

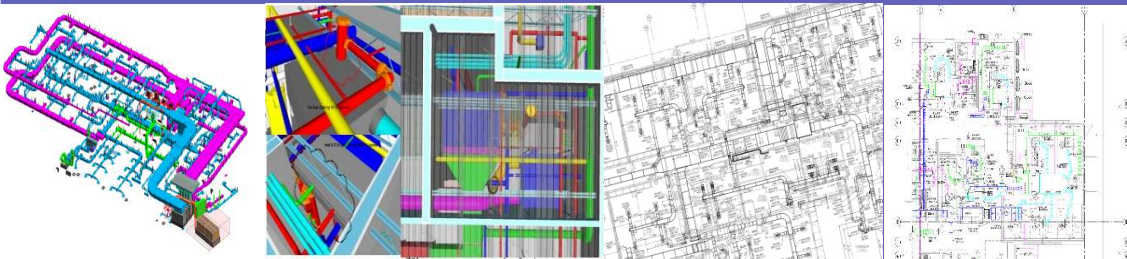
BIM/CAD Services For MECHANICAL SYSTEM

BIM Services

3D MODELLING
CLASH CO-ORDINATION
SHOP DRAWING
PENETRATION OR BLOCKOUT DRAWING
EQUIPMENT PAD LAYOUT
HANGER AND INSERT DRAWING
AS BUILT DRAWING

CAD Services

SHOP DRAWING
AS BUILT DRAWING



D & D team is passionate to BIM services and committed to following goals for the customers:

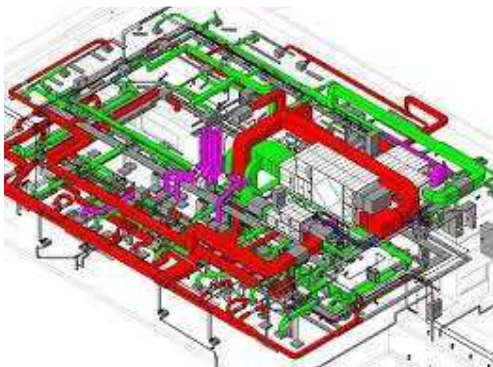
- Maximize client value by adopting the latest technologies and innovations.
- Improve project efficiency by our best internationally tested workflow to provide high quality services.
- Save time by using team effort with skilled team members.
- Reduce client costs up to 25 % to 40% by harnessing a highly experienced work force.

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- Process we follow
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Mechanical System

Mechanical system performs to regulate the air conditions, heating & ventilation within buildings for the human comfort. Mechanical systems having basic three type of systems which are mechanical ducting, Mechanical piping and mechanical ventilation.



Mechanical ducting: Mechanical ducting system consist with the mechanical equipment like AHU, VAV, CU, FCU, RTU etc. with duct, duct fitting, hangers, dampers, access panel, access door, with all accessories.

Mechanical piping: - Mechanical piping system consist with equipment like chiller for cooling, Boiler for heating, pumps, valves and chilled /hot water piping, fitting, hangers and all accessories.

Mechanical Ventilation: - Mechanical ventilation system consists with exhaust, supply fan with duct, fitting, hangers, dampers, access panel, access door and all accessories.

International Codes & Standards we follow

Mechanical system contract/design drawings in strict compliance with contract specifications, technical submittals and the relevant codes which we use internationally.

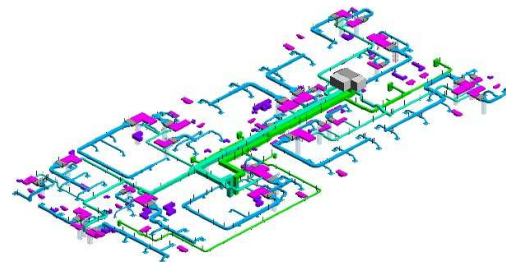
ASHRAE, ASME, ASTM, SMACNA, AS1668-2012, AS4254.2-2012.



Services we do-I-BIM Services

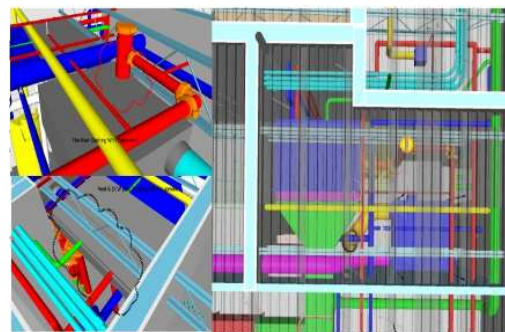
3D modeling

We are specializing in the virtual construction of 3D BIM Mechanical models of mechanical duct with fitting, ducting accessories, mechanical piping with fitting, valves, piping accessories and all the equipment's and all based on contract drawings, manufacturer specifications and client standards.



