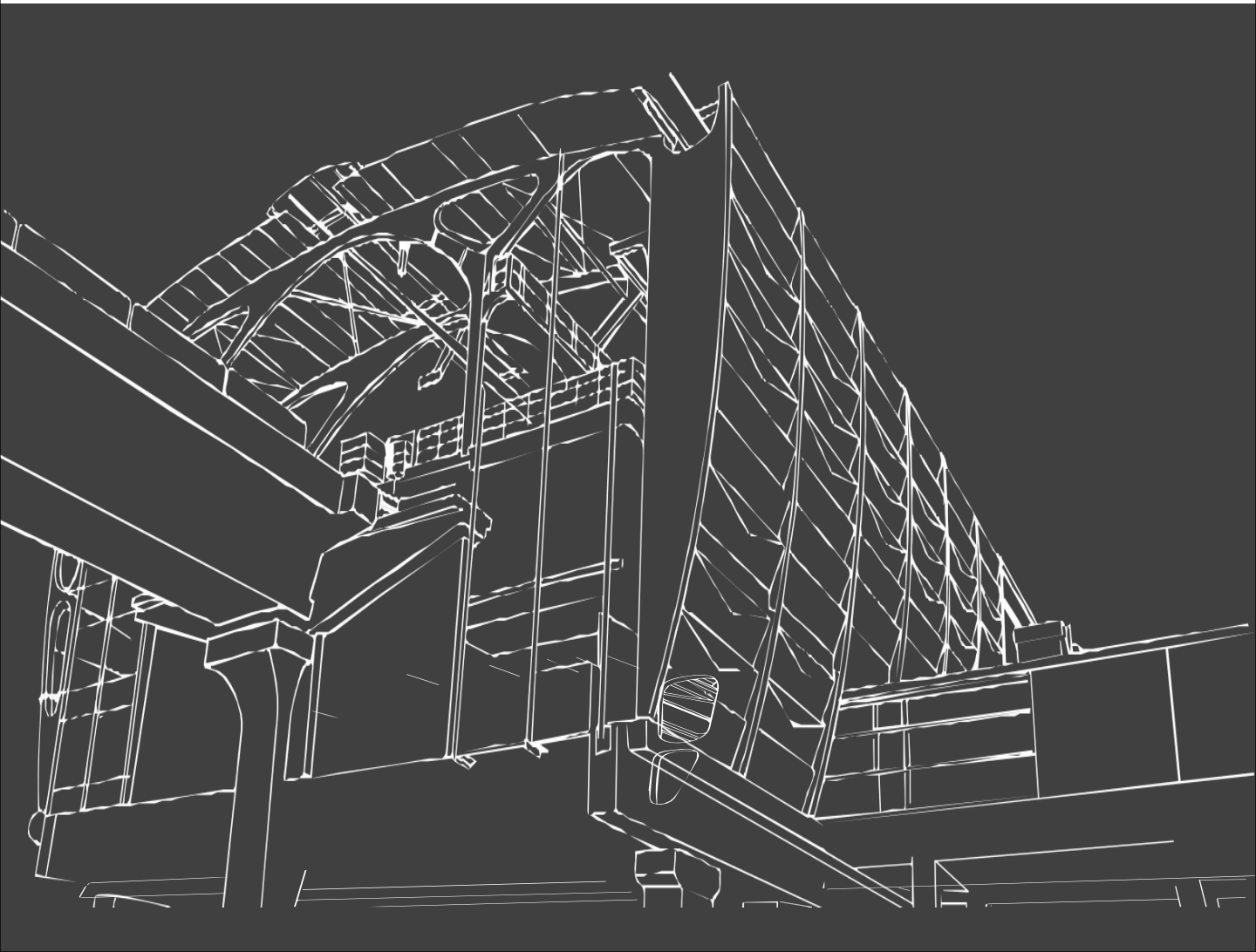
SATHYAM
CONSTRUCTIONS
It Remains Forever

BEYOND RCC:

Faster
Smarter
&
Flawless !

What if Construction wasn't

a Slow, Expensive, and Error-prone process?



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Are you Exploring possibilities with

Revolutionizing Construction technique

?

