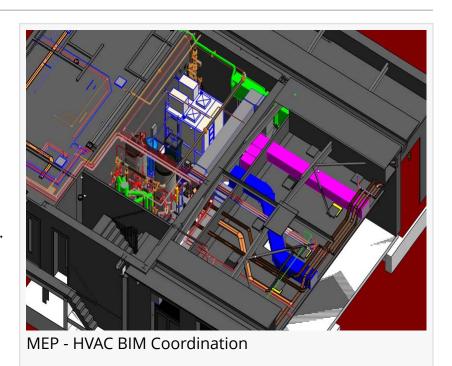


# Resolving Constructability Issues with BIM Coordination Services – Tesla Outsourcing Services

Resolve constructability issues on your projects with expert BIM coordination. Improve efficiency, minimize delays, and gain greater return on investments.

CA, UNITED STATES, December 27, 2024 /EINPresswire.com/ -- In today's dynamic construction landscape, navigating the complexities of intricate projects demands innovative solutions. Tesla Outsourcing Services, a leading provider of Building Information Modeling (BIM) coordination services, is at the forefront of transforming construction practices with its advanced expertise.



As a BIM Coordination Manager at Tesla rightly said "We recognize that every project presents unique challenges. Our team's deep understanding of BIM and construction workflows allows us to anticipate and proactively address potential clashes, guaranteeing a smooth and efficient construction process."



We understand how crucial precision, and timeline are in the AEC industry.
Therefore, our team has mastered BIM clash detection & coordination to deliver error-free and timely projects to our clients."

Bhagwati Pathak

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The construction process involves a delicate interplay between architectural, structural, and mechanical, electrical, plumbing, and fire protection (MEPF) disciplines. While each domain possesses specialized expertise, independent work often leads to unforeseen clashes in designs. These clashes, ranging from physical obstructions to logistical conflicts, can significantly impact project timelines, budgets, and overall quality.

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- Hard Clashes: These occur when physical components occupy the same space due to geometric errors.
   Examples include a duct intersecting a pipe or an air conditioner unit passing through a wall.
- Soft Clashes: Also known as clearance clashes, these involve insufficient space for MEP installations, compromising functionality and maintenance access.
- Work-Flow Clashes: These 4D clashes pertain to scheduling conflicts, material delivery delays, and equipment availability, potentially disrupting the entire construction process.

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Tesla Outsourcing Services is a leading provider of <u>BIM Coordination Services</u>, committed to delivering exceptional value to their clients. Their team of experienced BIM experts possess a deep understanding of construction processes and industry standards. Tesla's BIM coordination services include:

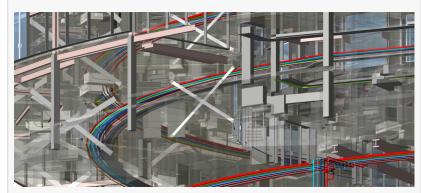
 Model Review and Clash Detection: Tesla's skilled modelers meticulously review BIM models to identify and

resolve clashes between architectural, structural, and MEP systems.

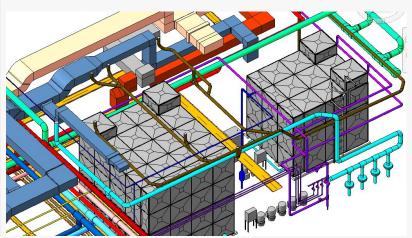
- Coordination Meetings and Reporting: Tesla facilitates regular coordination meetings with project stakeholders to discuss and address identified issues. Detailed reports are generated to document the resolution process.
- Model Optimization and Interference Resolution: The experts at Tesla work closely with design teams to optimize models and find innovative solutions to resolve complex interferences.
- 4D Construction Sequencing: By integrating 4D BIM, Tesla helps clients visualize the construction sequence, identify potential bottlenecks, and optimize the project schedule.
- 5D Cost Estimation: Tesla's 5D BIM capabilities enable accurate cost estimation by linking BIM



BIM Coordination Of Commercial Complex



Multidisciplinary BIM Coordination

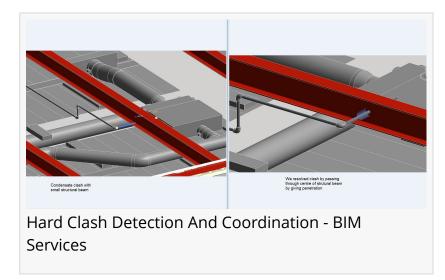


Plumbing - HVAC BIM Coordination

models with cost data, providing valuable insights for budgeting and decision-making.

