

LAB+

Global construction benchmarks

A reality check for construction performance.

200+ PROJECTS STUDIED

BUILDOTS+

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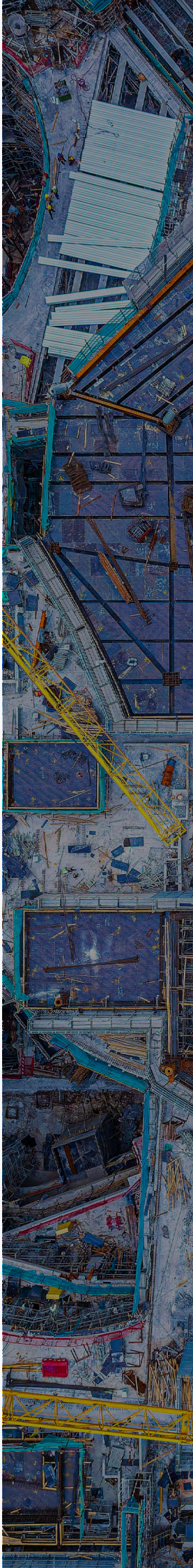


Preface

Every week, contractors price bids, sign contracts, and commit to schedules worth hundreds of millions of dollars. Owners and developers build financing costs, lease agreements, and revenue dates around those commitments. And all of it depends on a fundamental assumption: how fast the work can actually move on site.

It's difficult for any team to check that assumption up front. Not because anyone is careless, but because the reference points we have come from estimating tables and after-the-fact surveys, not from measuring what happened on live projects. Rate books tell estimators what crews should be able to install in a day, and experienced planners adjust those figures based on their own experience. Industry bodies publish project-level performance data, but it's typically gathered by survey once a job is complete.

What has been missing from our collective industry knowledge is the layer between the estimate and the final result: what actually happens, week by week and activity by activity, as the work is underway on site, and how that compares with what the plans assumed.

This report is a step toward closing that gap. It puts measured numbers to questions that have, until now, been answered from estimating tables and individual experience. How often does construction work actually stay on plan? What does a week of ductwork, drywall, or flooring really produce?

While every construction project is unique, the activities within them are not. The same ductwork, drywall, flooring, and other activities take place on sites around the world.

Measuring how those activities progress has been difficult because construction data is rarely captured in a uniform way. Schedules describe tasks and durations, but not the physical quantities involved. Models and drawings include quantities, but not the time required to install them. Joining the two, every activity can be expressed as a production rate: output per week. And rates are comparable. A week of ductwork can be measured against another week of ductwork, even when the projects themselves are completely different.

Collecting this by hand has never held up, because site records are the first thing to lapse when a job gets busy. Here, the data is captured automatically on live projects, in the same way across all of them.

We are starting with global benchmarks because reference layers are built like buildings: foundation first. The global medians in this report are the baseline against which future sector and regional benchmarks can be measured.

To ensure accuracy, our data science team filtered the global dataset to remove anomalous outliers and incomplete records, and validated cross-sector comparability. Top and bottom quartiles are published alongside every median, and the full methodology is set out in the appendix, so we can continue to discuss and align on these new industry metrics.

For contractors: where you outperform the global benchmarks, you now have evidence of what your projects are achieving. Where you fall short, you have a measured starting point for improvement.

For owners and developers: these metrics are an independent reference for pressure-testing the schedules you are being asked to underwrite, and for comparing your own portfolio against the industry.

A reference point only one company can see isn't a reference point. That is why the Buildots Intelligence Lab is publishing these benchmarks, and why we hope the industry will use them, test them, and challenge them.

Amir Berman
Intelligence Lab Lead and
VP of Industry Transformation, Buildots



INTRODUCTION

Buildots' global construction benchmarks

Construction is one of the world's largest industries, yet objective performance metrics remain limited. Many widely cited construction statistics rely on self-reported surveys or retrospective reporting.

This report is built differently. It draws on anonymized, aggregated progress data from hundreds of construction projects around the globe, filtered against strict data quality thresholds. These are benchmarks grounded in what actually happened on site.

Rather than relying on anecdotal, after-the-fact assessments of how a project performed, these benchmarks compare actual site progress with the plan in place at the time. Work is measured activity by activity, element by element, week by week, providing an objective view of construction performance as it really occurs. Our metrics also extend into physical production numbers: the feet, square feet, and pieces actually installed each week across 21 core construction activities, benchmarked against the rates their schedules assumed.

Buildots' benchmark metrics are built around four pillar questions:

1.

Are projects staying on schedule?

MEASURED BY
Schedule adherence, on-time start rate, and completion overrun.

2.

How does actual weekly output compare with what plans assume?

MEASURED BY
Actual vs. planned production and activity production rate benchmarks.

3.

How much more can sites build in their best weeks vs. a typical week?

MEASURED BY
Output variance.

4.

Which trades keep work on plan (and which are prone to delays)?

MEASURED BY
Trade schedule adherence.

HOW TO READ THIS REPORT

Use these benchmarks as reference points for your own portfolio: where you outperform the typical project, you now have evidence to prove it; where you fall short, you have a starting point for optimization.

Median =
The typical project

Top 25% =
Proof of what's achievable

The gap between them =
The opportunity for improvement

The methodology, at a glance

(Further methodology details are available in this report's appendix.)

BENCHMARK	WHAT IT MEASURES	PROJECTS SCORED (N)
1.1 Schedule adherence	Share of in-progress activities on or ahead of schedule, assessed weekly (on track = ≥80% of total planned progress that week)	227
1.2 On-time start rate	Share of scheduled activities that started no more than one week late (early counts as on time)	253
1.3 Completion overrun	How many weeks late activities finish, at 100% completion	155 (completed projects only)
2.1 Planned vs. actual output	Of the quantity the schedule planned for an activity's core window, the share crews actually installed within that window.	136
2.2 Activity production rates	Median weekly output per activity, in physical units, vs. the planned rate.	33–92 per activity (across 21 tracked activities)
3 Output variance	Each activity's best sustained 4-week pace vs. that same activity's typical active week	139
4 Trade adherence	The weekly on-schedule check from 1.1, re-sliced by trade	205 (811 project-trade scores)

All benchmarks: projects active or completed between Jan 2023 – Aug 2026. Quartiles computed across per-project scores. Slices with fewer than 10 projects are not reported.

EXECUTIVE SUMMARY

Four key benchmarks

On a typical construction project...

SCHEDULE ADHERENCE

Only

52.8%

of activities are on schedule in any given week on a typical construction project.

PLANNED VS. ACTUAL OUTPUT

Just

63%

of planned weekly output is actually delivered in a typical week. Nearly all (20 out of 21) activity types studied delivered less weekly output than planned.

OUTPUT VARIANCE

+82.9%

higher weekly output during an activity's best sustained four-week period vs. a typical active week.

TRADE PERFORMANCE

26 percentage pts difference

between the most on-time trade (drywall) and the least (electrical), of the five trades studied.

* Median benchmark data shown above – see the following chapters for in-depth analysis and quartile insights.

The headlines, at a glance

Nearly half of all active work is behind schedule in a typical week.

In a typical week, construction sites keep just 52.8% of activities running on schedule. (Median on-schedule activity rate measured across 227 global construction projects. – See Chapter 1.1.)

70.7% of construction activities miss their planned start date.

7 in 10 (70.7%) construction activities miss their planned start date by more than a week, meaning less than a third (29.3%) of site activities actually start on time. (Median on-time start rate measured across 253 projects. – See Chapter 1.2.)

The typical construction activity finishes 5.3 weeks late.

On a typical project, delays add up to a median completion overrun of 5.3 weeks per activity. On bottom-quartile projects, the typical activity concludes 11.2 weeks late, and even top-quartile construction projects typically deliver activities 2.3 weeks late. (Measured across 155 completed projects. – See Chapter 1.3.)

Projects fail to deliver more than one-third of planned weekly output.

The typical construction project delivers just 63% of its scheduled weekly output, leaving 37% of scheduled work volume undelivered in a typical week. (Median weekly planned output attainment, measured across 136 projects. – See Chapter 2.1)

Nearly every type of construction activity under-delivers its planned weekly output.

Across 21 core construction activities measured in physical units — feet, square feet, and pieces installed per week — 20 delivered a median weekly output below the rate their schedules called for. (planned vs. actual weekly production, measured across 33–92 projects per activity. – See Chapter 2.2.)

During peak performance periods, construction sites deliver 82.9% more than their typical weekly output.

+82.9% median output variance (peak vs. typical weekly output) — measured as each activity's average weekly pace during its best sustained 4-week run vs. that same activity's typical output in an active week over its full project history, across 139 projects. (See Chapter 3.)

Drywall work adheres to project schedules better than any other measured trade (62.2% schedule adherence).

Slicing schedule adherence (the share of weekly active work tracking to plan) across five common trades shows notable differences in how consistently each trade stays on schedule week to week. (Five key trade disciplines were measured across 205 global projects. See Chapter 4.)



1. Schedule Adherence Benchmarks

Are construction projects staying on schedule?

There is more than one way for a construction project to fall behind schedule. Weekly work can fall behind during the course of a project. Activities might start later than planned. And delays can accumulate until individual activities finish weeks beyond their scheduled delivery dates.

This chapter measures all three aspects of schedule adherence. Using objective, activity-level data from 200+ real construction projects around the globe, we examine:

1.1 Schedule adherence

A pulse check on in-progress work. We take a weekly read on what share of live activities are on or ahead of schedule. This metric seeks to answer the question: of all the construction activities in progress in a typical week, how many are tracking to plan?

1.2 On-time start rate

The earliest warning sign of schedule slippage. We examine what share of scheduled activities actually began on time on a typical construction site.

1.3 Completion overrun

The receipt. The final, settled cost (in weeks) of everything the first two metrics saw coming. For each completed activity, we establish how many weeks late (or early) the typical task is delivered.

The aim: to establish a reliable baseline for how construction schedules perform in practice, not just on paper.

1.1 Schedule adherence

METRIC OVERVIEW

Before a project finishes late, the work slips somewhere along the way. To avoid surprises at the finish line, it's worth taking a regular pulse check: is this week's work on track?

Across 227 construction projects worldwide, we took a weekly snapshot of every in-progress activity, tracking what share of live work stays on schedule in a typical week. Because it's checked continuously rather than waiting for a milestone date to pass, this metric can help teams catch problems as they happen, before they compound into major delays.

HEADLINE DATA

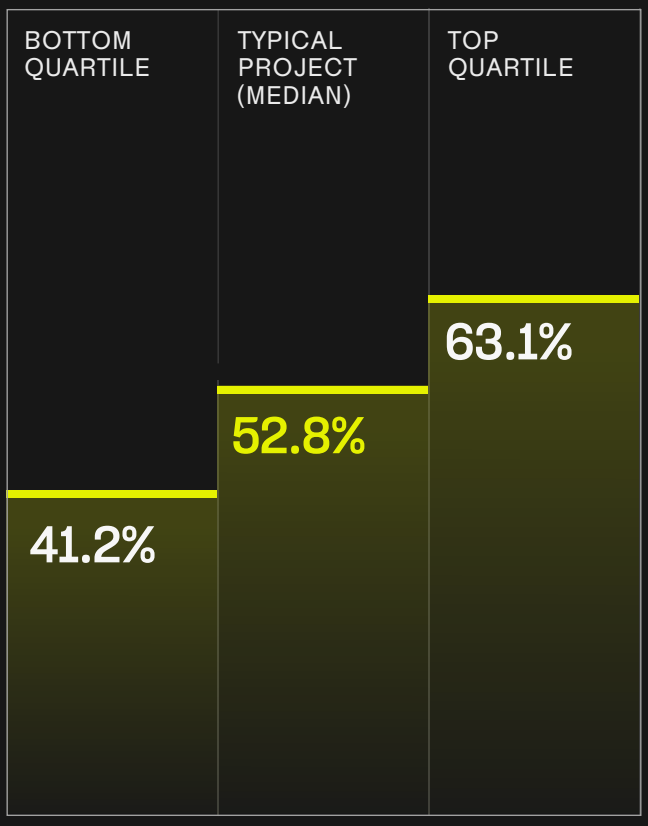
52.8%

Only half of construction activities are on schedule in a typical week.

