MAREK

MAREK BIM DELIVERABLES

SAMPLE BID LETTER

MAREK

BIM Base Bid: $

Inclusions:

1. Participation is based on access to a complete and accurate Architectural model - MAREK includes validation/rework to insure the accuracy of architectural models.
2. Modeling of interior partitions - scope not to exceed LOD 350 - Critical framing only (top and bottom track, jamb studs, headers, end studs, wall intersections, and kickers.)
3. Drywall ceilings and furrdowns modeled as an overall thickness for spatial representation (LOD 300) - thickness to be determined by construction components.
4. Acoustical ceilings modeled as an overall thickness for spatial representation (LOD 300) - thickness to be determined by construction components.
5. Exterior ceilings modeled as an overall thickness for spatial representation (LOD 300) - thickness to be determined by construction components.
6. Exterior partitions shown as a spatial representation as indicated in the exisiting architectural model. (Typical details for exterior conditions can be created if required. Framing for typical conditions baesd on approved shop drawings.)
7. Participation in coordination and clash detection process.
8. Clash detection meetings to be attended virtually by MAREK BIM coordinator.
9. BIM software - Revit, Navisworks, and MWF.

Exclusions:

1. Modeling of complete interior stud wall systems - Critical framing only included.
2. Modeling of all gypsum ceiling components, hangers, and supports.
3. Modeling of all acoustical ceiling components, hangers, and supports.
4. Modeling of exterior. Exterior framing to be a spatial representation as per the exisiting architectural model.
5. Modeling of all exterior ceiling components, hangers and supports.
6. Modeling of all blocking.
7. Modeling of MEP penetrations.
8. Creating interior partition shop drawings/panel drawings.
9. Modeling of components for all other trades.
10. Purchasing of additional BIM software.
11. On-site BIM coordinator.

*Note: Pricing and participation in the BIM process is contigent on being brought into coordination/clash detection at the same time as MEP subcontractors.

BIM **DELIVERABLES**

In today's construction landscape, precision, efficiency, and innovation are paramount. Leveraging Building Information Modeling (BIM) can transform the way projects are conceptualized, planned, and executed. MAREK specializes in delivering a comprehensive suite of BIM services tailored to your needs. From meticulously detailed walls and ceilings to intricate structural framing and point layout systems, our BIM solutions ensure accuracy, streamline workflows, and minimize errors. With our expertise in generating detailed shop drawings and comprehensive project details, we enhance collaboration and communication among stakeholders, fostering seamless project coordination. Partnering with us means unlocking the full potential of BIM technology, empowering your team to achieve exceptional results on every project.

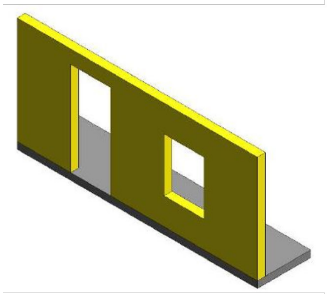
BIM **PROCESS**

Utilizing Building Information Modeling (BIM) is indispensable for achieving exceptional results in construction projects. Our process ensures precision, efficiency, and seamless coordination, guaranteeing project success. Here's why BIM is essential and how we execute it.

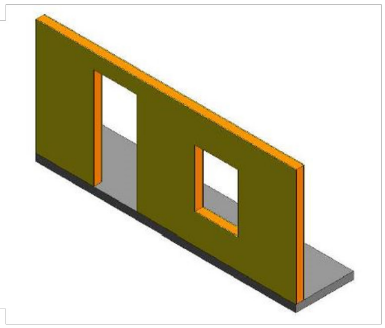
- Access Existing or Develop Revit Model: We begin by accessing the existing Architect's Revit Model. If unavailable, we develop a meticulously detailed model aligned with the contract's scope of work.
- Confirm Model Accuracy: We meticulously confirm the model's accuracy by cross-referencing it with contract drawings, ensuring precise details such as wall height, thickness, and dimensions.
- Incorporate Approved Changes: All approved changes are seamlessly integrated into the model to reflect the design team's decisions accurately.
- Add Framing and Details: Critical framing elements, including track, corner, and end-wall framing, as well as door jambs and headers, are added to walls and ceilings for comprehensive detailing.
- Access Coordination Files: We access all necessary files for coordination purposes, ensuring seamless integration with other trades.
- Generate Clash Reports: Utilizing Navisworks or similar clash detection software, we generate Clash Reports to identify and resolve coordination conflicts efficiently.
- Coordinate with Other Trades: We coordinate closely with other trades, modifying changes as approved by the design team to ensure alignment with the project's vision.
- Iterative Process: We repeat this process iteratively until the models are clash-free, guaranteeing optimal coordination and readiness for flawless construction execution. Through our meticulous BIM process, we ensure that every project achieves exceptional results, delivering value and exceeding expectations.

LEVEL OF **DEVELOPMENT**

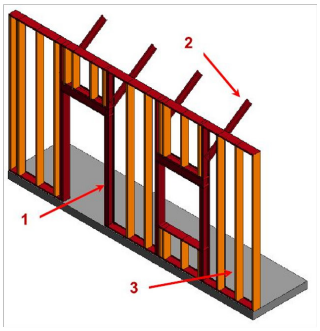
LOD 100 thru 300 are generally used in the design phase by architects and general contractors. The models recieved are generally issued based on these basic LOD's. MAREK upgrades the model received to reflect a level of development of 350.

