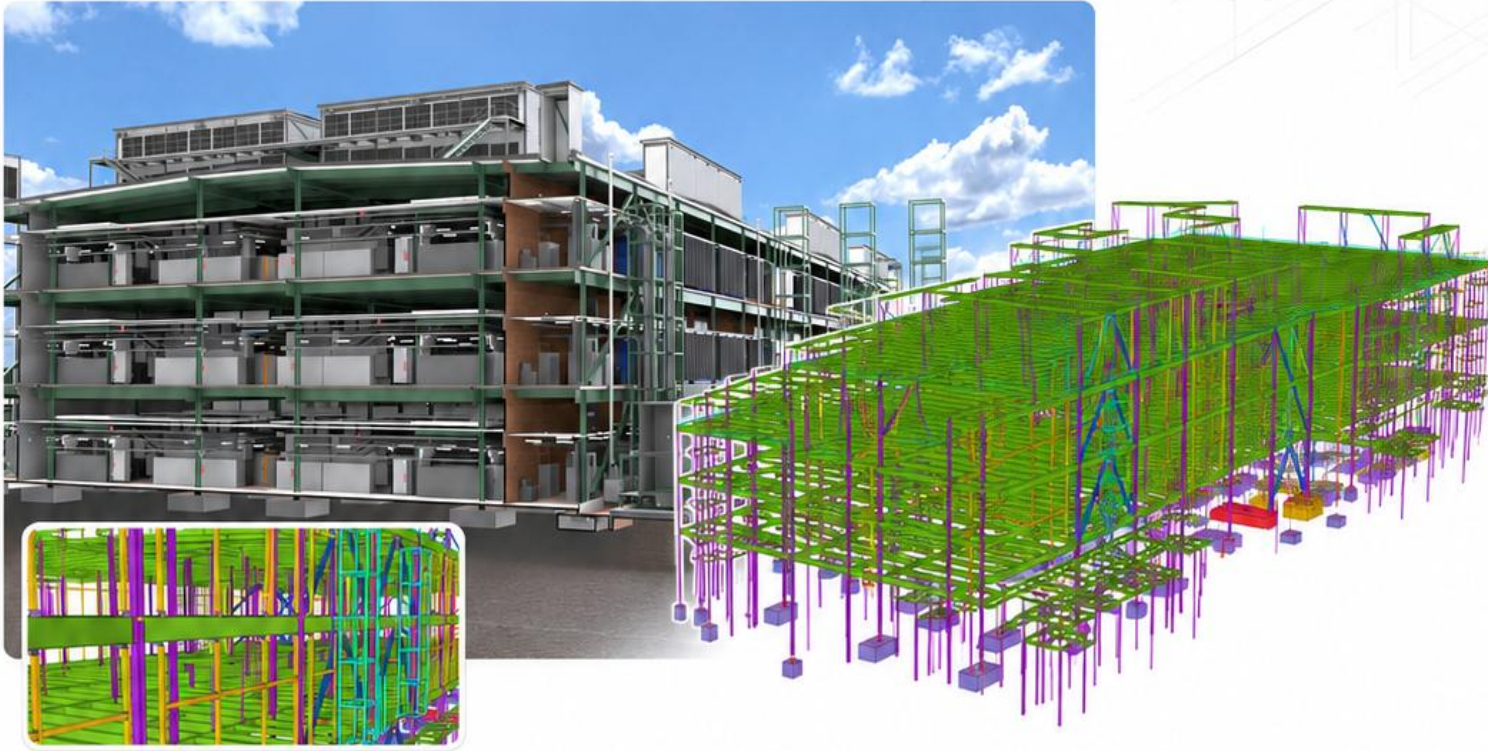


MICROSOFT MNZ DATA CENTRE

DATA CENTER STEEL DETAILING CASE STUDY



LOCATION
Bristow, VA



TYPE
Data Center



TONNAGE
4300



SCHEDULE
12 Weeks

EXECUTIVE SUMMARY

This project involved a commercial data center facility comprising both primary and secondary steel structures. The primary framing included Levels 2, 3 and 4, a sloped roof, a platform above the roof, and a slab at roof level.

