Memphis Air Care
HEATING · COOLING · REFRIGERATION · ELECTRICAL

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IMPLEMENTATION PLAN · 12 MONTHS · SEPTEMBER 2026 – AUGUST 2027

# The MAC Playbook

## One company. One board. Every task owned.

A phased plan to **synchronize the back office, the service department, the install department, and parts & back-of-house** in real time — with standard operating procedures and training for customers, technicians, office staff and ownership, a decision matrix that keeps routine questions off the owner's desk, and an agentic chief of staff to run the escalations that remain.

BACK OFFICE · SERVICE · 22 TRUCKS · INSTALL · NEW CONSTRUCTION · PARTS & BACK-OF-HOUSE

DECISION MATRIX · SOPS & TRAINING · CHIEF-OF-STAFF AGENTS · BUZZ + CUSTOMER PORTAL

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# How to read this plan

This is a working plan, not a brochure. It tells you **what we are going to build and change, in what order, who does each step, and how we will know it worked** — across a twelve-month window that starts in September 2026.

### If you have ten minutes

Read the letter (next page), the **Plan on a page**, and **Decisions needed from ownership** in Part 7. Those three pages carry the whole argument and everything we need from you.

### If you have an hour

Read Parts 1–3 in order: where the company stands, how the departments will run as one system, and the authority matrix that keeps routine questions off your desk. Then skim the month-by-month timeline in Part 6.

### How the plan is organized

Seven parts move from diagnosis to operating model to the software roadmap to the calendar. Appendices hold the reference tables — the full authority matrix, the SOP index, a sample one-page SOP, a glossary, and the as-built inventory of the platform.

### Conventions

`SVC-07`-style codes are SOP identifiers that stay stable forever. L1–L4 are authority levels (Part 3). Dollar thresholds are *proposed* and are calibrated with you in the Phase 0 workshop. Everything marked DECIDE is a decision we need from ownership.

TWO NAMES USED THROUGHOUT

**The platform** is the software — memphisair.co, the back-office dashboard, the technician app, and the customer and contractor portals. **The MAC Playbook** is the way the company runs on it: the procedures, the authority matrix, the training, and the rituals. Software without the operating practice is a nicer spreadsheet; the practice without the software is a binder nobody opens. This plan delivers both, together. The test: if you can click it, it is the platform; if you can break it, it is the Playbook.

# Contents

Southaven, Mississippi · August 17, 2026

**Sammy —**

Over the last three months we put the whole company on one platform: the customer site and estimator, the back-office dashboard, the field app your technicians carry, the portals your customers and general contractors log into, and the TV board. The data is in one place, the boards are live, and work that used to live in two spreadsheets and a dozen text threads now lives on a job record with a photo trail and an audit log.

That was the foundation. It has also made the next problem visible. **The company is on one system, but it does not yet run as one system.** A service call, an install project, and a parts pull still touch three departments through people rather than through the record. Two staff can pick up the same task; nobody picks up another; a job waits on a part nobody ordered; and when a question comes up, the fastest path is still to ask you. You are the operating manual — and that is the constraint on how much more the company can do without you in every conversation.

This plan fixes that in twelve months, in phases you can see and stop at any gate. It does four things:

1. **Makes every job and every task have exactly one owner**, visible to the office, the field, and the warehouse in real time — so overlap becomes structurally impossible rather than a matter of discipline.
2. **Writes down how we operate** — forty core procedures first, four role-specific manuals, one master — and trains every role to them, with certification instead of assumption.
3. **Replaces you as the default answer** with an authority matrix that says who decides what, up to what limit, and a knowledge base that answers the rest — measured by a number we start counting in the first month: *questions that reach the owner per week*.
4. **Puts an agentic chief of staff between the team and you** — answering from the procedures, routing to the right person, and bringing you only true exceptions, packaged with two options and a recommendation, on Buzz and the portals your team already uses.

None of it is a big-bang. We pilot with three service trucks and one install crew, go department by department through the winter, and finish with the agent layer running on top of procedures that have been used for months. Every phase has an exit gate, a short list of decisions we need from you, and a scorecard.

The rest of this document is the detail. The one page that matters most is the last one in Part 7 — the decisions we need from ownership, with dates. Give us those, and the team will give you back your week.

**Sardor Umarov**

Building OS · Memphis, Tennessee

# The plan on a page

**The problem:** one platform, not yet one system — tasks have no owner, parts have no job, questions have no answer source but the owner. **The plan:** five workstreams, a foundation month and four seasonal phases with gates, measured against an August 2026 baseline; software by Building OS, operating change owned by the team.

SYNC
**Owned tasks, one board**
Every event becomes one owned task; claim before act; department lanes; holds with an owner and ETA; live boards for office, field and warehouse.

PARTS
**Nothing leaves the shelf without a job**
Pull tickets against jobs, reservations, job-linked POs, receive-to-notify, trucks stocked to a standard, kits by phase.

PLAYBOOK
**SOPs, manuals, Who Decides**
Forty procedures first, four role manuals plus a master, a five-level authority matrix, Ask MAC search, sign-offs instead of assumptions.

COMMS
**Buzz + the customer portal**
Routed notifications, Buzz for staff with a fallback floor, the portal as the customer's front door — same thread the office sees.

AGENTS
**A chief of staff, last**
Answers from the Playbook with citations, routes to roles, packages true exceptions with two options — introduced only after the procedures have been lived for a season.

**Phase 0 · Foundation**
Aug 24 – Sep 18
Baseline every number; roster and links as data; cleanup; rituals start; devices, keys, TV; the forty SOPs drafted; workshop 1.
Gate: baseline captured · roster ≥95% clean · huddle 10 days running

**Phase 1 · One Board**
Sep 21 – Dec 18
Task engine + claim + boards; parts against jobs; pilot Crew A Sep 21; **Service + Parts live Nov 10**; hypercare to Dec 8; SOP module v0.
Gate: same-day close ≥85% · 100% pulls on a job · single-owner ≥90%

**Phase 2 · Knowledge & Delegation**
Jan 4 – Mar 26
**Install live Jan 5**; matrix v1 signed Jan 15; Buzz mandatory Feb 1; Playbook published Feb 15; Ask MAC search; agent answers-only; GC portal pilot.
Gate: owner interruptions −50% · ≥80% questions answered without owner

**Phase 3 · Customer Surface**
Mar 29 – Jun 25
**Portal GA Apr 6**; matrix v2; agent packages escalations; specialists online; kits and counts; **freeze May 14**.
Gate: portal ≥40% / GC ≥70% · days-to-invoice at target

**Phase 4 · Harden & Measure**
Jun 28 – Aug 27
Peak on the system; new hires through the library only; agent step-ups where proven; parts tuning; retro Aug 24–26 and year-two plan.
Gate: metrics hold under load · interruptions −75%

**−75%**
owner interruptions per day by month 12 (−50% by month 6)

**100%**
of parts pulls tied to a job from Nov 10

**≥95%**
service jobs closed in the app the same day by month 12

**≈34**
Building OS person-weeks over the year (≈0.65 FTE, front-loaded)

Full scorecard with baselines and targets: Part 7.2. Month-by-month calendar: Part 6.2. Every dollar threshold is a placeholder calibrated with the owner in September–October.

WHAT WE NEED FROM YOU NOW

**1.** Yes to the kickoff the week of August 24. **2.** A program lead named by September 4 (proposed: Cecilia, 6–8 protected hours a week) plus four champions and five or six super-users. **3.** Three 90-minute Who Decides workshops on your calendar — Sep 22, Oct 6, Oct 20. The other eleven decisions, with dates, are in Part 7.5.

01

PART 1

# Where the company stands: one platform, not yet one system

The foundation is built and in daily use. What follows is an honest reading of how work actually moves through it today — from the code, the data, and the seams between departments — and a plain definition of what “synchronized” will mean when this plan is done.

1.1

# What is live today

Since May 2026 the company has moved onto one platform with one database. Every surface below is in production and used by staff, technicians, customers or general contractors.

**20+**
back-office modules in the dashboard — status board, intake, CRM, dispatch, routes, collections, install pipeline and board, milestones, contractors, inventory, POs, accounting with a general ledger, users, audit, TV

**4**
portals — prospect, client, job, and general contractor — plus the technician field app installed on phones

**41**
permission keys across five roles; ~80 audited actions; 11 branded PDF types (estimate, invoice, PO, pull ticket, work order, AIA G702/G703, lien waiver, project report...)

**1**
database. The office TV board, the dashboard and the technician app all read and write the same job records — the two spreadsheets the office ran on (47 install jobs, 562 service calls) were loaded in June

CUSTOMERS · PROSPECTS

**memphisair.co**

Marketing site, AI photo estimator, voice intake, concierge; prospect / client / job portals with chat, attachments, e-sign, Stripe deposit, schedule request.

GENERAL CONTRACTORS

**GC portal**

Per-contractor link: shared project updates, photos, waiting-on flags, two-way replies, Monday digest, project-report PDF.

BACK OFFICE · OWNER

**/dashboard**

Status board, intake & estimates, CRM, service ledger, dispatch by tech, routes, collections, install pipeline / board / milestones, contractors, inventory, POs, accounting + GL, action items, users, audit, TV mode.

TECHNICIANS · CREWS

**/tech field app**

My Day and claim queue, route, work order with field-state chips, tasks, parts pull, photos, signature, office ↔ tech and tech ↔ customer threads, inbox, PIN kiosk.

SHARED RECORD

**One Supabase project**

**Job records**

(`sbo_records`: install · service · parts · inventory · pull lists) read and written by the dashboard, the field app *and* the original office TV-board app — plus the CRM, estimates, bookings, action items, accounts and roles, audit log, contractors, general ledger and feedback tables (`mac_*`).

**Figure 1.** The platform as built. Every surface writes to the same job record; the seams in Section 1.2 are inside that record, not between systems.

What does *not* exist yet is equally clear from the code: no procedures by role, no in-app help, no decision matrix ("Waiting on Sammy" is a status on the board and is the de-facto escalation policy), no notifications to technicians, no owner or claim on any task, and no link between a part, a purchase order and the job that needs it. The next two sections show why that matters.

1.2

# How work moves today — and where the record loses it

Three flows carry the business. Read each one left to right; the shaded stages are where the job leaves the record and lives in a person's head, phone, or a free-text field.

## A A service call

| Request | Qualify | Dispatch | Work | Bill | Collect |
|---|---|---|---|---|---|
| WEB · PHONE · PORTAL | OFFICE · OWNER-ONLY | DISPATCHER | TECHNICIAN | STATUS = A PERSON'S NAME | OFFICE |
| Lead or estimate lands; a stub job is mirrored to the board. | Estimate staged; accepting it creates a client, *not* a job. A second job is quick-added by hand. | “Tech” is a typed name; the field app keys on an email. Re-assigning on the board can leave the job in the old tech's day. | Field state, tasks, parts, photos, signature, threads — all on the record. | “Need to Invoice” → “Cynthia” → “Need Payment”. Invoices are keyed in another system and copied back by hand. | Aging from statuses; lien / attorney by owner. |

**Where it breaks:** the hand-off from sale to schedule (a lead lands with a status that hides it from dispatch and the tech queue); the hand-off from dispatch to the truck (two assignment fields); and the hand-off to billing (a name as a status, and re-keying).

## B An install project

| Won | Stage | Crew | Parts | GC loop | Money |
|---|---|---|---|---|---|
| ESTIMATE · GC | BUCKET | NOBODY, FORMALLY | FREE TEXT | INSTALL PM | ACCOUNTING |
| Created on the board with a typed contractor name. | Kanban buckets — but the master punch list, per-trade lists, the new-construction checklist, tasks and milestones are **five separate structures** on one record; none feed each other. | Legacy installs have no crew field; any tech can claim; per-trade sub-crews are free text. | POs name the job as text; receiving never updates the project or the crew. | Shared updates, GC replies, digest — this works. | Pay apps and lien waivers keyed by job text; install A/R is not on Collections. |

**Where it breaks:** there is no single answer to “what is next on this project, who owns it, and what percent is done” — so the office asks the foreman, the foreman asks you.

### C A parts request

| Need | Two pipelines | Reserve | Order | Receive | Use |
|---|---|---|---|---|---|
| TECH · OFFICE Part added on the work order, or a pull ticket typed in the office app. | INCOMPATIBLE The office app runs staged pull *tickets*; the field app writes a flat pull *ledger*. Neither can display the other. | NOTHING Adding a part holds no stock. Two techs can plan the same last capacitor. | FREE TEXT PO created by hand or from a low-stock banner; the job is a typed name. | WAREHOUSE Quantity goes up. Nobody is told; the job stays “Waiting on Part” with no owner or ETA. | TECHNICIAN Parts marked pulled; job cost recorded. |

**Where it breaks:** everywhere the part should be tied to a job. Today the tie is a person remembering.

1.3

# The nine synchronization gaps

Each gap is described twice: what it looks like on the floor, and what it is in the record. The second column is what Part 5 fixes; the first is what Parts 2–4 fix.

**1**

ON THE FLOOR

**Two people work the same ticket; nobody works another.**

No task on the platform has an owner, a due time, or a claim. “Working on it” is a typed word; “who touched it” exists only in the activity log.

IN THE RECORD

No task model. Action items are created unassigned. Status strings stand in for owners (“Cynthia”, “Waiting on Sammy”). Overlap is prevented only by people talking.

**2**

ON THE FLOOR

**A job is re-assigned on the board but stays in the wrong tech's phone.**

Dispatch and the office drawer set a typed name; the field app owns by email; multi-tech jobs (“Adam/Shadie”) have no representation.

IN THE RECORD

Assignment is two-keyed free text (`tech` vs `tech_email`) with no roster behind it. Fifteen technicians appear in the data; four are hard-coded in the office app.

**3**

ON THE FLOOR

**Web leads go quiet; accepted estimates create a client but no job.**

Staff quick-add a second ticket by hand, so the same customer exists twice.

IN THE RECORD

Mirrored leads carry a status not in the “active” list, so dispatch, the tech queue and the KPIs cannot see them. Estimate acceptance never converts to a scheduled work order.

**4**

ON THE FLOOR

**“Complete” tickets vanish while unpaid; hand-offs are people's names.**

Billing steps are statuses named after staff; a bare “Complete” drops a ticket from both the active board and A/R.

IN THE RECORD

Three surfaces keep three status vocabularies; legacy POs render as drafts; install stages can be overwritten from a service-status menu on the phone, destroying the punch list.

| | ON THE FLOOR | IN THE RECORD |
|---|---|---|
| 5 | **Something a tech entered this morning is gone by noon.** A stale office-app tab that saves a drawer can wipe tasks, parts and threads the field app added. | Three writers do whole-record last-writer-wins with no version check; the office app still has hard Delete buttons; live refresh in the dashboard depends on a database policy that may be silently blocking it. |
| 6 | **Install and service are run with the same tools and collide.** Foremen and service dispatch share one queue; “what's next on the project” has five answers. | No department attribute on jobs, tasks or accounts; “office” is one undifferentiated role — no dispatcher, warehouse or billing role exists in the permission model. |
| 7 | **Technicians hear nothing.** No alert on assignment, on a part arriving, on an office reply, on an approval — unless they open the app. The office bell is global, not per person. | Notifications have no recipient. The field app's service worker is a placeholder — no push, no SMS. Only a handful of events create a bell item at all. |
| 8 | **Inventory drifts from jobs; “waiting on parts” has no owner or ETA.** Parts get pulled without a job; jobs wait on parts nobody ordered; trucks are not stocked to a standard; the office cannot see what a project still needs. | No reservations, no PO-to-job link, two incompatible pull objects under one record type, receiving that increments a number and stops, trucks not modeled as locations. |
| 9 | **Customers and GCs still call to ask.** Client and job portals are read-only; schedule requests are never confirmed back; the portal status label can say “Open” for a ticket that is with billing. | No customer writer for the job thread; bookings never write back to the record; a name-matching fallback can show a client someone else's unlinked jobs — a privacy defect fixed in Phase 0. |

1.4

# What “synchronized” will mean — five tests

We will call the company synchronized when all five statements are true on any given day, for any job, and can be checked on the board rather than by asking someone.

1. **One record, one truth.** A job, project, part, customer or GC exists on the board or it does not exist for dispatch, payroll, purchasing or invoicing. Whoever receives a phone call, text or walk-in enters it within the hour. Huddles read only from the board.

2. **Every task has exactly one owner, and every hand-off has a receiver.** Work is claimed before it is done, and the claim is visible to the office, the field and the warehouse in real time — so two people cannot pick up the same task without the second one seeing the first.

3. **Every wait has an owner and an ETA.** “Waiting on parts / power / other trade / customer / owner” is a structured hold with a name and a date, derived from a purchase order or a task — never a typed status.

4. **Every question has an answer source.** Who Decides names who decides; the Playbook's articles say what the answer is; the escalation that reaches you arrives packaged with two options and a recommendation, and it is logged.

5. **The customer and the GC see the same thread the office sees.** Requests, confirmations, on-my-way, approvals, completion photos, invoices and payments happen on the portal and land as one owned task — nothing lives only in someone's phone.