ABOUT THE METRIC

Schedule adherence tracks the share of active construction tasks running on or ahead of schedule in a typical week. An activity counts as on schedule if it has reached at least 80% of the progress its plan called for by that point. Each activity is scored from its first measured progress until completion or its planned end date passes.

THE MEDIAN + QUARTILES



(n = 227 projects active between 2023 and 2026, global dataset)



1.1 Schedule adherence

THE GLOBAL BASELINE

52.8%

of construction activities are on schedule in a typical week — 47.2% are behind schedule.

THE GAP

21.9 pts

Performance gap between the top and bottom quartiles on this benchmark, in percentage points.

BY PROJECT TYPE

60.3%

Healthcare projects lead on schedule adherence vs. the global median of 52.8%

→ Commercial projects trail other sectors, with just 45.2% of activities on schedule in a typical week.

SECTORS STUDIED IN THIS REPORT: RESIDENTIAL, COMMERCIAL, EDUCATION, HEALTHCARE, DATA CENTERS.

What the numbers tell us

In construction, keeping pace with the plan is a coin flip: the typical project keeps just 52.8% of its activities on schedule in any given week, based on data from 227 projects worldwide.

On the typical project, delay is not a one-off crisis event; it's the normal operating condition of an ordinary week.

Even top-quartile projects keep only 63.1% of activities on schedule, and bottom-quartile projects fall to 41.2% adherence to plan, where "behind schedule" is the default state of the work on site.

The next two metrics in this chapter show where this schedule drift begins (at the starting line) and where it ends (the finish line).

Industry perspective

When roughly half of all active work is running behind in any given week, delay ceases to be an anomaly in construction; it becomes the norm. That is the sad reality the construction industry has rationalized as accepted performance by focusing on the wrong indicators. Traditional reporting conceals day-to-day friction until it's too late to easily fix. However, tracking weekly schedule adherence exposes that hidden drift as it happens, giving executive leadership the leading indicators they need to intervene while the critical path can still be protected.

Jeremy Tully
AMTS Executive
Previously Sr. Director, Digital Transformation, Foundry Construction Enterprise, Intel



1.2 On-time start rate

METRIC OVERVIEW

Every schedule slip starts somewhere, and many start at the very beginning. Before an activity can run late, fall behind, or finish weeks past its due date, it first has to begin. The on-time start rate benchmark measures that first, simplest promise a schedule makes: did the work begin when the plan said it would?

Of all the schedule metrics in this chapter, on-time start rate is one of the earliest to register on site, making it one of the best leading indicators teams can use to spot emerging problems.

HEADLINE DATA

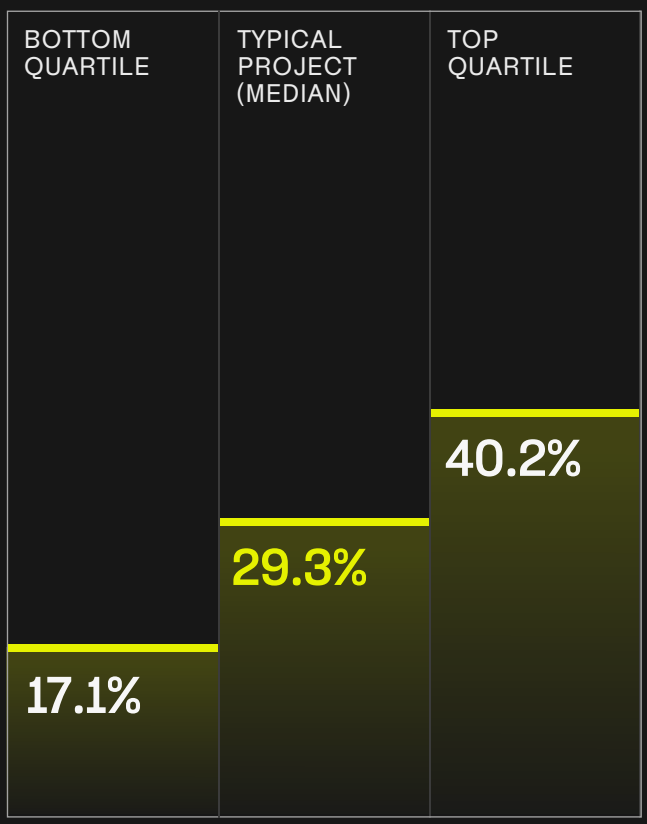
70.7%

of construction activities miss their planned start date

ABOUT THE METRIC

On-time start rate measures the share of scheduled activities that begin on or near their planned start date. An activity counts as on time if it starts no more than one week late (early starts count as on time, too).

THE MEDIAN + QUARTILES



(n = 253 projects active between 2023 and 2026, global dataset)



1.2 On-time start rate

THE GLOBAL BASELINE

29.3%

of construction activities start on time (starting no more than 1 week behind schedule).

THE GAP

23.1 pts

Performance gap between the top and bottom quartiles on this benchmark, in percentage points.

BY PROJECT TYPE

35.6%

Healthcare projects have a slight lead in on-time starts, with a median rate of 35.6% (vs. the global median of 29.3%)

→ Education projects trail other sectors in on-time starts at 25.4%.

SECTORS STUDIED IN THIS REPORT: RESIDENTIAL, COMMERCIAL, EDUCATION, HEALTHCARE, DATA CENTERS.

What the numbers tell us

Schedule drift begins at the starting line: on the typical project, fewer than 3 in 10 activities (29.3%) begin on time.

For this benchmark, we've built in a 7-day grace period for start dates. If an activity begins within a week of its start date (or early), it counts as on schedule. That means a whopping 70.7% of construction activities miss their planned start date by more than a week.

Even top-quartile projects start only 40.2% of their activities on time. And bottom-quartile projects manage only about one in six (17.1%) on-time starts, leaving a 23.1-percentage-point spread between top and bottom performers that echoes the broader weekly adherence gap: some teams manage their start lines far better than others.

Late activity starts aren't a weak-project problem or a tough-sector problem; they're close to universal. Notice how low even the leaders sit when it comes to on-time starts. The best-performing industry sector for this metric, healthcare, clears the global median by just six percentage points, and top-quartile projects across all industries still suffer from nearly 60% of activities missing their start dates.

This metric matters because a late start is a very early signal of schedule deviation, giving teams more time and opportunity to investigate and respond to this indicator than other schedule slip metrics.

The next metric measures what missed schedule slip signals grow into by the finish line...

Lab perspective

Ask any superintendent when their last activity started exactly on time, and you'll probably get that look. Out of every ten activities on a typical job, seven start late — and that's giving everyone a full week's wiggle room. Think about what a late start actually is: a crew that showed up to a room that wasn't ready, or a room that was ready with no crew to put in it. The good news is a late start can be one of the cheapest problems you'll catch on site. You've still got options on the table if you know early. That's why it's so crucial to stay informed of schedule slippage at this early stage.

Mike Schnizlein
Associate Director, Account Management, Buildots
Previously GC Operations Leader



1.3 Completion overrun

METRIC OVERVIEW

Late starts and slipping weeks eventually arrive at a finish line. This metric records what happens there. For each completed activity, it measures the gap between the planned and actual finish dates in weeks.

If the schedule adherence metric provides a project's weekly pulse check and on-time start metrics provide the earliest warning sign of delays, completion overrun is the receipt: the final cost, in weeks, of everything the first two metrics saw coming.

HEADLINE DATA

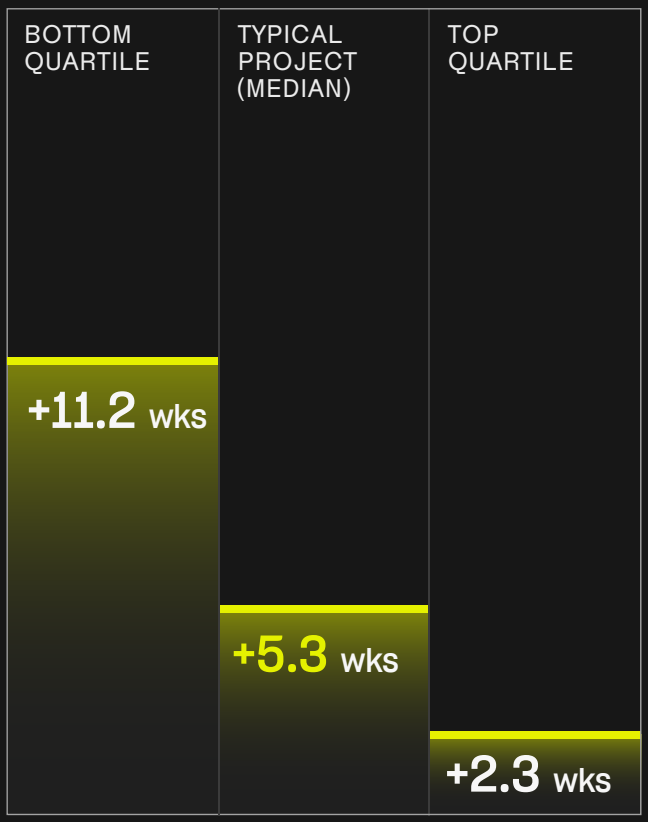
5.3 wks

the typical delay on any given construction activity

ABOUT THE METRIC

Completion overrun measures the gap, in weeks, between an activity's planned and actual finish date, calculated only once that activity is fully complete.

THE MEDIAN + QUARTILES



(n = 155 projects completed between 2023 and 2026, global dataset)



1.3: Completion overrun

THE GLOBAL BASELINE

5.3 wks late

The global median delay for an activity's delivery within a typical project.

THE GAP

8.9 wks

Performance gap between the top and bottom quartiles on this benchmark, in weeks.

