

THE STRICTEST CLIENT IN THE ROOM

How Data Centers Pushed Construction Safety Forward

Three Perspectives: General Contractor · Subcontractor · Product Innovation

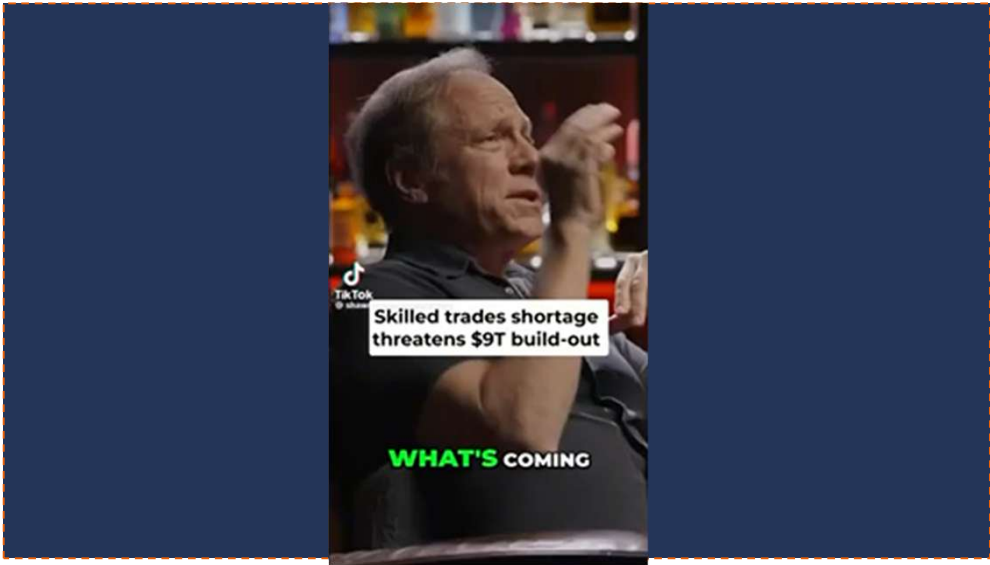
General Contractor

Subcontractor

Product Innovation

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WATCH BEFORE WE BEGIN



TODAY'S ROADMAP

01
General Contractor

02
Sub-contractor

03
Product Innovation

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3



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PERSPECTIVE 1 OF 3

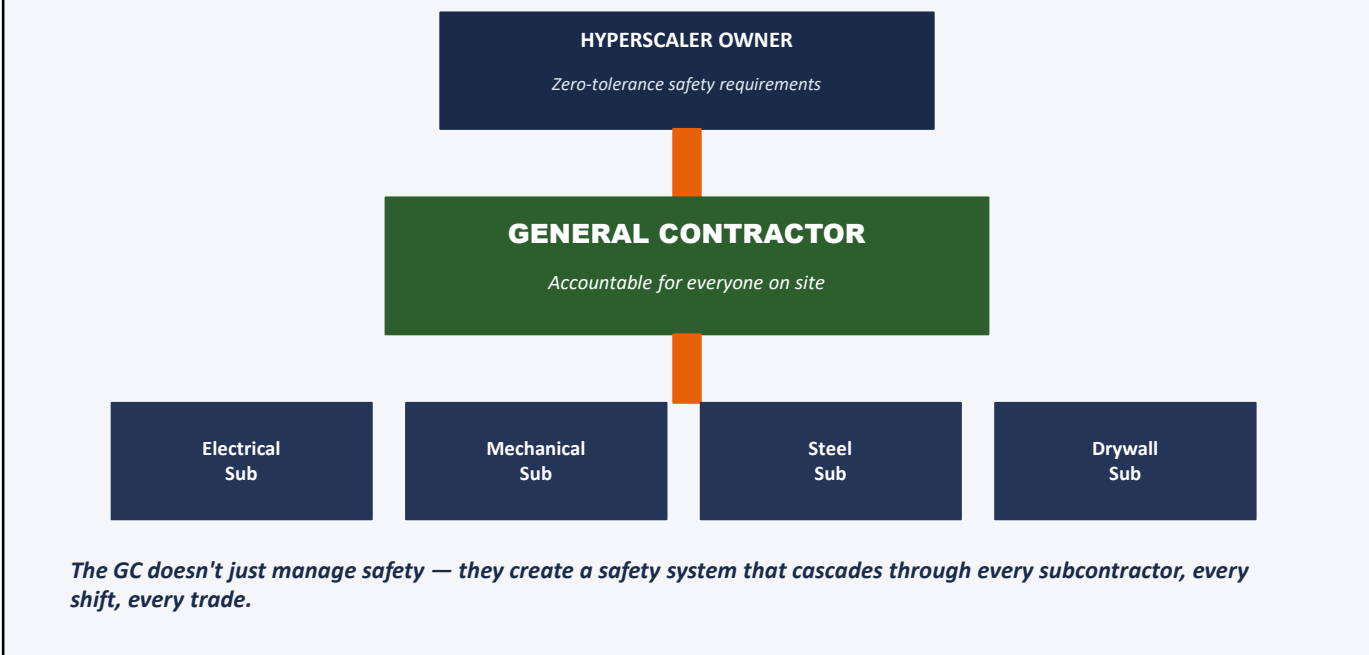
Perspective 1: The General Contractor

The GC sat between the strictest client in history and an unprepared supply chain.



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THE GC IN THE MIDDLE



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WHAT THE GC HAD TO BUILD



Sub Pre-Qualification Program

Formal TRIR and EMR thresholds for all subs. Safety audits before contract award. Poor safety record = no contract. Period.



Integrated Safety Plan

Single site-wide safety plan covering all trades. No patchwork of individual sub plans — one standard, one expectation, enforced by the GC.



Dedicated Safety Staffing Ratios

1 safety professional per 15–20 workers became standard. GC safety managers overseeing all subs — with full stop-work authority.



Real-Time Incident Dashboards