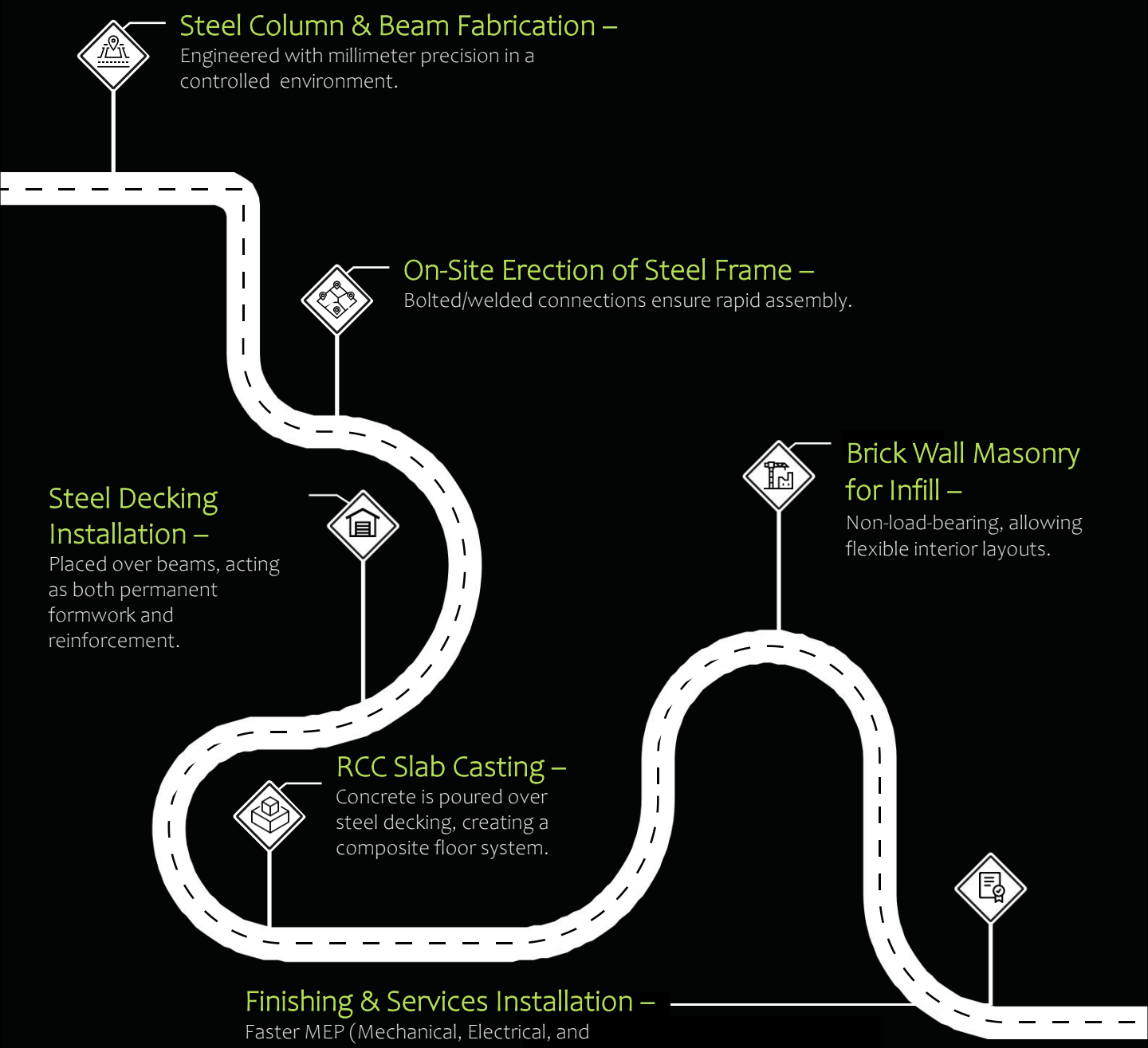
Why Don’t you try our

Composite Construction ?

Steel-Concrete Composite Construction,
integrates steel columns, steel girders, steel decking with RCC slabs, and brick walls.

It combines the speed and precision of pre-engineered steel with the durability and mass of concrete, offering an advanced alternative to conventional RCC buildings.

Construction Workflow



Steel Column & Beam Fabrication –

Engineered with millimeter precision in a controlled environment.

On-Site Erection of Steel Frame –

Bolted/welded connections ensure rapid assembly.

Steel Decking Installation –

Placed over beams, acting as both permanent formwork and reinforcement.