BY PROJECT TYPE

2.6 wks

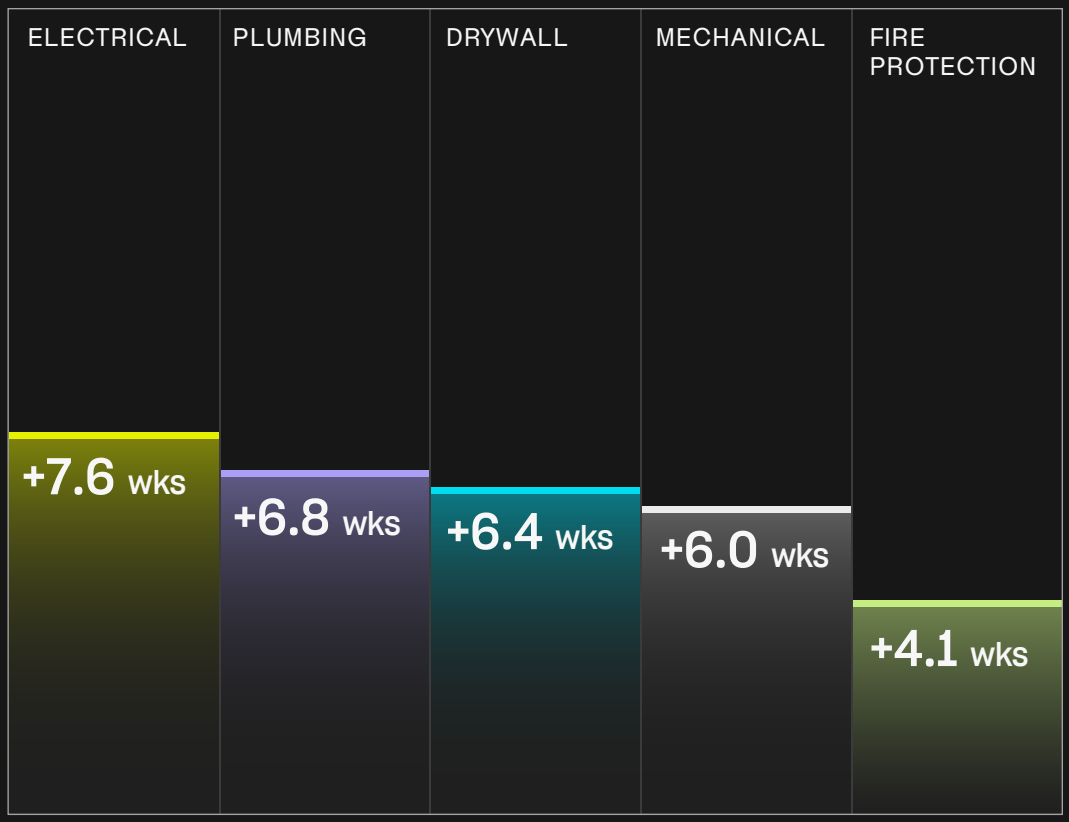
Healthcare projects experience the shortest delays in activity delivery at 2.6 weeks vs. the global median of 5.3 weeks.

→ Commercial projects trail other sectors, with a median delay of 6.4 weeks

SECTORS STUDIED IN THIS REPORT: RESIDENTIAL, COMMERCIAL, EDUCATION, HEALTHCARE, DATA CENTERS.

1.3: Completion overrun

BY TRADE



Medians across completed activities per trade

What the numbers tell us

This is what late starts and slipping weeks add up to: the typical activity finishes 5.3 weeks past its planned date, measured across 155 completed projects.

Note which direction this metric runs: smaller is better — and no quartile group gets to zero weeks' slippage. The bottom quartile's activities overrun by 11.2 weeks (nearly five times the top quartile's overrun duration, the widest relative spread between quartiles in this chapter). Even top-quartile projects finish the typical activity 2.3 weeks late. In this dataset, on-time completion isn't the industry's best-case reality; it's currently nobody's reality.

If even the best projects can't finish activities on time, are schedules realistic to begin with? The next chapter dives deeper into schedule realism to examine how much of the planned work actually gets built each week, and at what pace, activity by activity.

Lab perspective

A 5.3-week median activity overrun is a starting point for analysis. It doesn't necessarily mean the project finished 5.3 weeks late. Behind that number sit float and the re-sequencing decisions teams make to protect the project's end date.

With activity-level outcomes now measured, the industry can move to the next layer: understanding how those delays travel through a schedule, and what separates the projects that effectively absorb them from the ones that don't.

David Milnes
Industry Transformation Manager, Buildots





2. Planned vs. Actual Production Benchmarks

How does actual weekly output compare with what plans assume?

When construction projects run late, post-mortems routinely focus on on-site execution failures: late starts, delayed design, logistics issues, stacked trades, slow production rates, or black swan events. But if baseline schedules assume a weekly production pace that crews rarely sustain in real-world conditions, are those schedules realistic to begin with?

This chapter investigates that plan vs. realtiy gap in two parts. First, across 136 projects worldwide, we compare planned output against the progress teams actually delivered on site, week by week, to provide a measured picture of how closely a typical week's output tracks the plan. The actual vs. planned production benchmark reveals the gap between what a schedule assumes and what a site actually delivers in a typical week.

Then, we dive deeper into activity-level production metrics, tracking planned output attainment across 21 common construction activities and providing detailed production breakdowns for each. Our activity production rate metrics isolate specific scopes to show where schedule expectations diverge most from physical site execution.

2.1 Planned vs actual production

METRIC OVERVIEW

Rather than only checking in at milestones, our planned vs. actual production metric takes a granular weekly reading across active tasks on site: of the output planned for this week, how much was actually installed? It reveals the gap between schedule assumptions and actual site execution.

HEADLINE DATA

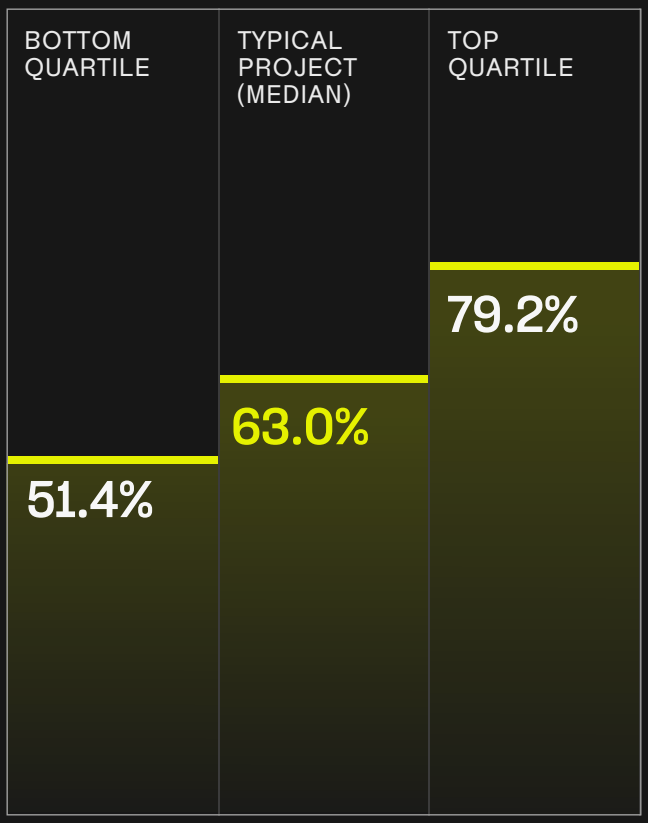
37%

of planned weekly work isn't built on time

ABOUT THE METRIC

Planned vs. actual production measures the share of a week's planned output that actually got installed, rolled up into a per-project score where 100% means that week's plan was met in full. Unlike milestone tracking, which might only check on progress every few months, this metric takes a weekly reading across every active task on site.

THE MEDIAN + QUARTILES



(n = 136 projects active between 2023 and 2026, global dataset)



2.1: Planned vs actual production

THE GLOBAL BASELINE

63%

of planned weekly output is actually delivered on a typical construction project — more than a third of every week's planned work remains outstanding.

THE GAP

27.8 pts

Performance gap between the top and bottom quartiles on this benchmark, in percentage points.

BY PROJECT TYPE

72.7%

Healthcare projects lead in weekly planned output attainment, with a median of 72.7%, vs. the global figure of 63%.

→ Commercial projects trail with just 55.3% of planned weekly output delivered

SECTORS STUDIED IN THIS REPORT: RESIDENTIAL, COMMERCIAL, EDUCATION, HEALTHCARE, DATA CENTERS.

What the numbers tell us

Every week, more than a third of planned output simply doesn't happen: the typical construction site delivers just 63% of the weekly output its schedule calls for. This means more than a third (37%) of all scheduled work slips out of the week it was planned for. This is not an occasional bad week; it is a chronic, systemic deficit observed across 136 projects worldwide.

That missing 37% of planned weekly output provides useful context for the schedule delays measured in Chapter 1. When an activity delivers only 63% of its planned pace in a given week, it takes longer to complete. Across multiple trades, interdependent work, and over successive weeks, those gaps are consistent with the 5.3-week activity overruns seen in the schedule adherence benchmarks.

Notably, even the best quartile projects deliver under 80% of a week's planned work. Full delivery of a planned week's activities is rare everywhere. In a typical week, top-quartile projects deliver 79.2% of planned output, while bottom-quartile projects deliver just half (51.4%) of what was scheduled.

For project leaders, this benchmark works as an early-warning threshold: weekly output attainment that sits persistently below the bottom quartile (51.4%) isn't normal weekly noise; it's a signal that the schedule and the site have parted ways.

But output attainment only tells us the promise was missed. The next metric takes a more granular look to discover which specific activities struggle the most to produce at the planned pace.

Industry perspective

These data and insights are so powerful. The challenge is accepting the reality. The general contracting industry has a complete blind spot to productivity to the extent that it settles for a 60% productive environment. This data lifts the lid. Good performance is 79.2% – only losing a day a week. It is still not a cause for celebration. I strongly believe that measuring the pace of construction and converting it into predicted outcomes will eventually change behaviors. We just need to move from denial to acceptance! Accept the data and put in the effort to change your destiny.

Mark Tant
Interim Regional MD, SES Engineering South
Former Managing Director, Wates Construction



2.2 Activity production rates

METRIC OVERVIEW

The previous section showed that, overall, sites typically deliver about 63% of planned weekly output. This section delves deeper with the weekly output rates sites actually achieve, activity by activity.

For project managers and schedulers, setting realistic production targets is the first line of risk management, yet without objective benchmark data, baseline schedules routinely demand weekly output rates that site conditions cannot sustain.

Here, we establish weekly physical output benchmarks (measured in ft/wk, sq ft/wk, and pieces/wk) across 21 core construction activities, spread across four key building areas:

- MEP building infrastructure
- Interior walls & cavities
- Flooring
- Ceilings

So, how do these activities' real-world weekly production rates compare to schedule expectations? The benchmarks below break that down one activity at a time.

HEADLINE DATA

95%

(20 out of 21) of tracked construction activities deliver less than their planned weekly output

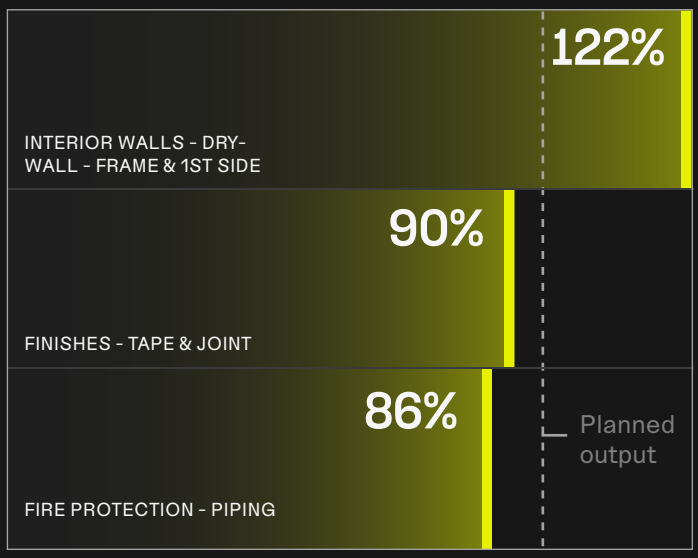
ABOUT THE METRIC

Activity production rate compares the physical output sites delivered for a specific activity in a typical week (measured in feet, square feet, or pieces per working week) directly against the weekly output rate dictated by the project's plan and schedule.

