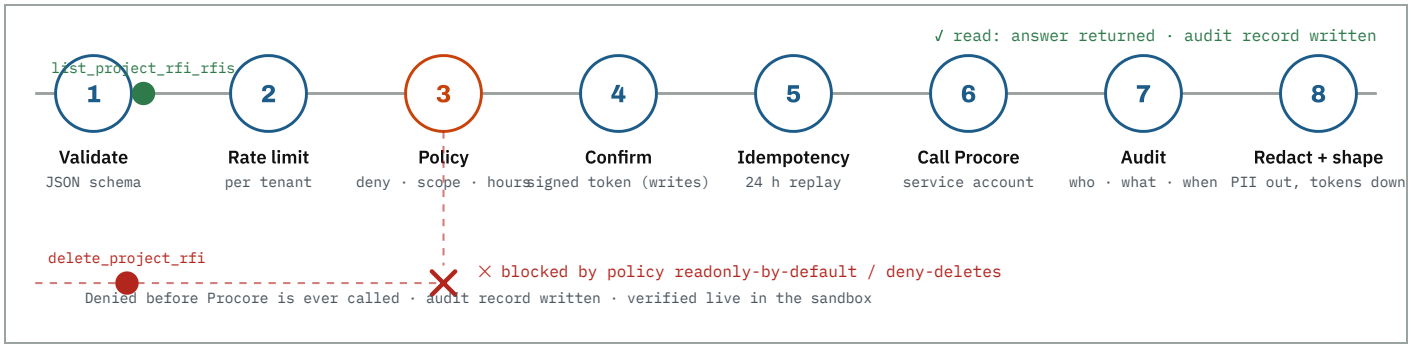
## Answered by design

- **Where do credentials live?** On the server, never in the prompt or the client.
- **What can it touch?** Only what the GC admin grants the Procore service account, narrowed again by persona and policy.
- **Can it write?** Read-only by default. Writes need a signed, single-use confirmation, with two-person approval available.
- **Is it auditable?** Every call writes an audit record, to a file, OTLP or a webhook (Cloud Logging, SIEM).
- **What about API drift?** Tools are regenerated from Procore's API spec, not hand-written.

DETAIL

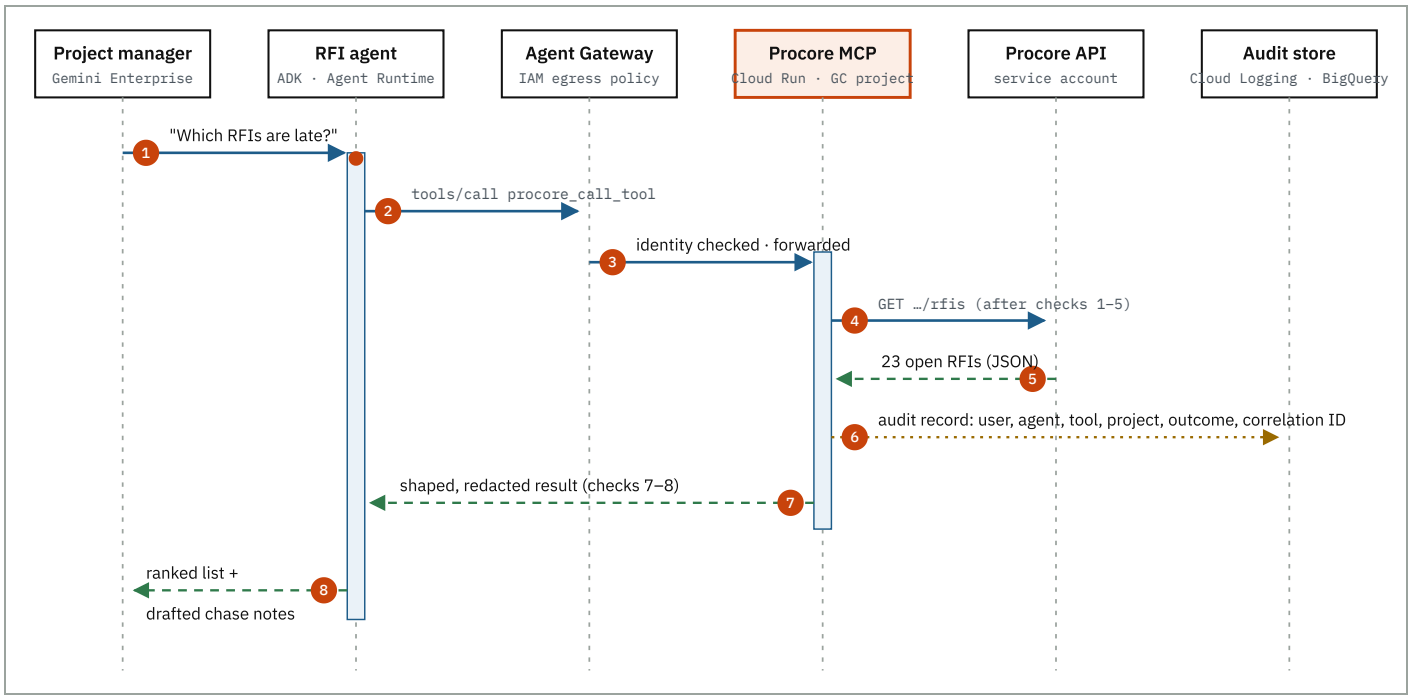
# S-110 Inside the checkpoint

Every tool call, from any agent, takes the same eight steps. Two requests are shown below: a read that passes every check, and a delete that policy stops at step 3. Both leave an audit record.