Secondary steel scope included generator yard steel, pipe racks, and cable trays.

Multiple roof platform steel zones required close coordination with various suppliers for dimensions and locations.



PROJECT SNAPSHOT

Moldtek delivered end-to-end steel detailing support for the Microsoft MNZ Data Centre, covering both primary and secondary steel structures.

- ✓ Proactively drove RFIs to resolve site conditions and supplier inputs.
- ✓ Ensured seamless coordination across disciplines to meet project requirements and schedule.



**PRIMARY +
SECONDARY
STEEL**



4300
TONNAGE



12
WEEKS



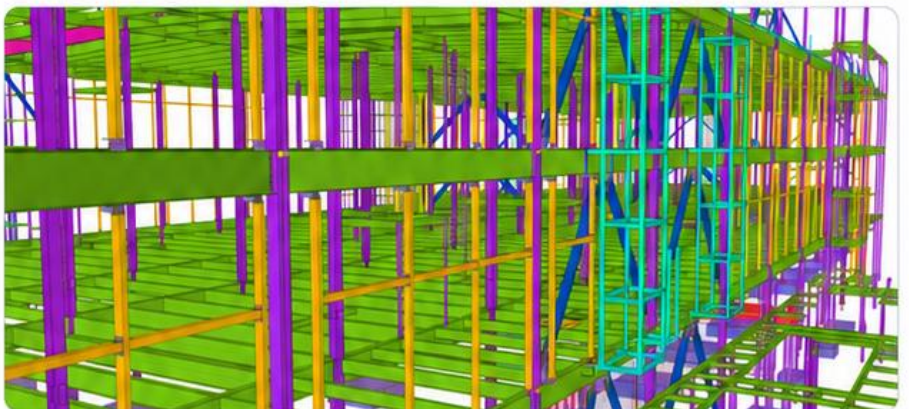
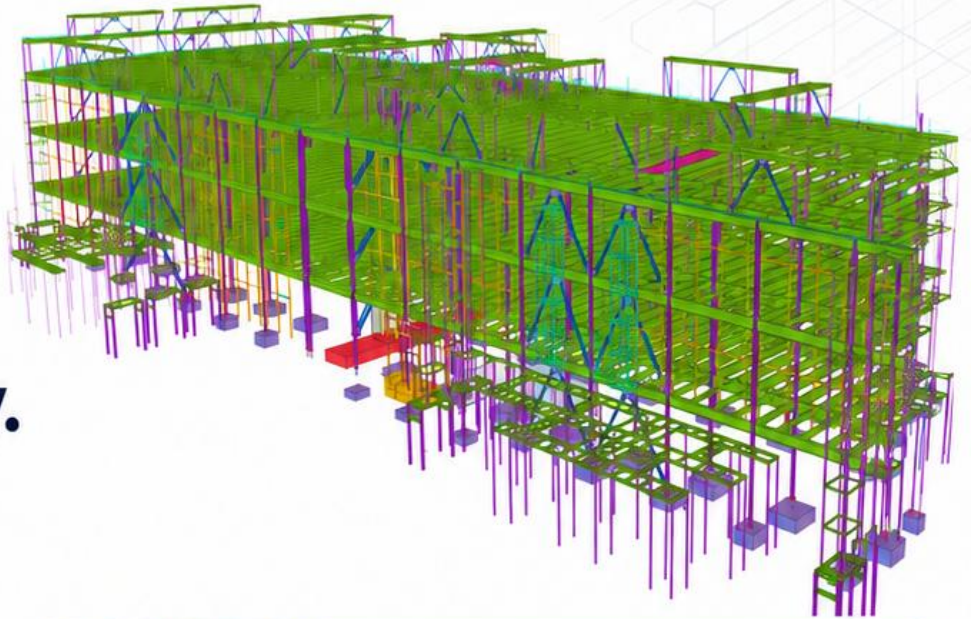
**DATA
CENTER**

PROJECT OVERVIEW

Built for integrated primary and secondary steel delivery.