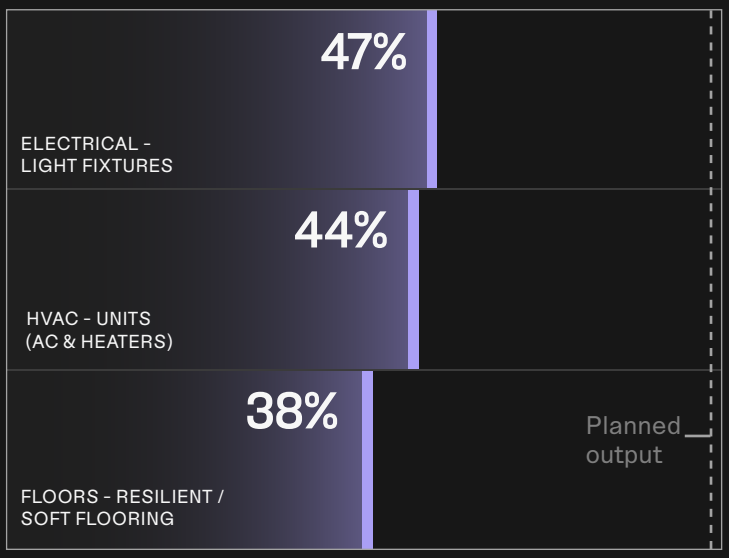
Each activity benchmark draws on data from between 33 to 92 projects, including both completed activities and those more than 50% complete at the time of measurement. Pace is measured as units installed per working week and reflects sustained weekly output during active work windows, excluding ramp-up and closeout tails

To prevent extra-large projects from skewing results, high-volume project outliers have been isolated and removed from this report. The figures shown here cover the main body of projects for each activity and the threshold for 'large projects' is set from each activity's own data, so it varies by activity.

HIGHEST ACTUAL PRODUCTION RELATIVE TO PLAN



LOWEST ACTUAL PRODUCTION RELATIVE TO PLAN



(n = 33-92 projects active between 2023 and 2026, global dataset)



2.2: Activity production rates

THE GLOBAL BASELINE

20 of 21 construction activities had a median actual weekly production rate below their planned rate

---

THE GAP

84 pts is the gap, in percentage points, between the activities with the highest and lowest median actual production rates relative to plan.

What the numbers tell us

The data shows a consistent gap between planned and actual weekly production rates across nearly all of the construction activities we measured. For 20 of the 21 tracked activities, the median actual weekly production was below the median rate specified in the project schedule.

The gap between planned and actual production is relatively small for some activities: median production reached 90% of plan for tape & joint, 86% for fire protection piping, and 78% for HVAC ductwork. Drywall work on interior walls (frame and first side) was the only tracked activity whose output typically exceeded its weekly planned production rates (with the median reaching 122% weekly output attainment).

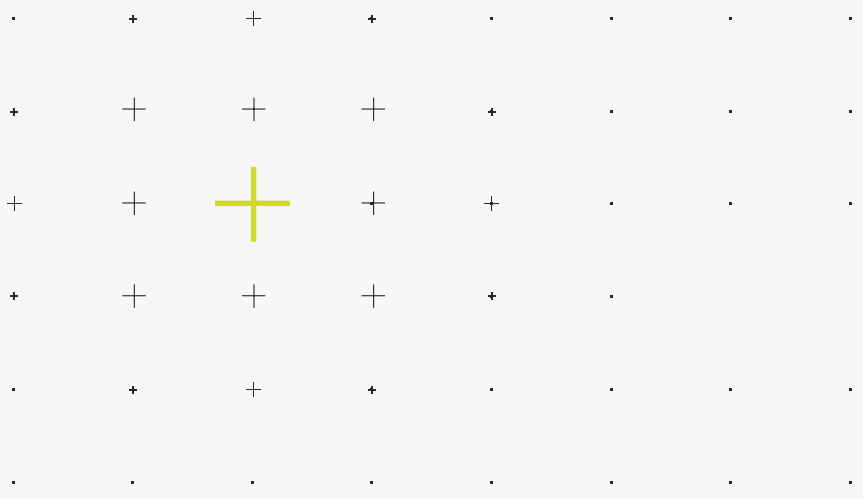
For other activities, the difference is much larger: in a typical week, resilient/soft flooring work reached just 38% of plan, followed by HVAC units at 44%.

The activity production rate benchmarks also show considerable variation between projects. For each activity, the top-and bottom-quartile production rates differ substantially, indicating that no single weekly production rate describes all projects. For example, drywall 2nd-side closure work ranges from 2,317 ft^2/wk at the bottom-quartile threshold to 11,188 ft^2/wk at the top-quartile threshold, while HVAC ductwork ranges from 402 to 1,087 ft/wk across quartiles.

The data does not establish why these gaps occur. Factors such as access, sequencing, procurement, and crew loading may affect production, but they are not tested in this analysis. What the data does show is where median actual production is close to the planned rate — and where the two differ substantially.

These benchmarks are useful in two moments:

- → When teams are planning, they can use them to compare their target production rates with what similar projects have actually achieved.
- → During delivery, teams can use them to see how their current pace stacks up against the wider industry. If they're underperforming, this may warrant further investigation.



→ What about crew size?

These benchmarks measure weekly site throughput, the physical output a project installs — not output per worker. Crew sizes are not captured in the data, and a project can increase its weekly rate by adding labor or working more efficiently. Schedules generally commit to weekly output, not headcount, so throughput is the unit on which plans succeed or fail. Where actual pace trails the plan, the data identifies the gap; whether the remedy is a more realistic rate, more labor, or better work-front availability is a project-level decision the benchmark can inform but not make.

The tables that follow show the median, top-25%, and bottom-25% production rates for each of the 21 activities we measured, alongside the corresponding planned rates.

These rates describe the typical week, but the typical week is not the whole story. The same activities, on the same sites, have already demonstrated they can run far faster. The next chapter measures that gap: how much more weekly output the same activities deliver during their best sustained 4-week periods vs. a typical week, and what that says about the capacity already on site.

Industry perspective

Predictability and schedule certainty are key to the success of any project, but the construction industry as a whole is not there yet. Setting projects up for success requires the right targets, the right measures, and the right resources. It all starts with the right targets. This benchmark data is a gift we haven't had before, offering objective, industry-wide insights into what production actually looks like, activity by activity.

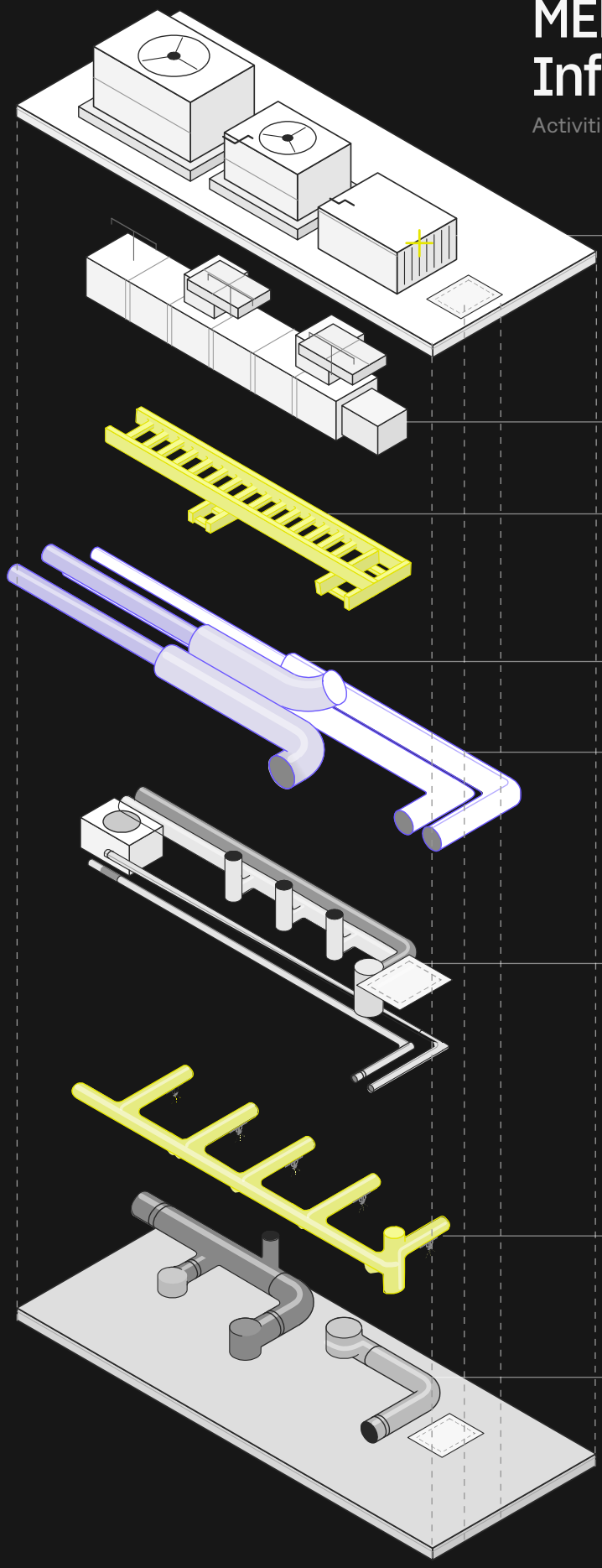
We might not always like what we see, as reality is often far from our ambitious targets. However, we must use realistic schedules and true benchmark reference points as our baseline to drive real improvement. The alternative is setting unrealistic goals, constantly firefighting, and learning nothing. We need to embrace this data as our baseline, use it as a true reference point, and then work strategically to close the gap to where we want to be.

Dan Doron
Executive Construction Leader
Previously VP & GM, Foundry Construction Enterprise, Intel



MEP Building Infrastructure Activities

Activities measured (data on next page)