PART 2

02

# The operating model: five departments, one job spine, one owner per task

This is how the company runs once the plan is in place — who owns what, how a job moves through service, install and parts with a named receiver at every hand-off, and the small set of rules that make overlap structurally impossible.

2.1

# Departments and roles

The industry template for a 15–30-truck shop is stable: owner → operations → a **service manager** over technicians, an **install manager** over crews, an **office manager** over customer-service and dispatch, and a **warehouse / purchasing lead** with a parts runner. Published ratios: one dispatcher per 10–15 technicians; one office person per 5–7 field staff; install crews of two. Memphis Air Care already has these people — this section names the roles, so the procedures and the matrix can point to a role rather than a person.

### Ownership

Sammy · L4

- One-way doors: contracts and GC terms, hire / terminate, pricing policy, above-cap money, legal, incidents.
- Sponsors the program: opens the huddle for the first four weeks, uses the board personally, refuses off-board requests, signs Who Decides.
- Receives packaged escalations only; reviews the decision log weekly and the scorecard monthly.

Uses: **/dashboard** owner view · **Buzz #owner** · monthly review pack · (later) the daily brief from the chief-of-staff agent

### Back office

office manager · dispatcher · CSR · billing / collections · L2–L3

- **Office manager (L3, program lead):** exceptions within caps, discounts to the cap, complaints, staffing; owns OFC-* and CUS-*; runs the weekly ops review; triages the decision log.
- **Dispatcher (L2):** owns the service board — every truck has a named first task by 7:30; assignment, priorities, callbacks, service holds and customer ETAs; runs the huddle. A dispatcher is not a CSR who dabbles in dispatch.
- **CSR:** intake and booking to script; enters every phone or walk-in request on the board within the hour.
- **Billing / collections:** invoices within 24 hours of completion; the collections ladder by aging bucket; adjustments to cap.

Uses: **/dashboard** status board, dispatch, intake, CRM, collections, action items · **Buzz #dispatch #office** · TV board

### Service department

service manager · ~15 technicians · L1–L3

- **Service manager (L3):** owns SVC-*; callbacks review; repair-vs-replace and non-standard quotes to cap; ride-alongs and sign-offs.
- **Lead technicians (L2):** the crew's coordinator; may re-prioritize within the day, approve small goodwill, take after-hours calls to the rule.
- **Technicians (L1):** the service call end to end inside the SOP — options and approval before work, photos and readings, close-out and signature, parts pulled against the job, stop-work for safety, always.

Uses: **/tech** field app · **Buzz** private tech channel + #dispatch thread per job · laminated Who Decides card

### Install department

install PM · foremen · 4–6 crews · L1–L3

- **Install project manager (L3):** owns INS-*; project intake and the estimate-to-install hand-off; change orders (no changed work before written GC approval); pay apps; owns each project's task list and phase readiness.
- **Foremen (L2):** crew assignment within the week, GC schedule changes inside the week, field deviations that are code-compliant and cost-neutral; commissioning checklist.
- **Installers (L1):** phase tasks, photos to standard, kit check-in, punch list.

Uses: **/tech** field app (install mode) · **/dashboard** install pipeline, board, milestones, contractors · **Buzz #install** with one thread per project · GC portal (outbound)

### Parts & back-of-house

warehouse lead · parts runner · L1–L2

- **Warehouse lead (L2):** owns PRT-*; the “Today” board — pull tickets by ready-by time, POs to receive, restock exceptions, returns, phase kits; the 3:00 pm staging cutoff; POs to the tier; cycle counts.
- **Parts runner (L1):** stages and loads out, does supply-house runs so a billing technician does not (each counter run costs roughly a billable hour), scans moves.
- Trucks are inventory locations with a per-truck-type standard stock; restock is weekly by exception, daily for A-items.

Uses: **/dashboard** inventory, pull tickets, POs, receiving · scan-to-pull · **Buzz #parts** · wall sheet for cutoffs

> **ROLES AS DATA, NOT AS TEXT**
>
> Phase 0 turns this list into records: each account gets a department, a role level, a crew type, a truck and a short display name. Dispatch columns, the field app, the routes planner and the office TV board all read that roster — so “Adam/Shadie” typed into a box is no longer how a job gets a crew.

2.2

# The job spine — three lifecycles with named hand-offs

Every job travels one of three lifecycles. Each stage has an owner; each arrow is a hand-off with a receiver who is told and who claims. Holds are structured — a type, an owner, an ETA — never a typed status.

## A Service call — from request to paid

| Requested | Booked · confirmed | Dispatched | Working | Hold | Complete | Invoiced → paid |
|---|---|---|---|---|---|---|
| CSR · PORTAL | CSR → DISPATCHER | DISPATCHER → TECH | TECHNICIAN | OWNER + ETA | TECH → BILLING | BILLING |
| On the board within the hour; customer acknowledged with the SLA. | Date and window on the record; customer confirmed by portal / text. | Roster assignment; tech is notified and the job appears in My Day. Multi-tech jobs carry every name. | On-my-way → arrived → options approved → repair; photos, readings, parts against the job. | Parts / customer / owner — a structured hold with a name and a date; clears itself when the PO lands or the answer arrives. | Close-out checklist and signature; a typed “ready to invoice” task lands with billing. | Invoice within 24 h; collections ladder by bucket; callback lane separate. |

**Hand-offs that must have a receiver:** CSR → dispatcher (booked), dispatcher → tech (assigned), tech → warehouse (part requested), warehouse → tech + dispatcher (part received), tech → billing (ready to invoice), tech → dispatcher (callback flagged).

## B Install project — from award to warranty

| Awarded | Planned | Crewed | Rough-in · set · trim | Hold | Startup · inspection | Close-out · billed |
|---|---|---|---|---|---|---|
| ESTIMATOR → INSTALL PM | INSTALL PM | INSTALL PM → FOREMAN | FOREMAN · CREW | OWNER + ETA | FOREMAN · INSTALL PM | INSTALL PM → BILLING |
| Estimate becomes a project with a GC record, contact and contract terms. | Submittals, buyout, phase bill of materials, schedule and milestones from a template. | Crew per phase and per trade — HVAC, electrical, gas, refrigeration, hood — each with its own owner. | Phase tasks with photos; kits staged the day before; GC updates posted from the record. | Other trade / power / parts / GC decision — structured, visible to the GC as “waiting on”. | Commissioning checklist, rough and final inspections, equipment registered. | Punch list, O&M docs, pay app / retainage; warranty period tracked. |

**Hand-offs that must have a receiver:** estimator → install PM (award), install PM → warehouse (phase BOM), foreman → GC (update / RFI / change order), warehouse → foreman (kit staged), foreman → install PM (phase done), install PM → billing (pay app).

### C Parts request — from need to job cost

| Requested | Reserved / short | Approved · ordered | Received → staged | On truck | Installed · returned |
|---|---|---|---|---|---|
| TECH · INSTALL PM Part added on the work order or the phase BOM; the request is a pull ticket *against a job*. | SYSTEM → WAREHOUSE LEAD Available stock is reserved; a short line drafts a job-linked PO and opens a parts hold with an owner. | TIERED PO approved by tier; counter pickups need a PO number before the tech leaves. | WAREHOUSE LEAD Received against PO lines (partial allowed); job-flagged items go straight to the job's staging bin; hold clears; tech and dispatcher are told. | TECH SCANS Load-out by scan at 7:00; dispatch sees "parts on truck ✓". | TECH · WAREHOUSE Used quantities become job cost; leftovers scanned back or kept to the truck standard. |

**The one rule that fixes most of it:** nothing leaves the shelf without a job (or a truck-restock ticket) attached. Free-text job names become display only.

2.3

# Task delegation: the five rules and the claim

Overlap is not a discipline problem; it is a design problem. When every unit of work is a task with one owner, a claim, and a clock, two people cannot pick up the same thing without the second one seeing the first.

| 1 Event | 2 One task | 3 Claim | 4 Do | 5 Done | 6 Escalate |
|---|---|---|---|---|---|
| A request lands — portal, phone, tech note, GC reply, PO received, stage change, cron. | The router creates exactly one owned task per event (a duplicate key prevents a second), in the department lane, with a due time. | The first person to claim it owns it — dashboard, field app, or a "claim" reply in Buzz. Assignment is a suggestion; the claim is ownership. | Work happens on the record: status, photos, parts, threads. Hand-off re-opens the clock with a new receiver. | Done means logged: the task closes, the timeline shows who did what, KPIs move. | Unclaimed past its window → next tier automatically (5 / 30 / 240 min by priority); the owner sees only what nobody caught. |

**Figure 2.** The task loop. Every event becomes one owned task; the claim is the anti-overlap mechanism; the escalation timer is the anti-drop mechanism.

**1** **The board is truth**

Not on the board = does not exist for dispatch, payroll, commissions, purchasing or invoicing. Enter it within the hour. Pay and parts reimbursement are computed from board data only.

**2** **One owner per task**

Every task, hold and hand-off names one person. Watchers may be many; owners are one. Multi-tech jobs carry every name, but each task on the job has one.

### 3 Claim before you act

Claim in the app or reply “claim” in Buzz; the card updates so everyone sees who has it. If it is already claimed, you don't touch it — you message the owner.

### 4 Done means logged

A job is not complete until its close-out checklist is checked, its parts are consumed against it, and its photos are on the record. The vendor removes the ability to close a job without its pull list.

### 5 Unclaimed escalates

The clock runs from the moment the task exists. Urgent: dispatcher, then lead + owner at five minutes, then the owner's phone at ten. Normal: nudge at four hours, then the next brief. Nothing waits silently.

> DEPARTMENTS, NOT ONE QUEUE
>
> Service, install and parts each get their own lane and board: dispatch is service only; the install board is project × crew; the warehouse has a Today board; billing has a queue. Cross-lane hand-offs are tasks with a receiver in the other lane.

2.4

# The operating rhythm — daily, weekly, monthly

Rituals are how the rules stay alive after the novelty wears off. Each one reads only from the board, has an owner and a hard stop, and produces one artifact.

| | |
|---|---|
| 07:00 | **Load-out.** Techs scan staged parts onto trucks; dispatch sees “on truck ✓”; My Day is final. |
| 07:15 | **Dispatch huddle — 10 minutes, standing, at the TV board.** Run by the dispatcher. Safety and weather · yesterday's numbers off the board (jobs closed same day, callbacks, unbilled completions, parts holds) · today's board: every truck and crew has an owner-named first task · blockers · yesterday's owner escalations and the rule that closes them · hypercare triage during go-lives. Techs join by Buzz thread. |
| 15:00 | **Parts staging cutoff.** Pull tickets in by 3:00 are staged for tomorrow's 7:00 load-out; the warehouse Today board sets tomorrow. |
| 16:30 | **End-of-day close.** Dispatcher confirms tomorrow's board; billing sweeps “ready to invoice”; the exception report goes to the owner's channel (unclaimed past SLA, blocked jobs, A/R over 30, low stock, pending decisions). |
| Tue | **Weekly ops review — 45–60 minutes.** Run by the program lead; owner, champions, dispatcher, billing, Building OS every other week. Scorecard red/green vs. target · this quarter's rocks · the top three issues, each solved with one owner and a seven-day due date · to-dos read back. |
| Fri | **Decision digest — 20 minutes.** Program lead tags each entry in the week's decision log: *rule* (becomes a matrix row), *SOP gap* (an owner gets a to-do), or *genuinely owner-level*. “SOP of the week” read in the huddle. |
| Monthly | **Owner review — 60–90 minutes, last Tuesday.** KPI trends vs. the August 2026 baseline · adoption dashboard · decision-log review · SOP health · what ships next month · risks · decisions the owner owes. Output: a one-page memo in Buzz #announcements. |
| Quarterly | **Retro and gate — 2 hours, last week of each phase.** What worked, what did not, what changes; go / no-go on the next phase; SOPs retired or rewritten; matrix thresholds reviewed; wins celebrated in public. |

PART 3

03

# The authority matrix: who decides what — so the owner isn't asked

Most of the questions that reach you are not hard. They are undecided. Who Decides is a one-page table that says who may decide each recurring question, up to what limit, from which written procedure — and how the exceptions must arrive on your desk.

3.1

# Five levels of authority

Roles, never names. A person can hold two levels (a lead tech is L1 on his own calls and L2 for the crew), but the level, not the person, is what the procedure points to.

| LEVEL | WHO · SCOPE | DELEGATION STANCE |
|---|---|---|
| **L0** Self-serve | Customer or general contractor in a portal; the Ask MAC assistant. Status, ETA, invoices, documents, "what to expect". Answers only. Never decides. | Read and act inside the portal. |
| **L1** Field / floor | Technician, lead installer, warehouse associate, customer-service rep. Anything inside a written procedure; customer-approved work from the price book; **stop-work for safety, always**. | Act and report routinely inside the SOP; recommend outside it. |
| **L2** Coordinator | Dispatcher, lead tech, install foreman, parts lead. Schedule and priorities, small goodwill, small purchase orders, same-day overtime, callbacks. | Act, then report the same day. |
| **L3** Manager | Service manager, install project manager, office manager. Exceptions, mid-size dollars, discounts to a cap, complaints, staffing, refunds within policy. | Decide within caps; recommend above them. |
| **L4** Owner | Sammy. One-way doors only: contracts and GC terms, hire and terminate, pricing policy, anything above the caps, legal, incidents. | Decides from a packaged recommendation — never from a raw question. |

### WHY NOT RACI, RAPID OR DACI

RACI assigns tasks and has no decider — a team using it to decide will deadlock. RAPID and DACI name a decider but add ceremony per decision that a 22-truck shop will not sustain. A plain **authority matrix** — a delegation-of-authority table with dollar and risk thresholds — is what companies this size actually run on, and it can be *enforced inside the software*: discount fields with a cap, PO approval tiers, an escalate button that opens the template.

### ONE-WAY DOORS GET SLOW; TWO-WAY DOORS GET FAST

Borrowed from Amazon: a decision you can walk back (reschedule a call, waive a trip fee, order a $400 part) should be made at the lowest level listed and made quickly. A decision you cannot walk back (a GC contract term, a termination, a lien, a price-book change) is a one-way door — it gets a named recommender who brings options, and it goes to L4. Only about six rows in the matrix are one-way doors.

> CALIBRATION
>
> Every dollar and percent threshold in this part is a **proposed placeholder**. They are set with you in the Phase 0 workshop (September), reviewed against the decision log each quarter, and signed by you once a year. A matrix that is not enforced in the system, reviewed quarterly, and signed annually is decorative.

3.2

# Who Decides — the everyday decisions, decided low

Twenty-six recurring decisions, each with the level that decides, the rule or threshold, the procedure that answers it, where it escalates, and how fast. The full table is Appendix A; the shape is shown here with the rows that today most often end up on your desk.

| ROW | DECISION / QUESTION | DECIDES | RULE OR THRESHOLD | ANSWER SOURCE | ESCALATE | SLA |
|---|---|---|---|---|---|---|
| D-01 | Which tech takes which call; re-prioritizing the board | L2 | Safety and no-heat/no-cool for vulnerable customers first, then maintenance-plan members, then first-in-first-out. | SVC-02 | L3 | Immediate |
| D-05 | Part not on the truck | L1 → L2 | Tech requests it in the app; parts lead sources same day. Over $X or more than a two-day lead time → L3 informs the customer. | PRT-03 | L3 | 30 min |
| D-07 | GC change order — price and approval | L3 | Priced through the estimator against a margin floor. **No changed work before written GC approval.** Over $X or below the floor → L4. ONE-WAY DOOR | INS-05 | L4 | COR out in 48 h |
| D-10 | Stock re-order / purchase order | tiered | L1 inside min/max · L2 to $1,000 · L3 to $5,000 · L4 above. Every buy has a PO; job-specific buys carry the job number. | PRT-02 | per tier | Same day |
| D-13 | Invoice adjustment / small write-off | L3 | Up to $250; above → L4. Owner sees all in the weekly digest. | OFC-04 | L4 | 24 h |

| ROW | DECISION / QUESTION | DECIDES | RULE OR THRESHOLD | ANSWER SOURCE | ESCALATE | SLA |
|---|---|---|---|---|---|---|
| D-14 | Collections step (reminder → call → service hold → lien / attorney) | L3 | Steps keyed to aging buckets 30 / 45 / 60 / 90. Lien or attorney is L4. ONE-WAY DOOR | OFC-05 | L4 | Per bucket |
| D-21 | Callback within 30 days of a repair | L2 | Priority slot, no charge until diagnosed; tag the callback type (defect · misdiagnosis · parts · warranty · new issue · nuisance). | SVC-08 | L3 | Next slot |
| D-23 | Discount off the price book | tiered | L1 published coupons and plan discounts only · L2 to $100 or 5% · L3 to 10% or $500 · L4 above. Every discount needs a reason code. | OFC-03 | per tier | Same visit |
| D-24 | Non-standard quote (commercial · refrigeration · gas) | L3 | Estimator plus margin floor. Over $25K or below the floor → L4. ONE-WAY DOOR | SVC-06 | L4 | 48 h |
| D-25 | Stop work for an unsafe condition | L1 | **Anyone, no approval needed, never overridden.** Make safe, leave, report. Owner informed the same day. | SAF-01 | inform L4 | Immediate |

Rows D-07, D-14 (lien), D-18 (hire/terminate), D-24, D-25/26 are the one-way doors. Everything else is a two-way door and is decided at the lowest level listed. Full matrix with all 26 rows: Appendix A.