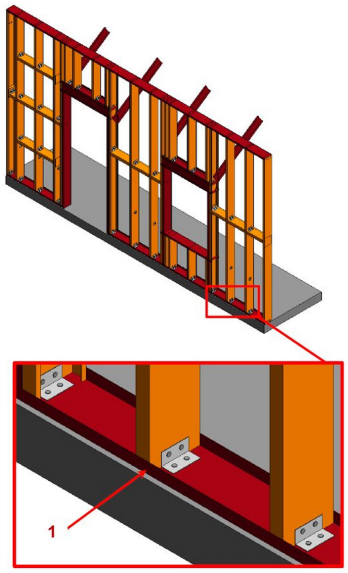


LOD 200



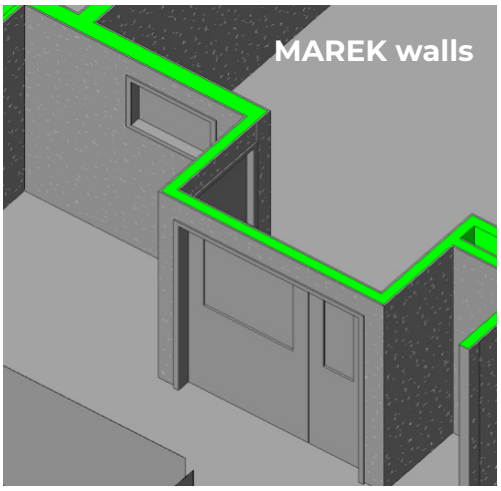
LOD 300

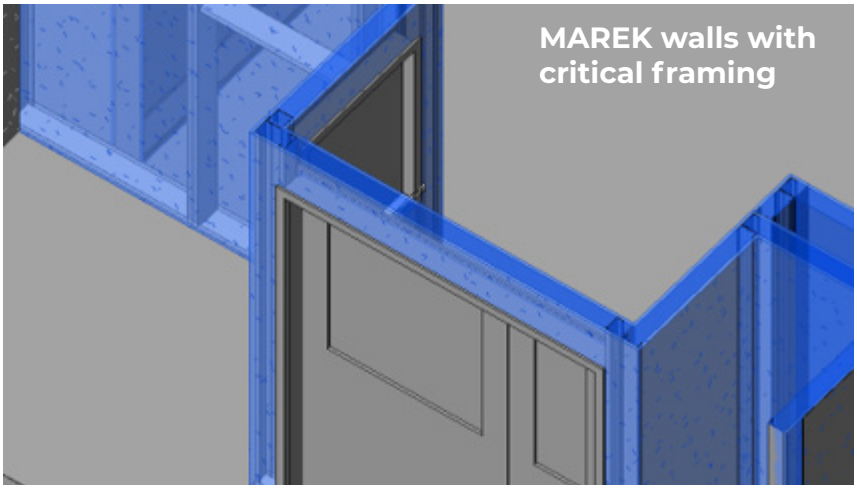




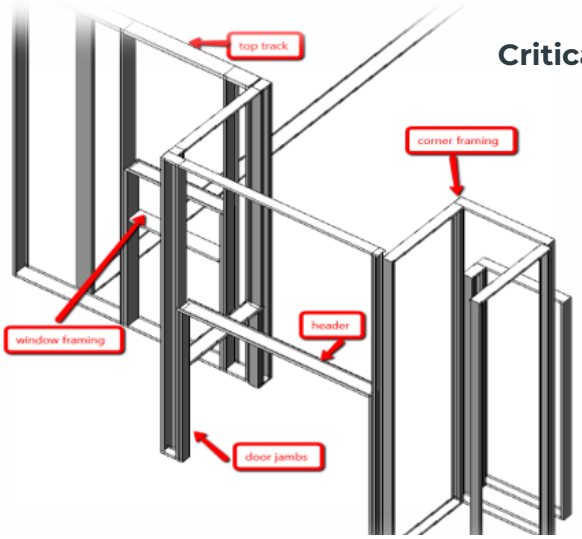
LOD 350

BIM **PROCESS**



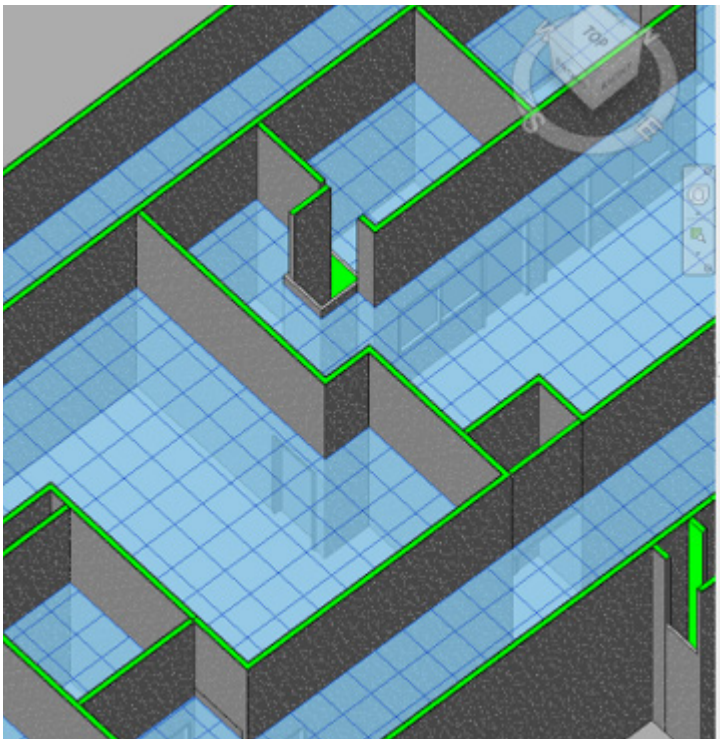


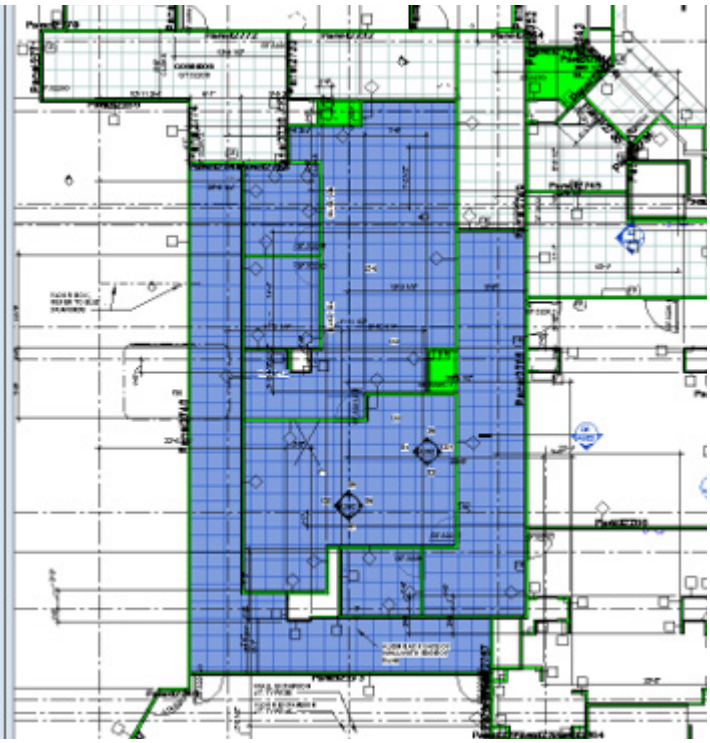
BIM allows for the detailed modeling of critical framing elements such as track, corner, and end-wall framing, as well as door jambs and headers. By incorporating critical framing into the BIM model, potential clashes and conflicts with other building systems can be identified and resolved early in the design phase, minimizing costly rework during construction. Leveraging BIM for critical framing enhances project efficiency, quality and coordination.