The Microsoft MNZ Data Centre in Bristow, VA is a commercial data center project requiring coordinated steel detailing across both primary and secondary structures. The primary framing included Levels 2, 3 and 4, a sloped roof, a platform above the roof, and a slab at roof level.

Secondary scope included generator yard steel, pipe racks, and cable trays. With a 12-week schedule, the project depended on disciplined coordination, quick clarification cycles, and accurate detailing outputs.



PROJECT SNAPSHOT

- ✓ Bristow, VA commercial data center
- ✓ Primary steel across Levels 2, 3 and 4
- ✓ Sloped roof and roof platform
- ✓ Secondary steel including generator yard, pipe racks and cable trays
- ✓ 12-week delivery schedule



4300
TONNAGE (MT)



12
WEEKS



**DATA
CENTER**



**PRIMARY +
SECONDARY
STEEL**

SCOPE OF WORK

Scope of work across primary framing, secondary steel and roof-level coordination.



01
Primary Steel Framing

Detailed Levels 2, 3 and 4 including main structural framing.



02
Secondary Steel Systems

Coordinated secondary steel components across the facility.



03
Generator Yard Steel

Modelled and detailed generator yard support steel.



04
Pipe Racks

Integrated pipe rack framing and support elements.



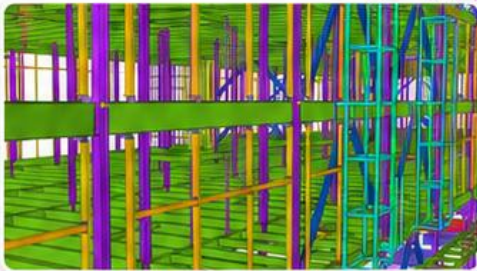
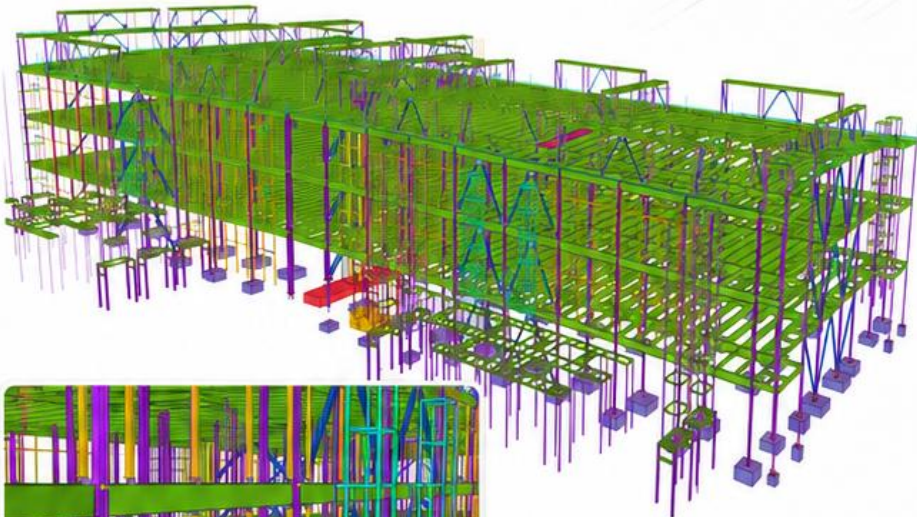
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Cable Trays

Included detailing support for cable tray steel systems.



06
Finish / Paint Strategy

Most unexposed steel painted, some exposed steel galvanized, and select steel elements fireproofed.