### 3.2.1 How Who Decides shows up in daily work

IN THE APP

**Enforced, not remembered**

The discount field shows the cap for your level and an “Escalate” button; PO approval routes by tier; “Waiting on Sammy” becomes an escalation task with an SLA instead of a status.

IN THE TRUCK

**One laminated card per role**

Only that role's rows: “what I can decide” on the front, “when I call, and whom” on the back. Bilingual for field roles.

ON YOUR DESK

**The full matrix, once a quarter**

You see every row, the decision log that touched it, and the proposed threshold changes. Sign, adjust, or send back.

3.3

# Escalation that arrives ready to decide

An escalation is a request for a decision — not a hand-off of the work. The person who raises it keeps the job. What travels up is a short, standard package; what comes back is a decision and, when it is reusable, a new rule.

## Four rules

**1 Up one level only**

L1 asks L2, L2 asks L3, L3 asks L4. Skipping levels is how the owner ends up refereeing dispatch.

**2 Bring the SOP you checked**

"I looked at OFC-03 and it doesn't cover this." If no procedure was checked, the answer is "check Ask MAC first."

**3 Two options and a recommendation**

SBAR — situation, background, assessment, recommendation — with two priced options and a deadline. Un-packaged escalations are declined and sent back, politely and every time.

**4 Every decision is logged; reusable ones become rules**

The Friday digest turns the week's decisions into matrix rows or knowledge-base articles. The same question should never reach you twice.

## The escalation package

```
ESCALATION #E-0142  from: Dispatcher  to: Owner  row: D-07  SOP checked: INS-05  deadline: today
3:00 pm

S  Situation       GC on Job 2419 wants a duct reroute added; crew to start tomorrow.
B  Background      Not in scope. Estimator prices it at $6,800; margin 22% (floor is 25%).
A  Assessment      Below margin floor → outside my authority. GC relationship strong; no LDs.
R  Options         (1) Submit COR at $7,400 (hits floor). Risk: one-day delay on the reroute.
                    (2) Submit at $6,800, note goodwill. Risk: sets a precedent with this GC.
    Recommendation  Option 1. Decision needed by 3 pm so the COR goes out today.
Decision: ______   Rationale: ______   Reusable rule? Y / N → GOV-03
```

### 3.3.1 The number we watch

In Phase 0 we baseline **questions and decision requests that reach the owner per week**, by channel and category, for two weeks. From launch we track weekly: owner questions per week; the share answered by Ask MAC — the articles or, later, the assistant; the share resolved at L2/L3; escalations that reach L4 and their median time to decision; and the repeat-question rate (the same question twice means a missing article). Targets: **−50% by month 3, −75% by month 6**, with L4 escalations under ten a week and all of them packaged.

3.4

# Ask MAC — the front door to every written answer

Who Decides says who may decide. The Playbook's articles say what the answer is. Ask MAC is how anyone finds it in ten seconds — a search box in the app and in Buzz, and later an assistant that answers from the same articles. Every recurring question gets one article, written answer-first, tagged to the role that asks it, the procedure it belongs to, and the screen where it comes up.

## Article template

| | |
|---|---|
| **ID · Title** | `SVC-08` · phrased the way the question is asked ("Customer says the unit failed again a week after we fixed it") |
| **Answer** | Bottom line up front, three sentences or fewer |
| **Who may decide** | The matrix row (D-21) and the level |
| **Steps · Screens** | Numbered, imperative; screenshots or a 60-second video of the exact screen |
| **Exceptions** | What is *not* covered, and where it escalates |
| **Owner · Version · Related** | One named role owns it; "last verified" date; links to sibling SOPs |

## Where it lives

- **In the app, first.** Every dashboard tab and every technician screen has a help hook that opens the articles tagged to that screen. Field content is downloadable and works offline.
- **In the manuals.** The per-role PDFs and the master playbook are generated from the same articles — printed copies carry "uncontrolled — check the app" and a QR to the live version.
- **In three languages of search.** Titles are written in staff language with Spanish synonyms; one question per article; unanswered assistant queries and repeat questions feed a weekly "articles to write" list.

## Ownership and freshness

- Service manager owns SVC-∗, install PM owns INS-∗, parts lead owns PRT-∗, office manager owns OFC-∗, owner owns GOV-∗, EXE-∗ and signs SAF-∗ and OFC-03.
- Minor edits (wording, screenshots) by the owner of the SOP; major changes that require re-training are signed by the department lead — or by you for safety, governance, and pricing authority.
- Quarterly review with the matrix; annual sign-off. Any decision-log entry marked reusable triggers an immediate minor revision.

3.5

# The chief-of-staff agent: what it answers, packages, and never decides

Once the procedures and the matrix exist and have been used for a season, an agent can sit between the team and you. It is grounded on the Playbook's articles through Ask MAC, it cites the SOP it used, and it has a short list of things it may never do alone.

### 1 · Triage

A question arrives — in the app's Ask panel, in a Buzz channel, or as a "Waiting on owner" task. The agent classifies it: informational, decision inside a level, or exception.

### 2 · Answer from the procedures

If an article covers it, the agent answers with the SOP ID and version, and — where the matrix says the asker may decide — says so plainly: "You can approve this at L2 under D-23."

### 3 · Route to the right human

If the decision belongs to a role (dispatcher, parts lead, office manager), it creates the task for that role with the context attached — not for you.

### 4 · Package the exception

If nothing covers it, or the matrix says L4, it drafts the escalation package (Section 3.3) with the retrieved articles attached and posts it to your Buzz DM with the deadline.

### 5 · Log the decision

Your reply is recorded against the matrix row. If you mark it reusable, the agent drafts the KB article or threshold change for the SOP owner to approve.

### Never, alone

Anything at L3/L4 · safety (SAF-*) · legal · HR · pricing outside the price book · refunds and write-offs · GC contract terms · payments · promises of schedule · anything with no article behind it.

SEQUENCING

The agent is **Phase 3**, deliberately. It runs on the same runtime pattern already proven in Building OS's other operating agents (agents defined as plain-text charters, per-agent inboxes, outbound actions gated behind an approval switch, a cost ledger). Month 6: answers-only pilot with citations, shadowed by the office manager. Month 7–9: it packages escalations. Month 10–12: proactive daily brief and exception reports. Part 5 lists the eight agents and their charters.

GUARDRAILS THAT ARE STRUCTURAL, NOT PROMISED

Read access to jobs, tasks, inventory and CRM through allow-listed queries; write access only to tasks, drafts and Buzz posts; anything outbound to a customer or vendor is drafted for a human to send. Every action is in the audit log with the article it relied on. Model cost is tiered — routine classification on a small model, escalation packaging on a strong one — with a monthly cap.

PART 4

04

# Procedures and training: the manuals, the SOP library, and how every role is certified

A company that runs on people-dependent knowledge cannot grow past the people who hold it. This part writes the operating knowledge down in the formats field and office people actually use, and turns training from an event into a calendar.

4.1

# The manual set — four audiences, one master

Each audience gets its own manual, generated from the same articles as the app's help, in the same format Building OS already ships for other operating platforms: per-role PDFs with screenshots, captions, QR codes and clickable links, plus a combined master and an in-app tutorial.

| # | MANUAL | AUDIENCE | CHAPTERS |
|---|---|---|---|
| M1 | **MAC Field Manual** EN / ES | Technicians, installers, warehouse | Safety & stop-work · Your day in the app · The service call (SVC-01–10) · Install jobs (INS-03–08) · Parts, pull lists & truck stock (PRT-03/04) · Photos, close-out & invoices · When to call whom (Who Decides card) · Sign-off checklist |
| M2 | **MAC Office Manual** | Dispatch, CSR, parts lead, billing / collections, office manager | Daily rhythm (board, huddle, end-of-day close) · Intake & booking · Dispatch & priorities · Purchasing, POs, receiving, returns · Invoicing, adjustments, collections, refunds · Complaints & service recovery · Scheduling, PTO, overtime, onboarding · Screen-by-screen procedures with decision points · Escalation template & decision log |
| M3 | **MAC Customer & GC Guide** | Customers; general contractors | What to expect on a service visit · Using your portal · How and when we communicate · Warranty, callbacks, making it right · GC portal: schedules, RFIs, change orders, close-out documents |
| M4 | **MAC Owner's Manual** | Owner / executive | Who Decides (the authority matrix) · How escalations reach you — and how they should look · Weekly review & scorecard · Dashboards & exception reports · Quarterly matrix / SOP review · The chief-of-staff assistant: what it answers, packages, and never does |
| M0 | **Master Playbook** | Audit, insurance, GC pre-qualification; new managers | Every SOP by ID · Who Decides · Article index · Version register |

FORMAT RULE

**Job aids first, prose last**

One page or one screen. Do-confirm checklists of five to nine items with a pause point; if-this-then-that cards; photo-standard sheets; swimlanes for cross-department handoffs. Sixth-to-eighth-grade reading level, imperative voice, one verb per step.

LANGUAGE

**Field aids ship bilingual**

Every safety and field procedure ships English/Spanish; training videos are recorded in both, using the pipeline Building OS already runs for the housekeeping platform (EN/ES/RU).

SOURCE OF TRUTH

**The app is current; paper is a snapshot**

The app shows only the current version. Printed copies carry "uncontrolled — check the app" and a QR to the live article. Truck binders hold safety cards and the Who Decides card only.

4.2

## The SOP library — eight families, forty procedures first

Fifty-three procedures are indexed in Appendix B. Under the 20/80 rule we write the **forty that carry the daily work** in Phase 0–1 (marked ★) and the rest through Phase 2. Identifiers never change; versions do.

### GOV
3 · governance

- `GOV-01` How we write, number, approve and retire SOPs ★
- `GOV-02` Who Decides: authority matrix & escalation ladder ★
- `GOV-03` Decision log & article-update loop ★

### SAF
4 · safety

- `SAF-01` Stop-work authority & hazard reporting ★
- `SAF-02` Injury, incident & vehicle accident ★
- `SAF-03` Refrigerant handling & EPA 608 records ★
- `SAF-04` Electrical/gas isolation, ladders, confined space ★

### SVC
10 · service

- `SVC-01` Service call lifecycle ★
- `SVC-02` Dispatch & prioritization rules ★
- `SVC-03` After-hours & emergency calls ★
- `SVC-04` Presenting options & getting approval ★
- `SVC-05` Repair-vs-replace rule ★
- `SVC-06` Diagnostic fees, price book & non-standard quotes ★
- `SVC-07` Job close-out: photos, readings, notes, signature, invoice ★
- `SVC-08` Callbacks: types, priority, no-charge rule ★
- `SVC-09` Manufacturer warranty claims ★
- `SVC-10` Maintenance agreements & seasonal tune-ups

### INS
8 · install

- `INS-01` Project intake & estimate-to-install handoff ★
- `INS-02` Estimating & bids (estimator, margin floor) ★
- `INS-03` Install scheduling & crew assignment ★
- `INS-04` Field deviations, RFIs & plan questions
- `INS-05` GC change orders — written approval first ★
- `INS-06` Material staging & install pull lists ★
- `INS-07` Inspections, commissioning & startup ★
- `INS-08` Close-out: punch list, O&M docs, pay app / retainage

**PRT**
7 · parts

- `PRT-01` Receiving, bins & warehouse standard ★
- `PRT-02` Min/max stock, POs & spend tiers ★
- `PRT-03` Special orders for jobs ★
- `PRT-04` Truck stock standard & weekly restock ★
- `PRT-05` Returns, cores & warranty parts
- `PRT-06` Cycle counts & shrink
- `PRT-07` Tool & equipment checkout

**OFC**
11 · office

- `OFC-01` Call intake & booking script ★
- `OFC-02` Daily dispatch board & end-of-day close ★
- `OFC-03` Pricing, discounts & authority `OWNER-SIGNED` ★
- `OFC-04` Invoicing & adjustments ★
- `OFC-05` Collections ladder ★
- `OFC-06` Refunds & credits ★
- `OFC-07` Complaints & service recovery ★
- `OFC-08` Time-off, scheduling & overtime ★
- `OFC-09` Hiring, onboarding & offboarding
- `OFC-10` Task, action-item & audit hygiene ★
- `OFC-11` Vendor invoices / three-way match

**CUS**
5 · customer

- `CUS-01` What to expect: service visit ★
- `CUS-02` Using the customer portal ★
- `CUS-03` Communication windows & how to reach us
- `CUS-04` Complaints, warranty & making it right
- `CUS-05` GC portal guide ★

**EXE**
5 · executive

- `EXE-01` Weekly owner review & scorecard ★
- `EXE-02` Bringing the owner a decision ★
- `EXE-03` Dashboards & exception reports
- `EXE-04` Quarterly matrix / SOP review
- `EXE-05` Chief-of-staff assistant charter

★ = Phase 0–1 (the first forty). Full index with one-line purposes: Appendix B.

### 4.2.1 Document control, kept light

| CONTROL | RULE |
|---|---|
| **ID** | `DEPT-NN` (e.g. `SVC-07`), stable forever; sub-aids `SVC-07-A`. |
| **Version** | `v1.2` — major = the procedure changed and re-training is required; minor = wording or screenshots. Revision block: version, date, author, approver, change note. |
| **Owner** | One named role per family: service manager owns SVC-*, install PM owns INS-*, parts lead PRT-*, office manager OFC-* and CUS-*, owner GOV-* and EXE-*. |
| **Approver** | Department owner approves minor revisions; **owner signs major versions of SAF-*, GOV-*, OFC-03 and Who Decides**; everything else the department lead signs. |
| **Review** | Quarterly during the matrix review; formal annual sign-off; any decision-log entry marked reusable triggers an immediate minor revision; any SOP touched by a callback or a near-miss is reviewed that week. |
| **Obsolete** | The app shows only the current version; printed copies are marked uncontrolled with a QR to the live article. |

4.3

# The training program — onboarding paths, sign-offs, and the twelve-month calendar

Hands-on beats classroom; two hours in the truck beats two hours in a conference room. Training is scheduled on the board like a job, it is paid, and it ends in a supervisor sign-off, not attendance.

### Service technicians
~15 · M1 Field Manual

**ONBOARDING PATH**

Day 1: app login, truck-stock standard, SAF-01/02 · Week 1: shadow the best tech; SVC-01/04/07 · Weeks 2–4: supervised solo (lead rides, does not intervene) · Days 31–60: safety modules, written sign-off · Days 61–90: solo on low-stakes calls, debrief every call for two weeks.

**FORMATS**

Two-hour ride-along + "one job rule" (first digital job with a coach beside you); two 2-hour shop waves at go-live (EN + ES track); 60–90-second in-app videos between jobs; laminated truck aid; Buzz #help.

**SIGN-OFFS**

Level 1 (November): close a job end-to-end unaided. Level 2 (March): task hand-off, parts pull, SOP lookup. Green sticker on the truck.

**REFRESH**

Four 30-minute tailgate modules in Q1; 30-minute pre-peak refresher; seasonal (spring cooling / fall heating); annual re-sign-off.

### Install crews
4–6 crews · M1

**PATH**

Crew A on the pilot; foremen two 60-minute sessions in December; project-by-project on-site coaching at the January go-live; foremen own crew tasks; three 45-minute sessions in Q1.

**FORMATS**

On-site coaching, foreman huddle, printed project task sheet, one Buzz thread per project.

**SIGN-OFFS**

Level 1 (February) · Level 2 (May): change orders and commissioning checklist (INS-05, INS-07).

**REFRESH**

Refresher on portal-originated change requests; commissioning refresh before each new-construction wave.

### Back office
dispatch · CSR · billing · office manager · M2

**PATH**

Day 1: access, OFC-01/02 · Week 1: screen-by-screen procedures with decision points marked (matrix rows inline) · Day 30: runs the board with a lead beside · Day 60: runs alone, weekly log review · Day 90: owns one SOP.

**FORMATS**

Four 60-minute sessions in the fall (board, task delegation, huddle dashboard, decision log); three 60-minute sessions in Q1 (Who Decides, Ask MAC, the assistant); a 2-hour SOP-authoring workshop; in-app help; sandbox.

**SIGN-OFFS**

Level 1 (November) · Level 2 (March). "Shadow the assistant": a trainee answers a week of Ask MAC questions before the assistant does.

**REFRESH**

Quarterly threshold review; monthly SOP spotlight; portal intake (two 45-minute sessions) in spring.

**Warehouse / parts**
M1 + M2 chapters

PATH
Two 60-minute bench sessions in the fall: pull ticket against a job, PO from a job, holds and receiving; PRT-01/02/03/04 sign-off.

FORMATS
Bench session; printed bin and pull aids; wall sheet for the staging cutoffs.

SIGN-OFFS
Level 1 (November). Cycle-count SOP (PRT-06) sign-off in spring.

REFRESH
Truck-stock audit with the standard list each quarter.

**Owner / executive**
M4 Owner's Manual

PATH
Three 90-minute Who Decides workshops (September–October); how to receive an escalation; monthly review coaching (30 min).