Critical framing

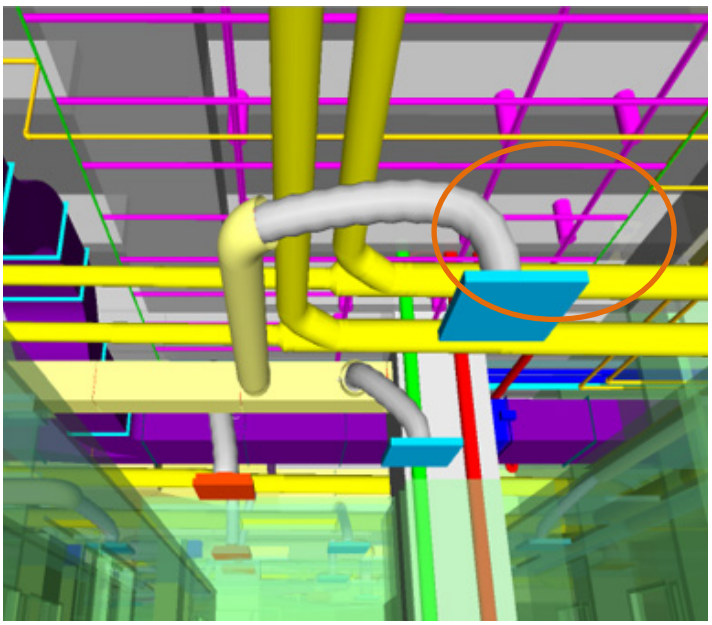
CEILINGS

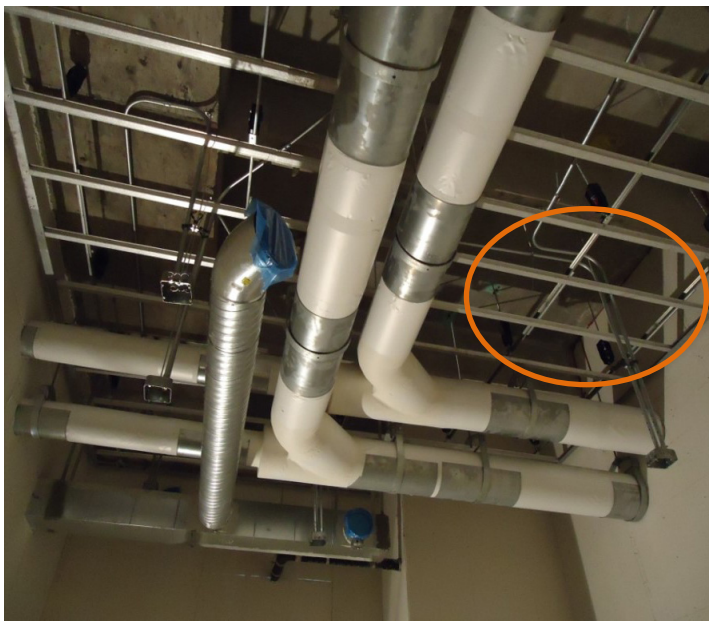




CEILING ISOLATORS

Building Information Modeling (BIM) for ceiling isolators offers a revolutionary approach to planning and executing ceiling installations with unparalleled accuracy and efficiency. By leveraging BIM technology, ceiling isolators can be precisely modeled and integrated into the overall building design, ensuring optimal performance and coordination with other building systems. BIM facilitates the visualization of isolator placements, allowing for early detection of clashes and conflicts with structural elements, mechanical, electrical, and plumbing (MEP) systems, and architectural features. This early clash detection minimizes rework and costly delays during the construction phase.

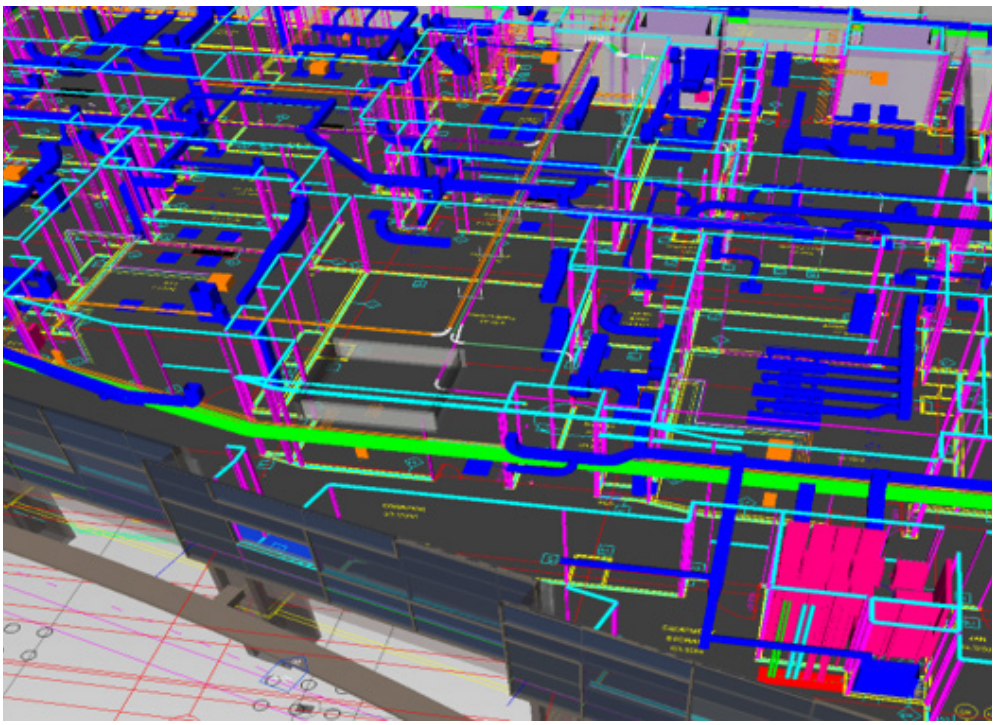




MULTI-TRADE **COLLABORATION**

Multi-trade Building Information Modeling (BIM) coordination offers a host of benefits that enhance project efficiency, reduce errors, and improve overall outcomes:

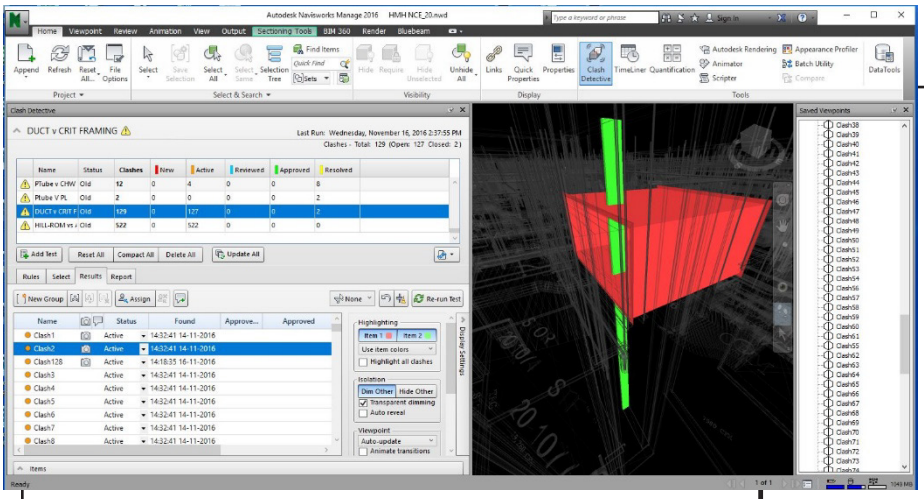
- Early Clash Detection: BIM enables the detection of clashes and conflicts between different building systems (such as structural, architectural, mechanical, electrical, and plumbing) before construction begins. This early identification minimizes rework, delays, and costly changes during construction.
- Improved Collaboration: Multi-trade BIM coordination fosters collaboration among various project stakeholders, including architects, engineers, contractors, and subcontractors. By working together within the BIM environment, teams can resolve design conflicts, make informed decisions, and ensure that all systems integrate seamlessly.
- Enhanced Communication: BIM provides a centralized platform for communication and information sharing. Project teams can access and update the BIM model in real-time, ensuring that everyone has access to the latest design information and project updates.
- Optimized Space Utilization: By coordinating multiple trades within the BIM model, teams can optimize space utilization and ensure that building systems are efficiently integrated without conflicts or interference.
- Cost Savings: The early clash detection and improved coordination facilitated by multi-trade BIM coordination help to minimize rework, change orders, and construction delays, resulting in cost savings for the project.
- Increased Productivity: BIM streamlines the coordination process, allowing teams to work more efficiently and productively. With better access to information and improved communication, project teams can make decisions faster and keep the project on schedule.
- Quality Assurance: Multi-trade BIM coordination helps to ensure the quality and accuracy of the construction documents and plans. By identifying and resolving conflicts early, teams can deliver a higher-quality final product that meets or exceeds client expectations.

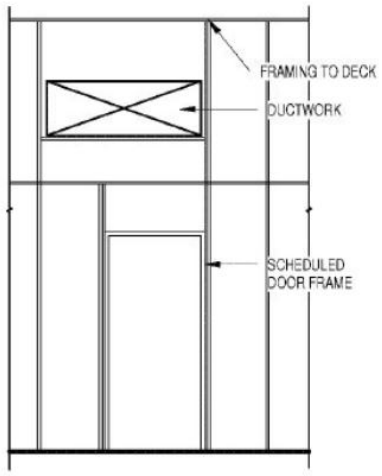


Overall, multi-trade Building Information Modeling coordination offers significant advantages in terms of efficiency, collaboration, cost savings, and quality, making it an essential tool for modern construction projects.

FIELD COORDINATION

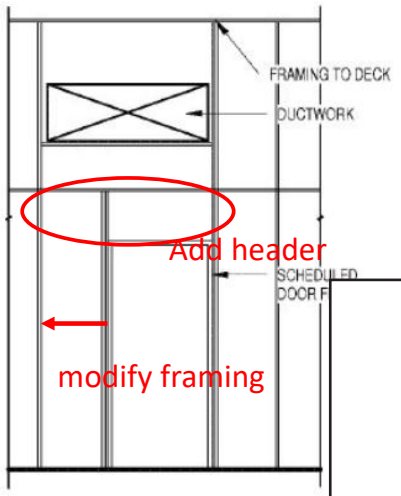
BIM field coordination is a critical process that involves the on-site implementation and management of Building Information Modeling (BIM) to ensure seamless collaboration among various trades and stakeholders during construction.





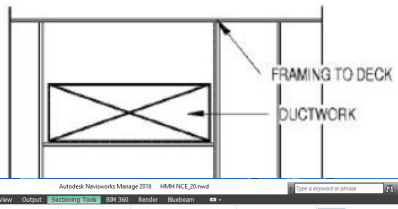
WHERE DUCTS PREVENT DOUBLE JAMB STUDS FROM GOING TO DECK
FRAME AROUND DUCT WITH STUDS SAME GAGE AS JAMB STUDS

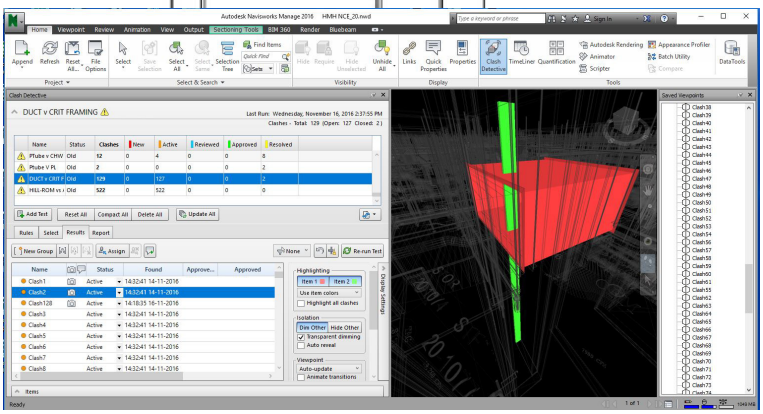
C4 TYPICAL FRAMING DUCTWORK AND DOORS
SCALE: 1/4" = 1'-0"