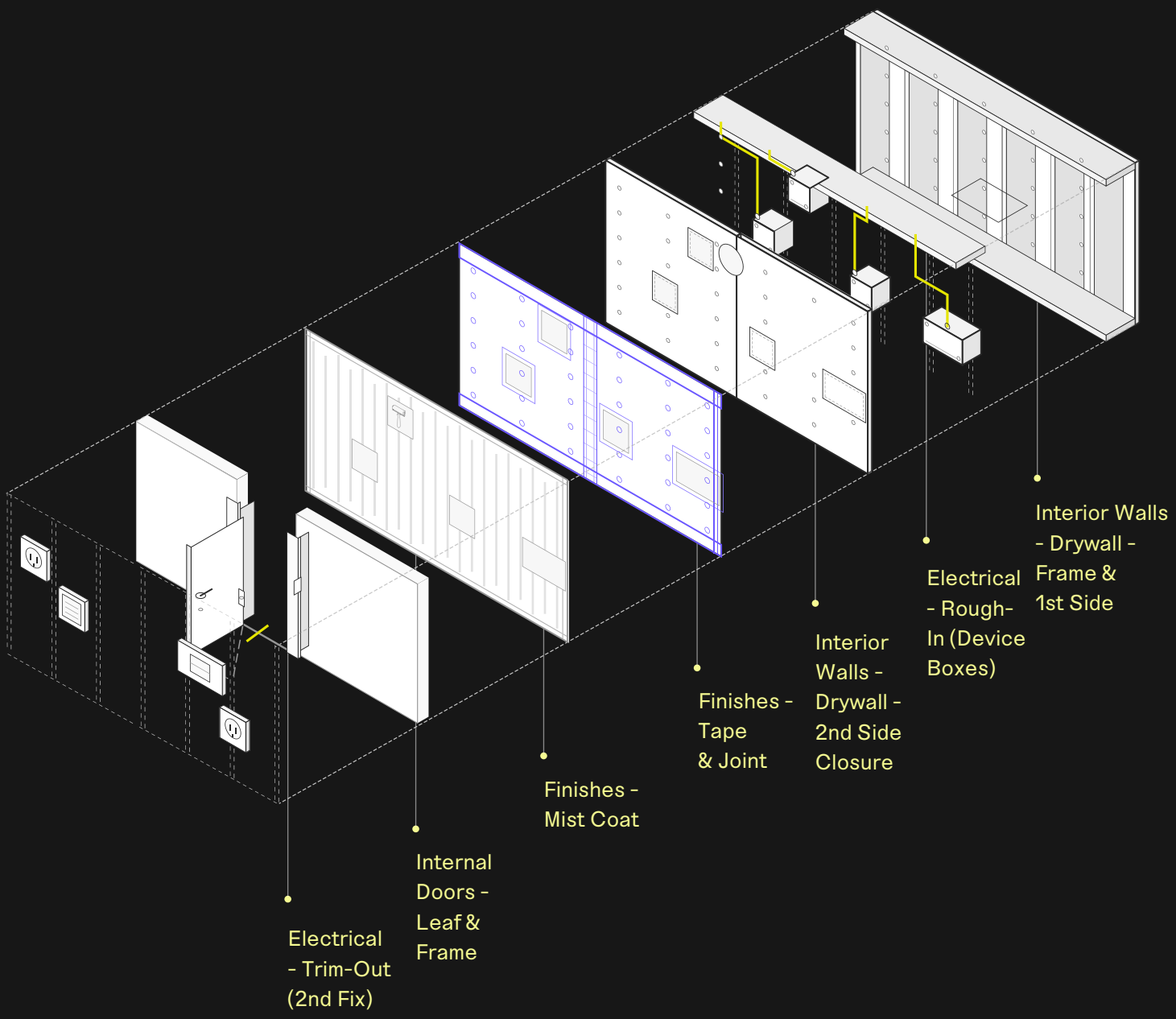
- HVAC - Units (AC & Heaters)
- HVAC Ductwork
- Electrical - Containment - Cable Tray
- Mechanical - Piping
- Mechanical - Piping Insulation
- Plumbing - Domestic Water Piping
- Fire Protection - Piping
- Plumbing - Sanitary / Waste / Storm

MEP Building Infrastructure Activities

	Actual Output ↓	Planned Output ↓	Difference btw. Planned + Actual ↓	% Delivered vs. Plan ↓
HVAC - Ductwork	MEDIAN: 668 ft (204 m)	MEDIAN: 856 ft (261 m)	MEDIAN: -22%	78%
(ft/wk)	TOP 25%: 1,087 ft (331 m)	TOP 25%: 1,411 ft (430 m)	TOP 25%: -23%	77%
n=92	BOTTOM 25%: 402 ft (123 m)	BOTTOM 25%: 453 ft (138 m)	BOTTOM 25%: -11%	89%
HVAC - Units (AC & Heaters)	MEDIAN: 9.06 pcs	MEDIAN: 21 pcs	MEDIAN: -56%	44%
(pcs/wk)	TOP 25%: 21 pcs	TOP 25%: 44 pcs	TOP 25%: -52%	48%
n=44	BOTTOM 25%: 4.8 pcs	BOTTOM 25%: 9.6 pcs	BOTTOM 25%: -50%	50%
Fire Protection - Piping	MEDIAN: 917 ft (280 m)	MEDIAN: 1,070 ft (326 m)	MEDIAN: -14%	86%
(ft/wk)	TOP 25%: 1,475 ft (450 m)	TOP 25%: 1,768 ft (539 m)	TOP 25%: -17%	83%
n=70	BOTTOM 25%: 440 ft (134 m)	BOTTOM 25%: 536 ft (163 m)	BOTTOM 25%: -18%	82%
Mechanical - Piping	MEDIAN: 474 ft (144 m)	MEDIAN: 604 ft (184 m)	MEDIAN: -21%	79%
(ft/wk)	TOP 25%: 843 ft (257 m)	TOP 25%: 946 ft (288 m)	TOP 25%: -11%	89%
n=48	BOTTOM 25%: 309 ft (94 m)	BOTTOM 25%: 404 ft (123 m)	BOTTOM 25%: -23%	77%
Mechanical - Piping Insulation	MEDIAN: 1,128 ft (344 m)	MEDIAN: 1,418 ft (432 m)	MEDIAN: -20%	80%
(ft/wk)	TOP 25%: 1,729 ft (527 m)	TOP 25%: 2,101 ft (640 m)	TOP 25%: -18%	82%
n=47	BOTTOM 25%: 670 ft (204 m)	BOTTOM 25%: 854 ft (260 m)	BOTTOM 25%: -22%	78%
Plumbing - Sanitary / Waste / Storm	MEDIAN: 274 ft (84 m)	MEDIAN: 358 ft (109 m)	MEDIAN: -23%	77%
(ft/wk)	TOP 25%: 450 ft (137 m)	TOP 25%: 545 ft (166 m)	TOP 25%: -17%	83%
n=63	BOTTOM 25%: 158 ft (48 m)	BOTTOM 25%: 212 ft (65 m)	BOTTOM 25%: -25%	75%
Plumbing - Domestic Water Piping	MEDIAN: 341 ft (104 m)	MEDIAN: 436 ft (133 m)	MEDIAN: -22%	78%
(ft/wk)	TOP 25%: 514 ft (157 m)	TOP 25%: 584 ft (178 m)	TOP 25%: -12%	88%
n=56	BOTTOM 25%: 193 ft (59 m)	BOTTOM 25%: 303 ft (92 m)	BOTTOM 25%: -36%	64%
Electrical Containment - Cable Tray	MEDIAN: 692 ft (211 m)	MEDIAN: 1,126 ft (343 m)	MEDIAN: -39%	61%
(ft/wk)	TOP 25%: 1,304 ft (397 m)	TOP 25%: 1,836 ft (560 m)	TOP 25%: -29%	71%
n=49	BOTTOM 25%: 466 ft (142 m)	BOTTOM 25%: 606 ft (185 m)	BOTTOM 25%: -23%	77%

Interior Wall & Cavity Activities

Activities measured (data on next page)