Clash Co-ordination & Resolution

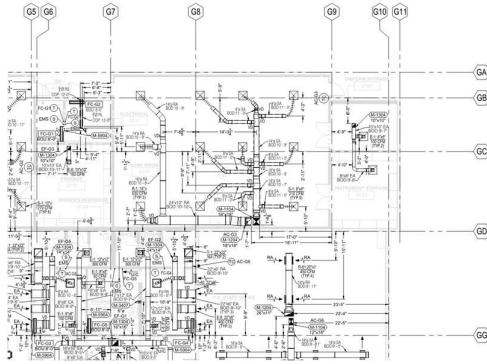
We generate a coordinated BIM model after resolving the clashes among all the trades (Architecture, Structure, Concrete, Mechanical, Electrical, Plumbing, Fire Protection, etc.). Clashes are resolved through WebEx meetings / sharing 3D clash snapshot. With multiple like re-routing utilities, changing elevation and re-sizing. Value Engineering is also offered to improve system efficiency, reduce costs and easier construction and maintenance.



Shop Drawing or Installation Drawing

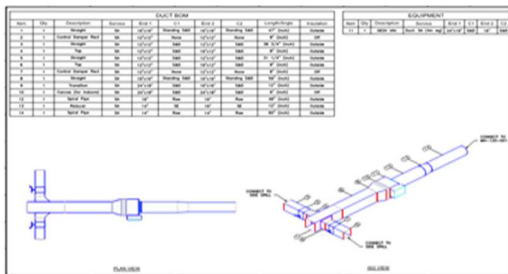
Shop drawings are created based on project standards and are useful to contractors, fabricators, suppliers and manufacturers during

construction. BIM is highly useful for construction of any irregular or complex structures. We generate accurate location of duct ,pipe and mentioned BOD , COP from the BIM model before start of construction. These drawings are generated directly from coordinated BIM models and are detailed enough for workshop fabrication and/or on-site construction. Advanced BIM tools help in revisions management as well.



Spool Drawing

Spool drawings can be generated from the model for accurate pre-fabrication off-site/on-site. Segmented spool drawings are generated in accordance with the contractor is pre-fabricating standards and preferences.



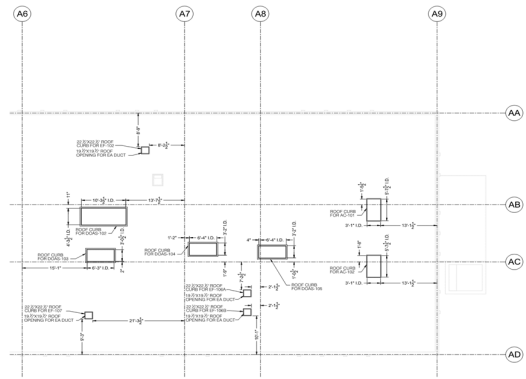
Penetration or Block-out Drawing

Block-Out Drawings are required before a contractor can start pouring concrete on the site. Block-Out Drawings are created from the coordinated BIM model after alignment with the architectural grids. Our experienced team keeps the necessary clearances for the block-out as per the contract documents and construction codes.



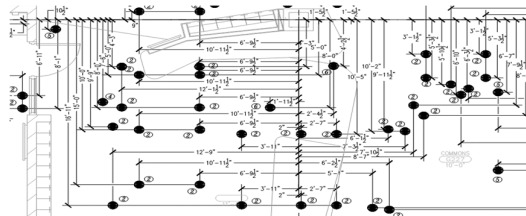
Equipment Pad Layout

We provide equipment pad layout as per the equipment submittal inline with the contract drawing to ensure proper installation of HVAC Equipment like CHILLER , AHU, RTU .EF ,and the clearance from architectural grid or wall.



Insert and Hanger drawing

A critical component of mechanical project is proper sleeve location, inserts, and hanger positions. We can generate accurate sleeve, penetration, and hanger locations from the mechanical model prior to mechanical installation drawing to ensure proper installation of HVAC Equipment.



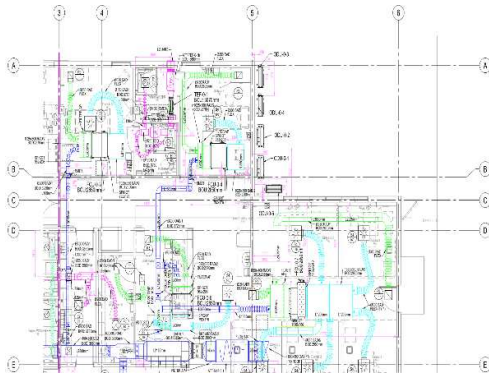
As built Model

We produce as built model based on the actual mark-ups from site team /project team. We have our trained BIM mechanical team to perform these drawings for project turnover process

CAD Services

Shop Drawing

We produce shop drawings in AutoCAD platform (2D) as well . We have well trained CAD technician to produce with good quality of shop drawings based on project standards and are useful to contractors, fabricators, suppliers and manufacturers during construction. We generate accurate dimensions and bottom of duct , pipe along with sectional details . These drawings are generated directly from contract drawing and are detailed enough for workshop fabrication and/or on-site construction.