Daily incident and near-miss data reported to owner and GC leadership. Safety metrics reviewed alongside schedule and cost — every week.



Stop-Work Culture

Any worker empowered to halt operations. GC leadership publicly supported stop-work decisions. No retaliation — ever. Culture enforced from the top.

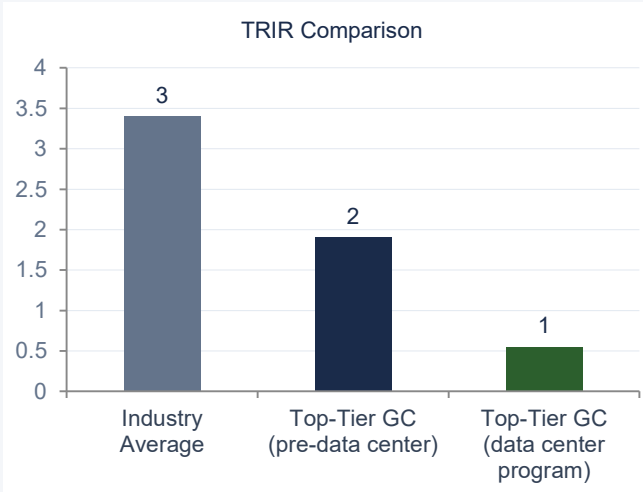


Consequence & Incentive Architecture

Safety incentives for subs built into contracts. Violations resulted in financial penalties and removal from site. Outcomes, not paperwork, were measured.

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WHAT GCS ACHIEVED — AND WHAT THEY LEARNED



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Safety integration into pre-construction — not just site execution — became the differentiator between good and great GCs.
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GCs who built genuine safety cultures found lower turnover, better sub relationships, and fewer schedule-disrupting incidents.
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Top data center GCs (Turner, Gilbane, Holder, DPR) now market their safety record as a core capability — not a compliance checkbox.
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The playbook built for hyperscale has been exported to healthcare, aviation, and manufacturing — the most demanding owners in every sector.