4300
TONNAGE



12
WEEKS



DATA
CENTER



BRISTOW,
VA

OUR DELIVERY APPROACH

1



Review
Requirements

2



Model
Primary Steel

3



Coordinate
Secondary Steel

4



Resolve Roof-Level
Interfaces

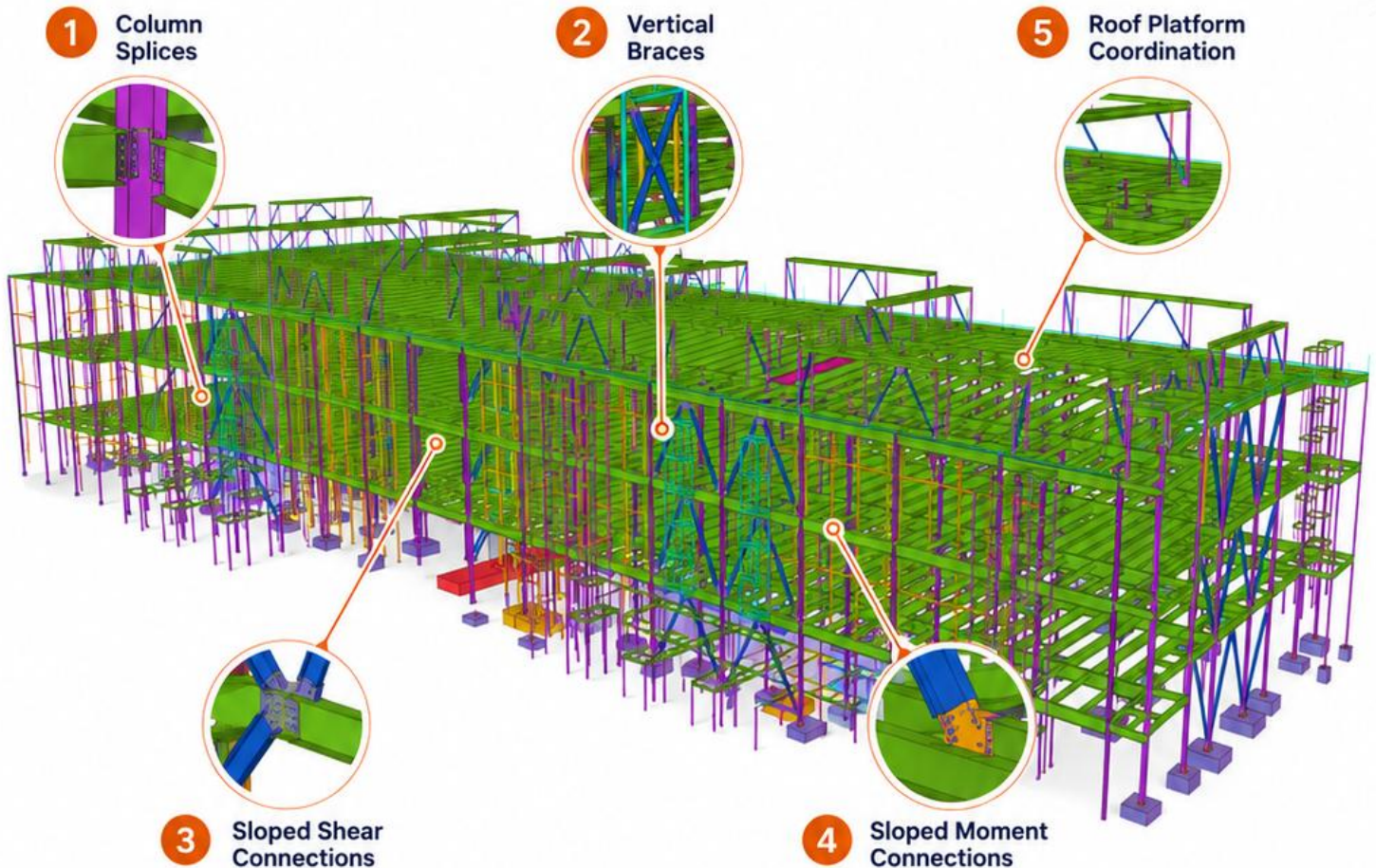
5



Release
Drawings

MANAGING CONNECTION DESIGN, SUPPLIER COORDINATION AND ROOF-LEVEL COMPLEXITY.

DATA CENTER STEEL DETAILING CASE STUDY



- 1** Complex splice and brace conditions required disciplined detailing review.