Brick Wall Masonry for Infill –

Non-load-bearing, allowing flexible interior layouts.

RCC Slab Casting –

Concrete is poured over steel decking, creating a composite floor system.

Finishing & Services Installation –

Faster MEP (Mechanical, Electrical, and Plumbing) integration due to prefabricated openings in steel members.

What can you do with
Steel-Framed RCC Structure buildings?

Commercial Buildings

Mid Rise Buildings

Commercial & Residential

Mass Housing

Multiplexes

Do you *know* Conventional RCC is Outdated.

We Are Building the Future – Faster & More Precisely.

Why Composite Steel Construction?

Precision & Quality – Eliminating RCC's On-Site Errors

- Steel fabrication in a controlled environment ensures ±2mm accuracy, eliminating the variability of RCC shuttering.
- RCC construction relies on site-cast formwork, which can lead to misalignments, curing defects, and material wastage—all minimized in composite steel structures.
- Factory-engineered steel members maintain consistency in dimensions, preventing human errors common in RCC rebar placements.

Speed & Efficiency – Build 2x Faster Than RCC

- Steel columns & girders are pre-fabricated, reducing on-site labor and accelerating project timelines.
- Steel deck slabs act as formwork, requiring no timber or plywood, saving materials and time.
- Concrete is poured only for the slab, eliminating the need for slow, labor-intensive RCC column & beam casting.

Why Composite Steel Construction?

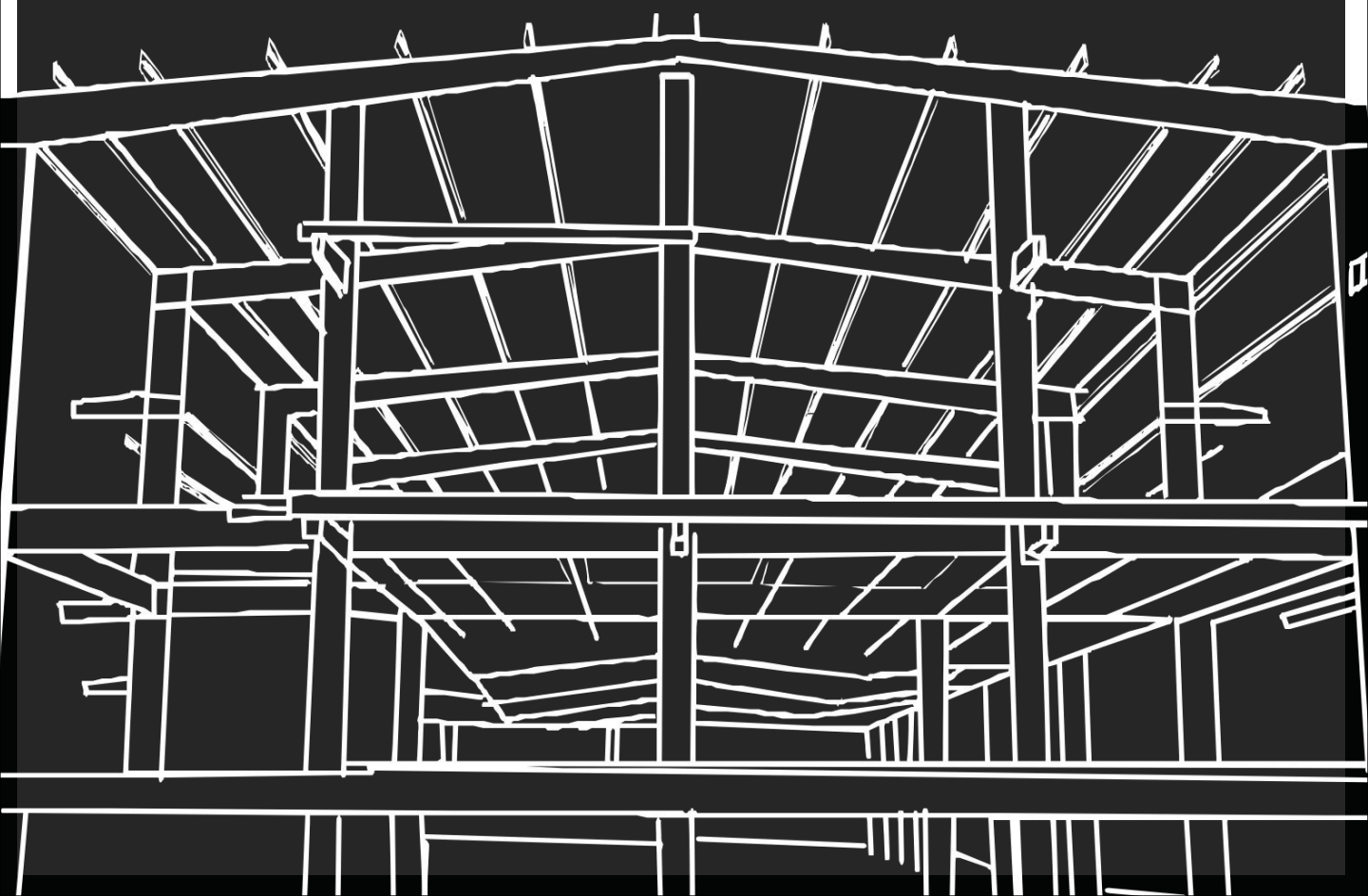
Structural Integrity & Strength – Higher Load-Bearing, Lighter Weight