WHERE DUCTS PREVENT DOUBLE JAMB STUDS FROM
FRAME AROUND DUCT WITH STUDS SAME GAGE AS

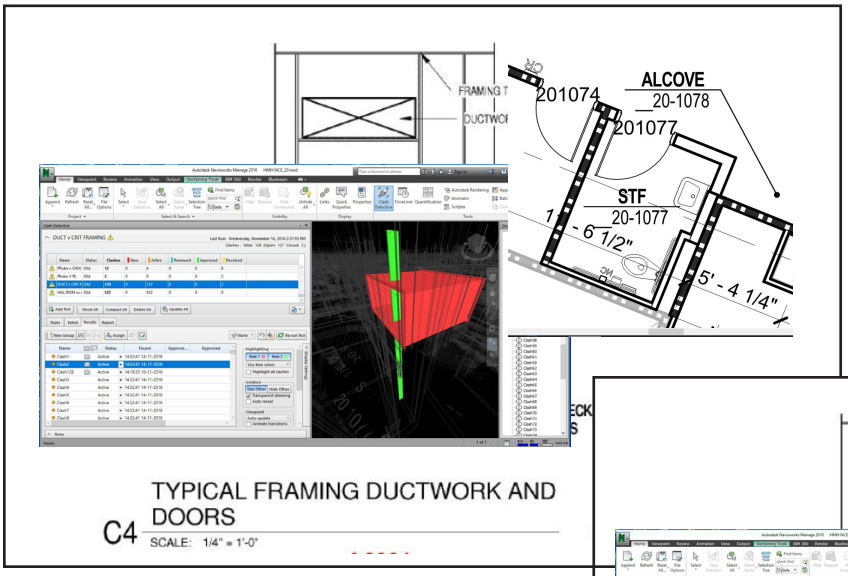
TYPICAL FRAMING DUCTWORK



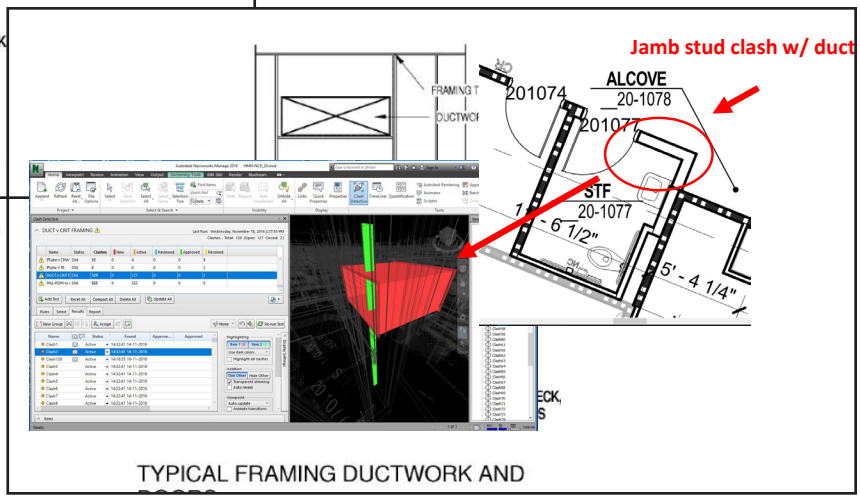


C4 TYPICAL FRAMING DUCTWORK AND DOORS
SCALE: 1/4" = 1'-0"

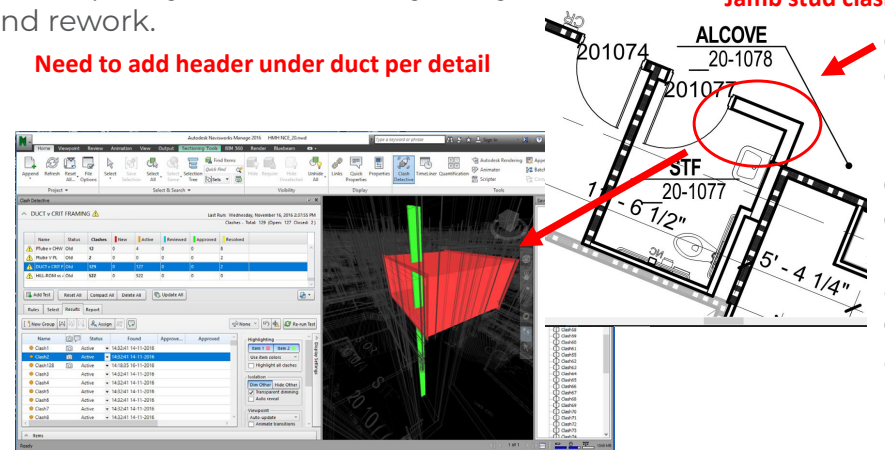
FIELD COORDINATION



Real-Time Access to Information: BIM field coordination allows on-site teams to access the latest design information, including 3D models, plans, and specifications, in real-time using mobile devices or tablets. This ensures that everyone is working with the most up-to-date data, reducing the risk of errors and rework.