FORMATS
One-to-one with the program lead and Building OS; the one-page Who Decides; the dashboard, not the phone.

MEASURE
Owner questions per week ↓; share of L4 escalations that arrive packaged; share of decisions logged.

REFRESH
Two 45-minute sessions on supervising the assistant (Q1); quarterly matrix review.

**Customers & GCs**
M3 Guide

PATH
GC project managers: a 20-minute onboarding call plus a one-page guide when their first project goes on the portal. Residential: welcome email at booking, a 60-second video, and a QR card left by the technician.

FORMATS
Video, one-page PDF, QR card, in-portal tour, CSR script.

MEASURE
Portal adoption; "where is my tech" calls ↓; review scores.

REFRESH
Seasonal reminders (tune-up season, heating season).

### 4.3.1 The skills matrix

Every technician, installer and office role has a visible skills matrix — one row per SOP that applies to them, one of four marks per row. Sign-off is a supervisor watching the work, the Nexstar / NexTech pattern; not a quiz.

**Learning**
Has been trained; works with a coach.

**Solo**
Performs the SOP to standard, unaided.

**Expert**
Handles the exceptions and anomalies too.

**Trainer**
Can teach it and sign others off.

### 4.3.2 Twelve-month training calendar

| WHEN | WHAT HAPPENS |
|---|---|
| **Phase 0 · Sep** | Owner + leads workshops (levels, thresholds, one-way doors); two-week baseline of owner questions; write the ★ forty SOPs; Field / Office manuals v1.0; EN/ES job aids; TV-board content; champions and super-users trained (two 90-minute train-the-trainer sessions). |
| **Phase 1 · Oct–Dec** | Pilot crew ride-alongs; go-live waves for all service techs (Nov 3–6), warehouse, dispatch, billing; per-role manuals issued (PDF + app); Monday huddle, weekly ops review and Friday decision digest start; first micro-videos (close-out, pull ticket, escalation template); install foremen sessions in December. **Sign-off round 1 in November.** |

| WHEN | WHAT HAPPENS |
|---|---|
| **Phase 2 · Jan–Mar** | Install crews project by project; the training season: four 45-minute sessions per role, Spanish sessions; office on Who Decides and Ask MAC; owner on supervising the assistant; SOP publish day Feb 15 with sign-off per role; skills matrix posted. **Sign-off round 2 in March.** First quarterly matrix review adjusts thresholds from the decision log. |
| **Phase 3 · Apr–Jun** | Customer and GC guides live with the portal launch; CSR portal-intake sessions; 30-minute pre-peak refresher per crew; new-hire path tested on the next hire (SOPs and in-app tutorials only). Sign-off round 3 in May. |
| **Phase 4 · Jul–Aug** | New hires onboarded through the library alone — the test of self-sufficiency; annual re-sign-off planned; program v2 written from the year's decision log. |
| **Standing** | Weekly: huddle, ops review, decision digest · Monthly: one micro-video, one SOP spotlight, callback review · Quarterly: matrix and SOP review, skills check · Annually: re-sign-off and document sign-off. |

Time budget: roughly six to eight paid hours per technician across the year, almost all in the November–March shoulder; the huddle is not extra time — it replaces the current morning scramble.

4.4

# What a finished SOP looks like

Appendix C shows two finished procedures in the exact format the manuals will use: a field job aid (`SVC-07`, the close-out checklist a technician runs at every job) and a cross-department office procedure (`PRT-03`, a part that is not on the truck — the single most common way a service call, the warehouse and dispatch fall out of sync today). Both carry their Who Decides rows inline, so the reader never has to look up who decides.

PART 5

05

# The platform roadmap: what Building OS builds, in what order

Nothing here is a rewrite. Every item is additive to the platform in production today — the same job records, the same dashboard, field app and portals — shipped in the weekly release batches the team already runs, turned on department by department when its phase arrives.

5.1

# Build principles

1

### Additive, never big-bang

New fields sit beside old ones on the same job record; new tables sit beside the existing ones. Free-text names stay for display while typed links become the truth. The office TV app keeps working — it goes read-only or routes its writes through the same API, but nobody loses a screen overnight.

2

### Ship dark, switch on by phase

Features deploy behind flags weeks before their department goes live, so pilots run on production code and go-live is a switch, not a release.

3

### Enforce the rules in the software

Discount caps, PO tiers, “no job closes without its pull list”, claim-before-act, one owned task per event — the matrix and the five rules are code paths, not reminders.

4

### Instrument every metric first

Phase 0 ships the baseline dashboard before anything changes, so every phase gate is measured against August 2026, not remembered.

5

### Fewer taps at go-live, more later

Job close is three taps or fewer on day one; one required photo and one signature for the first two weeks; one new required field per fortnight after that.

6

### Boring paths for safety-critical loops

Escalation timers, holds and notifications run on plain scheduled jobs in the platform. The agent runtime adds intelligence on top; if it is down, nothing is lost.

5.2

# Eight workstreams, item by item

Each row names what changes, which of the nine gaps (Part 1.3) it closes, its phase, and its size — S days, M one to three weeks, L a month or more. Roughly 34 person-weeks across the year, front-loaded September to February.

## A Foundation and data integrity

Make the record trustworthy before anything real-time depends on it. Everything in A is a Phase 0 exit criterion.

Phase 0
≈ 3 person-weeks
gaps 2 · 3 · 4 · 5 · 9

| | | |
|---|---|---|
| **Roster as data** | Accounts gain department, level, crew type, truck and display name; an alias table maps the typed names in 600 legacy jobs to real people; dispatch, the field app, routes and the TV app all read the roster. | S/M |
| **Single assignment path** | One function assigns a job — used by dispatch drag, the service drawer, quick-add, the job editor, self-claim and the TV app — always writing both keys, supporting multi-tech, notifying the tech. | S |
| **One status vocabulary** | A shared status module for every surface; mirrored leads land as “Needs Scheduled”; bare “Complete” removed; legacy PO statuses migrated; a technician's status menu can no longer overwrite an install stage. | S |
| **Explicit links only** | Client and contractor links become typed and required at creation; the client portal lists jobs by link only (closes the name-match privacy defect); a confirmed backfill of the legacy rows. | S |
| **Safe concurrent writes** | Version check on every job save with merge-and-retry; the TV app re-reads before it writes and loses its Delete buttons; live refresh verified to actually fire on every board. | M |
| **Baseline & capture** | The adoption/ops baseline dashboard; a 20-second decision-log capture for every question that reaches the owner; feedback button on every screen; Buzz member keys minted for the office and the pilot crew. | S |

## B Task and ownership engine

Phase 1
≈ 6 person-weeks
gaps 1 · 6 · 7

The heart of Phase 1: every event becomes one owned task; claim, clock and lane; department boards; the huddle view.

| | | |
|---|---|---|
| **First-class tasks** | A task table with job, department, assignee, status, blocked-on, due, claimed-by/at, source; today's tasks, action items and status-as-owner rows migrate into it; “My queue” per person and per department in the dashboard and the field app. | L |
| **Claim / lock** | Conditional claim (first writer wins, the second sees who has it); “being edited by” presence on drawers; tech self-claim requires dispatcher confirmation on dispatch-only jobs. | M |
| **Event router & timers** | Every route, cron and agent emits an event; a table-driven router creates exactly one task per event (duplicate key), fans out to bell, Buzz, portal, email/SMS; a five-minute scheduled job escalates unclaimed tasks by tier. | M |
| **Department lanes & boards** | Department on jobs and tasks; dispatch = service only; an install crew board (project × crew); a warehouse Today board; a billing queue; roles per department in the permission model. | M |
| **Sales → schedule** | “Convert to job” on estimate accept or deposit — reusing the mirrored stub, carrying the client link, the requested windows and the department; a real schedule model (time, duration, per-tech capacity) so the day timeline becomes drag-to-slot; office staff can move intake without the owner allow-list. | M |
| **Huddle & TV views** | The 7:15 board: yesterday's numbers, today's owner per truck and crew, blockers, holds, escalations; a per-person “what I touched today” for the end-of-day close. | S |

## C Parts synchronization

Phase 1 → 3
≈ 5 person-weeks
gap 8

Nothing leaves the shelf without a job. Reservations, structured holds, receive-to-notify, trucks as locations — then kits, serialized equipment and counts.

| | | |
|---|---|---|
| **One pull ticket** P1 | The staged pull ticket becomes the single object; the field app's “send pull list” creates or updates a ticket instead of a chat note; every ticket, line, PO line and stock move carries the job; the yearly ledger becomes a view. | M |
| **Reservations & holds** P1 | Available = on hand − reserved; adding a part reserves it; a short line drafts a job-linked PO and opens a parts hold with an owner and ETA; “Waiting on Part(s)” is derived from the hold, not typed. | M |
| **Receive to notify** P1 | Receive against PO lines (partial and back-order allowed); job-flagged items go straight to the job's staging bin; the hold clears; the requesting tech, the dispatcher and the install coordinator are told with a link. | S |
| **Trucks as locations** P2 | Per-truck-type standard stock (min/max) seeded from the price-book par sheet and 37 warehouse SKUs; scan on / off truck; weekly restock by exception; the Today board. | M |
| **Kits, equipment, counts** P2–P3 | Phase bills of materials on install projects with staged/delivered/installed status; serialized equipment with warranty-registration deadlines; returns/RGA board; ABC cycle-count sessions; a vendor-managed pilot for consumables. | M |
| **Tune & cost** P4 | Data-tuned min/max after twelve months of moves; dead-stock purge; job cost and GL posting from consumed parts; parts scorecard. | S |

## D Install project model

Phase 2
≈ 4 person-weeks
gap 6

One answer to "what is next, who owns it, how far along" — per project, per phase, per trade — and a GC portal that shows it.

| | | |
|---|---|---|
| **Project segments** | Projects get phases (rough-in, set, trim, startup, close-out) and trade segments (HVAC, electrical, gas, refrigeration, hood...) from a template — each with a crew owner, tasks and percent; the five legacy structures become views of it. | L |
| **Crew per phase** | Foremen assign crews per phase and trade from the roster; installers see only their segment's tasks; legacy installs are no longer "claimable by anyone." | S |
| **GC portal v2** | Schedules and three-week look-ahead, RFIs, change-order requests and approvals with a signature, documents, phase readiness — all from the record; the Monday digest enriched. | M |
| **Billing hand-off** | Typed "ready to invoice / pay app due" tasks to billing with the invoice or draw number captured; external invoicing IDs stored on the record and reconciled; install A/R lands on Collections. | M |

## E Communications: notifications, Buzz, push and SMS

Phase 1 → 3
≈ 4 person-weeks
gap 7

Every event reaches the right person on the right channel; Buzz replaces group texts for staff; customers never depend on it.

| | | |
|---|---|---|
| **Routing rules** P1 | Notifications get a recipient, department, severity and channel; rules such as assignment → tech, tech note → assigned dispatcher, pull ticket → warehouse, PO received → tech + dispatcher, ready to invoice → billing, escalation → owner with SLA; per-user bell; quiet hours; digests for low priority. | M |
| **Push & SMS** P2 | Web push for the installed field app; SMS for the urgent tier and for customer-facing confirmations (carrier registration started in Phase 1); on-my-way texts capped at one a day. | S/M |
| **Buzz bridge** P1→P2 | A router bot with its own relay identity posts one card per task into department channels (#dispatch #install #parts #office #owner #alerts) threaded per job; text verbs claim / done / snooze / handoff; every inbound event mirrored to the platform for audit; shadow first, then office, then techs through a client embedded in the field app so nobody pairs a desktop. | M |
| **Fallback floor** P1 | Bell + SMS + push are independent of Buzz and of the agent runtime; a phone call remains the emergency-only rule. Buzz is new (July 2026); it is adopted with a shadow phase, capability probes and a self-host exit. | S |

## F Customer portal loop

The customer sees the thread the office sees; every stage of a visit is one owned task; nothing lives only in a phone.

Phase 2 → 3
≈ 4 person-weeks
gap 9

| | | |
|---|---|---|
| **Two-way portal** P2 | Client and job portals gain messaging and “request service” (creating a Needs-Scheduled job with the client link); status labels come from the typed status; read receipts. | M |
| **Lifecycle stages** P3 | Request → acknowledged with an SLA → schedule requested → *confirmed* (written back to the record) → on-my-way with tech photo and window → arrived → change/add-on approval card priced from the price book → completion photos and signed summary → invoice and pay link → review request. Each stage a client-visible row on the same thread staff see. | M |
| **Single-source intake** P3 | CSRs enter phone and email requests into the portal on the customer's behalf; the QR card left by the technician and the tune-up-season launch enrol residential customers; GCs first (five friendliest accounts). | S |

## G The Playbook in the app

Procedures, the matrix, the decision log and the manuals as data — with help where the user is standing.

Phase 1 → 2
≈ 4 person-weeks
gap 1 (questions)

| | | |
|---|---|---|
| **SOP module** P1 | Articles with ID, version, owner role, review date, tags (role × process × screen); a Playbook page in the dashboard; the forty Phase-1 procedures seeded; “printed copies uncontrolled” PDFs generated from the same source. | M |
| **Help hooks & Ask MAC search** P2 | Every dashboard tab and field-app screen opens its tagged articles; full-text plus semantic search in the app and from Buzz; unanswered searches feed the “articles to write” list. | M |
| **Who Decides as data** P2 | Matrix rows stored and rendered three ways — the full matrix, the per-role card, and inline on the screen where the decision happens; caps enforced on discount fields and PO tiers; “Waiting on Sammy” becomes an escalation task with an SLA. | S/M |
| **Decision log** P1 | Escalations, options, choice, rationale, matrix row, “reusable?”, resulting article — the raw material for the Friday digest and, later, the agent's drafts. | S |
| **Manuals & tutorial** P2 | M0–M4 generated as PDFs with screenshots, QR codes and links; an in-app /tutorial per role; EN/ES micro-videos hosted in the app. | M |

### H The agent layer

A runtime, eight agents with charters, and guardrails in code — introduced only after the procedures it depends on have been used for a season.

Phase 2 → 4
≈ 4 person-weeks
gap 1 (escalations)

| | | |
|---|---|---|
| **Runtime host** P2 | A long-lived process (cloud or an on-site machine on the tailnet) running the proven Building OS agent runtime: charters as plain text, per-agent inboxes, a single-lane queue, a scheduler, an event log mirrored to Buzz #agent-log, a dry-run mode for testing, a mission-control page in the dashboard. | M |
| **Chief of Staff v1** P2 | Answers-only, with citations, shadowed by the office manager; routes to the right role; drafts escalation cards for review; the twice-daily brief. | M |
| **Packaging & step-ups** P3 | Posts escalation cards to #owner with two options and a default-if-silent; logs decisions; drafts articles from reusable decisions; the specialist agents come online one at a time as reliability is shown. | M |
| **Guardrails** P2 | Tool allow-list per agent; outbound gated behind an approval switch; the only source of dollar figures is the price-book lookup (a filter rejects any other amount); no payments tool; schedule is proposed, never promised; audit actor per agent; daily token budget; a golden set of a hundred real office questions re-run weekly. | S |

5.3

## The agent roster

Eight agents, each with a trigger, an output and a “may not” list. The Chief of Staff routes; the others do the repetitive coordination work that today lands on the dispatcher, the office manager — or you.

| AGENT | TRIGGER · INPUTS | OUTPUTS | MAY NOT |
|---|---|---|---|
| **Chief of Staff** | @cos in Buzz, the Ask panel, staff email; the Playbook articles + read tools | Cited answer · routed task to the right role · escalation card (context, two options, recommendation, default-if-silent, deadline) · nightly article drafts from reusable decisions | Contact customers, quote, promise schedule, change job status |
| **Dispatch Assistant** | Schedule request, unassigned urgent job, field-state change, 15-minute cron in hours | Proposed tech + window as a claimable task; templated on-my-way notice with tech photo on “en route” (portal + SMS, once a day) | Assign without a dispatcher's claim (Phase 1); free-text ETA promises |
| **Parts Runner** | Pull ticket submitted, part added not in stock, low-stock cron | PO draft; supply-house pickup plan from the routes engine; #parts task | Place orders or spend |
| **Install Coordinator** | Stage change, milestone due, aged “waiting on” | GC-shareable update draft; blocked-project nudges; digest enrichment | Post to the GC portal unapproved; share dollar amounts |
| **GC Liaison** | GC portal reply | Classified reply and drafted answer from project facts + SOP; schedule-conflict escalation | Commit dates; reveal internal threads or notes |

| AGENT | TRIGGER · INPUTS | OUTPUTS | MAY NOT |
|---|---|---|---|
| **Collections** | Daily cron over Need Payment / overdue | Reminder drafts from templates; A/R aging summary; tasks by bucket | Change amounts, promise discounts, take payments |
| **Customer Concierge** | Portal chat, voice note, attachment | Templated acknowledgement within two minutes (“received; the office confirms by …”); classification; suggested reply for the office | Free-text replies unapproved; quotes; schedule commitments |
| **Daily Brief** | 6:45 am and 4:30 pm CT | Owner brief in #owner and email: unclaimed past SLA, blocked jobs, A/R over 30, low stock, pending cards, yesterday's decisions, article changes | Send anything to customers |

MODEL TIERS AND COST

Routine classification on a small fast model; answers and escalation packaging on a mid-tier model (the same one the estimator already uses for photo analysis); the twice-daily brief on the strongest tier once per run. Usage is metered per agent per day with a monthly cap; the dashboard shows cost per resolved question next to owner interruptions per day — the two numbers that justify the layer.