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GENERAL CONTRACTOR: THE TAKEAWAY



You set the standard — or you lower it

The GC is the single most powerful lever in the safety system. If you tolerate poor safety from a sub because they're cheap, you own every incident that follows.



Pre-qualification is your most powerful safety tool

Vetting subs on safety before award is more powerful than any site inspection after the fact. Don't wait until someone gets hurt to discover a sub's safety culture.



The data center model is a competitive advantage

GCs who built world-class safety systems for hyperscalers can now credibly pursue hospitals, life sciences, and airports — owners demanding the same standard.

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PERSPECTIVE 2 OF 3

Perspective 2: The Subcontractor

The client's requirements arrived as a contract clause. How did subs respond?



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THE SUBCONTRACTOR'S WAKE-UP CALL

"Your TRIR is 2.8. Our threshold is 1.0. You're not on the bid list."

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Disqualification

Subs with poor TRIR scores were cut from hyperscale bid lists entirely — regardless of price, schedule, or relationships.

2

Scramble to Qualify

Surviving subs audited their safety programs, with a focus on building it out.

3

Cultural Shift

Safety stopped being a compliance exercise and became a business development function. Your safety record = your ability to win work.

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Competitive Advantage

Subs who invested early now use their safety record to help win work on non-data center projects.

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BUILDING A DESIGNATED SAFETY TEAM

From a single safety hire to a structured team — data centers proved that safety at scale requires depth, not just a title.

Team Structure by Role

A functioning safety team has defined layers: an Executive level setting strategy, Directors running programs by region, Safety Managers supporting the projects and field teams, and field Safety Coordinators embedded on active sites.

Trained, Not Just Assigned

Every team member has experience and credentials that are matched to their role. Training isn't a box checked at hire; it's an ongoing requirement.

Coverage That Follows the Work

A safety team is sized to the jobsite, not the office. Hyperscale clients required 1 safety professional per 15–20 workers on site. If a site is active, safety is present — coverage gaps are not acceptable.

Cross-Functional, Not Siloed

The safety team works alongside operations, and preconstruction not after them. They're brought in bid reviews, subcontractor onboarding, and schedule planning, not just called in for incident response.

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WORKFORCE SAFETY TRAINING

OSHA 10 minimum for every worker, OSHA 30 for all supervisors — site-specific orientations built around each GC's and owner requirements.



Reinforced through toolbox talks and daily PTP's.

Weekly and daily conversations keep training active on the ground, not a one-time event.

OSHA 30 for supervisors and OSHA 10 for every worker

Deeper certification for anyone directing crews or making field safety calls. Baseline training for everyone who steps on the job site.

Site-specific orientation

Each new site gets its own orientation, aligned to that GC's rules — not a one-size-fits-all video.

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TRACKING LEADING INDICATORS & NEAR-MISS REPORTING

A digital platform replaced paper — near-misses get reported, and observation rates, hazard IDs, and near-miss counts get reviewed and rolled up to leadership.

Digital near-miss reporting

Workers report hazards and close calls through a simple mobile tool, replacing paper forms.

Rewarded, not punished

The culture shift that makes people willing to flag problems before they become injuries.

Leading indicators, tracked.

Observation rate, hazard IDs, and near-miss counts reviewed every week — not after an incident.

Executive visibility

Safety performance reviewed alongside financials at the executive level — equal weight, not an afterthought.



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PPE UPGRADE PROGRAMS

Task-specific PPE matrices developed per trade.

Glove selection programs

The right glove for the hazard becomes second nature.

Task-specific PPE matrices

Built per trade, so workers know exactly what's required for each task — not a one-size-fits-all rule.

Head Protection

Upgraded head protection standard across crews.



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SUB-SUB ACCOUNTABILITY

Subs pushed requirements down to their own sub-tier — taking ownership for the safety of every worker on their scope, not just their direct employees.



Requirements flow down, ownership beyond payroll

Safety standards pushed to the sub-tier, not left optional once work is subcontracted further. Responsibility is taken for the safety of every worker, direct employee or not.