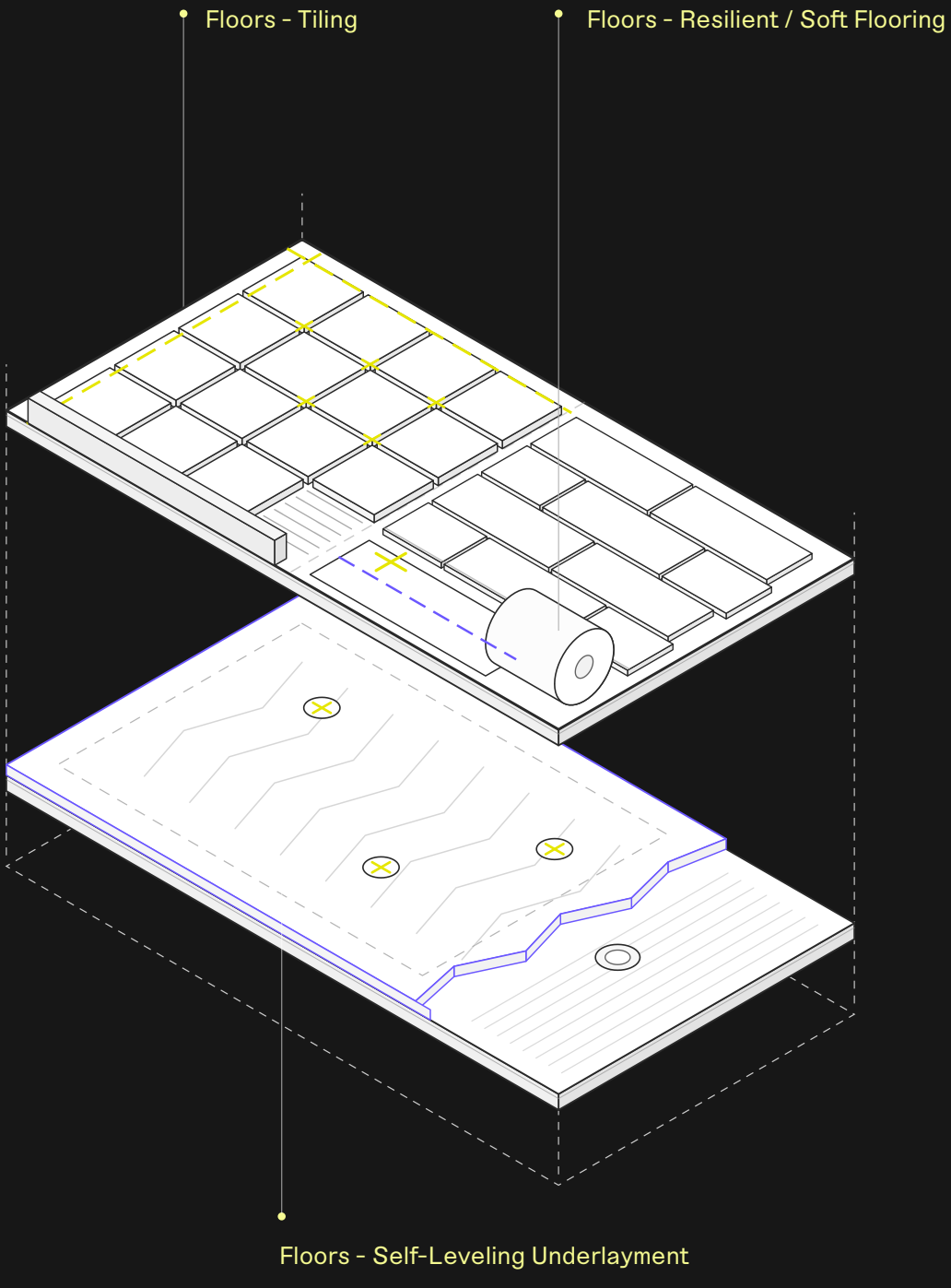


Interior Wall & Cavity Activities

	Actual Output ↓	Planned Output ↓	Difference btw. Planned + Actual ↓	% Delivered vs. Plan ↓
Interior Walls - Drywall - Frame & 1st Side	MEDIAN: 5,868 ft² (545 m²)	MEDIAN: 4,815 ft² (447 m²)	MEDIAN: +22%	122%
(ft²/wk)	TOP 25%: 7,509 ft² (698 m²)	TOP 25%: 6,889 ft² (640 m²)	TOP 25%: +9%	109%
n=33	BOTTOM 25%: 2,677 ft² (249 m²)	BOTTOM 25%: 2,794 ft² (260 m²)	BOTTOM 25%: -4%	96%
Electrical - Rough-In (Device Boxes)	MEDIAN: 48 pcs	MEDIAN: 90 pcs	MEDIAN: -47%	53%
(pcs/wk)	TOP 25%: 85 pcs	TOP 25%: 150 pcs	TOP 25%: -43%	57%
n=35	BOTTOM 25%: 22 pcs	BOTTOM 25%: 49 pcs	BOTTOM 25%: -55%	45%
Interior Walls - Drywall - 2nd Side Closure	MEDIAN: 5,388 ft² (501 m²)	MEDIAN: 7,935 ft² (737 m²)	MEDIAN: -32%	68%
(ft²/wk)	TOP 25%: 11,188 ft² (1,039 m²)	TOP 25%: 11,235 ft² (1,044 m²)	TOP 25%: +0%	100%
n=68	BOTTOM 25%: 2,317 ft² (215 m²)	BOTTOM 25%: 3,663 ft² (340 m²)	BOTTOM 25%: -37%	63%
Finishes - Tape & Joint	MEDIAN: 6,616 ft² (615 m²)	MEDIAN: 7,363 ft² (684 m²)	MEDIAN: -10%	90%
(ft²/wk)	TOP 25%: 11,354 ft² (1,055 m²)	TOP 25%: 14,949 ft² (1,389 m²)	TOP 25%: -24%	76%
n=78	BOTTOM 25%: 3,770 ft² (350 m²)	BOTTOM 25%: 5,221 ft² (485 m²)	BOTTOM 25%: -28%	72%
Finishes - Mist Coat	MEDIAN: 8,946 ft² (831 m²)	MEDIAN: 12,002 ft² (1,115 m²)	MEDIAN: -25%	75%
(ft²/wk)	TOP 25%: 16,556 ft² (1,538 m²)	TOP 25%: 24,659 ft² (2,291 m²)	TOP 25%: -33%	67%
n=90	BOTTOM 25%: 4,999 ft² (464 m²)	BOTTOM 25%: 7,894 ft² (733 m²)	BOTTOM 25%: -37%	63%
Internal Doors - Leaf & Frame	MEDIAN: 27 pcs	MEDIAN: 49 pcs	MEDIAN: -45%	55%
(pcs/wk)	TOP 25%: 51 pcs	TOP 25%: 85 pcs	TOP 25%: -40%	60%
n=67	BOTTOM 25%: 14 pcs	BOTTOM 25%: 28 pcs	BOTTOM 25%: -50%	50%
Electrical - Trim-Out (2nd Fix)	MEDIAN: 152 pcs	MEDIAN: 283 pcs	MEDIAN: -46%	54%
(pcs/wk)	TOP 25%: 272 pcs	TOP 25%: 551 pcs	TOP 25%: -51%	49%
n=42	BOTTOM 25%: 54 pcs	BOTTOM 25%: 154 pcs	BOTTOM 25%: -65%	35%

Flooring Activities

Activities measured (data on next page)

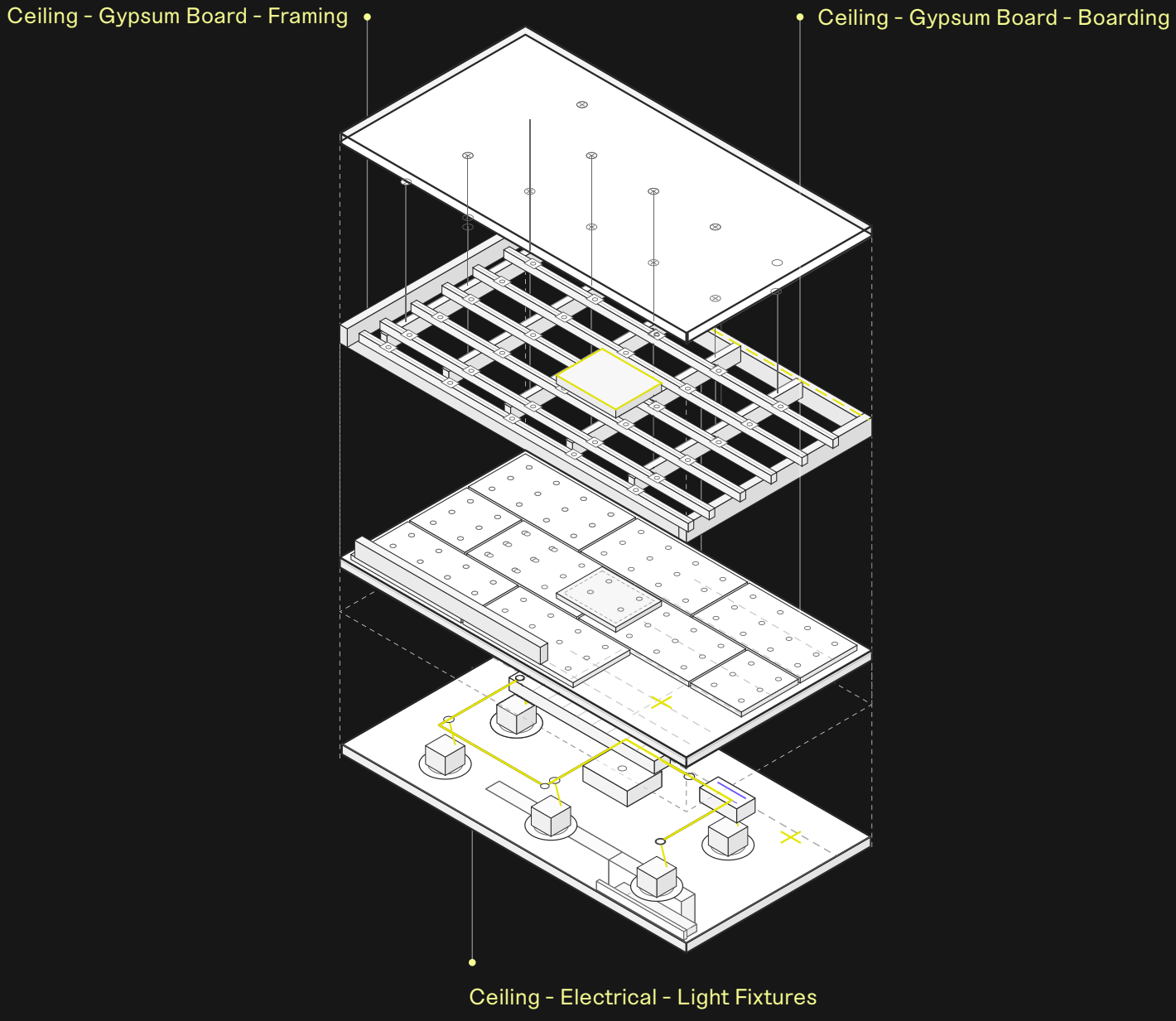


Flooring Activities

	Actual Output ↓	Planned Output ↓	Difference btw. Planned + Actual ↓	% Delivered vs. Plan ↓
Floors - Self-Leveling Underlayment (ft²/wk) n=55	MEDIAN: 5,733 ft² (533 m²)	MEDIAN: 10,418 ft² (968 m²)	MEDIAN: -45%	55%
	TOP 25%: 10,099 ft² (938 m²)	TOP 25%: 14,982 ft² (1,392 m²)	TOP 25%: -33%	67%
	BOTTOM 25%: 3,205 ft² (298 m²)	BOTTOM 25%: 6,012 ft² (559 m²)	BOTTOM 25%: -47%	53%
Floors - Tiling (ft²/wk) n=33	MEDIAN: 908 ft² (84 m²)	MEDIAN: 1,497 ft² (139 m²)	MEDIAN: -39%	61%
	TOP 25%: 1,592 ft² (148 m²)	TOP 25%: 3,793 ft² (352 m²)	TOP 25%: -58%	42%
	BOTTOM 25%: 513 ft² (48 m²)	BOTTOM 25%: 821 ft² (76 m²)	BOTTOM 25%: -38%	62%
Floors - Resilient / Soft Flooring (ft²/wk) n=41	MEDIAN: 3,632 ft² (337 m²)	MEDIAN: 9,553 ft² (888 m²)	MEDIAN: -62%	38%
	TOP 25%: 5,425 ft² (504 m²)	TOP 25%: 13,356 ft² (1,241 m²)	TOP 25%: -59%	41%
	BOTTOM 25%: 2,359 ft² (219 m²)	BOTTOM 25%: 5,980 ft² (556 m²)	BOTTOM 25%: -61%	39%

Ceiling Activities

Activities measured (data on next page)



Ceiling Activities

	Actual Output ↓	Planned Output ↓	Difference btw. Planned + Actual ↓	% Delivered vs. Plan ↓
Ceilings - Gypsum Board - Framing (ft^2/wk) n=37	MEDIAN: 1,918 ft^2 (178 m^2) TOP 25%: 3,875 ft^2 (360 m^2) BOTTOM 25%: 866 ft^2 (80 m^2)	MEDIAN: 2,406 ft^2 (224 m^2) TOP 25%: 5,791 ft^2 (538 m^2) BOTTOM 25%: 1,555 ft^2 (144 m^2)	MEDIAN: -20% TOP 25%: -33% BOTTOM 25%: -44%	80% 67% 56%
Ceilings - Gypsum Board - Boarding (ft^2/wk) n=40	MEDIAN: 1,627 ft^2 (151 m^2) TOP 25%: 4,639 ft^2 (431 m^2) BOTTOM 25%: 868 ft^2 (81 m^2)	MEDIAN: 3,209 ft^2 (298 m^2) TOP 25%: 6,612 ft^2 (614 m^2) BOTTOM 25%: 1,763 ft^2 (164 m^2)	MEDIAN: -49% TOP 25%: -30% BOTTOM 25%: -51%	51% 70% 49%
Electrical - Light Fixtures (pcs/wk) n=43	MEDIAN: 57 pcs TOP 25%: 110 pcs BOTTOM 25%: 43 pcs	MEDIAN: 121 pcs TOP 25%: 191 pcs BOTTOM 25%: 88 pcs	MEDIAN: -53% TOP 25%: -42% BOTTOM 25%: -51%	47% 58% 49%



3.
Peak vs. Typical Performance Gaps

How much more can sites build in their best weeks vs. a typical week?

The earlier chapters measured site output against the plan. This chapter looks at construction performance another way: how much output do the same activities deliver in a typical week compared with their best sustained four-week period?

Across 139 projects, the data reveals a substantial gap between activities' typical weekly production pace and their best sustained pace.

A typical project's best sustained weekly production rate generally runs at 1.8x its typical week's pace. Because we measure peak pace as the average weekly pace during a project's best 4-week period, this increase in production volume isn't just a one-off, exceptionally great week that can't be replicated; the higher pace is sustained for at least a month, just not over the full life of the project.

Looking at the gap between a typical week's pace and the best weeks' provides a different way to think about construction productivity. Rather than just asking whether crews are working fast enough, project teams may want to ask: what is different about the weeks when output is highest – and what would it take to make more of that performance repeatable?

3 Peak vs. typical performance

METRIC OVERVIEW

This metric shifts the lens from baseline plans to physical capability on the ground. Rather than comparing actual work against a schedule on paper, our peak vs. typical performance metric compares a site's best demonstrated sustained weekly performance against its own overall median weekly performance on the exact same activity.

In other words, it quantifies the "possibility gap," or a project's capacity for production during its best periods. By isolating the 4-week window where an activity moved fastest, this benchmark establishes what is physically achievable during optimal weeks on the same project site.

Any activity's best stretch will naturally beat its median; what's notable is the size of the gap, and that the higher pace was sustained for a full month.

Measuring peak vs. typical performance on a project turns "what's possible" from a guess into a documented data point – one drawn from the project's own history, not another site's conditions. That reframes the conversation for project teams: instead of debating whether a faster pace is realistic, the question becomes what was different about the weeks when it already happened, and how much of that is repeatable.