- 2** Sloped shear and moment connections demanded close coordination with design intent.



- 3** Multiple roof platform steel zones required supplier input on dimensions and locations.



- 4** Interfaces with other trades required continuous clarification and issue resolution.

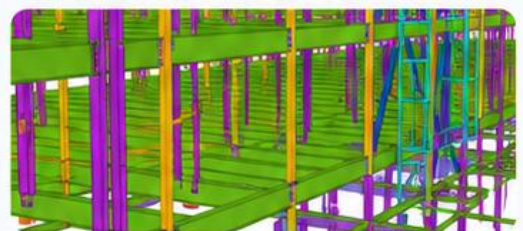


- 5** Proactive RFIs helped keep the project moving within the 12-week schedule.



IMPACT & VALUE

- ✓ Improved connection clarity
- ✓ Better supplier alignment
- ✓ Reduced rework
- ✓ Faster release readiness



DELIVERY FRAMEWORK

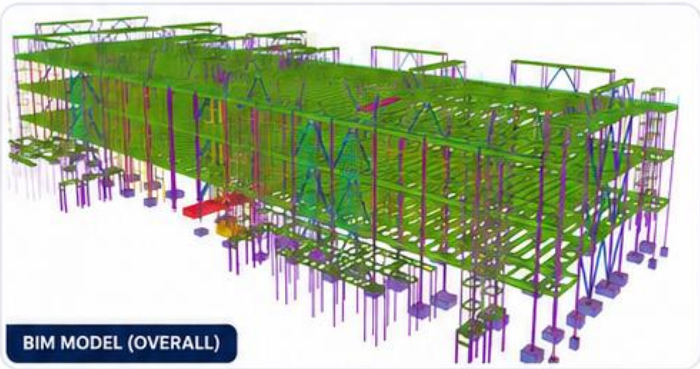
Coordinated detailing support across a 12-week programme.

DATA CENTER STEEL DETAILING CASE STUDY

Moldtek supported the Microsoft MNZ Data Centre through a structured detailing approach covering primary steel, secondary steel, connection coordination, issue resolution, and disciplined QA/QC. The delivery framework ensured accurate, release-ready outputs aligned with project requirements and site needs.



RENDERED VIEW



BIM MODEL (OVERALL)



4300
TONNAGE (MT)



12
WEEKS



DATA
CENTER



BRISTOW,
VA



Primary Steel

3D modelling and detailing of Levels 2, 3 and 4.



Secondary Steel

Generator yard steel, pipe racks and cable tray supports.



Connection Coordination

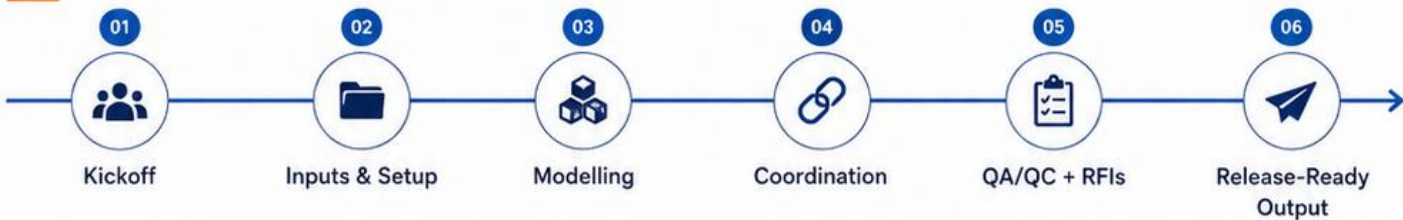
Support for splice, brace, shear and moment connection detailing.



RFI Management

Proactive issue identification and clarification tracking.

12-WEEK PROGRAMME



VALUE
DELIVERED

- ✓ Clear detailing scope for both primary and secondary steel
- ✓ Strong coordination across suppliers and trades
- ✓ Efficient handling of complex roof-level and connection conditions
- ✓ Release-ready deliverables produced on schedule