## One request, end to end on Google Cloud

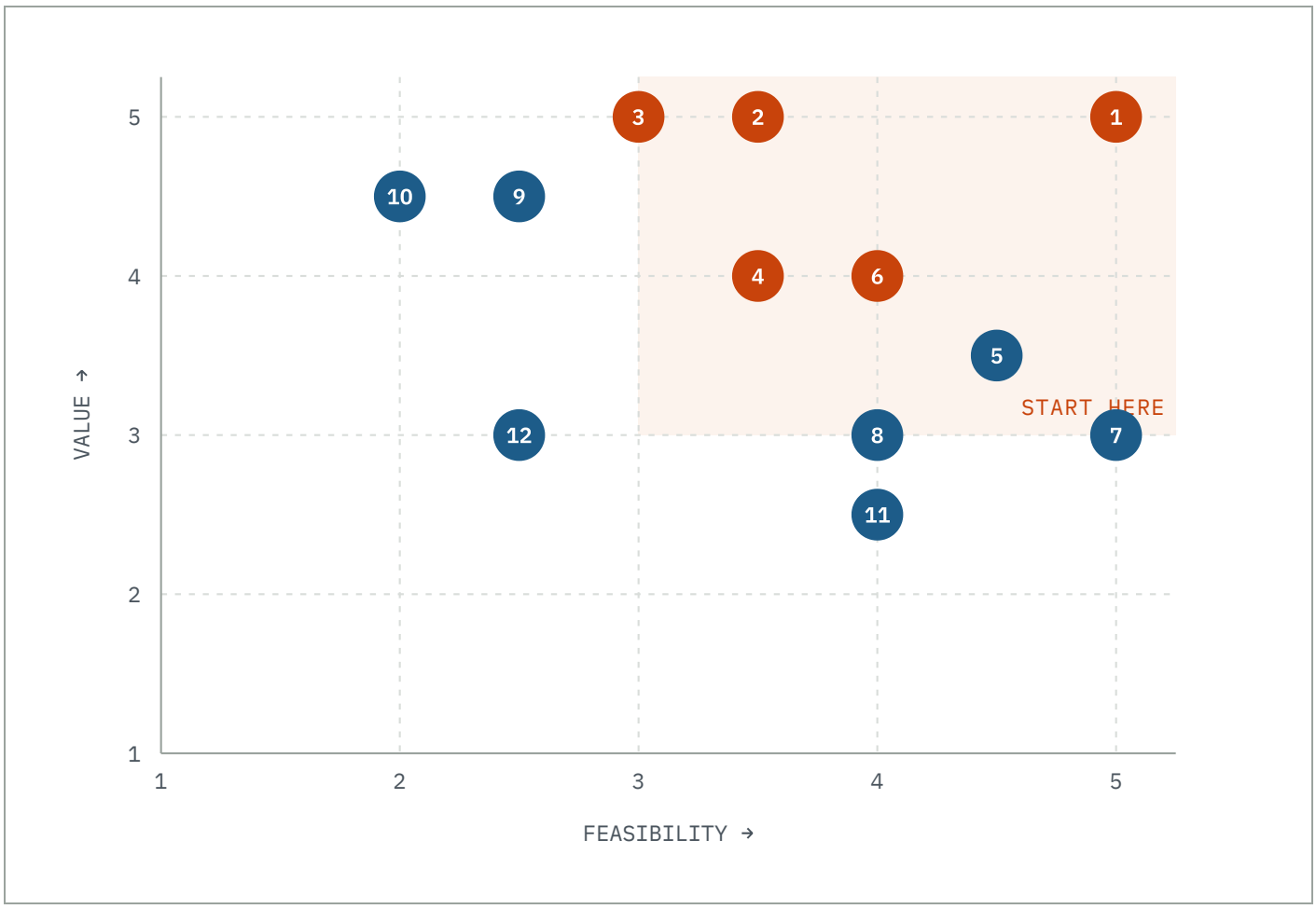
The production path, as a sequence. Numbers match the order of events. Return paths are dashed.



SCHEDULE OF USE CASES

# S-200 Use-case catalog

Twelve use cases, scored 1–5 on value (hours and dollars at stake) and feasibility (data readiness, how much writing they need, integration effort). The scores are BuildFlows' judgment, to be re-scored with each GC.