PART 6

06

# The twelve-month timeline: what happens when, step by step

A foundation month and four quarterly phases, timed to the season: pilot in the September dip, go live department by department through the fall and winter shoulder, train hard from January to March, freeze before the summer peak, and measure under load. Every phase has numbered steps, an owner for each, and an exit gate you can say no at.

6.1

# The plan at a glance

Read left to right. Bars are build-and-adopt windows; diamonds are the dates that matter — pilots, go-lives, sign-offs, gates.

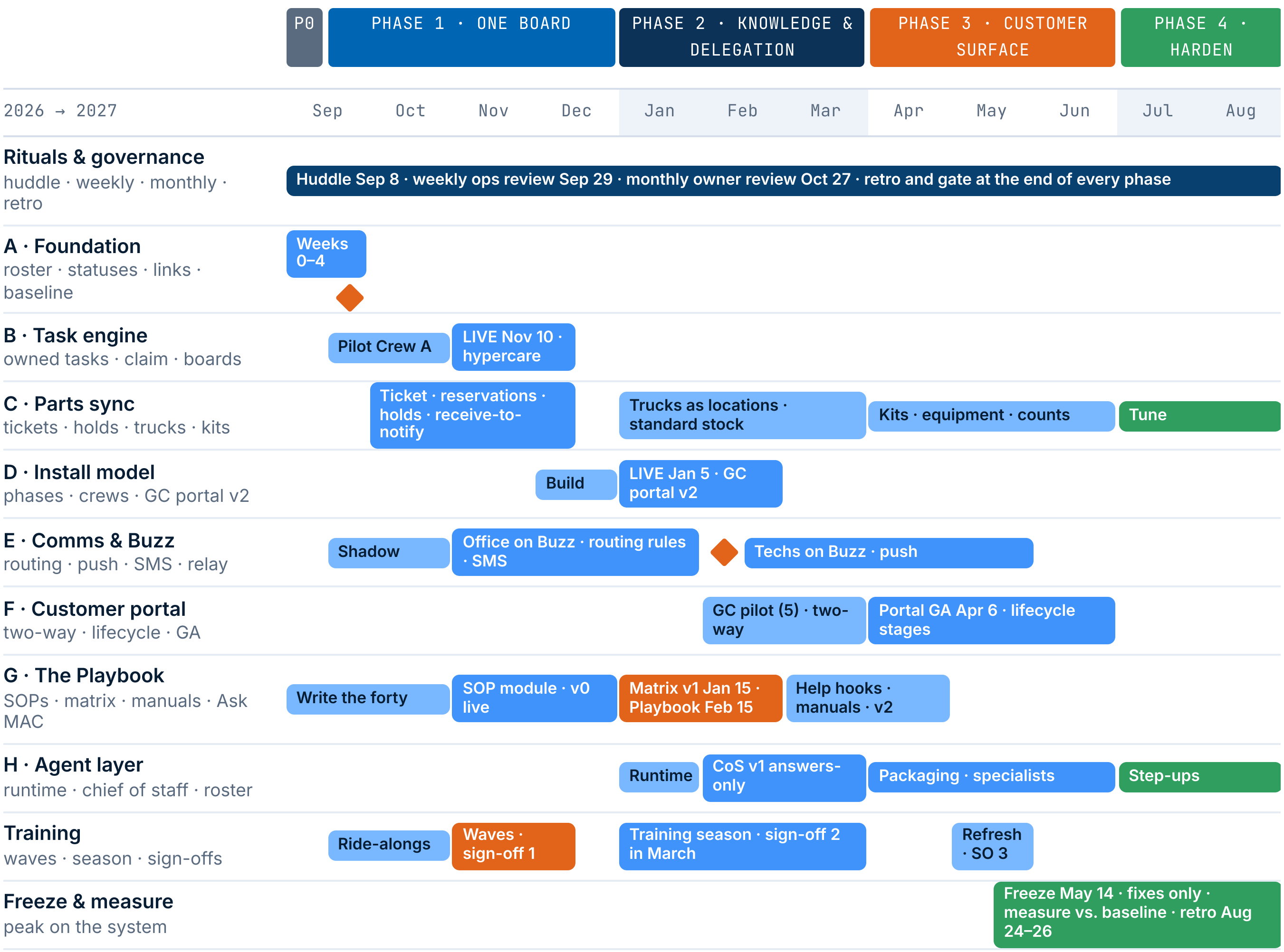


**Figure 3.** Twelve months, ten tracks. Diamonds: Gate 0 (Sep 18) and Buzz mandatory (Feb 1). Go-lives sit in shoulder windows (Nov 10 and Jan 5) with a week of weather slack each; nothing new is introduced after May 14.

**Nov 10**
Service + Parts go live — paper pull slips and dispatch texts retired

**Jan 5**
Install go live — projects onboarded one by one; matrix v1 signed Jan 15; Buzz mandatory Feb 1

**Apr 6**
Customer portal general availability, at the start of tune-up season

**May 14**
Feature freeze — the summer runs on the system; retro and year-two plan Aug 24–26

6.2

# Month by month, September 2026 – August 2027

| MONTH | SEASON | SOFTWARE (BUILDING OS) | OPERATIONS (MEMPHIS AIR CARE) | TRAINING | RITUAL · GATE |
|---|---|---|---|---|---|
| **Aug** from Aug 24 | Peak-cooling tail | Baseline instrumentation; roster as data; TV huddle board | Owner announces the program and “the board is truth”; program lead and champions named (Sep 4) | Champions kickoff (90 min) | Kickoff Aug 25 |
| **Sep** | Dip; still ~85°F early | Buzz keys; decision-log capture; feedback button; status vocabulary; explicit links; task-engine pilot build | Data-cleanup sprint; device policy; pilot Crew A selected; huddle starts Sep 8; pilot starts Sep 21 | Super-users 2×90 min; Crew A ride-alongs (2 h/tech) | Weekly ops review from Sep 29 · **Gate 0** Sep 18 |
| **Oct** | Busiest trips month (heating start-ups) | Board hardening from pilot feedback; pull ticket against job; holds; huddle dashboard; Buzz shadow | Pilot under load (a good stress test); matrix workshops 2 and 3; retirement notice for texts and paper (Oct 27) | Waves scheduled; job aids printed EN/ES | Monthly owner review 1 (Oct 27) · go/no-go Oct 30 |
| **Nov** | First freeze mid-month | Cut-over tooling; routing rules; Buzz ↔ board alerts for the office | **Service + Parts go-live Tue Nov 10**; hypercare daily triage; Thanksgiving week light | All service techs (2 waves Nov 3–6, 2 h each) + warehouse + dispatch; **sign-off round 1** | Hypercare stand-ups Nov 10 – Dec 8 |
| **Dec** | Heating; GC year-end push | SOP module live with v0; install project templates; billing hand-off | Hypercare closes Dec 8; install crews B–D shadow Crew A; SOP owners assigned; holiday freeze Dec 21 – Jan 3 | Install foremen (2×60 min) | Owner review Dec 15 · **Gate 1** Dec 18 · Q4 retro Dec 16 |
| **Jan** | Slow, cold | Matrix + Ask MAC search in app and Buzz; agent runtime; Buzz roles; project segments | **Install go-live Tue Jan 5**; **matrix v1 signed Jan 15**; Buzz-mandatory notice | Install crews on-site project by project; office on matrix and Ask MAC | Hypercare to Feb 2 · owner review Jan 26 |
| **Feb** | Low point of the year | SOP library v1; manuals M0–M4; GC portal v2; Chief of Staff v1 (answers-only) | **Buzz mandatory Feb 1**, texts retired; **SOP publish day Feb 15**; GC portal pilot (5 GCs) | Training season: four 45-min sessions per role; Spanish sessions | Owner review Feb 23 |
| **Mar** | Spring shoulder | Escalation packaging (office queue); analytics; two-way portal | Decision-log review shows owner-question categories converted to rules; techs join Buzz | **Sign-off round 2** (all roles) | **Gate 2** Mar 26 · Q1 retro Mar 24 |

| MONTH | SEASON | SOFTWARE (BUILDING OS) | OPERATIONS (MEMPHIS AIR CARE) | TRAINING | RITUAL · GATE |
|---|---|---|---|---|---|
| **Apr** | Tune-up season | Portal GA; lifecycle stages; Spanish UI and job aids; matrix v2 | **Portal launch Apr 6** to residential + all GCs; matrix v2 from the log | Customers (email, video, QR card); CSR portal intake | Owner review Apr 27 |
| **May** | Warming; pre-peak | Specialist agents; final fixes | **Feature freeze May 14**; summer staffing plan from board data | 30-min refresher per crew; **sign-off round 3** | Owner review May 25 |
| **Jun** | Peak begins | Fixes and performance only | Peak operations on the system; new hires onboarded through the library only | New hires only | **Gate 3** Jun 25 · Q2 retro Jun 23 |
| **Jul** | Peak | Fixes and performance | Measure against the baseline weekly | — | Owner review Jul 27 |
| **Aug** | Peak tail | Year-two backlog | ROI review; recognition; year-two plan | Annual re-sign-off planned | **Q3 retro Aug 24–26** · year-two kickoff |

If the decision to start slips past August 24, Phase 0 shifts by the same amount; the go-live dates stay pinned to their shoulder windows as long as Phase 0 finishes by early October. Never compress Phase 0 or a hypercare window — that is where rollouts fail.

6.3 · PHASE 0

# Foundation — get the ground true before anything moves on it

**Weeks 0–4**

Aug 24 – Sep 18, 2026
Building OS ≈ 3 person-weeks
Owner 6–8 h/wk

**Objective:** baseline every number, clean the master data, name the roles, start the rituals, and put devices, keys and the TV in place — so Phase 1 measures a real change against a real baseline.

01 **Kickoff (Aug 25).** Owner announces the program and "the board is truth" to the whole company; explains the why once, plainly.
**Owner** · all hands, 20 minutes

02 **Name the program lead, champions and super-users (by Sep 4).** Program lead with 6–8 protected hours a week; one champion each for service, install, parts and dispatch; five or six super-users, at least one bilingual.
**Owner** decides · program lead confirms

03 **Two-week baseline of owner questions.** A tally sheet on your desk plus the app's 20-second decision-log capture: who asked, category, minutes.
**Owner + program lead** · Aug 25 – Sep 8

04 **Baseline dashboard live.** Adoption and operations metrics from Part 7 measured for the first time; where the system cannot measure yet, a manual count.
**Building OS** · by Sep 4

05 **Roster as data.** Every account gets department, level, crew, truck and display name; the alias table maps every typed technician name in the legacy jobs; dispatch and the field app read the roster.
**Building OS + program lead** · by Sep 11

06 **Data-cleanup sprint.** Customers and sites deduplicated; GC and project list confirmed; parts catalog and bins verified; status vocabulary migrated; explicit client/contractor links backfilled and the portal name-match fallback removed.
**Champions + Building OS** · Sep 1–18

07 **Device policy (by Sep 11).** Company phones or bring-your-own with a stipend; passkey login mandatory; a phone in every pilot truck.
**Owner** decides

08 **Rituals begin.** Daily huddle from Sep 8 (the owner opens it for the first four weeks); the TV huddle board is on the wall; Buzz keys minted for the office and Crew A; a Buzz #agent-log shadow channel starts mirroring events.
**Dispatcher runs · owner attends**

09 **Who Decides workshop 1 (Sep 22 — the first of three).** Levels, thresholds and one-way doors, using the baseline log as input.
**Owner + leads** · 90 minutes

10 **Write the forty procedures.** The starred Phase-1 SOPs drafted in the job-aid format; safety and field aids in English and Spanish; Field and Office manuals v1.0 assembled.
**Building OS drafts · SOP owners review** · through Sep 18

11 **Pick pilot Crew A (by Sep 18)** — three service trucks, one install crew, the parts lead and the dispatcher; set retirement dates for group texts and paper pull slips.
**Owner** decides

**GATE 0 — SEP 18**

- Baseline captured for every metric in the scorecard.
- Roster ≥ 95% clean; every legacy job resolves to a real person or “unassigned”.
- Devices in every pilot truck; Buzz keys issued to office and Crew A.
- Huddle has run ten consecutive working days off the board.
- The forty SOPs drafted; workshop 1 held.

**NOT YET**

No mandatory field for non-pilot techs; no customer-portal changes; no agent; no company-wide Buzz.

6.4 · PHASE 1

# One Board — service and parts run on owned tasks, in real time

**Q4 2026**

Sep 21 – Dec 18
Building OS ≈ 10 person-weeks
Owner 3–4 h/wk (6–8 at go-live)

**Objective:** the task engine, the claim, department boards and pull-tickets-against-jobs live for the **service department and the warehouse**; the install pilot crew on it; Buzz replaces texting for the pilot group; the SOP module live with the first procedures.

01 **Pilot Crew A (Sep 21 – Oct 30).** Three service trucks + one install crew + parts + dispatch run every job on owned tasks and pull tickets. Parallel run allowed for the pilot only. Crew A sits in the weekly demo and votes on required fields.
**Champions + Building OS** · weekly review from Sep 29

02 **Ship the task engine dark.** Tasks with claim and clock; the event router; escalation timers; department lanes; the huddle view; sales-to-schedule conversion; per-user bell. Hardened from pilot feedback in October (a good stress test — October is the busiest trips month).
**Building OS** · Sep–Oct

03 **Parts: one ticket, reservations, holds, receive-to-notify.** Nothing leaves the shelf without a job; a short line drafts a job-linked PO and opens a hold with an owner; receiving clears the hold and tells the tech and dispatcher.
**Building OS + parts lead** · Oct–Nov

04 **Who Decides workshops 2 and 3 (Oct 6, Oct 20).** Discount and goodwill authority, warranty calls, PO tiers, overtime, callbacks, pricing exceptions, GC change-order acceptance.
**Owner + leads**

05 **Retirement notice (Oct 27).** Group texts and paper pull slips end at go-live; announced two weeks ahead. Adoption spiff rules published (Oct 2).
**Owner** decides · program lead announces

06 **Go / no-go (Oct 30)** on the pilot's numbers: same-day close rate, single-owner tasks, pulls tied to jobs, time-to-claim.
**Owner + program lead**

07 **Training waves (Nov 3–6).** All service techs, two 2-hour shop sessions in EN and ES tracks; warehouse and dispatch bench sessions; billing on the ready-to-invoice queue; “one photo and one signature” for the first two weeks.
**Champions + super-users**

08 **Service + Parts go-live (Tue Nov 10).** Hard cut-over: paper pull slips and dispatch texts stop; the board is the only source for dispatch, pay and parts. Four weeks of hypercare with daily 10-minute triage in the huddle, Building OS on call.
**Everyone** · hypercare Nov 10 – Dec 8

09 **Sign-off round 1 (November).** Level 1: close a job end to end unaided; the office runs the board alone; the warehouse runs the Today board.
**Champions** sign

10 **SOP module and v0 live (December).** The forty procedures in the app; owners assigned; the Friday decision digest begins converting the log into rows and articles.
**Building OS + program lead**

11 **Install crews B–D shadow Crew A (December);** foremen trained; project templates and the billing hand-off shipped dark for January. Holiday freeze Dec 21 – Jan 3.
**Install PM + Building OS**

**GATE 1 — DEC 18**

- ≥ 85% of service jobs closed in-app the same day for three consecutive weeks.
- 100% of parts pulls tied to a job or a truck-restock ticket.
- ≥ 90% of tasks with a single owner; time-to-claim under 10 minutes in hours.
- Huddle reads only from the board; the TV app is read-only or writes through the API.
- Owner questions per week down 25% from baseline; every L4 escalation logged.

**NOT YET**

No install-wide go-live; no customer-portal changes; no agent decisions; the SOP library is not “published” beyond the pilot workflows; no new required fields beyond one per fortnight.

6.5 · PHASE 2

# Knowledge & Delegation — install goes live, the Playbook is published, the questions stop

**Q1 2027**
Jan 4 – Mar 26
Building OS ≈ 10 person-weeks
Owner 3–4 h/wk

**Objective:** the install department on the project model; Who Decides v1 signed and enforced in the software; the SOP library and manuals published; Ask MAC search live; Buzz company-wide; the Chief of Staff answering (not deciding); the GC portal piloted.