By partnering with Tesla Outsourcing Services, clients enjoy a multitude of benefits:

 Improved Project Efficiency: Early identification and resolution of clashes minimize construction delays and rework.



- Enhanced Project Quality: BIM coordination ensures accurate and coordinated design, leading to higher-quality construction outcomes.
- Reduced Costs: By proactively addressing issues, BIM coordination helps avoid costly changes and field modifications.
- Enhanced Collaboration: BIM coordination fosters effective communication and collaboration among project stakeholders.
- · Risk Mitigation: By identifying potential risks early on, BIM coordination helps mitigate

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# 1. BIM Coordination for Battersea Power Station

Battersea Power Station is a legendary landmark in the London Borough of Wands worth that has been transformed into a 7-floor residential apartment. Its surroundings have been recently redesigned and brought back to life.

Tesla's project responsibilities included <u>BIM Services</u>, Coordination, and shop drawing creation for the residential apartment with seven floors. The modeling was carried out at LOD 350, which is the minimum requirement for efficient coordination and producing shop drawings.

Initially, the project was limited to tagging. The project underwent various design changes, resulting in modeling and coordination modifications. Tesla had to accommodate these changes in the model in a short time while re-coordinating with other teams.

2. Development of complete BIM coordinated model for an apartment Tesla's scope was to develop architectural, structural, mechanical, electrical, and plumbing model along with MEP installation drawings after the coordination process of all disciplines. The building was a residential apartment consisting of 8 floors above ground + Roof + 2 Basements with an area of 7, 00,000 square feet.

The team consisted of 10 architects and structural BIM modelers, and 10 MEP BIM engineers and modelers. They converted the input drawings and related information into detail-rich architectural, structural, and MEP models. After the models were created, they performed coordination between MEP services and other disciplines. Post coordination, a complete set of MEP Installation Drawings with architectural background was developed.

The biggest challenge Tesla faced during this project was the turnaround time. Significant design changes were required to coordinate the models which put a strain on the already short deadline. Moreover, the project deadline was preponed mid-way. This was brilliantly handled by Tesla who ultimately delivered the project in 200 working days against the initial commitment of 300 working days.

Tesla's exceptional delivery and the ability to handle unforeseen changes during the course of the project won over the client, which resulted in the client rewarded Tesla with a 20% additional fee and bonus and extending the project cooperations to the Phase II of the same building.

3. Revit Modeling Services for a Community Center and Commercial Building Tesla developed 3D BIM models for architecture, structure, and MEP for a community center and a commercial building. The goal was to create a fully coordinated MEP model and extract detailed installation drawings.

Tesla encountered numerous clashes during the coordination process, which required iterative revisions based on client feedback. Despite the phased input, Tesla successfully delivered the project on time and met the client's expectations.

Tesla's Revit Modeling Services effectively addressed the challenges of BIM coordination for a community center and a commercial building. We developed 3D architecture, structure, and MEP models, successfully resolving numerous clashes through iterative revisions and client feedback. This resulted in a fully coordinated MEP model and the extraction of detailed installation drawings, all delivered on time and to the client's satisfaction.

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As technology continues to advance, BIM coordination is poised to become even more powerful. Emerging technologies like virtual reality and augmented reality are further enhancing the visualization and collaboration capabilities of BIM. By embracing BIM coordination, construction professionals can unlock new levels of efficiency, quality, and innovation.

Tesla Outsourcing Services is committed to staying at the forefront of BIM technology and providing cutting-edge solutions to the clients. Their experience of 17+ years in the global AEC industry gives them an edge over their competitors in terms of understanding clients' needs and latest market trends. With the aim to become the most trusted <u>BIM Service Provider</u>, Tesla continue to strive towards excellence through adaption and upgradation.

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