

Commissioning Schedule Alignment Analysis - Building H

CoreWeave Denton South Data Center

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Project: CoreWeave Denton South - Building H

Tags: #commissioning #schedule #analysis #building-h

Executive Summary

CRITICAL FINDING: The original commissioning plan timeline (30 weeks generic placeholder) does **NOT align** with the actual project schedule for Building H. The project schedule shows a much more compressed timeline with specific milestone dates that must be met.

Key Schedule Milestones from Project Schedule:

Milestone	Scheduled Date	Status
Customer Early Access - Fiber Only	March 3, 2026	Planned
GB200 Racks into Data Hall	April 7, 2026	Planned
CDU Commissioning	April 8-10, 2026	Planned
Network Provisioning	April 8-21, 2026	Planned
Node Provisioning	April 15-29, 2026	Planned
Customer Handoff	April 30, 2026	CRITICAL
Building H FULL Turnover	April 6, 2026	Planned

Schedule Alignment Analysis

Phase 1: Construction & Equipment Installation

Project Schedule Timeline:

Exterior Equipment Yards (Oct 24, 2025 - Feb 24, 2026)

H ELECT SKIDS:

- Underground work: Oct 24 - Dec 8, 2025
- Equipment setting: Dec 9, 2025 - Jan 17, 2026
- Steel structures: Dec 15, 2025 - Jan 29, 2026
- Connections/Piping: Jan 19 - Feb 12, 2026

- Startups: Jan 24 – Feb 24, 2026

Building Interior (Nov 24, 2025 – Mar 17, 2026)

H – Gallery and BOH:

- Duration: Nov 24, 2025 – Feb 28, 2026
- Structural steel for conveyance: Nov 24 – Dec 8, 2025
- Chilled water piping: Dec 5, 2025 – Jan 17, 2026
- Overhead electrical feeders: Dec 9, 2025 – Jan 6, 2026
- Cable tray: Dec 30, 2025 – Jan 19, 2026
- STS installation: Jan 8-14, 2026
- Busstap piping/wiring: Jan 15-29, 2026
- STS startup: Feb 25-28, 2026

H – Data Hall:

- Duration: Dec 11, 2025 – Mar 17, 2026
- Frame/drywall walls: Dec 11, 2025 – Jan 3, 2026
- Install structural HACs: Jan 5-27, 2026
- Chiller mains to HACs: Jan 28 – Feb 13, 2026
- Cable tray pathways: Jan 28 – Feb 21, 2026
- Chiller piping on HACs: Jan 28 – Feb 13, 2026
- Bussway on HACs: Jan 5 – Feb 2, 2026
- DATA Hall Chiller Ready for Flush/Fill: Feb 13, 2026
- Flush & fill chiller lines: Feb 14 – Mar 3, 2026
- Pull/terminate busstaps: Feb 7 – Mar 6, 2026
- Customer Early Access: Mar 6, 2026 ✓
- DATA Hall Ready to Energize: Mar 6, 2026
- Startup bussway: Mar 7-9, 2026
- Startup fan walls: Mar 7-11, 2026
- Air-Water test & balance: Mar 12-17, 2026
- H Interior Ready for L4: Mar 17, 2026

MMR Rooms

H – MMR West:

- Dec 15, 2025 – Jan 8, 2026
- Install steel, chiller piping, complete framing/drywall/paint
- Final clean: Jan 7-8, 2026

H – MMR East:

- Dec 16, 2025 – Jan 12, 2026
- Similar scope as West MMR
- Final clean: Jan 10-12, 2026

Phase 2: Commissioning (L4-L5)

From Project Schedule:

BLDG H CX: March 18 – April 13, 2026 (19 days)

- Bldg H Cx Level 4: March 18 – April 6, 2026 (14 days)

- Bldg H Cx Level 5: April 7-13, 2026 (5 days)

Key Observation: The schedule allocates only **19 days total** for L4-L5 commissioning before customer handoff on April 30, 2026.