01 **Install go-live (Tue Jan 5).** Projects onboarded one by one onto phases, trade segments and crew owners; foremen coached on site; hypercare to Feb 2.
**Install PM + foremen + Building OS**

02 **Who Decides v1 signed (Jan 15).** Thresholds calibrated in the three workshops and the two-month log; rendered as the full matrix, per-role cards, and inline caps in the app; "Waiting on Sammy" retired as a status.
**Owner** signs

03 **Agent runtime hosted; Chief of Staff v1 in answers-only mode (Jan–Feb).** Answers with citations, routes to roles, drafts escalation cards for the office manager to review; the twice-daily brief begins.
**Building OS · office manager shadows**

04 **Buzz mandatory (Feb 1)** for all staff; group texts retired; per-tech channels and the embedded client in the field app; push notifications; SMS for the urgent tier; a phone call is the emergency-only rule.
**Owner** decides date (Jan 15) · program lead runs

05 **SOP publish day (Feb 15).** Library v1 and manuals M0–M4 issued; sign-off per role; help hooks on every screen; Ask MAC search in the app and from Buzz.
**Program lead + SOP owners**

06 **GC portal v2 pilot** with five friendly GCs — schedules, RFIs, change-order requests, documents, phase readiness — plus two-way client and job portals for ten commercial service accounts.
**Install PM + Building OS** · Feb–Mar

07 **Training season (Jan–Mar).** Four 45-minute sessions per role; Spanish sessions; office on the matrix, Ask MAC and the assistant; owner on supervising the assistant (two 45-minute sessions); the SOP-authoring workshop.
**Champions + super-users**

08 **Trucks as locations (Jan–Mar).** Standard stock per truck type; scan on/off; weekly restock by exception; the first truck-stock audit.
**Parts lead + Building OS**

09 **Sign-off round 2 (March)** — Level 2 for techs (task hand-off, parts pull, SOP lookup), office and warehouse; skills matrix posted.
**Champions** sign

10 **First quarterly matrix review (March).** Thresholds adjusted from the log; owner-question categories converted to rules; the escalation queue moves to the office (Chief of Staff drafts, office manager sends).
**Owner + program lead**

**GATE 2 — MAR 26**

- Owner interruptions per day down ≥ 50% from baseline; L4 escalations under ten a week, all packaged.
- ≥ 80% of routine questions answered from Ask MAC or the assistant without the owner.
- 100% of staff at Level 1; install tasks ≥ 90% single-owner; ≥ 90% of ops messages in Buzz.
- SOP library v1: 100% with an owner and an in-date review.

> NOT YET
> No residential portal push; the agent may not decide money or warranty; no new required fields for techs beyond v1.

6.6 · PHASE 3

# Customer Surface — the portal becomes the front door, the agents take the queue

**Q2 2027**
Mar 29 – Jun 25
Building OS ≈ 8 person-weeks
Owner 3 h/wk

**Objective:** customer portal general availability as the request-sync surface for residential and every GC; the Chief of Staff packages escalations end to end within the matrix; specialist agents online one at a time; SOP v2; freeze before the peak.

01 **Portal launch (Apr 6)** at the start of tune-up season: confirmed schedule written back to the record, on-my-way with tech photo and window, approval cards priced from the price book, completion photos and signed summary, invoice and pay link, review request; the QR card left by every tech; CSRs enter phone requests on the customer's behalf.
**Office manager + Building OS**

02 **Who Decides v2 (April)** from the second quarter of the log; per-role cards reprinted; inline caps updated.
**Owner** signs

03 **Chief of Staff v2 (Apr–May).** Posts escalation cards to #owner with two options and a default-if-silent; logs decisions; drafts articles from reusable ones. Dispatch Assistant, Parts Runner, Install Coordinator, GC Liaison, Collections and Customer Concierge come online one at a time as reliability is shown on the weekly sample.
**Building OS · owner reviews 20 answers a week**

04 **Kits, equipment and counts (Apr–Jun).** Phase bills of materials on projects; serialized equipment with registration deadlines; the returns board; ABC cycle counts; a vendor-managed pilot for consumables.
**Parts lead + install PM**

05 **Sign-off round 3 (May)** and a 30-minute pre-peak refresher per crew; new-hire onboarding tested on the next hire using the library and tutorials only.
**Champions**

06 **Feature freeze (May 14).** Fixes and performance only through Labor Day; summer staffing plan drawn from board data.
**Owner** confirms date (Apr 27)

**GATE 3 — JUN 25**

- ≥ 40% of enrolled customers' requests arrive through the portal (≥ 70% for GCs).
- Days to invoice at target (≤ 2 service, ≤ 7 install draw); agent escalation SLA met; time-to-decision median under four hours.
- SOP owners reviewed 100% of due procedures; parts-hold median ≤ 2 days.
- *Not yet:* no new workstreams after May 14; no re-organization of roles during the peak.

6.7 · PHASE 4

# Harden & Measure at Peak — run the summer on the system and prove it

**Q3 2027**
Jun 28 – Aug 27
Building OS ≈ 3 person-weeks
Owner 2 h/wk

**Objective:** stability under the year's heaviest load, an honest comparison with the August 2026 baseline, and a year-two plan written from what the decision log and the scorecard say.

01 **Peak on the system.** Weekly ops review continues; the monthly owner review compares summer KPIs with the baseline; new hires onboard through the library alone.
**Program lead**

02 **Agent step-ups where reliability is proven** — auto-assignment of low-risk jobs behind a dispatcher claim, templated portal replies, self-host evaluation of the Buzz relay.
**Owner** approves each step-up

03 **Parts tuning.** Min/max re-tuned from twelve months of moves; dead stock purged; job cost and GL posting from consumed parts.
**Parts lead + Building OS**

04 **Retro and year-two plan (Aug 24–26).** ROI against baseline; recognition; program v2 written from the log; annual re-sign-off scheduled.
**Owner + program lead + Building OS**

**YEAR-ONE GATE — AUG 27**

- Adoption metrics hold under peak load (same-day close ≥ 95%, single-owner ≥ 98%, portal ≥ 40%).
- Owner interruptions per day down ≥ 75%; ≥ 90% of routine questions answered without the owner.
- The retro produces a costed year-two plan.

6.8

# If we must do it in six months

Keep Phase 0 and Phase 1 exactly as written. Run Phase 2 to the end of February and ship only the GC portal and the Chief of Staff in answers-only mode. Defer the residential portal launch, the specialist agents and the parts kits/counts to a follow-on. Do **not** compress Phase 0 or either hypercare window — those four-week blocks are where compressed rollouts fail. The six-month plan delivers the synchronized board, the owned tasks, the parts tie-in, the published Playbook and a signed matrix; it postpones the customer front door and the automation.

PART 7

07

# Governance, scorecard, risks — and the decisions we need from ownership

The evidence from field-service rollouts in shops this size is consistent: the software is not the risk. Sponsorship, sequencing, super-users, clean data and timing are. This part names the roles, the numbers, the risks — and the fourteen decisions, with dates, that only you can make.

7.1

# Who runs the rollout

Active, visible owner sponsorship is the single largest predictor of success in every study of change since 1998 — projects with it are roughly three and a half times likelier to meet their objectives. Everything else in this table exists to make your sponsorship cheap in hours and loud in effect.

| ROLE | WHO | TIME | RESPONSIBILITIES |
|---|---|---|---|
| **Executive sponsor** | Sammy Bahhur | 3–4 h/wk 6–8 in Phase 0 and go-live weeks | Announces and repeats the why; opens the huddle for the first four weeks; uses the board personally; signs Who Decides; unblocks; rewards; refuses off-board requests; owns the monthly review and cannot delegate it. |
| **Program lead** | Cecilia Martinez (office manager) DECIDE | 6–8 h/wk protected | Owns the plan, scorecard, weekly and monthly agendas, decision-log triage, the SOP register and the vendor relationship; escalates to the sponsor. |
| **Department champions** | Service lead tech · install foreman / PM · warehouse lead · dispatcher DECIDE | 2–3 h/wk | Own their department's workflow configuration, sign their SOP family, run their training waves, enforce adoption first-line. |
| **Super-users** | 2–3 service techs · 1 install lead · 1 office · 1 warehouse — about one per 5–7 users; one bilingual DECIDE | 1–2 h/wk | Just-in-time support in the field and office; cheat sheets; ride-along coaches; acceptance testers; feed issues to the weekly review; visibly recognized and rewarded. |
| **Building OS** | Sardor Umarov and team | ≈ 0.65 FTE average, front-loaded Sep–Feb | Ships weekly; instruments every metric; train-the-trainer; on call through both hypercare windows; in-app tutorials and videos; monthly roadmap demo; Buzz and relay operations. |

## 7.1.1 Who is accountable for what

| ACTIVITY | SAMMY | PROGRAM LEAD | CHAMPIONS | SUPER-USERS | BUILDING OS | STAFF |
|---|---|---|---|---|---|---|
| Vision, “board is truth”, cut-over dates | **A / R** | C | C | I | C | I |
| Data cleanup (roster, customers, parts) | I | **A** | R | R | R (tooling) | C |
| Who Decides content and thresholds | **A / R** | R | C | I | C (build) | I |
| SOP authorship and ownership | A | R (register) | **R** | C | R (module, drafts) | C |
| Software build and release | I | C | C | C (testing) | **A / R** | I |
| Training delivery | I | A | **R** | R | R (materials) | — |
| Go / no-go at gates | **A** | R | C | C | C | I |

| ACTIVITY | SAMMY | PROGRAM LEAD | CHAMPIONS | SUPER-USERS | BUILDING OS | STAFF |
|---|---|---|---|---|---|---|
| Hypercare triage | I | A | R | R | **R** | I |
| Metrics and monthly review | **A** | R | C | I | R (dashboards) | I |
| Buzz administration and keys | A | R | I | I | R | I |

A = accountable · R = responsible · C = consulted · I = informed.

7.2

# The scorecard — baseline to month twelve

Everything is baselined in Phase 0 — two weeks of manual counts where the system cannot yet measure — and reviewed monthly against August 2026. Adoption metrics first, because they predict the operational ones.

| METRIC | BASELINE (PHASE 0) | MONTH 3 · NOV | MONTH 6 · FEB | MONTH 12 · AUG 2027 |
|---|---|---|---|---|
| ADOPTION | | | | |
| Service jobs closed in the app the same day | System | ≥ 85% (service) | ≥ 92% | ≥ 95% |
| Tasks with exactly one owner | System | ≥ 90% (pilot + service) | ≥ 95% all departments | ≥ 98% |
| Parts pulled against a job (no orphan pulls) | Warehouse tally | 100% at go-live | 100% | 100% |
| **Owner interruptions per day** (routine questions) | Desk tally, 2 weeks | −25% | −50% | **−75%** |
| Routine questions answered from Ask MAC / assistant without the owner | Decision log | — | ≥ 80% | ≥ 90% |
| Ops messages in Buzz vs. text / phone | Sample week | pilot only | ≥ 90% | ≥ 95% |
| Enrolled-customer requests arriving via portal | System | — | GC pilot ≥ 50% | ≥ 40% residential · ≥ 70% GC |
| SOPs with an owner and an in-date review | Register | 100% of v0 | 100% of v1 | 100%, ≤ 5% overdue |
| OPERATIONS | | | | |
| First-time fix rate (industry avg ~75%; top operators 85%+) | Job data | measure | +5 pts | ≥ 80% |
| Callback rate, 30-day (3–5% typical; best under 2%; $300–600 each) | Job data | measure | ≤ 5% | ≤ 3% |

| METRIC | BASELINE (PHASE 0) | MONTH 3 · NOV | MONTH 6 · FEB | MONTH 12 · AUG 2027 |
|---|---|---|---|---|
| Days to invoice (complete → invoice sent) | Billing | measure | ≤ 2 service · ≤ 7 install draw | ≤ 1 · ≤ 5 |
| A/R over 60 days (share of A/R) | Books | measure | −20% | −40% |
| Parts-hold days (job waiting on a part) | Board | measure | −25% | −40%; median ≤ 2 days |
| Truck-stock fill rate · counter runs per truck per month | Warehouse | measure | ≥ 70% · ≤ 4 | ≥ 80% · ≤ 2 |
| Tech billable hours (share of paid time) (45–55% typical; 60–65% with routing + staged parts) | Payroll + board | measure | +5 pts | +10 pts |
| On-time arrival within the window | Board | measure | ≥ 85% | ≥ 90% |
| Adoption sentiment (quarterly five-question pulse) | Survey | ≥ 3.5 / 5 | ≥ 4 / 5 | ≥ 4 / 5 |

7.3

# Ten risks and how each is handled

| # | RISK | MITIGATION BUILT INTO THE PLAN |
|---|---|---|
| 1 | **Owner sponsorship fades after kickoff** — the number-one predictor of failure. | Calendar-blocked huddle attendance for weeks 1–4; a monthly review the owner cannot delegate; a sponsor scorecard reviewed at each retro. |
| 2 | **Technicians bypass the app and keep texting dispatch.** | Minimal fields at go-live; ride-along coaching and the “one job rule”; pay and commissions from board data only; Buzz replaces texts with a hard retirement date; a super-user in every wave. |
| 3 | **A go-live collides with peak load or a cold snap.** | Pilot in the September dip; service go-live Nov 10 (after the October peak); install Jan 5; freeze May 14; if the forecast is extreme, slip a go-live one week — never into peak. |
| 4 | **Dirty master data breaks real-time sync** (duplicates, wrong roster, orphan projects). | Cleanup is a Gate 0 exit criterion; roster as data owned by the program lead; deduplication tooling; a data-quality line on the weekly scorecard. |
| 5 | **Too much at once** — change saturation. | One live workstream per department per quarter; the “not yet” list enforced; features shipped dark until their phase. |
| 6 | **The program lead is overloaded** (the office manager already runs dispatch and billing). | 6–8 hours a week protected and visible; Building OS carries dashboards and materials; a deputy super-user in the office. |
| 7 | **The matrix stalls because owner workshops slip.** | Three 90-minute workshops calendared Sep 22 / Oct 6 / Oct 20 with the decision log as input; v1 signed Jan 15 even if imperfect; v2 in April. |

| # | RISK | MITIGATION BUILT INTO THE PLAN |
|---|---|---|
| 8 | **Buzz operational risk** — the product is weeks old; keys can be lost; the relay can be down; push is immature. | Shadow phase and capability probes before anyone depends on it; office-held encrypted key copies and a rotation runbook; bell + SMS + push independent of Buzz; phone call for emergencies; a self-host exit if the hosted terms change. |
| 9 | **The portal creates duplicate channels** (portal + phone + email). | CSRs enter phone and email requests into the portal on the customer's behalf so the board stays single-source; launch at tune-up season with the QR card. |
| 10 | **The chief-of-staff agent over-reaches, or is ignored.** | Answers-only first; authority strictly from the matrix; every action logged and auditable; outbound gated; a weekly sample of twenty answers reviewed by the owner; a human owns the escalation queue. |

DEPENDENCIES

A clean roster with crews and trucks by Sep 18 · a device policy · office Wi-Fi and one TV for the huddle board plus one for the warehouse · Buzz member keys for every employee with a recovery process · owner availability for three workshops · five GCs willing to pilot the portal · Spanish translation of field aids · Building OS on call during both hypercare windows.

7.4

# Effort and investment

## Building OS

| PHASE | PERSON-WEEKS | DELIVERING |
|---|---|---|
| Phase 0 | ≈ 3 | Instrumentation, roster tooling, TV board, keys, decision-log capture, the forty SOP drafts |
| Phase 1 | ≈ 10 | Task engine, claim, boards, parts tie-in, huddle dashboard, Buzz alerts, cut-over tooling, hypercare |
| Phase 2 | ≈ 10 | Install model, SOP module and manuals, matrix and Ask MAC, agent v1, Buzz roles, GC portal v2, hypercare |
| Phase 3 | ≈ 8 | Portal GA and lifecycle, agent v2 and specialists, kits and counts, Spanish UI, analytics |
| Phase 4 | ≈ 3 | Hardening, tuning, retro, year-two backlog |
| **Total** | **≈ 34** | ≈ 0.65 FTE across twelve months, front-loaded September–February, delivered as the existing weekly release batches |

## Memphis Air Care

- **Owner:** 3–4 hours a week; 6–8 in Phase 0 and the two go-live weeks; three 90-minute workshops.
- **Program lead:** 6–8 hours a week, protected.
- **Champions:** 2–3 hours a week each; **super-users** 1–2.
- **Technicians:** about one hour a week during the November–March training season, a quarter-hour otherwise; six to eight paid hours per tech across the year. The huddle replaces the morning scramble; it is not extra time.

## Cash items

- Two TVs (huddle board, warehouse); phones or a $30–50 monthly stipend per tech; printed and laminated job aids in two languages.
- An adoption spiff budget — suggested $150–300 a month through Phases 1–2 (zero-missing-paperwork weeks, first crew signed off, cleanest truck-stock audit).
- Carrier registration and per-message cost for SMS; agent model usage metered per agent per day with a monthly cap.