- Steel columns & composite slabs provide higher load-bearing capacity than traditional RCC columns of the same dimensions.
- The structure is 30-40% lighter than conventional RCC, reducing foundation costs.
- Composite action between steel deck and RCC slab enhances performance under seismic conditions.

Sustainability & Cost-Effectiveness – Less Waste, More Savings

- Eliminates formwork waste (timber, plywood, scaffolding) that is inherent in RCC construction.
- Faster construction means reduced labor and site management costs.
- Optimized material usage – steel is 100% recyclable, and prefabrication reduces on-site wastage.

Not Just Built—
Masterfully
Engineered.



Beyond Concrete:

Discover the Composite Advantage.

Why Clients Are Choosing

Composite Construction Over RCC?

Conventional Construction (RCC)	Composite Construction (Steel-Frame)
Slow Construction: RCC needs curing time	Fast-Track Delivery: Steel structures are prefabricated and assembled on-site.
Higher Labor Costs	Less Labor-Intensive: Fewer workers required, reducing overall costs.
Limited Design Flexibility	More Architectural Freedom: Large spans, open spaces, modern aesthetics.
Heavy Structures, Costly Foundations	Lighter Yet Stronger: Steel reduces foundation costs.
Higher Maintenance (Cracks, Water Seepage, Repairs)	Durable & Low Maintenance: Steel doesn't crack, deform, or deteriorate easily.

Parameter	Conventional Construction (RCC)	Composite Construction (Steel-Frame)
Precision	Site-dependent, potential misalignments	±2mm factory-controlled accuracy
Construction Speed	Slower due to formwork, curing time	40-50% faster
Structural Weight	Heavier, requiring deeper foundations	30-40% lighter
Seismic Resistance	Rigid, cracks under high stress	High – flexible steel absorbs seismic forces
Material Wastage	High – formwork waste, rework required	Minimal – factory-cut steel, no timber
Formwork Cost	High – requires plywood, scaffolding	None – steel decking acts as formwork
Sustainability	Concrete has high carbon footprint	Steel is 100% recyclable
Long-Term Maintenance	Potential issues with RCC cracking & water seepage	Minimal – corrosion-resistant coatings

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BEYOND RCC:

Every Bolt
Every Beam
&
Perfected!

Beyond Traditional Construction –

The Unmatched Precision

- Flawless Execution:

Every steel component is precision-engineered in a controlled environment, ensuring millimeter accuracy.

- No Site Errors:

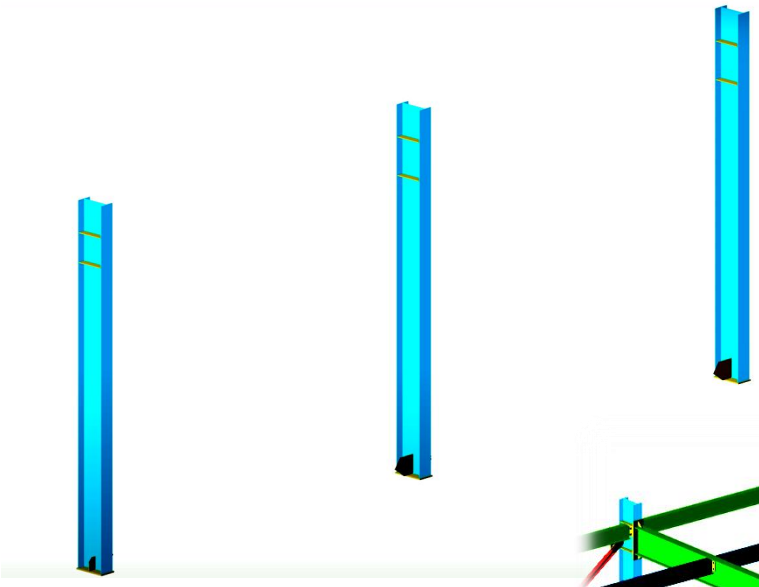
Unlike RCC shuttering, which depends on on-site labor skills and can lead to misalignments, PEB structures eliminate human error with CNC-cut, factory-assembled parts.

- Perfect Structural Fit:

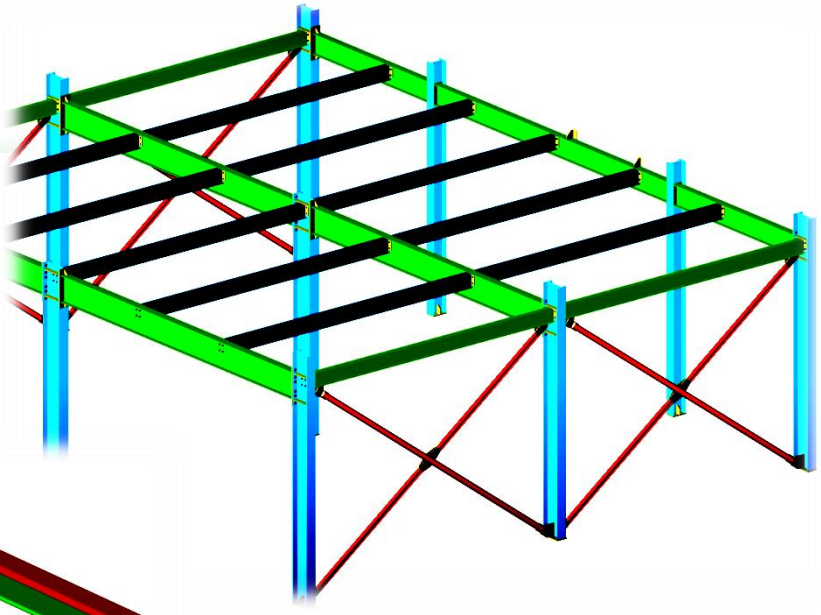
Unlike RCC's manual shuttering variations, PEB components are pre-cut, pre-welded, and pre-drilled for seamless on-site assembly.



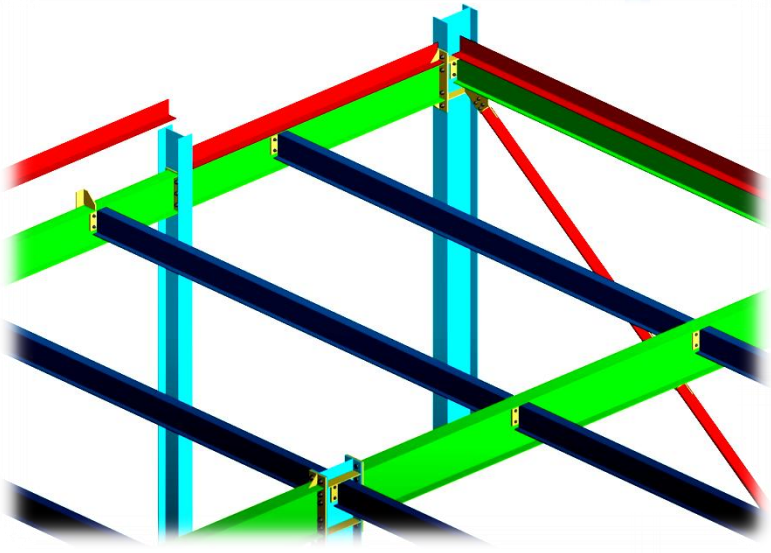

Ideal Workflow?