Critical Timeline Gaps & Issues

Issue #1: Commissioning Duration Assumptions

Original Plan Assumption:

- 30-week generic commissioning timeline
- Phased approach across multiple weeks

Actual Schedule Reality:

- Total commissioning window: 19 days (Mar 18 - Apr 13)
- L4 Commissioning: 14 days (Mar 18 - Apr 6)
- L5 Commissioning: 5 days (Apr 7-13)
- Customer activities begin: Apr 7 (GB200 racks)

Gap Analysis:

The original plan's 30-week timeline was a **placeholder** and does NOT reflect the actual compressed schedule. Building H commissioning must be completed in approximately **3-4 weeks**, not 30 weeks.

Issue #2: Pre-Commissioning Completion Dates

From Schedule - Prerequisites for Commissioning:

System	Ready Date	Commissioning Start	Gap
Exterior electrical skids	Feb 24, 2026	Mar 18, 2026	22 days
Interior STS systems	Feb 28, 2026	Mar 18, 2026	18 days
Data Hall energization	Mar 6, 2026	Mar 18, 2026	12 days
Data Hall ready for L4	Mar 17, 2026	Mar 18, 2026	1 day

Critical Finding: The schedule shows **only 1 day** between "H Interior Ready for L4" (Mar 17) and the start of "Bldg H Cx Level 4" (Mar 18). This provides virtually **no float** for construction delays or punch list work.

Issue #3: Overlap with Customer Activities

Problematic Overlap:

Activity	Date Range	Responsible Party	Issue
Bldg H Cx Level 5	Apr 7-13, 2026	Commissioning Authority	Ongoing Cx
GB200 Racks into DH	Apr 7, 2026	Customer/Owner	Conflict
CDU Commissioning	Apr 8-10, 2026	Customer/Owner	Conflict
Network Provisioning	Apr 8-21, 2026	Customer/Owner	Conflict

Critical Issue: L5 commissioning (Apr 7-13) **overlaps** with customer activities beginning Apr 7. This suggests either:

1. L5 commissioning must be completed by Apr 6, OR
2. L5 commissioning occurs concurrently with customer rack installation (risky)

Issue #4: Missing Generator Testing Timeline

From Electrical Drawings:

- Building H does NOT have generators per the one-line diagrams reviewed
- Buildings MB-01H, MB-02H, MB-03H have generators (2 × 1250kW)
- Buildings PB-01H through PB-06H have generators (2 × 1250kW)

Schedule Implication:

- Building H commissioning is simpler (no generator testing required)
- However, the schedule must account for dependencies on generator-backed mechanical systems if Building H cooling depends on mechanical blocks with generators

Revised Commissioning Timeline for Building H

Realistic Timeline Based on Actual Schedule

Pre-Commissioning Phase (Nov 24, 2025 – Mar 17, 2026) – 16 weeks

Week 1-4 (Nov 24 – Dec 21, 2025): Early Construction

- Exterior structure completion
- Interior framing begins
- Gallery and BOH construction
- MMR construction

Week 5-8 (Dec 22, 2025 – Jan 18, 2026): Equipment Installation

- MV transformer setting and connections
- Electrical skid installation
- Chiller installation
- STS installation begins
- Structural HACs installation

Week 9-12 (Jan 19 – Feb 15, 2026): Systems Integration

- MV loop energization (Jan 24-26)

- Electrical connections completion
- Chiller piping installation
- Cable tray and bussway installation
- VFD installations

Week 13-16 (Feb 16 – Mar 17, 2026): Pre-Functional & Initial Startup

- Exterior startup phase (Feb 9-24):
- Interior pre-functional (Feb 25 – Mar 6):
- Final interior startup (Mar 7-17):

Level 4 Commissioning (Mar 18 - Apr 6, 2026) - 14 days

Critical Path Activities:

Week 1 (Mar 18-24):

- Day 1-2: Commissioning kickoff and safety briefing
- Day 1-5: Transformer load testing (if not done during startup)
- Day 1-7: UPS performance verification