## 1 RFI aging and ball-in-court radar



Value 5 | Feasibility 5 | Read-only

| | |
|---|---|
| PERSONA | Project engineer, PM |
| DATA | RFIs, assignees, due dates, linked drawings and specs |
| WORKFLOW | Each morning, rank open RFIs by days overdue and ball-in-court, flag the ones tied to near-term activities, and draft chase notes for the PE to send. |
| ROI LOGIC | Shorter RFI cycle time means fewer idle crews and fewer delay claims. Measure the change in median days-to-answer against the GC's own baseline. |

## 2 Change exposure rollup



Value 5 | Feasibility 3.5 | Read-only

| | |
|---|---|
| PERSONA | PM, project executive |
| DATA | Change events, potential and commitment change orders, budget modifications |
| WORKFLOW | Weekly rollup of open exposure by status and age, what's unpriced, and what hasn't been submitted to the owner, with a narrative for the OAC meeting. |
| ROI LOGIC | Unbilled or late-submitted change work is margin given away. Recovering one missed change order often pays for the pilot. |

## 3 Budget variance and forecast narrative

Value 5 | Feasibility 3 | Read-only

| | |
|---|---|
| PERSONA | PM, project accountant, CFO |
| DATA | Budget views and detail rows, direct costs, commitments, ERP job cost |
| WORKFLOW | Weekly: which cost codes moved, why, and what's projected over. Procore and ERP reconciled before month-end rather than after. |
| ROI LOGIC | Variance caught weeks earlier means time to buy out, re-sequence or price a change. Measure the time from cost hit to flag. |

## 4 Submittal-to-procurement risk

Value 4 | Feasibility 3.5 | Read-only

| | |
|---|---|
| PERSONA | Project engineer, procurement |
| DATA | Submittals, status, reviewers, required-on-site dates, schedule |
| WORKFLOW | Flag submittals still in review whose lead time no longer clears the activity's start date, and route the list to the right reviewer. |
| ROI LOGIC | One avoided long-lead slip (switchgear, curtain wall, elevators) can be worth weeks of general conditions. |

## 5 Superintendent morning brief

Value 3.5

Feasibility 4.5

Read-only

| | |
|---|---|
| PERSONA | Superintendent, foreman |
| DATA | Daily logs, manpower, delays, inspections, open RFIs, weather |
| WORKFLOW | A brief at 6:00 AM in Google Chat or email: yesterday's manpower and delays, inspections due, RFIs blocking today's work. |
| ROI LOGIC | Gives back part of the hours spent searching for data. Track how many supers open it and their self-reported minutes saved. |

## 6 Weekly owner and executive report

Value 4

Feasibility 4

Read-only

| | |
|---|---|
| PERSONA | Project executive, operations VP |
| DATA | RFIs, submittals, change, budget, safety, schedule milestones |
| WORKFLOW | Assemble a draft of the weekly owner report in Docs or Slides from live Procore data. The PM edits and sends it. |
| ROI LOGIC | PMs often spend half a day a week on reporting. Measure drafting hours before and after. |

## 7 Subcontractor compliance watch

Value 3 | Feasibility 5 | Read-only

| | |
|---|---|
| PERSONA | Vendor admin, risk manager |
| DATA | Directory vendors, insurance certificates, expiration dates |
| WORKFLOW | List subs whose COIs expire in the next 30 days or who are working on site without current coverage. |
| ROI LOGIC | Lowers uninsured-loss risk. It's a cheap, fast win that builds trust in the system. |

## 8 Punch and closeout tracker

Value 3 | Feasibility 4 | Read-only

| | |
|---|---|
| PERSONA | Superintendent, PM |
| DATA | Punch items, ball-in-court, trades, inspections, closeout documents |
| WORKFLOW | Punch items open by trade and age, plus a list of closeout documents still missing, sent weekly to each sub's contact. |
| ROI LOGIC | Faster closeout means earlier retainage release and a quicker move of the team to the next job. |

## 9 Portfolio analytics in BigQuery



Value 4.5

Feasibility 2.5

Read-only

| | |
|---|---|
| PERSONA | Operations VP, CFO, preconstruction |
| DATA | Procore history across projects, plus ERP and schedule |
| WORKFLOW | Land Procore data in BigQuery and ask cross-project questions in Gemini or Looker, such as which subs drive the most RFIs or which project types run over on change. |
| ROI LOGIC | Better bids and sub selection. This is a longer build that depends on a solid data foundation. |

## 10 Pay app and retainage reconciliation



Value 4.5

Feasibility 2

Read, then approved writes

| | |
|---|---|
| PERSONA | Project accountant, AR/AP |
| DATA | Commitments, invoices, requisitions, ERP AP/AR |
| WORKFLOW | Match Procore requisitions to ERP entries, flag mismatches and retainage held past terms, and prepare corrections for approval. |
| ROI LOGIC | Cash flow. Retainage often waits more than 60 days to collect. Needs ERP access and careful controls on writes. |