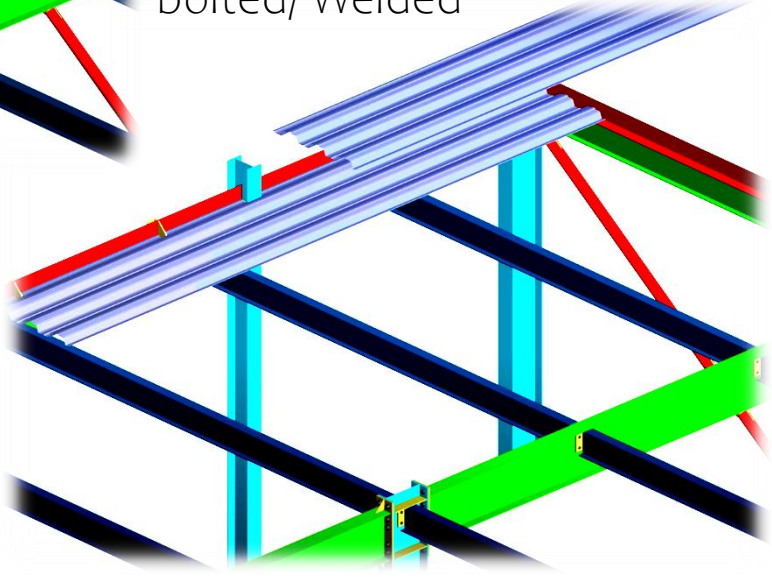
Steel Columns As per the Structural Engineer Consultation Will Be Erected



Followed by the Column , Steel Girder/ Beam Will Be Erected

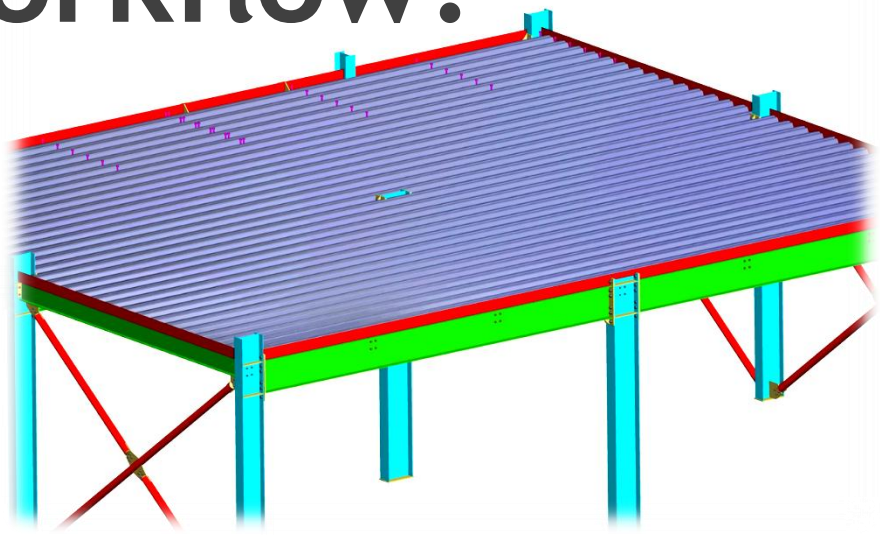


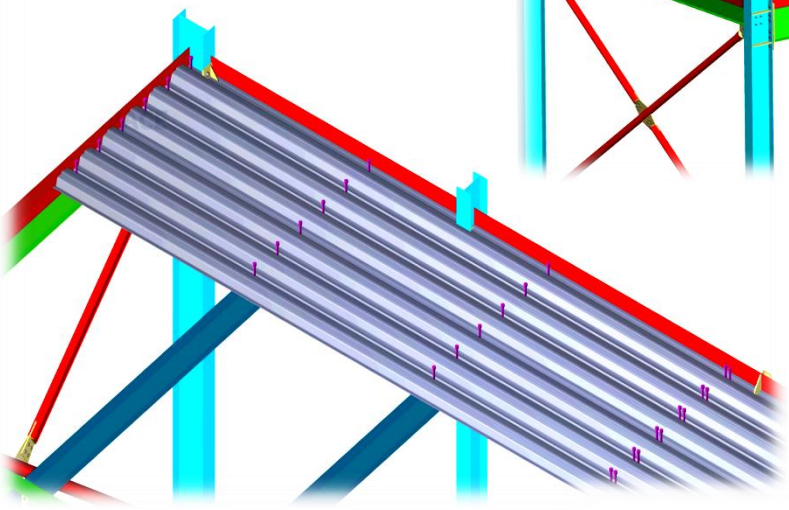
For Steel Decking Sheet L-angle And Required supports will be bolted/ Welded