7.5

# Decisions needed from ownership

Fourteen decisions, in date order. Each is small; together they are the plan's critical path. Nothing here needs to be perfect — the matrix and the thresholds are designed to be revised each quarter.

| # | DECISION | NEEDED BY |
|---|---|---|
| 1 | Confirm Cecilia as program lead with 6–8 protected hours a week; name the four champions (service, install, parts, dispatch) and five or six super-users, at least one bilingual. | **Sep 4, 2026** |
| 2 | Device policy: company phones or bring-your-own with a stipend; passkey login mandatory. | **Sep 11** |
| 3 | Adopt "the board is truth": pay, commissions and parts reimbursement computed from board data only. | **Sep 18** |
| 4 | Pick pilot Crew A — three service trucks and one install crew. | **Sep 18** |
| 5 | Adoption spiff budget and rules. | **Oct 2** |
| 6 | Who Decides thresholds: discount and goodwill authority, warranty calls, PO approval dollars by role, overtime, callback ownership, pricing exceptions, GC change-order acceptance. | **Workshops Sep 22 · Oct 6 · Oct 20; v1 signed Jan 15, 2027** |
| 7 | Retirement dates for group texts and paper pull slips (announced two weeks ahead). | **Oct 27** |
| 8 | Service + Parts go-live go / no-go for Nov 10. | **Oct 30** |
| 9 | Paid-training policy and the Spanish-materials budget. | **Nov 20** |
| 10 | Install go-live go / no-go for Jan 5. | **Dec 11** |
| 11 | Buzz mandatory date (Feb 1) and the emergency-only phone rule. | **Jan 15, 2027** |
| 12 | Portal scope: which GC and commercial accounts first; what customers can see (photos, pricing, invoices, approvals). | **Feb 12** |
| 13 | Chief-of-staff authority: what it may answer vs. draft vs. escalate; hours; tone. | **Feb 26** |
| 14 | Summer feature-freeze date (May 14) and the year-two planning window. | **Apr 27** |

THE FIRST MOVE

Say yes to the kickoff for the week of August 24, name the program lead by September 4, and block three 90-minute workshops in September and October. Everything else in this document follows from those three.

APPENDICES

A

# Appendices: the reference tables

The material the office will actually open again: the full authority matrix, the SOP index, two finished procedures in their final format, the glossary, the as-built inventory of the platform, the communication channel plan, and the sources behind the plan.

APPENDIX A

# Who Decides — the full authority matrix

Twenty-six recurring decisions. *Decides* is the lowest level that may decide; *Rule* is the threshold; *Source* is the SOP that answers it; *Escalate* is the next rung; *SLA* is how fast. All dollar figures are placeholders for the September–October workshops. Rows marked ONE-WAY get a named recommender and go to the owner.

L1 field / floor L2 coordinator L3 manager L4 owner

| ROW | DECISION / QUESTION | DECIDES | RULE / THRESHOLD | INFORM / CONSULT | SOURCE | ESC. | SLA |
|---|---|---|---|---|---|---|---|
| D-01 | Which tech takes which call; re-prioritize the board | L2 dispatcher | Safety and no-heat / no-cool for vulnerable customers first, then maintenance-plan members, then FIFO | Service mgr if > N still open at 10:00 | SVC-02 | L3 | Immediate |
| D-02 | Start repair without customer approval | Nobody | Customer approves options in the app / portal before work; document refusal | — | SVC-04 | — | — |
| D-03 | Repair vs. replace recommendation | L1 tech | Rule of thumb (age × repair cost vs. replacement %) triggers a replacement estimate via the estimator; tech presents both | Comfort advisor / service mgr on big systems | SVC-05 | None | Same visit |
| D-04 | Add after-hours / emergency call (overtime) | L2 dispatcher | Up to 2 per night per on-call tech; beyond → L3 | Service mgr | SVC-03 | L3 | 15 min |
| D-05 | Part not on the truck | L1 → L2 parts | Tech requests in the app; parts sources same day; > $X or > 2-day lead → L3 informs customer | Dispatcher | PRT-03 | L3 | 30 min |
| D-06 | Accept GC schedule change (move crew) | L2 foreman | OK inside the week with no other job impacted; L3 if it displaces another job or needs OT; L4 if contract penalty / LDs | Install PM | INS-03 | L3 / L4 | Same day |
| D-07 | GC change order — price and approval ONE-WAY | L3 install PM | Priced via estimator with margin floor; **no changed work before written GC approval**; > $X or below floor → L4 | Owner, billing | INS-05 | L4 | COR out in 48 h |
| D-08 | Field deviation from plans / spec | L1 lead installer | OK if code-compliant, no cost / time impact, photographed; else RFI → L3 | Install PM | INS-04 | L3 | Before proceeding |
| D-09 | Failed inspection response | L1 crew (minor, same day) / L3 (major) | Repeat failures on the same item → L4 informed | GC via portal | INS-07 | L3 | Re-inspect ≤ 3 days |

| ROW | DECISION / QUESTION | DECIDES | RULE / THRESHOLD | INFORM / CONSULT | SOURCE | ESC. | SLA |
|---|---|---|---|---|---|---|---|
| D-10 | Stock re-order / purchase order | Tiered | L1 warehouse inside min/max → L2 parts lead ≤ $1,000 → L3 ≤ $5,000 → L4 above; PO for every buy; job # on job-specific buys | Office mgr (AP) | PRT-02 | per tier | Same day |
| D-11 | Non-stock special order for a job | L2 parts lead | Only against an approved estimate / change order; else L3 | Dispatcher, tech | PRT-03 | L3 | 4 h |
| D-12 | Return / core / warranty part to vendor | L2 parts lead | Within vendor window; log RMA in the app | — | PRT-05 | L3 if refused | Weekly batch |
| D-13 | Invoice adjustment / small write-off | L3 office mgr | ≤ $250; above → L4 | Owner weekly digest | OFC-04 | L4 | 24 h |
| D-14 | Collections step (reminder → call → service hold → lien / attorney) ONE-WAY at lien | L3 through service hold; L4 lien / attorney | Steps keyed to aging buckets 30 / 45 / 60 / 90 | Owner at 60+ | OFC-05 | L4 | Per bucket |
| D-15 | Refund | L3 office mgr | ≤ $500 within policy; above → L4 | Owner | OFC-06 | L4 | 48 h |
| D-16 | PTO / shift swap | L2 lead | If coverage holds; peak-season requests → L3 | Dispatcher | OFC-08 | L3 | 48 h |
| D-17 | Overtime | L2 dispatcher (same-day ≤ 2 h/tech) / L3 (planned) | Weekly OT budget exceeded → L4 | Owner weekly | OFC-08 | L4 | Same day |
| D-18 | Hire / terminate ONE-WAY | L4 | L3 recommends with two options; documented cause | Office mgr (records) | OFC-09 | — | ≤ 1 week |
| D-19 | Customer complaint — service quality | L2 CSR (log, apologize) → L3 (resolve, goodwill ≤ $X) | Legal threat, safety claim, GC principal, or public review → L4 | Tech, service mgr | OFC-07 CUS-04 | L4 | Ack 1 h; resolve 24 h |
| D-20 | Missed window / no-show complaint | L2 dispatcher | Offer priority slot + waive fee | Service mgr | OFC-07 | L3 | Same day |
| D-21 | Callback ≤ 30 days after repair | L2 dispatcher | Priority, no charge until diagnosed; tag type (defect / misdiagnosis / parts / warranty / new issue / nuisance) | Service mgr weekly review | SVC-08 | L3 | Next slot |
| D-22 | Manufacturer warranty vs. labor charge | L1 tech (checks warranty in app) | Dispute → L3; L4 only if > $X | Parts lead (claim) | SVC-09 | L3 | Same visit |

| ROW | DECISION / QUESTION | DECIDES | RULE / THRESHOLD | INFORM / CONSULT | SOURCE | ESC. | SLA |
|---|---|---|---|---|---|---|---|
| D-23 | Discount off the price book | Tiered | L1 published coupons / plan discounts only → L2 ≤ $100 or 5% → L3 ≤ 10% or $500 → L4 above; every discount needs a reason code | Owner sees all > L2 in digest | OFC-03 | per tier | Same visit |
| D-24 | Non-standard quote (commercial / refrigeration / gas) ONE-WAY | L3 | Estimator + margin floor; > $25K or below floor → L4 | Owner | SVC-06 INS-02 | L4 | 48 h |
| D-25 | Stop work for unsafe condition (gas leak, live electrical, structural) | L1 anyone — no approval | Make safe, leave, report; never overridden | Owner same day | SAF-01 | L4 informed | Immediate |
| D-26 | Injury / incident / vehicle accident ONE-WAY | L1 secure scene → L3 manages reporting | Owner informed ≤ 1 h; insurer / OSHA per SAF-02 | Office mgr | SAF-02 | L4 | 1 h |

Callback typing follows the six-type scheme used in the industry benchmark (top-quartile shops run 1–2% on defect + misdiagnosis; 3–5% is typical). “No changed work before written GC approval” follows standard change-order practice for specialty contractors. Rendered three ways in the platform: the full matrix, a laminated per-role card (only that role's rows), and inline where the decision happens.

APPENDIX B

# SOP index — 53 procedures

Identifiers are permanent. ★ marks the forty written in Phase 0–1; the rest follow in Phase 2. Each family has one role-owner; the owner signs major versions of SAF-*, GOV-*, OFC-03 and Who Decides.

| ID | TITLE | PURPOSE · WHAT IT SETTLES | OWNER |
|---|---|---|---|
| **GOV — governance** | | | |
| GOV-01 ★ | How we write, number, approve and retire SOPs | The job-aid formats, ID and version rules, owners, approvers, review cadence, “uncontrolled copy” rule. | Owner |
| GOV-02 ★ | Who Decides: authority matrix & escalation ladder | The five levels, the 26 rows, the four escalation rules, the package template. | Owner |
| GOV-03 ★ | Decision log & article-update loop | Twenty-second capture, Friday tagging (rule / gap / owner-level), how a decision becomes a row or an article. | Office mgr |
| **SAF — safety** | | | |
| SAF-01 ★ | Stop-work authority & hazard reporting | Anyone stops unsafe work, no approval; make safe, leave, report; owner informed same day. | Owner (signs) |

| ID | TITLE | PURPOSE · WHAT IT SETTLES | OWNER |
|---|---|---|---|
| SAF-02 ★ | Injury, incident & vehicle accident | Secure the scene, who calls whom in what order, insurer / OSHA reporting, owner within the hour. | Owner (signs) |
| SAF-03 ★ | Refrigerant handling & EPA 608 records | Recovery, cylinder IDs and weights, the log the inspector asks for. | Service mgr |
| SAF-04 ★ | Electrical / gas isolation, ladders, confined space | Lock-out sequences (read-do), pressure tests, ladder and attic rules. | Service mgr |
| **SVC — service department** | | | |
| SVC-01 ★ | Service call lifecycle | Book → dispatch → arrive → diagnose → options → repair → close; who owns each stage; the hand-offs that need a receiver. | Service mgr |
| SVC-02 ★ | Dispatch & prioritization rules | Safety and vulnerable customers first, then plan members, then FIFO; capacity by job type; the 7:15 board. | Dispatcher |
| SVC-03 ★ | After-hours & emergency calls | Who is on call, the two-per-night rule, what counts as emergency, the customer script. | Service mgr |
| SVC-04 ★ | Presenting options & getting approval | Options in the app before work; the customer approves in the portal or signs; refusal documented. | Service mgr |
| SVC-05 ★ | Repair-vs-replace rule | The rule of thumb, when the estimator runs, presenting both. | Service mgr |
| SVC-06 ★ | Diagnostic fees, price book & non-standard quotes | What is quoted from the book, what needs the estimator and the margin floor, who approves above $25K. | Service mgr |
| SVC-07 ★ | Job close-out: photos, readings, notes, signature, invoice | The do-confirm checklist that makes "done" mean logged (Appendix C). | Service mgr |
| SVC-08 ★ | Callbacks: types, priority, no-charge rule | Priority slot, original tech where possible, six-type tagging, weekly review. | Service mgr |
| SVC-09 ★ | Manufacturer warranty claims | Checking coverage in the app, the claim, labor charge disputes. | Parts lead |
| SVC-10 | Maintenance agreements & seasonal tune-ups | Plan tiers, scheduling the season, renewal. | Office mgr |
| **INS — install department** | | | |
| INS-01 ★ | Project intake & estimate-to-install handoff | Award → project record, GC and contract terms, kickoff, what the install PM receives from the estimator. | Install PM |
| INS-02 ★ | Estimating & bids | Estimator use, margin floor, who signs a bid, submittal-ready scope. | Install PM |
| INS-03 ★ | Install scheduling & crew assignment | Crews per phase and trade from the roster; accepting GC schedule changes (D-06); the three-week look-ahead. | Install PM |
| INS-04 | Field deviations, RFIs & plan questions | What a lead installer may decide, when an RFI is required, photographing the change. | Install PM |
| INS-05 ★ | GC change orders — written approval first | Price via estimator, COR out in 48 h, no changed work before signed approval, margin floor, when the owner decides. | Install PM |
| INS-06 ★ | Material staging & install pull lists | Phase bills of materials, kits staged the day before, load-out scan, returns. | Install PM |

| ID | TITLE | PURPOSE · WHAT IT SETTLES | OWNER |
|---|---|---|---|
| INS-07 ★ | Inspections, commissioning & startup | The commissioning checklist (ACCA quality-installation based), rough and final inspections, equipment registration. | Install PM |
| INS-08 | Close-out: punch list, O&M docs, pay app / retainage | Punch, documents to the GC portal, G702/G703 timing, retainage, warranty start. | Install PM |
| **PRT — parts & back-of-house** | | | |
| PRT-01 ★ | Receiving, bins & warehouse standard | Receive against PO lines, put-away, bin labels, the job staging bin, what “received” triggers. | Warehouse lead |
| PRT-02 ★ | Min/max stock, POs & spend tiers | Reorder points, PO for every buy, the approval tiers (D-10), counter pickups need a PO number first. | Warehouse lead |
| PRT-03 ★ | Special orders for jobs | Part not on the truck / not in stock: request, reserve or short, job-linked PO, hold with owner and ETA, receive-to-notify (Appendix C). | Warehouse lead |
| PRT-04 ★ | Truck stock standard & weekly restock | Per-truck-type list, weekly exception restock, daily A-items, tech confirms counts. | Warehouse lead |
| PRT-05 | Returns, cores & warranty parts | Vendor windows, RMA logging, credit tracking. | Warehouse lead |
| PRT-06 | Cycle counts & shrink | Weekly A / monthly B / quarterly C, variance reasons, month-end sheet. | Warehouse lead |
| PRT-07 | Tool & equipment checkout | Who has what; return rules; calibration items. | Warehouse lead |
| **OFC — back office** | | | |
| OFC-01 ★ | Call intake & booking script | What to capture, on the board within the hour, confirmation to the customer, plan-member flags. | Office mgr |
| OFC-02 ★ | Daily dispatch board & end-of-day close | 7:15 huddle agenda, midday check, 4:30 close, the exception report. | Dispatcher |
| OFC-03 ★ | Pricing, discounts & authority | The discount tiers (D-23), reason codes, what only the owner changes. | Owner (signs) |
| OFC-04 ★ | Invoicing & adjustments | Invoice within 24 h, the ready-to-invoice queue, adjustments to $250, external system IDs on the record. | Billing |
| OFC-05 ★ | Collections ladder | Reminder → call → service hold → lien / attorney by aging bucket; who does each; owner at 60+. | Billing |
| OFC-06 ★ | Refunds & credits | Within policy to $500; above → owner; how it posts. | Office mgr |
| OFC-07 ★ | Complaints & service recovery | Log and apologize within the hour, resolve within a day, goodwill caps, when the owner is told. | Office mgr |
| OFC-08 ★ | Time-off, scheduling & overtime | Coverage rule, peak-season requests, same-day OT vs. planned OT, the weekly budget. | Office mgr |
| OFC-09 | Hiring, onboarding & offboarding | The 30-60-90 path per role, system access on and off, the skills matrix start. | Office mgr |
| OFC-10 ★ | Task, action-item & audit hygiene | Claim before act, one owner, done means logged, what the audit log is for. | Office mgr |
| OFC-11 | Vendor invoices / three-way match | PO ↔ receipt ↔ invoice before payment; exceptions. | Billing |
| **CUS — customers & GCs** | | | |

| ID | TITLE | PURPOSE · WHAT IT SETTLES | OWNER |
|---|---|---|---|
| CUS-01 ★ | What to expect: service visit | The window, on-my-way, options before work, photos, invoice — in the customer's words. | Office mgr |
| CUS-02 ★ | Using the customer portal | Requests, confirmations, approvals, payments, history; one page and a 60-second video. | Office mgr |
| CUS-03 | Communication windows & how to reach us | Hours, quiet hours, emergency line, what gets a text vs. an email. | Office mgr |
| CUS-04 | Complaints, warranty & making it right | What we promise, how to raise it, what happens next. | Office mgr |
| CUS-05 ★ | GC portal guide | Schedules, RFIs, change orders, documents, close-out — for the GC project manager. | Install PM |
| **EXE — owner / executive** | | | |
| EXE-01 ★ | Weekly owner review & scorecard | The 45–60-minute agenda, the scorecard, one owner and a seven-day due date per issue. | Program lead |
| EXE-02 ★ | Bringing the owner a decision | The package: situation, background, assessment, two options, recommendation, deadline; what gets sent back. | Owner |
| EXE-03 | Dashboards & exception reports | What the owner looks at daily, weekly, monthly — and what he does not. | Program lead |
| EXE-04 | Quarterly matrix / SOP review | Thresholds from the log, retire / rewrite, sign-off. | Owner |
| EXE-05 | Chief-of-staff assistant charter | What it answers, what it packages, what it never decides; how it is supervised. | Owner |

APPENDIX C

# Two finished SOPs

Exactly as they will appear in the manuals and in the app: a field job aid a technician runs at every close-out, and a cross-department office procedure for the most common way service, the warehouse and dispatch fall out of sync. Both carry their Who Decides row inline.