## 11 Safety observation trends

Value 2.5 | Feasibility 4 | Read-only

| | |
|---|---|
| PERSONA | Safety manager |
| DATA | Observations, incidents, near misses, safety violation logs |
| WORKFLOW | Weekly roll-up of observations by trade, area and type, with repeat issues flagged for the next toolbox talk. |
| ROI LOGIC | A leading indicator. The value is in incidents that don't happen, which is hard to price but important to owners. |

## 12 Meeting actions into Procore

Value 3 | Feasibility 2.5 | Writes, confirmed

| | |
|---|---|
| PERSONA | PM, PE |
| DATA | Meeting transcripts (Meet), RFIs, punch, meeting minutes |
| WORKFLOW | Turn an OAC meeting transcript into draft RFIs, punch items and minutes. A human confirms each write. |
| ROI LOGIC | Removes double entry. This is a good first use of the write controls once the read-only pilot has earned trust. |

## What's it worth? A quick estimator

An illustrative estimate, not a forecast. Default values are conservative. The sourced figure is 5.5 hours a week spent searching for data; the default here assumes agents give back only 2 of those hours.

PMs, PEs and supers using it

40

Hours given back per person per week

2

Loaded hourly cost ($)

95

GC net margin (%)

4

HOURS GIVEN BACK PER YEAR

**3,840**

48 working weeks

VALUE OF THAT TIME

**$364,800**

REVENUE NEEDED TO EARN THE SAME PROFIT

**$9.1M**

= value ÷ net margin

PROOF · CAPTURED LIVE NOV 16, 2026

# S-300 Live sandbox demo

The open-source BuildFlows Procore MCP server running against a Procore developer sandbox, signed in with a server-to-server service account and limited to read-only. We seeded a realistic mid-rise project with RFIs, change events, submittals, a budget, subcontracts and daily logs, then asked the questions a GC team asks every week. Every number on this sheet came back from the live Procore API.

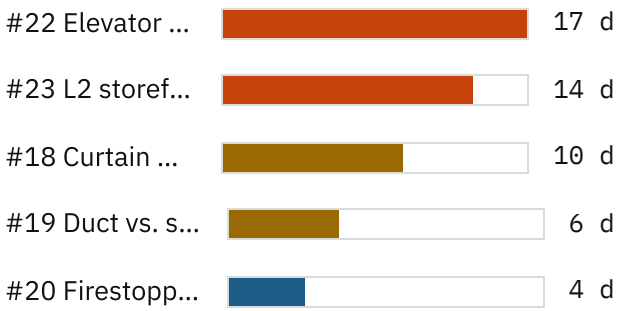
OPEN RFIS
**23**
22 past due

CHANGE EXPOSURE
**$114,021**
5 open or pending events

PROJECTED OVER BUDGET
**$261,050**
3 cost codes

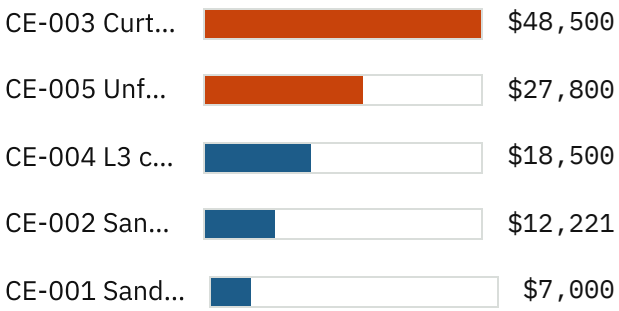
SMOKE TEST
**11 / 11**
checks passed

## RFI radar: days past due (seeded RFIs)



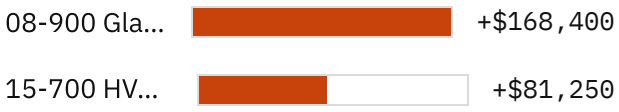

Tool: `list_project_rfi_rfis` · ball-in-court: architect (4), sub (1)

## Change exposure by event (ROM)




Tools: `list_change_events`, `list_potential_change_orders` · total $114,021

## Over budget: committed vs. budget




## Daily log, Fri Nov 13: manpower by sub



07-800 Fire... +$11,400

Tools: `list_budget_views`, `list_budget_view_detail_rows`, `list_work_order_contracts` · project budget $12,104,900 → estimate at completion $12,365,950

Tri-State Fire P... 5

Keystone Curta... 4

32 workers · 224 hours · rain 0.6 in. · crane down 7–11 AM for wind · weather, manpower and notes log tools

## The conversations

Abridged transcripts. The model saw a filtered set of 42 tools (a GC persona with read-only and sandbox-only policies) and chose the calls shown.

Q1 · Project engineer

Which RFIs on Skyrise are overdue, and who has the ball?