Steel Decking Sheets will be fixed

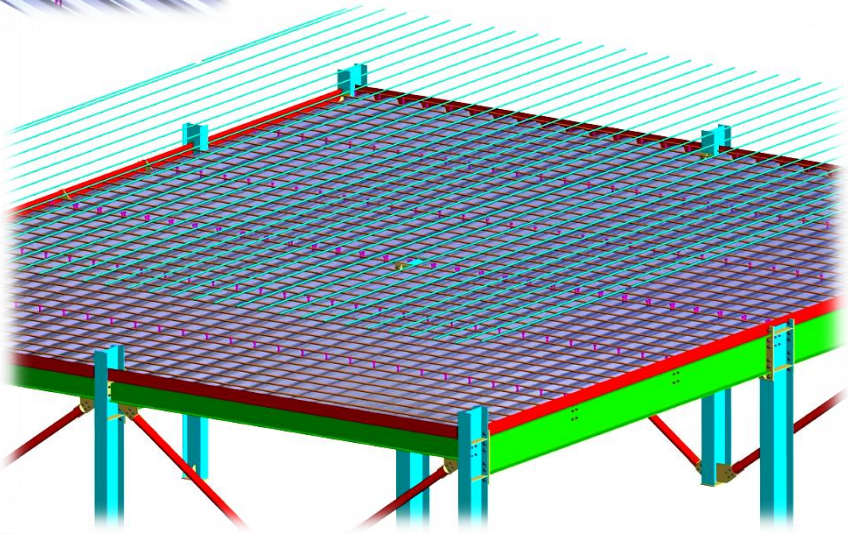
Ideal Workflow?

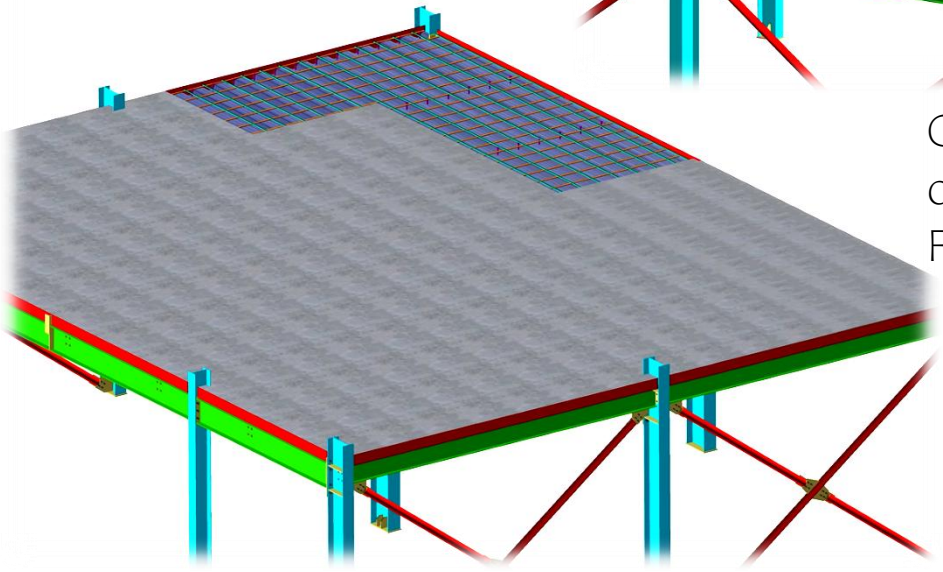




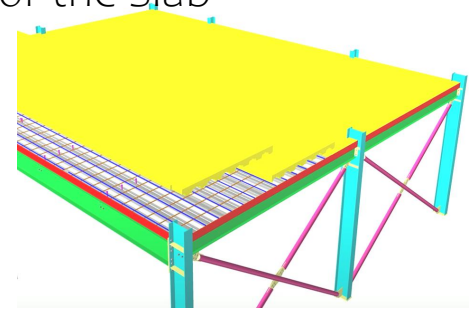
Steel Decking Sheets will be Fixed to the structural Member

Required Reinforcement Bars will be Used if needed





Concrete Will be poured on to the Decking Sheet For the Slab



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Excited!

Let's Talk!

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