SVC-07 · FIELD JOB AID · DO-CONFIRM

## Job close-out — photos, readings, notes, signature, invoice

v1.0 · Sep 2026
Owner: Service manager
Applies to: all service techs
Matrix rows: D-02 · D-22 · D-23

### WHEN

Before you leave the site, every job, every time. **Pause point:** tools packed, before you say goodbye. Read the list; confirm each item.

### CONFIRM

1. **Photos on the record** — before, after, nameplate / data tag; the repair itself. Not on your phone's camera roll — in the job.
2. **Readings entered** — the numbers the next tech will want (pressures, temperatures, amps, static) in the fields, not the notes.
3. **Options and approval documented** — what you offered, what the customer chose, approved in the app or portal before work (D-02). If declined, say so.
4. **Parts consumed against this job** — every part used marked installed; leftovers going back to the truck or the shelf. Nothing used that isn't on the job.
5. **Warranty checked** where a part failed — coverage looked up in the app; labor charged to the rule (D-22).
6. **Notes: what was wrong, what you did, what to watch** — three lines, tap-to-speak is fine. Callback risk? Flag it.
7. **Discount only inside your tier** (D-23) with a reason code — otherwise “I'll have the office confirm.”
8. **Customer signature** on the record; the summary they'll receive is the one you see.
9. **Status set and “ready to invoice” sent** — the task lands with billing; you're done when it says so.

### IF

**Part not on the truck** → PRT-03. Don't leave without the pull request in the app.

**Customer refuses to sign** → note it, photograph the work, tell dispatch in the job thread; do not argue on site (OFC-07).

**Something unsafe** → SAF-01. Make safe, leave, report. No approval needed.

### WHY IT MATTERS

A job that closes with photos, readings and consumed parts is invoiced within a day and rarely comes back. One that doesn't costs the office an hour of chasing and the company a callback.

### SIGN-OFF

Level 1: three consecutive close-outs complete and unaided, watched by a lead. Level 2: handles a refused signature and a warranty part correctly.

Printed copies are uncontrolled — the app shows the current version.

The MAC Playbook · SVC-07 v1.0 · EN / ES

PRT-03 · OFFICE / WAREHOUSE PROCEDURE · CROSS-DEPARTMENT

## Special orders for jobs — a part not on the truck or not in stock

v1.0 · Sep 2026
Owner: Warehouse lead
Applies to: techs · warehouse · dispatch · install PM
Matrix rows: D-05 · D-10 · D-11

### PURPOSE

A needed part becomes one owned request tied to the job — reserved, ordered, received, staged and delivered — with the customer's ETA owned by dispatch and no one asking the owner.

### STEPS

1. **Tech** adds the part to the work order in the app (name / number / quantity; photo of the nameplate if unsure). This creates the pull request against the job. Time on site: under two minutes.
2. **System** reserves it if the warehouse has it (the tech sees "reserved — staged for 7:00"); if short, it drafts a job-linked PO and opens a *parts hold* on the job with the warehouse lead as owner and the ETA blank.
3. **Warehouse lead** claims the request on the Today board within 30 minutes in hours (D-05): sources the part (stock transfer, supply house run by the parts runner, vendor order), sets the ETA on the hold. Under the tier, approves the PO; over it, routes to the office manager or owner (D-10). Non-stock special orders only against an approved estimate or change order (D-11).
4. **Dispatcher** owns the customer: sees the hold and ETA on the board, tells the customer, reschedules if needed. Over $X or more than a two-day lead time → the service manager decides how to handle the customer (D-05).
5. **Warehouse** receives against the PO line (partial allowed); the item goes straight to the job's staging bin; the hold clears itself; the tech, the dispatcher and (for installs) the install PM are notified with the job link.
6. **Tech** scans the staged part onto the truck at 7:00; dispatch sees "parts on truck ✓"; the job leaves the hold and returns to the board as ready.
7. **Close-out** per SVC-07: the part is marked installed against the job; leftovers scanned back.

### RULES

- Nothing leaves the shelf without a job or a truck-restock ticket.
- "Waiting on Part" is never typed — it is the hold, with an owner and an ETA.
- Counter pickups need a PO number from the app before the tech leaves the shop.
- The tech who is billing does not drive to the supply house; the runner does.

### ESCALATE

Unclaimed 30 min → service lead. ETA passed + 2 days → service manager, and the customer is called that day. Owner is informed, not asked, unless D-10 says otherwise.

### MEASURES

Parts-hold days (median ≤ 2); return trips (≤ 5%); counter runs per truck per month (≤ 2).

Printed copies are uncontrolled — the app shows the current version. The MAC Playbook · PRT-03 v1.0

APPENDIX D

# Glossary

**The board** — The live job and task boards in the platform (dashboard, field app, TV). "The board is truth": not on it, does not exist for dispatch, pay, purchasing or invoicing.

**Task** — One unit of work on a job with exactly one owner, a due time and a clock; created automatically from events or by hand.

**Claim** — Taking ownership of a task — in the app or by replying "claim" in Buzz. Assignment is a suggestion; the claim is ownership.

**Hold** — A structured wait on a job — parts / power / other trade / customer / owner — with a type, an owner and an ETA. Replaces typed "Waiting on..." statuses.

**Hand-off** — A task passing from one owner to a receiver in another role or department; the receiver is notified and claims.

**Lane** — A department's own board and queue: service (dispatch), install (project × crew), parts (Today board), billing.

**Huddle** — The 10-minute standing meeting at 7:15 in front of the TV board, run by the dispatcher.

**Hypercare** — The four weeks after a go-live with daily triage and Building OS on call.

**Gate** — The measured exit criteria at the end of a phase; the owner says go or no-go.

**L0–L4** — Authority levels: self-serve · field/floor · coordinator · manager · owner (Part 3.1).

**One-way door** — A decision that cannot be walked back (contract terms, termination, lien, price policy) — decided slowly and by the owner. Everything else is a two-way door, decided low and fast.

**Who Decides** — The authority matrix: 26 recurring decisions with the level that decides, the threshold, the SOP that answers, the escalation and the SLA.

**Ask MAC** — The front door to the Playbook's articles — search in the app and in Buzz, and later an assistant grounded on the same articles.

**SOP · families** — Standard operating procedure with a permanent ID. Families: GOV governance · SAF safety · SVC service · INS install · PRT parts · OFC office · CUS customer · EXE executive.

**Manuals M0–M4** — Master Playbook · Field Manual · Office Manual · Customer & GC Guide · Owner's Manual.

**Skills matrix** — One row per SOP per person, marked Learning · Solo · Expert · Trainer; sign-off is a supervisor watching the work.

**Buzz** — Block's private team-chat product (launched July 2026) built on a Nostr relay; each person and each agent has its own key. Used for staff and agent communication; never for customers.

**Portal** — The customer's (or GC's) tokenized page: requests, confirmations, approvals, photos, invoices, payments — the same thread the office sees.

**Chief of Staff** — The routing agent: answers from the Playbook with citations, routes to roles, packages true exceptions for the owner, logs decisions.

**Pull ticket** — A request for parts against a job (or a truck restock) that the warehouse stages; the single parts object.

**Reservation** — Stock allocated to a job but still on the shelf; available = on hand − reserved.

**Truck standard** — The per-truck-type min/max list; trucks are inventory locations, restocked weekly by exception.

**COR · CO · pay app** — Change-order request → change order (signed) on GC projects; the monthly AIA G702/G703 application for payment.

**Building OS** — Sardor Umarov's operating-platform practice; builder and operator of the platform.

APPENDIX E

# The platform as built

A snapshot of what is in production on August 17, 2026 (repository `sardoru/memphis-air-care-web`, last release July 31; the office TV app `sardoru/sammy-back-office`). This is the ground the plan builds on.

| AREA | WHAT EXISTS |
|---|---|
| **Customer site** | memphisair.co — services and service-area pages, residential / commercial / electrical hubs, reviews, maintenance plans, financing, AI photo estimator, voice intake, site concierge, lead and contact forms, SEO and structured data. |
| **Portals** | Prospect portal (estimate → chat, attachments, voice notes, e-sign, Stripe deposit, schedule request); client portal (client-scoped view); job portal (per-job link + QR); GC portal (per-contractor link: shared updates, photos, waiting-on, replies, Monday digest, project PDF); staff sign-in by magic link and passkey; kiosk PIN. |
| **Back office** | Status board overview (day timeline by tech, latest tickets, coming-in feed, action items, quick-add) · Sales: intake kanban, estimates, leads, clients (Customer 360), contacts, feedback · Service: ledger, dispatch by tech, routes (map + road routing + supply shops), collections, action items · Install: pipeline, bucket board, milestones (Gantt), contractors · Warehouse: inventory, POs (AI-parse → approve → receive) · Accounting: overview, job costing, estimates, AIA G702/G703, lien waivers, price book, general ledger · Admin: users, roles × permissions, audit, settings · TV mode · job detail pages (edit, tech panel, comms, equipment import, portal links, arrival photos, call notes). |
| **Field app** | Installable PWA: My Day with claim queue, route, jobs, work-order detail (field-state chips, tasks, parts pull that decrements stock and writes the pull ledger, photos with viewer, signature, office ↔ tech and tech ↔ customer threads, tap-to-speak notes, arrival photo carousel, equipment), parts catalog, inbox, account. |
| **Office TV app** | Static app on the same database: install board, Sammy's board (kanban by blocker), dispatch, routes, service ledger, collections, inventory (pull lists / warehouse / on trucks), POs, TV rotation, weather strip; its own crew portal, customer portal and accounting pages; sign-in and passkeys. |
| **Data** | One Supabase project. Job records in `sbo_records` (install · service · parts · inventory · pull lists; typed statuses and buckets, activity log, tech, contractor, tasks, parts, threads, photos, signature, schedule); CRM (clients, sites, threads, messages), estimates and events, bookings, action items, accounts / roles / permissions, audit log, contractors, accounting blobs, GL (accounts, journal entries, vendors, bills, periods), notifications and conversations, access requests, feedback, geocode cache. |
| **Access control** | Roles super_admin · admin · office · tech · client; 41 permission keys with per-user overrides; ~80 audited action types; owner-only audit view. |
| **Documents** | Branded PDF system: estimate, invoice, PO, pull ticket, pull list, work order, G702, G703, lien waiver, contractor project report, client profile; signed-estimate PDF; capabilities PDF. |
| **Automation** | One scheduled job (Monday GC digest); Resend email; Stripe deposits with webhook; AI models for photo estimates, document import, PO parsing and voice. |
| **Docs today** | Two READMEs and changelogs, three engineering hand-off specs, a capabilities page and tour video, and a 17-page operations manual for the office TV app — all feature-oriented (“how the screen works”), none process-oriented (“what to do when”). No SOPs by role, no in-app help, no customer guide, no technician quick-start for the field app, no decision matrix. |

TWO THINGS TO VERIFY IN PHASE 0 AGAINST THE LIVE DATABASE

The two repositories disagree on whether the shared job table's row-level security is "authenticated only" (if it is, the dashboard's live refresh may be silently blocked and must move to a signed subscription) and on which record kinds the table accepts. Both are one-hour checks and both are on the Phase 0 list.

APPENDIX F

# Communication channel plan

One pipeline: every event → exactly one owned task → fan-out to the channels below. Buzz channels: `#dispatch #install #parts #office #owner #alerts #agent-log` plus a private channel per technician. Customers and GCs are never on Buzz — portal, email and SMS only.

| EVENT | PRIORITY | BUZZ | CUSTOMER / GC | BELL | MODE | QUIET HOURS |
|---|---|---|---|---|---|---|
| Urgent service (gas smell, walk-in down, no-cool commercial, safety) | urgent | #dispatch card + on-call tech's channel; owner DM after tier-1 miss | portal ack + SMS "received, dispatcher calling" | yes | realtime | ignores staff quiet hours; customer SMS allowed (transactional) |
| New lead / estimate / voice intake | high | #office card | portal link | yes | realtime | hold customer SMS 9 pm – 8 am |
| Portal schedule request | high | #dispatch | portal "requested → confirmed" | yes | realtime | — |
| Portal chat / attachment | normal | #office thread on the job | auto-ack ≤ 2 min (templated) | yes | realtime in hours; digest after | yes |
| Tech → office message / pull request | normal | #dispatch or #parts thread on the job | — | yes | realtime | tech quiet hours 7 pm – 7 am except urgent |
| Field state en route / on site / done | normal | silent thread update | on-my-way with tech photo and window (max 1 / day) | no | realtime | customer 8 am – 9 pm |
| Change order / add-on needs approval | high | #dispatch thread + #office | portal approve / decline card + email / SMS | yes | realtime | — |
| Job blocked > 2 days (parts / other trade / power) | normal | #install / #parts | GC "waiting on" | no | digest | — |
| GC reply in portal | high | #install project thread | — | yes | realtime | — |

| EVENT | PRIORITY | BUZZ | CUSTOMER / GC | BELL | MODE | QUIET HOURS |
|---|---|---|---|---|---|---|
| Low stock / PO received | normal | #parts | — | no | daily 7 am digest | — |
| Invoice due / overdue A/R | normal | #office (Collections agent) | portal pay link + email; SMS only if opted in | no | digest | customer 8 am – 9 pm |
| Owner escalation card | high | #owner | — | yes | realtime; SMS if unread 30 min | owner's quiet hours except urgent |
| Daily brief / exception report | low | #owner + email | — | — | 6:45 am + 4:30 pm CT | — |
| Integration / cron failure | urgent-internal | #alerts; owner if repeated | — | yes | realtime | — |

## Escalation timers

| PRIORITY | TIER 0 | TIER 1 | TIER 2 | THEN |
|---|---|---|---|---|
| **urgent** | dispatcher on duty (#dispatch + on-call channel + SMS) | +5 min → service lead + owner Buzz DM | +10 min → owner SMS + phone call | loop twice, then a red card in #owner |
| **high** | assignee / department channel | +30 min (business hours) → department lead | +2 h → owner brief section | parked in the "unowned" list |
| **normal** | department channel | +4 business hours → nudge in thread | next brief | digest |
| **low** | digest only | — | — | — |

Timers run on a five-minute scheduled job in the platform, independent of the agent runtime and of Buzz. Acknowledgement stops the clock; hand-off restarts it with a new receiver; snooze is audited.

APPENDIX G

# Sources and method

**Method.** This plan was produced from six parallel research passes run on August 17, 2026 — a read-only audit of the platform's code and data model; industry practice for 15–30-truck HVAC and mechanical contractors; SOP, decision-rights and training design; parts and back-of-house operations; communications, Buzz and the agent layer; and rollout / change management — each with cited sources, then synthesized into one document. The six reports (~30,000 words) are archived alongside this document in the project repository. Selected sources below; full citations in the reports.

1. Bain — RAPID decision-making; Atlassian — DACI; Tallyfy — delegation-of-authority and approval-limit matrices; Amazon — one-way / two-way doors.
2. MIT Sloan Management Review — formalizing escalation procedures; AHRQ — SBAR; Oncken & Wass (HBR) — "Who's Got the Monkey"; Gloria Mark (UC Irvine) — cost of interruptions.

3. ISO 9001:2015 §7.5 documented-information control; EOS Worldwide — core processes, scorecard, Level 10 meeting; Gawande — The Checklist Manifesto; Toyota standard work; Gerber — The E-Myth Revisited.
4. KCS (Consortium for Service Innovation) — knowledge-centered service; Anthropic — building effective agents, human–agent teams, Citations API; AWS prescriptive guidance — grounding and retrieval.
5. ServiceTitan — HVAC SOP guide, technician checklists, dispatching tips, inventory semantics, implementation and hypercare; BuildOps — company structure, sub-PM workflow, implementation staging; Housecall Pro, Jobber (Client Hub), FieldEdge, ServiceTrade.
6. Nexstar Network — Service System and NexTech Academy; ACCA — Standard 5 Quality Installation, callback cost; Built on Tenth — callback benchmarks; Clint / Oxmaint — home-service KPI benchmarks; Contracting Business — installation hand-off and KPI leaderboards; ACHR News — seasonality, Hispanic workforce; Samsara — HVAC peak-season fleet data.
7. Prosci — top contributors to change success, change saturation; Kotter (HBR 1995) — why transformation efforts fail; Repair-CRM and Contractor Magazine — field-service adoption guides; 33floors — hypercare; Waterford — ServiceTitan 90-day checklist.
8. OSHA and NIOSH — Spanish-language training; U.S. DOL and CCOHS — plain language; Axonify / Clarity — microlearning and spacing; Kirkpatrick — four levels; ILUO competency matrices.
9. Block — Buzz (repository, architecture, agent harness, mobile push post); Nostr NIPs 01, 10, 17, 25, 42, 98; PagerDuty and incident.io — escalation policies and emoji triggers; Twilio — A2P 10DLC; TCPA quiet-hours guidance.
10. Mississippi State Board of Contractors; City of Southaven permitting; Tennessee Board for Licensing Contractors; Shelby County / Develop901; MSDH and NFPA 96 for commercial kitchens; EPA Section 608.