HEADLINE DATA

In their best work periods, construction sites build at

~1.8x

(+82.9%) their typical weekly pace on the same activities

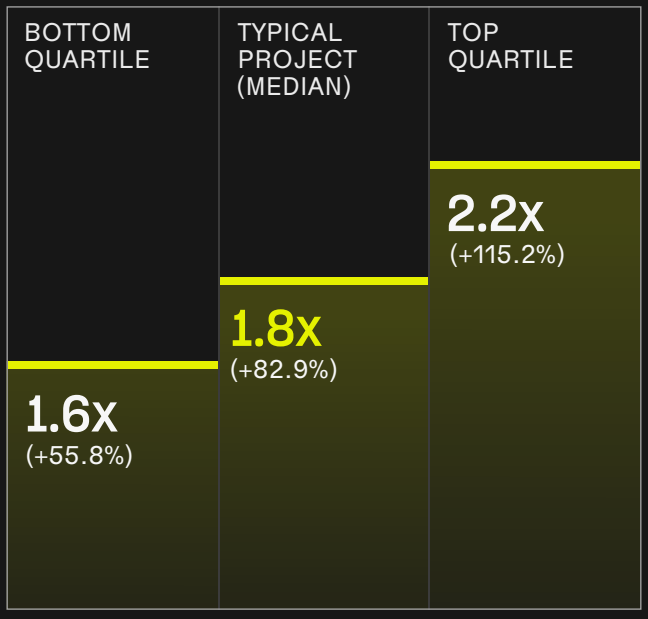
ABOUT THE METRIC

Peak vs. typical performance: This metric measures output variance – the gap between an activity's best sustained weekly production rate and its typical weekly pace, on the same project. Typical pace is an activity's median weekly output over its full project history; best sustained pace is its median weekly output during its single strongest four-week run.

Because each activity is compared with its own typical performance, the measure controls for differences between activities, but it does not identify what caused higher or lower output during the peak period.

How to read this metric: +100% output variance would mean that a week in the activity's best month ran at double the typical week's pace.

THE MEDIAN + QUARTILES



(n = 139 projects active between 2023 and 2026, global dataset)



3: Peak vs. typical performance

THE GLOBAL BASELINE

1.8x

Weekly output during the best month of production delivered 82.9% more than in a typical week, on the same activities.

THE GAP

59.4 pts

Performance gap between the top and bottom quartiles on this benchmark, in percentage points.

BY PROJECT TYPE

2.0x

Commercial projects show the widest variance between peak weeks' output vs. typical weeks', with a variance of nearly 2x (+99.1%) vs. the global median of 1.8x

→ Healthcare projects show the steadiest production rates, with 1.6x (+55.8%) variance between typical and peak weeks

SECTORS STUDIED IN THIS REPORT: RESIDENTIAL, COMMERCIAL, EDUCATION, HEALTHCARE, DATA CENTERS

What the numbers tell us

In their best weeks, construction sites are capable of significantly more output than they deliver in a typical week. On the median project, output during its best sustained four-week period was 1.8x its typical weekly pace.

Sustained higher output during optimal weeks isn't limited to a handful of exceptional projects; it shows up across the dataset. Even bottom-quartile projects reach 1.6x their typical weekly pace during their best periods, while top-quartile projects reach 2.2x.

The important point is not that crews can occasionally work faster. It's clear that higher production rates are possible. What stands out is how large the gap is between typical and peak periods and that the higher pace is sustained for four weeks. Higher production pace isn't theoretical; it was reached on the same projects, on the same activities, for multiple consecutive weeks. The opportunity now lies in understanding what conditions distinguish periods of peak production performance from the typical lower-output week.

That raises a more useful productivity question than simply asking how fast crews can work: what prevents projects from sustaining the higher output that they have already demonstrated is possible? And what can site leaders do to unlock more high-performing weeks?

Lab perspective

On a mega-project, you're running thousands of workers and hundreds of subcontractors against a fixed date. The data shows schedules assume about 1.4× the pace crews sustain over a run — and yet a crew's own best four-week stretch comes in around 1.8× its typical week. Both things are true, and that's the point: the capability is there, it just isn't available most weeks. At that scale, the binding constraint is almost never the crew. It's whether the area is turned over, the predecessor is closed out, and the material is at the face on the day it's needed. So the question I'd put to any scheduler on a project like that isn't 'how fast can this crew work?' — it's 'how many clean weeks can this project actually hand them?' That's the number worth managing.

Dima Zabezhinsky
Industry Transformation Manager, Buildots





4. Trade Performance Benchmarks

Which trades keep work on plan – and which are most prone to delays?

Our earlier benchmark chapters evaluated construction performance at the project and activity level. They established that:

→ Nearly half of all activities on site are behind schedule in a typical week

→ Construction sites deliver only 63% of the weekly output their schedules call for

→ Weekly production trails the plan for nearly every activity measured

→ A wide gap separates typical weekly output from peak-period output

But construction projects are not built by abstract averages; they are built by trade contractors working in sequence.

This chapter turns to daily site operations: slicing schedule adherence across five key trade disciplines.

The results transform a broader project health signal into a rankable trade league table. By identifying which trades consistently execute on time and which routinely fall behind, project leaders can pinpoint exactly where trade handoffs are most likely to break down and focus their management and risk mitigation efforts where it yields the highest return.

4 Trade adherence

METRIC OVERVIEW

A project-level schedule adherence score tells an executive how the job is doing overall. It doesn't tell a planner what to do differently next week, or where to focus their efforts. Slicing that same weekly schedule check by trade turns one broad project health signal into five more specific and actionable ones. Trade-level schedule adherence data surfaces exactly which scopes a schedule can reliably lean on, and which need more buffers, earlier coordination, or closer weekly attention.

Here, we look at five of the most common trade disciplines: drywall, fire protection, plumbing, mechanical, and electrical.

A LEAGUE TABLE, NOT A BLAME TABLE

A trade's adherence score measures where the schedule slips, not necessarily why or who slipped it. Trades inherit each other's delays: an electrical rough-in can run late because the framing ahead of it did, and drywall closes walls only after the first-fix chaos has been absorbed. The table maps where in the trade sequence plans lose touch with sites. Assigning fault would take a different analysis.

HEADLINE DATA

The trade schedule adherence gap spans

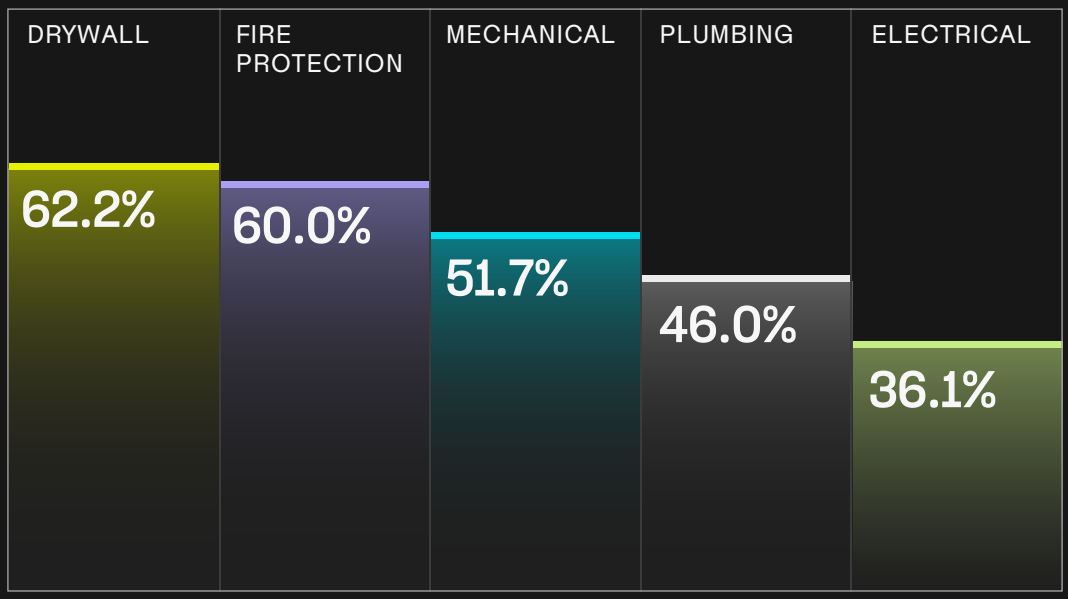
26.1 pts

between the most reliably on-schedule trade and the least (of the five focus trades)

ABOUT THE METRIC

Trade adherence re-slices the schedule adherence benchmark by trade rather than by project. It applies the same weekly, activity-level check against the plan, filtered across five focus trades: drywall, fire protection, plumbing, mechanical, and electrical. We chose these because we hold a large data set for each, and they are typically the most critical trades in the fit-out process.

THE MEDIAN



(n = 205 projects, 811 project-trade scores, global dataset)



4: Trade adherence

THE GLOBAL BASELINE

50%

The median global trade adherence score across all trades measured

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THE GAP

26.1 pts

Performance gap, in percentage points, between the top-performing trade and bottom-performing of the five focus trades.

BY PROJECT TYPE

78.2%

Drywall schedule adherence on healthcare projects is the strongest at 78.2%, vs. 62.2% for drywall trades across all sector verticals.

→ Electrical trades on education projects show just 28.5% schedule adherence – the lowest schedule adherence of any trade + sector combination measured.

SECTORS STUDIED IN THIS REPORT: RESIDENTIAL, COMMERCIAL, EDUCATION, HEALTHCARE, DATA CENTERS

What the numbers tell us

Even within a single project, schedule adherence varies sharply by trade: across 205 global projects, median trade-sliced schedule adherence runs from 62.2% for drywall down to 36.1% for electrical – a 26.1 percentage point spread.

Electrical (36.1%), mechanical (51.7%), and plumbing (46%) cluster well below drywall when it comes to staying on schedule – while fire protection (60%), alone among the MEP trades, nearly keeps pace with it.

But even the most on-time trade (drywall) keeps barely 6 in 10 activities on schedule. The league table has a winner, but it doesn't have a trade that's actually on schedule.

For planners, this is the chapter that converts benchmarks into decisions. A schedule that treats every trade's dates as equally reliable ignores a 26.1-percentage point difference between them. Sequencing, buffers, and weekly attention can now be weighted toward the scopes where slippage concentrates, before it spreads to the trades waiting behind them.

Lab perspective

A planner may know which trades are more likely to experience delays than others. But intuition can't put a number on it. A 26-point measured gap between trades provides data to inform your risk judgement when planning. If drywall achieves 62% and electrical at 36%, contingency, time risk allowance, look-aheads, and supervisor's attention should be considered with that in mind. Don't read this table as a ranking of contractors. Read it as the trades most susceptible to risk events.

It is no surprise that trades with the most complex work, in the most congested work fronts, rank lower. That's not a reason to hassle your electrical contractor. It's a reason to plan appropriately and focus efforts in the right places to best manage risk.

David Milnes
Industry Transformation Manager, Buildots





5. Conclusion

What is the state of global construction performance?

Four questions opened this report. Measured across hundreds of construction projects worldwide, our site data helps answer each one.

The four benchmark answers

Are projects staying on schedule?

No – and delay is an industry-wide default, not a rare event. In any given week, the typical construction project keeps just 52.8% of its activities on schedule.

Schedule slippage starts early: 70.7% of activities miss their planned start date by more than 7 days (leaving just a 29.3% on-time start rate).

By the finish line, the typical completed activity delivers 5.3 weeks late.

How does actual weekly output compare with what plans assume?

Across the board, construction projects regularly show a gap between planned weekly output and what actually gets delivered in the assumed timeframe.

The typical project delivers only 63% of its planned weekly output, leaving more than a third of planned work undelivered each week. This gap suggests that plans routinely overestimate real-world site capacity and conditions. This raises the question: are schedules realistic to begin with? Much of what is recorded as site underperformance may actually be overpromising at the planning table.