Week 2 (Mar 25-31):

- Day 8-10: Switchboard and distribution testing
- Day 8-12: Chiller system performance testing
- Day 8-12: CHW pump and VFD testing
- Day 10-14: Static transfer switch testing

Week 3 (Apr 1-6):

- Day 13-14: Integrated systems testing
- Apr 6: Building H FULL Turnover ✓
- Apr 6: L4 Commissioning Complete

Level 5 Commissioning (Apr 7-13, 2026) - 5 days

CONCURRENT with Customer Activities:

Days 1-5 (Apr 7-13):

- Apr 7: GB200 racks begin installation (customer activity)
- Apr 7-13: Failure mode testing
- Apr 8-10: CDU commissioning (customer activity - parallel)
- Apr 8-21: Network provisioning (customer activity - parallel)

Critical Coordination Required:

- L5 testing must not disrupt customer rack installation
- Coordinate power interruption tests with customer
- May require night shift testing to avoid conflicts

Apr 13: L5 Commissioning Complete

Customer Handoff Phase (Apr 15-30, 2026)

- Apr 15-29: Node Provisioning (customer activity)
- Apr 30: Customer Handoff ✓

Key Differences: Original Plan vs. Actual Schedule

Aspect	Original Plan	Actual Schedule	Delta
Total Duration	30 weeks	~20 weeks (Nov 24 - Apr 6)	-10 weeks
Pre-Functional	4 weeks	~16 weeks (integrated with construction)	+12 weeks
Equipment Startup	8 weeks	~6 weeks (Feb-Mar)	-2 weeks
Functional Testing	8 weeks	14 days (L4)	-6.5 weeks
Integration Testing	6 weeks	5 days (L5)	-5 weeks
Training	2 weeks	Not explicitly scheduled	TBD
Documentation	2 weeks	Not explicitly scheduled	TBD
Float/Contingency	Assumed	1 day only	Critical risk

Critical Risks & Mitigation Strategies

Risk #1: Extremely Compressed L4 Testing (14 days)**Risk Level:** HIGH**Impact:** Insufficient time to complete comprehensive functional testing per NETA/IEEE standards**Mitigation:**

1. Parallel testing approach:
2. Pre-commissioning verification:
3. Extended startup phase:
4. Streamlined test procedures:

Risk #2: Zero Float Before L4 Commissioning**Risk Level:** CRITICAL**Impact:** Any construction delay pushes into commissioning window, compressing already tight schedule**Mitigation:**

1. Construction schedule monitoring:

2. Commissioning preparation during construction:
 3. Contingency plan:
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Risk #3: Customer Activity Overlap with L5 Testing

Risk Level: MEDIUM-HIGH

Impact: Customer rack installation may conflict with failure mode testing

Mitigation:

1. Coordination protocol:
 2. Testing schedule optimization:
 3. Phased handoff approach:
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Risk #4: Training & Documentation Timeline

Risk Level: MEDIUM

Impact: No explicit time allocated for training or final documentation

Mitigation:

1. Concurrent training:
 2. Progressive documentation:
 3. Post-handoff completion:
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Recommended Schedule Adjustments

Adjustment #1: Accelerate Pre-Functional Work

Current: Pre-functional work begins Mar 18, 2026

Recommended: Begin pre-functional checklists Jan 2026

Benefit:

- Reduces L4 commissioning scope
- Identifies installation deficiencies early
- Allows correction during construction

Implementation:

- Issue pre-functional checklists to contractors: December 2025
 - CxA spot-check verification: January–February 2026
 - Final pre-functional sign-off: March 15, 2026
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Adjustment #2: Formalize Startup as L2/L3 Commissioning

Current: "Startup" phase (Feb-Mar) treated as construction activity

Recommended: Rebrand as "L2/L3 Commissioning" with formal procedures

Benefit:

- Commissioning credit for startup activities
- Reduces L4 scope
- Better documentation and quality control

Implementation:

- Commissioning Authority witnesses all startups

- Startup procedures = L2/L3 test procedures
- Startup reports = commissioning test reports