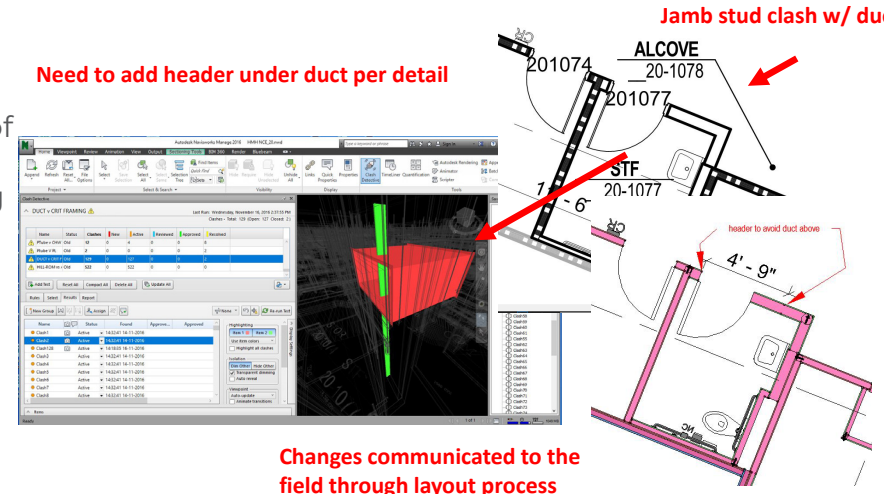


Clash Detection and Resolution: On-site BIM coordination involves using clash detection software to identify conflicts between different building systems, such as structural, architectural, mechanical, electrical, and plumbing. By detecting clashes early in the construction process, teams can resolve issues quickly and avoid costly delays and rework.



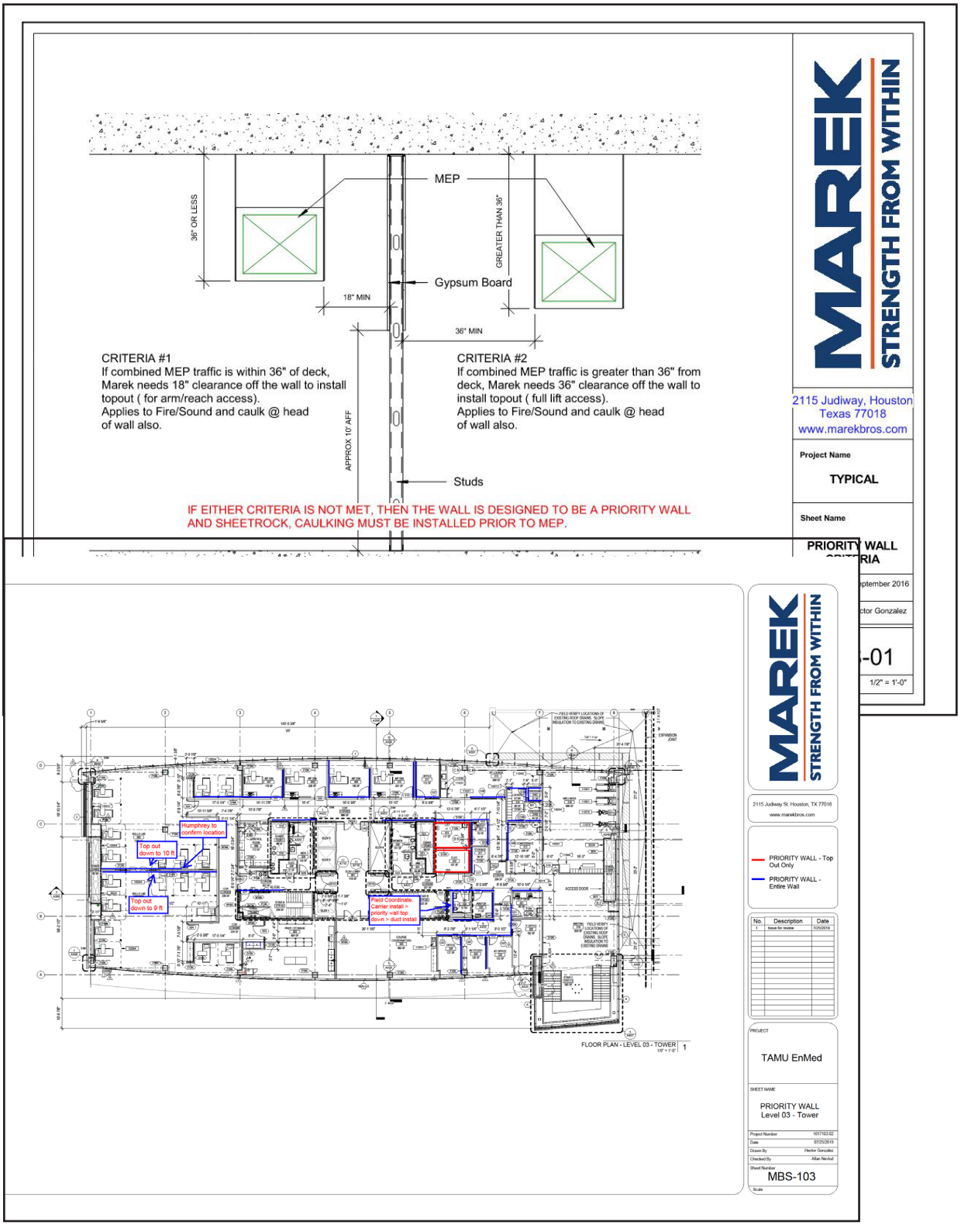
Coordination Meetings and Collaboration: BIM field coordination involves regular coordination meetings where stakeholders from different trades come together to discuss project progress, address issues, and coordinate work activities. These meetings facilitate collaboration and communication among team members, helping to keep the project on track and within budget.