Consistent standards across tiers

The same training and PPE expectations apply no matter which company signs a worker's check.

Closing the gap at the edges

Fewer safety gaps where most incidents on multi-tier jobsites occur — at the boundary between tiers.

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SUBCONTRACTOR: THE TAKEAWAY



Your safety record is your business development strategy

On data center projects, a poor safety record costs you the bid. That logic now applies to every sophisticated owner. Your safety record is your brand.



Safety investment has measurable ROI

Lower EMR = lower insurance premiums. Fewer incidents = fewer schedule delays. Better safety record = more work. The business case is no longer theoretical.



First movers won the market

Subs who invested in safety infrastructure in 2015–2018 captured disproportionate share of the hyperscale boom. The window to differentiate is still open — but closing.

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PERSPECTIVE 3 OF 3

Perspective 3: Product Innovation

Data centers didn't just demand safer workers — they funded safer gear.



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WHY DATA CENTERS DROVE PRODUCT INNOVATION

The Old Reality

- Generic cut-resistant gloves rated for carpentry, not electrical work
- Hard hats designed to minimum ANSI standards — no differentiation
- High-vis vests as an afterthought, not engineered for environments
- Equipment suppliers reactive — waiting for injury trends to respond

What Data Centers Demanded

- Task-specific PPE — specified by trade, environment, and risk profile
- Performance data on PPE — not just compliance, but real-world effectiveness
- Integrated solutions: hard hat + hearing + face shield in one engineered system
- Suppliers embedded in pre-construction planning — not just PPE vendors

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DATA CENTER SAFETY SHIFT

Cut Stations

Before

Sparks Flying, High Noise Environments, Unsafe cutting, Dust Flying

After

Sparks Contained, Noise Dissipated, Ergonomic Work Station, Dust Contained, Greater Productivity



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DATA CENTER SAFETY SHIFT

Hand & Cut-Resistant Gloves

Before

One-size leather gloves; workers choosing comfort over protection

After

ANSI A4–A9 task-matched gloves specified by trade; glove selection matrices in onboarding; compliance tracked



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DATA CENTER SAFETY SHIFT

Head Protection

Before

Standard Type I hard hats — front-impact only, no lateral protection

After

Helmets with lateral impact protection mandated; integrated face shield/hearing solutions; chin strap requirements, adoption of EN12492 impact protection



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DATA CENTER SAFETY SHIFT

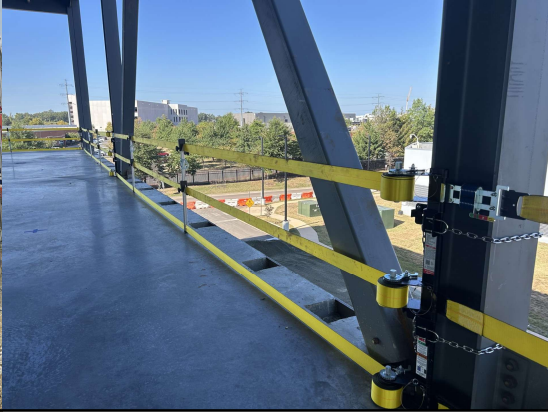
Fall Protection

Before

PFAS as last resort, generic anchor points, lack of training

After

100% tie-off requirements, engineered systems, verified training programs pushed by GC's and clients.



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PRODUCT INNOVATION:
THE TAKEAWAY



Specification is the accelerant

When a client with a \$2B build specifies Type II helmets and ANSI A6 gloves, suppliers respond in 18 months — not 10 years. Procurement drives innovation.



Task-matching PPE saves lives

Generic PPE is negligent PPE. Data centers forced the industry to match protection level to actual task risk. That methodology is now portable to every project type.



Suppliers became safety partners

The best PPE companies embedded engineers in pre-construction. The product wasn't just the glove — it was the selection system, the training, the compliance tracking.

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EVERY WORKER GOES HOME.

*That's not a slogan. It's the only acceptable standard.
And now — across three perspectives — you have no excuse.*

Questions & Discussion