Adjustment #3: Request 1-Week Extension for L4

Current: L4 commissioning = 14 days (Mar 18 – Apr 6)

Recommended: L4 commissioning = 21 days (Mar 11 – Apr 6)

Benefit:

- Additional week reduces critical time pressure
- Allows more thorough testing
- Provides buffer for unexpected issues

Impact on Schedule:

- Requires "H Interior Ready for L4" milestone moved from Mar 17 to Mar 10
- May require construction acceleration or parallel work

Adjustment #4: Defer Non-Critical L5 Tests

Current: All L5 testing during Apr 7-13 (concurrent with customer)

Recommended: Complete critical L5 tests Apr 7-9; defer non-critical to May

Benefit:

- Reduces conflict with customer activities
- Focuses on mission-critical failure modes
- Allows customer access with minimal disruption

Critical L5 Tests (Apr 7-9):

- Single UPS module failure (per block)
- STS automatic transfer (load continuity verification)
- Basic N+1 redundancy verification

Deferred L5 Tests (Post-handoff, May 2026):

- Extended failure mode scenarios
- Grid disturbance simulations
- Load growth scenarios
- Maintenance bypass procedures

Comparison Matrix: Plan vs. Schedule

Building H Commissioning Phases

Phase	Original Plan	Actual Schedule	Alignment Status
Pre-Energization	Week 1-4	Nov 24, 2025 – Feb 15, 2026	⚠️ Compressed into construction
Initial Energization	Week 5-8	Jan 24 – Feb 24, 2026	⚠️ Overlaps with

Phase	Original Plan	Actual Schedule	Alignment Status
			construction
Load Testing	Week 9-14	Feb 25 – Mar 17, 2026	⚠️ Merged with startup
Functional Testing (L4)	Week 15-22	Mar 18 – Apr 6, 2026	✖️ CRITICAL: 14 days vs. 8 weeks
Integration Testing (L5)	Week 23-28	Apr 7-13, 2026	✖️ CRITICAL: 5 days vs. 6 weeks
Training	Week 27-28	Not scheduled	✖️ MISSING
Documentation	Week 29-30	Not scheduled	⚠️ Must occur post-handoff

Action Items for Schedule Alignment

Immediate Actions (Within 1 Week):

1. Issue revised commissioning schedule aligned with project dates
2. Formalize startup-as-commissioning approach
3. Request construction schedule review

Near-Term Actions (Within 1 Month):

1. Develop compressed L4 test plan
2. Pre-functional checklist distribution
3. Coordinate customer handoff logistics

Ongoing Actions:

1. Weekly construction progress monitoring
2. Progressive commissioning documentation
3. Training plan development

Conclusion

The **original 30-week commissioning plan was a generic placeholder** and does NOT reflect the actual Building H schedule. The real timeline is:

- Construction + Startup: Nov 24, 2025 – Mar 17, 2026 (~16 weeks)
- L4 Commissioning: Mar 18 – Apr 6, 2026 (14 days only)
- L5 Commissioning: Apr 7-13, 2026 (5 days only)
- Customer Handoff: Apr 30, 2026

Critical Success Factors:

1. Treat construction startup phase (Feb-Mar) as L2/L3 commissioning
2. Parallel, multi-team approach during 14-day L4 window
3. Pre-functional work completed before Mar 18
4. Flexible L5 approach with post-handoff deferrals if needed
5. Zero tolerance for construction delays past Mar 17

Recommended Next Steps:

1. Update commissioning plan document with actual schedule dates
2. Issue formal commissioning schedule to all stakeholders
3. Request schedule review meeting with owner and GC
4. Begin pre-functional preparation immediately (December 2025)

Document Control:

Revision	Date	Description	Author
0.1	2025-11-19	Initial schedule alignment analysis	CxA Team

Distribution:

- Owner: CoreWeave
- Commissioning Authority
- General Contractor
- Electrical Contractor
- Design Engineer: Telios, Inc.