Nearly every (20 out of 21) construction activity we tracked showed median actual weekly production came in below the planned rate. Some scopes run close to plan (tape & joint work typically reaches 90% of its planned rate), while others fall far short: resilient/soft flooring delivers just 38% of plan, and HVAC units 44%. Drywall framing is the lone exception, typically exceeding its planned rate at 122%.

The 84-point spread between the highest- and lowest-attaining activities is where schedule risk concentrates and it gives planners something they haven't had before: measured, activity-level production rates to calibrate baselines against instead of rough estimates.

How much more can sites build in their best weeks vs. a typical week?

Potentially 1.8x more than they do in a typical week. During peak, sustained four-week performance runs, typical projects achieve +82.9% higher weekly output. Even bottom-quartile projects reach +55.8% above their typical weekly pace during their best performance periods. The data shows that pace can scale. The question is, how often do site conditions allow teams to work at their best pace?

Which trades keep work on plan – and which are most prone to delays?

Schedule adherence varies sharply by trade, with the biggest gaps concentrated in MEP scopes.

Across the five focus trades, median schedule adherence ranges from 62.2% for drywall to 36.1% for electrical — a 26.1-point spread. Mechanical and plumbing sit between them, at 51.7% and 46%, respectively, while fire protection reaches 60%.

The league table is not a ranking of good and bad trades. It is a map of where schedule reliability weakens across the construction sequence. The trades operating in the most congested and interdependent phases of the job inherit delays from the work before them — and pass them on to the work that follows.

That makes the trade-level schedule adherence benchmark an actionable takeaway: it shows where schedules are most likely to lose contact with site reality, and where additional coordination, sequencing discipline, or contingency may have the greatest value.

What do these benchmarks tell us about construction performance today?

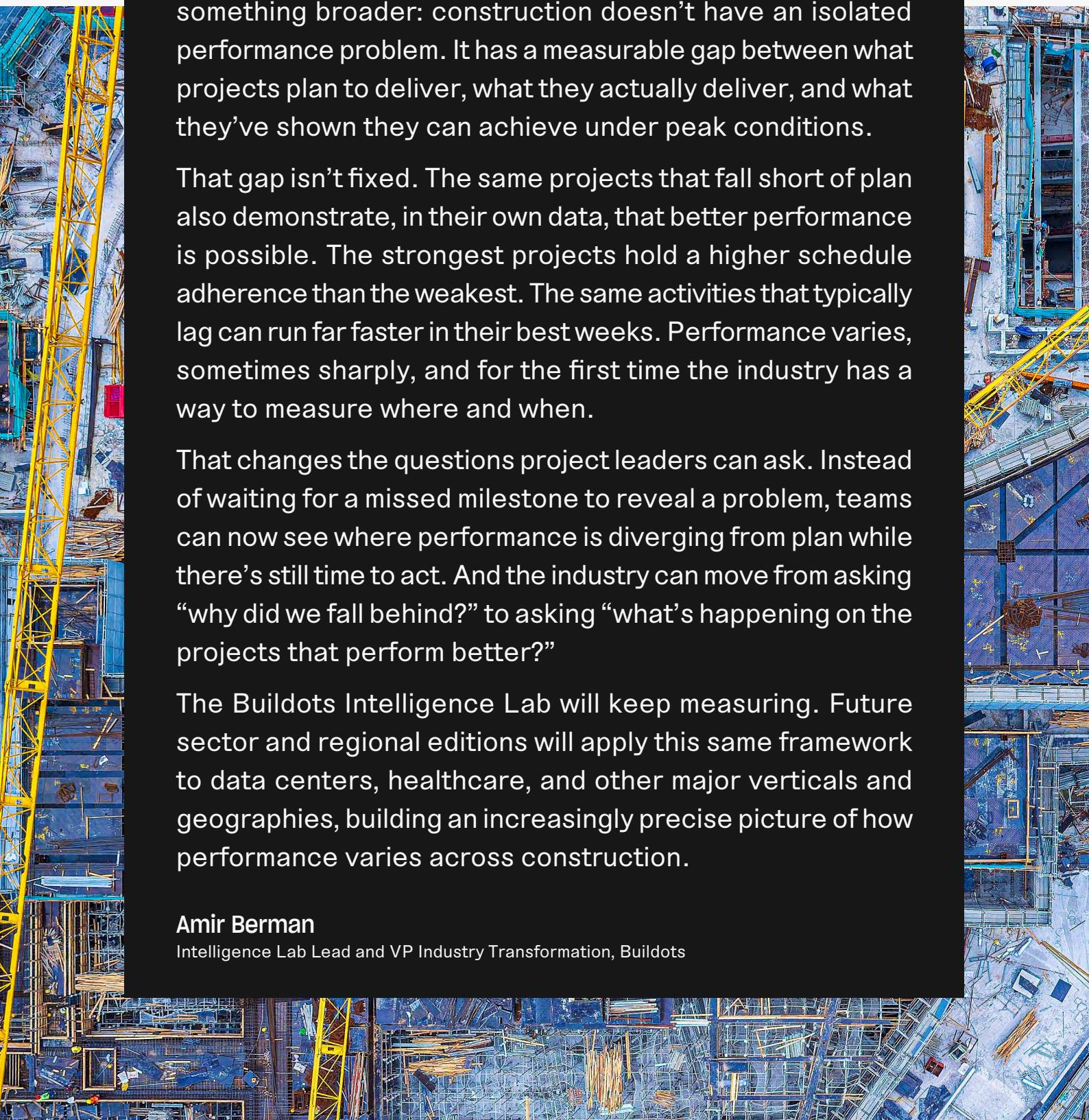
Taken individually, these benchmarks describe different issues: late starts, underproduction, unrealistic targets, and uneven trade performance. Taken together, they point to something broader: construction doesn't have an isolated performance problem. It has a measurable gap between what projects plan to deliver, what they actually deliver, and what they've shown they can achieve under peak conditions.

That gap isn't fixed. The same projects that fall short of plan also demonstrate, in their own data, that better performance is possible. The strongest projects hold a higher schedule adherence than the weakest. The same activities that typically lag can run far faster in their best weeks. Performance varies, sometimes sharply, and for the first time the industry has a way to measure where and when.

That changes the questions project leaders can ask. Instead of waiting for a missed milestone to reveal a problem, teams can now see where performance is diverging from plan while there's still time to act. And the industry can move from asking "why did we fall behind?" to asking "what's happening on the projects that perform better?"

The Buildots Intelligence Lab will keep measuring. Future sector and regional editions will apply this same framework to data centers, healthcare, and other major verticals and geographies, building an increasingly precise picture of how performance varies across construction.

Amir Berman
Intelligence Lab Lead and VP Industry Transformation, Buildots



Methodology

The dataset

The benchmarks draw on data from more than 200 construction projects around the world that were active or completed between January 2023 and August 2026, spanning five sectors: residential, commercial, education, healthcare, and data centers. All data is anonymized and aggregated to protect privacy. Because not every project produces enough measured history for every metric, each benchmark is computed on the subset of projects that clears its data-quality floor. Sample sizes are stated alongside every figure in this report: 136 to 253 projects for the core pillar benchmarks, and 33 to 92 projects per activity for the production rate benchmarks.

How the benchmarks are created

Benchmarks are computed across projects, with every project counting exactly once — so a mega-project cannot outweigh a small one, and no single site skews the result. For each metric, we report the median (the typical project) and the top and bottom quartiles. The gap between quartiles is itself a finding - it shows how widely performance varies on the same measure. Sector figures are re-slices of the same per-project scores, not separate studies, and any slice with fewer than 10 projects is withheld rather than reported.

Keeping the benchmarks honest

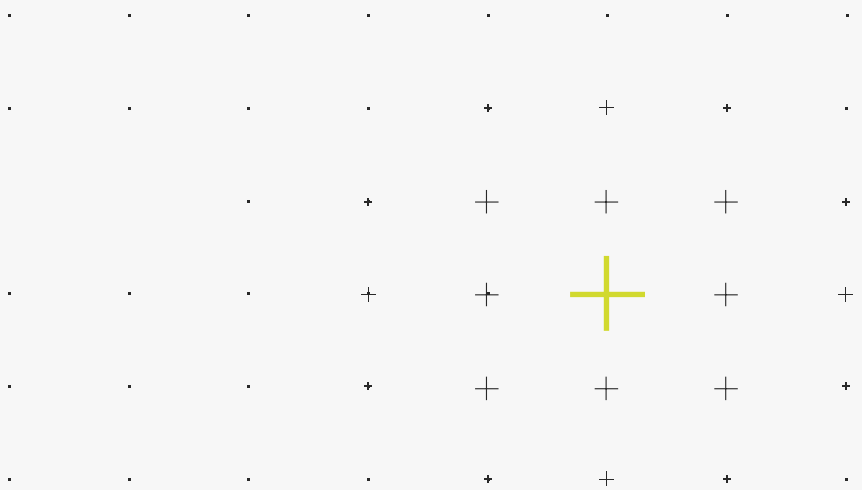
Each benchmark applies a minimum-sample floor before a project is scored and included in the metric's data set — at least 13 weekly capture cycles for schedule adherence, for example, and at least 10 scheduled activities for the on-time start rate. Metrics that are only meaningful at handover (such as completion overrun) include only data from completed projects. Thresholds lean conservative by design: "on schedule" means reaching 80% of the progress planned to date at each weekly check, and "on time" allows a week's grace period. Because site progress is captured weekly, a start delayed by two or three days can only be observed at the next capture - the week's grace period ensures such starts, which most teams would consider on time, are not counted as late. (Early starts count as on time, too.)

Measuring physical production rates

The activity production rate benchmarks extend the same dataset into physical units. Buildots tracks hundreds of different activities on construction sites. For these benchmarks, we selected 21 core activities. For each activity tracked, weekly pace is measured in the units schedules are written in (ft, ft^2, or pcs installed per working week) during each activity's steady-state window, from 10% to 90% of its scope complete, which excludes ramp-up and closeout tails. Projects with exceptionally large scopes for an activity behave differently and are benchmarked separately, so published figures describe the main body of projects for each activity. Planned rates are computed from the same projects' schedules over the same 10-90% scope complete window, making the actual-versus-planned comparison like-for-like: attainment is the median actual weekly rate divided by the median planned weekly rate.

What these benchmarks do (and don't) show

These benchmarks describe measured performance on construction sites; they do not assign cause. Factors such as site access, sequencing, procurement, weather, and crew loading all shape productivity on site, but they are not tested in this analysis. The benchmarks show where actual performance sits relative to plan and relative to other projects, and where it could be — we leave the diagnosis, project by project, to the teams who know their sites best.



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About the Buildots Intelligence Lab

This report was produced by the Buildots Intelligence Lab – construction's first AI-powered research hub. Drawing on aggregated, anonymized global data, the Lab publishes metrics, insights, and benchmarks designed to drive decisions from the project level to the enterprise. All data published by the Lab is freely available and designed to help address long-standing industry blind spots. It operates as an autonomous research unit within Buildots and invites industry professionals, academics, and analysts to challenge it with their own questions and hypotheses.

See how your own projects measure up: book your Buildots demo today

See how Buildots turns construction site data into objective, activity-level insights and helps teams and owners see where work is on track, where it's falling behind, and where performance can improve.

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About Buildots: Buildots is the global construction intelligence platform. By comparing schedules and BIM against site reality, its advanced AI transforms granular data into actionable site-to-boardroom insights. Buildots is already delivering remarkable results for Fortune 500 contractors and leading owners. Its impact is proven at every scale – from local schools and multifamily developments to the most complex data centers and mega-projects.

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