`list_project_rfi_rfis` `status=open`

**23 open RFIs, 22 past due.** The oldest ones are leftover sandbox test records. These are the live ones that matter most:

| RFI | SUBJECT | LATE | BALL |
|---|---|---|---|
| #22 | Elevator pit depth vs. waterproofing | 17 d | Architect |
| #23 | L2 storefront head height | 14 d | Architect |
| #18 | CW embeds vs. PT anchors, L4 | 10 d | Architect |
| #19 | Duct vs. sprinkler main, L3 | 6 d | Subcontra |

#18 is holding the L4 curtain wall crew (see the 11/13 daily log). Want me to draft chase notes?

Q2 · Project manager

What change exposure haven't we resolved yet?

`list_change_events`

`list_potential_change_orders`

**$114,021 across 5 open or pending change events.** The three real drivers:

- **CE-003** curtain wall embed relocation: $48,500, pending. It traces to RFI #18.
- **CE-005** unforeseen rock at the elevator pit: $27,800, pending.
- **CE-004** L3 ceiling reroute: $18,500, open, and not yet priced to the owner.

All five are still at the rough-estimate (ROM) stage, and none is tied to a subcontractor or owner change order yet. **$76,300 is out of scope and should be recoverable**: price and submit those PCOs. The two oldest events look like leftover sandbox test data.

Q3 · PM / project accountant

Where are we trending over budget?

`list_budget_views`

`list_budget_view_detail_rows`

**Three cost codes are projected over, $261,050 in total.**

Curtain wall is committed at $3,318,400 against $3,150,000 (+$168,400). HVAC is at $2,861,250 against $2,780,000 (+$81,250). Fire and smoke protection is +$11,400. In each case the subcontract was awarded above the budget line, and no budget modification has been posted yet.

Q5 · Superintendent

Summarize Friday's daily log (11/13).

`…weather_logs` `…manpower_logs` `…notes_logs`

**Fri 11/13: 32 workers, 224 hours.** 0.6 in. of rain with gusts to 30 mph; the crane was down 7–11 AM.

The L5 deck pour moved to Mon 11/16 at 6 AM, with the pump truck re-booked. L4 curtain wall install is waiting on the embed RFI (#18). There was a near miss at the L4 east stair from wind-lifted plywood, and a toolbox talk was held. The owner's rep asked for pricing on an L3 lobby finish upgrade.

## Write attempt: blocked

We asked the agent to create an RFI. The `readonly-by-default` policy denied it inside the checkpoint before any request reached Procore. That is the behavior a pilot starts with.

## Smoke test: 11 of 11

`startup · auth · projects · RFIs · submittals · change events · budget · commitments · daily logs · write-denied · router meta-tools`

Each check runs in under 2.1 seconds against the live sandbox.

**Try it yourself.** The server is open source at github.com/charley-forey/procore-mcp. The design is explained in Routing 2,755 Procore API Tools Through MCP Without Drowning the Model.

WORKFLOW BLUEPRINTS

# S-400 How the top workflows run, step by step

Each blueprint is a buildable spec: what starts it, which Procore tools it calls (the names used in the live demo), what the agent works out, what lands where, what the human does, and how we know it worked.

Agent step  Human decision  Output and measurement

## 1 · RFI radar

`L0 read → L1 draft` `Persona: rfi_manager`

**TRIGGER**

Weekdays 7:00 AM, plus on demand ("what's late?")

**GATHER**

`list_project_rfi_rfis` · `…_rfis_replies` · daily-log notes

**REASON**

Rank by days late and cost/schedule impact. Match each RFI to work the daily log says is on hold.

**OUTPUT**

Ranked list in Google Chat, with a drafted chase note for each ball-in-court party

**HUMAN**

The PE edits and sends the chase notes, or snoozes items

**MEASURE**

Median days-to-answer; count of RFIs over 7 days late

**DEMO PROOF**

#18 (10 days late) was matched to the L4 curtain wall crew on hold in the 11/13 log.

**DATA ACCESS**

RFIs, replies and daily logs on the projects in scope. Read-only.

**BUILD EFFORT**

Low. The tools are verified; the work is ranking logic and the Chat card.

## 2 · Change exposure rollup

`L0 read → L1 draft`

Persona: change_event_manager

TRIGGER

The day before the OAC meeting, and whenever a change event is created

GATHER

`list_change_events` · `list_potential_change_orders` · `list_work_order_contracts`

REASON

Split recoverable (out of scope) from TBD. Age each event, flag missing markup, link the RFI that caused it.

OUTPUT

Exposure table plus an OAC narrative in Google Docs

HUMAN

The PM prices the PCOs and decides the TBD scope calls

MEASURE

Days from change event to PCO submitted; dollars recovered

DEMO PROOF

$114,021 open. $76,300 out of scope and recoverable; no PCOs issued yet.

DATA ACCESS

Change events, PCOs and commitments. Read-only.

BUILD EFFORT

Medium. There's no packaged workflow in the repo yet; this would be the first.

## 3 · Budget variance narrative

L0 read → L2 confirmed write

Persona: budget_analyst

TRIGGER

Every Monday, and when a new commitment is approved

GATHER

`list_budget_views` · `list_budget_view_detail_rows` · `list_work_order_contracts` · ERP job cost

REASON

Compare committed with revised budget by cost code. Find buyout overruns with no budget modification posted.