Quality Assurance and Control: BIM field coordination helps ensure the quality and accuracy of construction work by providing a centralized platform for reviewing and verifying design information. On-site teams can use BIM models to validate construction details and ensure that work is being completed according to specifications.



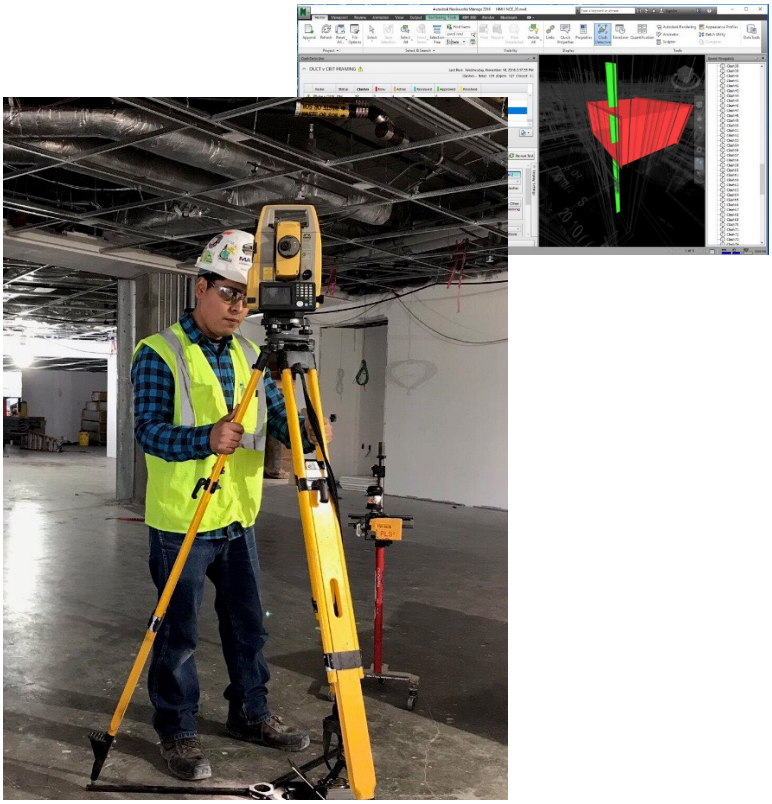
PRIORITY WALLS

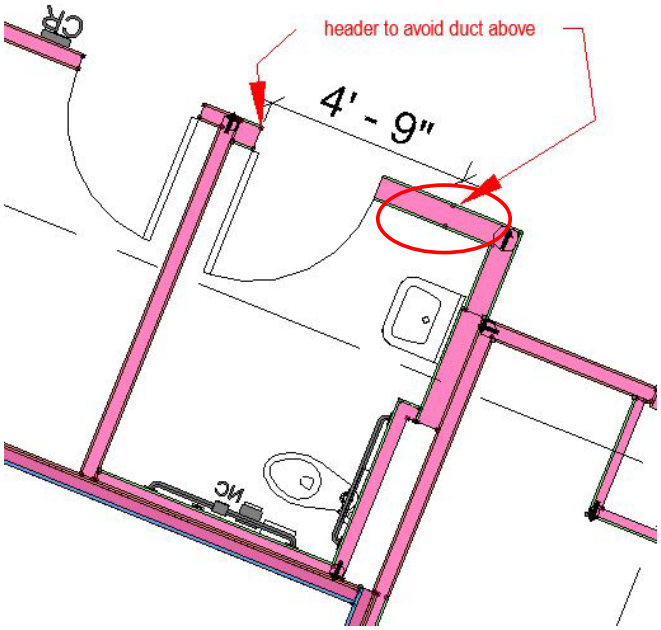
By leveraging Building Information Modeling (BIM) technology and industry expertise, MAREK can strategically designate priority walls that accommodate MEP systems while maintaining necessary clearance for partitions. This approach minimizes clashes and conflicts between MEP installations and partition walls, reducing the need for costly rework and delays during construction. MAREK's method streamlines the coordination process, enhances project planning, and ultimately delivers superior results, ensuring that both MEP systems and partition walls are seamlessly integrated into the building design.



POINT LAYOUT

BIM Point Layout is a cutting-edge technology that revolutionizes the accuracy and efficiency of construction layout processes. By leveraging Building Information Modeling (BIM) data, Point Layout enables precise placement and marking of key points, such as anchor bolts, equipment locations, and structural elements, directly on the construction site. This advanced approach eliminates manual measurement errors and streamlines the layout process, ensuring that building components are installed with pinpoint accuracy according to the BIM model. BIM Point Layout enhances collaboration among project stakeholders, improves productivity, and reduces rework, ultimately leading to faster project delivery and cost savings. With BIM Point Layout, construction teams can achieve unparalleled precision and efficiency, setting a new standard for construction layout methodologies.





POINT LAYOUT

BIM Point Layout enhances productivity by combining the power of BIM data with advanced surveying technology, resulting in faster, more accurate, and more efficient construction layout process.