OUTPUT

HUMAN

MEASURE

| | | |
|---|---|---|
| Variance memo by cost code, with the commitment behind each line | The PM approves a proposed budget modification (signed confirmation) | Days from cost hit to flag; month-end surprises |

DEMO PROOF

Curtain wall +$168,400, HVAC +$81,250, firestopping +$11,400, all from awards above budget.

DATA ACCESS

Budget views and commitments; ERP through your data layer.

BUILD EFFORT

Medium. Matching ERP cost codes to Procore is the main work.

## 4 · Superintendent morning brief

L0 read | Persona: field_super

| | | |
|---|---|---|
| TRIGGER | GATHER | REASON |
| 5:45 AM on workdays | Weather, manpower and notes logs · open RFIs · submittals due · inspections | What changed since yesterday, what blocks today's work, what's due this week |
| OUTPUT | HUMAN | MEASURE |
| One Chat card or email, readable in 60 seconds on a phone | The super reviews it and uses it for the 7 AM huddle | Open rate; minutes saved (weekly pulse survey) |

DEMO PROOF

11/13: 32 workers, crane down 7–11 AM, pour moved to 11/16, one near miss.

DATA ACCESS

Daily logs, RFIs, submittals and inspections. Read-only.

BUILD EFFORT

Low. It's the quickest visible win for field adoption.

MEANS & METHODS

# M-100 Pilot to production

## What's ready today, and what a pilot hardens

An honest read of the open-source server, from a code audit done for this document. The foundation is solid; the items marked "harden" are the pilot's engineering work.

| AREA | TODAY | STATUS | PILOT WORK |
|---|---|---|---|
| **Procore coverage** | 2,755 tools generated from Procore's API spec, covering reads and writes | Ready | Validate the endpoints the chosen workflow uses against the GC's real data |
| **Dispatch checkpoint** | Validation, rate limits, policy, idempotency, audit, PII redaction and tracing on one path | Ready | Send audit records to Cloud Logging and BigQuery |
| **Write safety** | Signed single-use confirmations, two-person approval, sandbox-only and read-only policies | Ready | Turn them on by default for the GC's personas |
| **Tool routing accuracy** | Keyword + semantic search over the catalog | Harden | Tune for the pilot's workflows; pin known-good tools per use case; build an evaluation set from the GC's real questions |

| AREA | TODAY | STATUS | PILOT WORK |
| --- | --- | --- | --- |
| **Workflows** | 196 workflow definitions, mostly single read steps | Harden | Build 2–3 real multi-step workflows for the chosen use case (e.g. RFI radar, change rollup) |
| **Change events, commitments** | Tools exist; no packaged workflow yet | Build | Change-exposure workflow over change events, PCOs and commitments |
| **Data scoping policies** | Templates for PII export, financial export and project allow-lists | Configure | Fill in the GC's project, company and field rules |
| **Hosting and auth for Gemini** | Docker image, Streamable HTTP, per-request credentials | Deploy | Deploy to Cloud Run in the GC's project, front it with OAuth 2.0, register in Agent Registry, route through Agent Gateway |

## Write governance ladder

## L0

### Read and answer

Questions, briefs, reports. No changes to Procore. **Where every pilot starts.**

## L1

### Draft

The agent drafts RFIs, chase emails, owner reports and change narratives. A human sends or enters them.

## L2

### Confirmed write

The agent writes to Procore after a one-click human confirmation (signed, single-use, expires in 60 seconds).

## L3

### Two-person write

Financial or contractual changes need two different approvers. Deletes stay blocked.

## Security and auth model

PROCORE SIDE

A Procore service account (server-to-server OAuth). The GC's Procore admin installs the app and grants permissions tool by tool, only on the projects in scope. Sandbox first, then a production install.

AGENT SIDE

The MCP server runs in the GC's Google Cloud project. Gemini Enterprise connects over OAuth 2.0. Agent Gateway enforces which agents can reach it; Model Armor screens prompts.

EVIDENCE

Every tool call writes an audit record: who, which agent, which tool, which project, the outcome and a correlation ID. Records land in Cloud Logging and BigQuery for the GC's security team.

## A 90-day pilot with one GC

WEEKS 0–2

### Discover

- Pick one workflow and 2–3 projects
- Interview PEs, PMs and supers; capture their 25 real questions
- Baseline metrics from Procore (RFI cycle time, exposure age)
- Procore sandbox and app install

**Gate:** workflow, metrics and data access signed off

DAYS 15–30

### Build read-only

- Deploy MCP server to Cloud Run (GC project)
- Build the workflow agent with ADK; connect it to Gemini Enterprise
- Evaluation set from the 25 questions
- Audit records to BigQuery

**Gate:** 90%+ correct answers on the evaluation set

DAYS 31–60

### Run with users

- 10–20 users on live projects
- Daily or weekly briefs in Chat and email
- Weekly tuning from feedback
- Add drafts (L1)

**Gate:** measured hours saved, active weekly use

DAYS 61–90

### Prove and expand

- Turn on confirmed writes (L2) where users ask for them
- ROI readout against the baseline
- Security review package
- Roadmap: next 2 workflows, ERP or BigQuery

**Gate:** go/no-go for production and rollout

## Success metrics to agree up front

| METRIC | HOW MEASURED | TARGET TO AGREE |
|---|---|---|
| **RFI median days-to-answer** | Procore RFI timestamps, before and after | e.g. −20% |
| **Change exposure age** | Days from change event to owner submission | e.g. −25% |

| METRIC | HOW MEASURED | TARGET TO AGREE |
|---|---|---|
| **Hours saved per user** | Weekly two-question pulse survey, plus usage logs | e.g. 2+ hrs/week |
| **Answer accuracy** | Evaluation set plus thumbs up/down in use | e.g. 90%+ |
| **Adoption** | Weekly active users / invited users | e.g. 60%+ |
| **Safety** | Unapproved writes and policy violations in the audit log | Zero |

## Who does what

A starting split for a first pilot, to agree with your teams. **R** = does the work · **A** = accountable · C = consulted · I = informed.

| ACTIVITY | GC | CLOUD / IT | AGENT BUILD PARTNER |
|---|---|---|---|
| **Executive sponsor and success metrics** | A/R | C | C |
| **Workflow discovery and design** | C | I | C |
| **Procore app install and permissions** | A/R | I | I |
| **MCP server hardening and Procore integration** | I | I | C |
| **Agent build (ADK) and Gemini Enterprise setup** | C | C | A/R |
| **Google Cloud project, IAM, Agent Gateway** | A | C | R |
| **ERP and BigQuery data foundation** | C | C | A/R |
| **Security review package** | A | C | R |
| **Training, champions and adoption** | A | I | R |

| ACTIVITY | GC | CLOUD / IT | AGENT BUILD PARTNER |
|---|---|---|---|
| **Commercials and cloud programs** | C | A/R | C |

## Risk register

| RISK | LIKELIHOOD | IMPACT | MITIGATION |
|---|---|---|---|
| **Procore rate limits** | Medium | Medium | Procore enforces hourly and 10-second spike limits, and we hit the spike limit in the sandbox today. Throttle centrally in the checkpoint, retry 429s with backoff, cache reads, and serve history from BigQuery. |
| **Wrong tool picked** | Medium | Medium | Give each workflow a filtered tool set (as in the demo persona), pin known-good tools, and gate releases on a 90% evaluation-set score. |
| **Messy Procore data** | High | Medium | Agents surface hygiene problems (stale RFIs, test records) instead of hiding them. Start on well-kept projects. |
| **Overlap with Procore AI** | Medium | Low | Focus on cross-system and Google-native workflows. Reassess at each Procore release; the Agent Marketplace is a possible channel. |
| **Agent does too much** | Low | High | Read-only by default, signed confirmations for writes, deletes blocked, Agent Gateway egress policy, Model Armor, and a full audit trail. |

| RISK | LIKELIHOOD | IMPACT | MITIGATION |
| --- | --- | --- | --- |
| **Low adoption** | Medium | High | Deliver into Chat and email rather than a new app. Recruit a field champion per project, tune weekly, and publish the wins. |
| **Procore API changes** | Medium | Low | Regenerate tools from Procore's API spec and run contract tests in CI before each release. |
| **Model usage cost** | Low | Low | Router and hybrid modes keep tool definitions small. Large outputs are summarized and paginated, and usage is metered per tenant. |

ENGAGEMENT

# E-100 Where BuildFlows plugs in

BuildFlows brings Procore and construction-workflow depth. We work alongside your IT team, your cloud platform and any agent-build partner you already use.

OPTION A · ABOUT 2 WEEKS

## Workflow discovery and architecture sprint

- On-site or remote interviews with one GC's PMs, PEs and supers
- Ranked use cases with baseline numbers from their own Procore
- Target architecture on their Google Cloud project
- Pilot plan, metrics and security brief

OPTION B · 90 DAYS

## One-GC pilot, built and run

- Everything in Option A
- Procore MCP server hardened and deployed in the GC's project
- One workflow agent live in Gemini Enterprise for 10–20 users
- ROI readout and production go/no-go

OPTION C · ONGOING

## Embedded Procore specialist on your agent builds

- Procore and construction ERP integration on partner-led builds
- Workflow design reviews with GC operations staff
- MCP server maintenance as Procore's API changes
- Repeatable playbook for the next GC

NEXT STEPS

# E-200 Next steps

| | |
|---|---|
| 01 | **Name the first projects and the first workflow**<br>Pick the business unit with the most Procore usage and an executive sponsor. BuildFlows suggests RFI aging or change exposure as the first workflow. |
| 02 | **Hold a 60-minute working session with that GC's operations lead**<br>Walk through their week, capture their real questions, and agree the baseline metrics. |
| 03 | **Get Procore access**<br>The GC's Procore admin installs a sandbox app with read-only permissions on 2–3 projects. No production writes during the pilot's first phase. |
| 04 | **Agree the split of work**<br>Who owns the agent build, the Procore layer and workflow design (BuildFlows), and the cloud platform. Pick option A, B or C. |
| 05 | **Set the readout date**<br>Put a 30-day checkpoint and a 90-day ROI readout on the calendar now. |

QUESTIONS

# Z-100 Questions GC teams ask

- **Why not wait for Procore AI MCP to support Gemini?**

  Procore says support for other providers is "coming in 2027" but hasn't given a date. Even when it arrives, Procore AI MCP answers questions about Procore. The bigger value is in workflows that join Procore with ERP, the schedule and BigQuery, run in the GC's own cloud and follow the GC's own rules. A governed MCP layer does that today and still fits alongside Procore AI later.

- **Does this replace Procore's own agents?**

  No. Use Procore's agents for in-app tasks like drafting an RFI or reviewing a submittal. This layer covers the work that spans systems and teams, and the surfaces where people already spend their day: Gemini, Google Chat, Gmail and Docs.

- **Does Procore data leave our cloud?**

  The MCP server runs in the GC's own Google Cloud project. Procore data passes through it to the model the GC has chosen, under the GC's Google Cloud agreements. Audit records stay in the GC's Cloud Logging and BigQuery. Credentials never reach the model.

- **Can the agent change or delete data in Procore?**

  Not by default. The pilot starts read-only; the demo shows a create request blocked by policy. Writes are turned on per workflow and need a signed one-time confirmation, with two-person approval available for financial changes. Deletes stay blocked.

- **What does the GC need to provide?**

  An executive sponsor, a Procore admin to install the app on 2–3 projects, a Google Cloud project, 10–20 willing users, and about 2 hours a week from an operations lead during the pilot.

- **How soon is there something useful?**

  A read-only workflow like the RFI radar or morning brief can be in users' hands within the

first 30 days. The demo on sheet S-300 was built and seeded in a single day.

- **What does it cost to run?**

  Running costs are Cloud Run hosting plus model usage, which depends on how many users and workflows are live. Router and hybrid modes keep each call's tool definitions small. The discovery sprint produces a cost estimate based on the GC's own volumes.

- **Who owns the code?**

  The Procore MCP server is open source. Workflow definitions, personas and policies are plain YAML files that the GC can read, review and keep. Ownership of custom agent code is agreed in the engagement.

- **What about Autodesk, our ERP, or the schedule?**

  The same pattern applies: one governed MCP layer per system behind the same checkpoint and audit. ERP and schedule data usually come in through your data foundation and BigQuery.

TERMS

# Z-200 Glossary

**RFI**
Request for Information: a formal question from the contractor to the design team.

**Ball-in-court**
Who currently owes the next action on an item.

**Submittal**
Shop drawings, product data or samples sent for design-team approval before buying or building.

**Change event**
Procore's record of a potential change in cost or scope, before it becomes a change order.

**PCO / CCO**
Potential change order (to the owner) / commitment change order (to a subcontractor).

**ROM**
Rough order of magnitude: an early estimate of a change's cost.

**Commitment**
A subcontract or purchase order. Buyout above the budget line shows up as variance.

**Budget view**
Procore's configurable budget report: original, revised, committed, projected.

**OAC meeting**
Owner-architect-contractor meeting, usually weekly or biweekly.

**Daily log**
The field's daily record: weather, manpower, notes, delays, safety.

**Retainage**
Payment held back until completion, often 5–10%.

**MCP**
Model Context Protocol: the open standard for connecting AI models to tools and data.

**Router mode**
The model sees about 27 meta-tools that find and call the right one of 2,755 Procore tools.

**Hybrid mode / persona**
A role-specific set of exact tools plus meta-tools. The demo used a 42-tool GC persona.

**Policy**
A YAML rule enforced at the checkpoint: read-only, deny deletes, two-person approval, scoping.

**Service account (DMSA)**
Procore's server-to-server login. The GC admin grants its permissions tool by tool.

**Gemini Enterprise**

**ADK**

| | |
|---|---|
| Google's employee-facing agent hub (formerly Agentspace). | Agent Development Kit: Google's open-source framework for building agents in code. |
| **Agent Runtime**<br>Managed hosting for ADK agents (formerly Vertex AI Agent Engine). | **Agent Gateway**<br>Enforces which agents can call which outside tools and MCP servers. |
| **Agent Registry**<br>Catalog of an organization's agents, MCP servers and tools. | **A2A**<br>Agent2Agent: an open protocol for agents to call each other across vendors. |
| **Model Armor**<br>Google's screening for prompt injection and unsafe content. | **Idempotency**<br>Safe retries: the same request twice has the effect of one. |

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