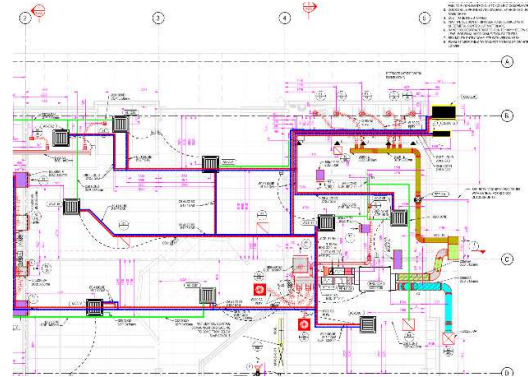


We have standard process to execute the same with the help of project specification checklist list which are made based on the contract drawing and specification .Detailing of duct, pipe sizing with insulation to done in Cad

platform Equipment and fitting & accessories to be verified based on the specification checklist We provide standard dimensions from grid or wall as per project standard and fix the BOD and BOP inline with architectural sections and co-ordination with RCP .

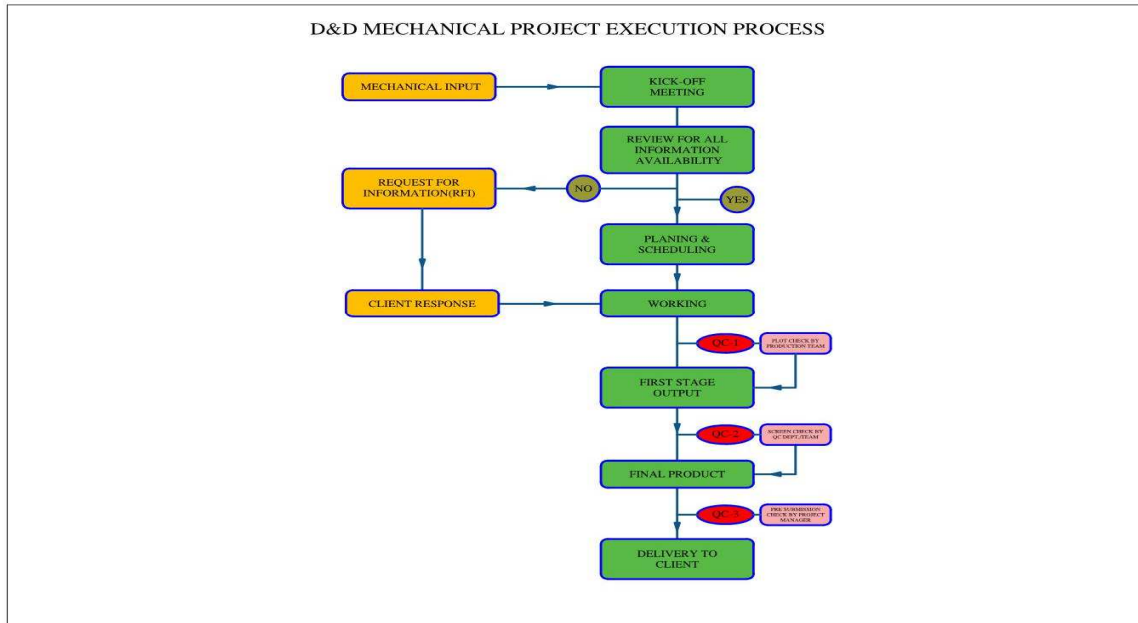
As built Drawing

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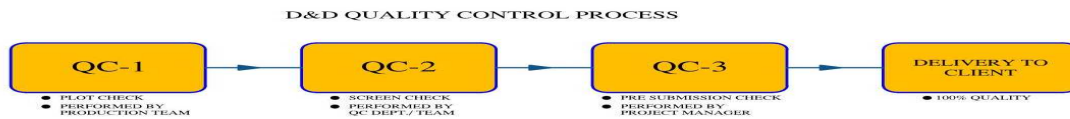


Process we follow

We have a standard BIM Process, which has been prepared, based on our experience & expertise , which we follow for all the Mechanical projects, unless the project has other requirements. Below is a simple flow chart, which explains the process in detail:



Quality control



The main objective of the quality control (QC) process is to detect errors and rectify it. Ensuring quality is a group effort and our dedicated team is led by a highly qualified and experienced Manager in MEP Coordination and Quality Control. The entire QC process is handled in three phases.

Quality Check – 1

The model check is done comparing it with the original contract documents through Team Member.

following **Clashes** (Old/New), Elevation, Routing, Fittings, etc. Construction point of view,

Quality Check – 2

Team performs a more detailed comparison with specific checklist and project checklist the deliverables and main objective check the

Quality Check – 3

The Project Manager conducts the pre-shipment check before sending them to the client.

Why Design And Drawing Solution

Communication

Our team is available to clients through a number of communication channels including:

3. **Email** for reports and interactions.
2. **Telephonic/WhatsApp** communication
4. **ZOOM Meeting** for online meetings, presentations and conversations.
5. **Dropbox** storage for FTP process.

Delivery in Time

Our skilled team of professionals can provide quick turnarounds on complex projects. D & D has successfully completed several large-scale commercial projects across multiple verticals including. Health Care, Airports, University

Centers, Data Centers, Retail Centers, Convention Centers, Commercial, Industrial and Residential Projects

Skilled and Efficient Team Members

All team members are specialize in the latest BIM software's Revit Software Suite (Revit, Revit MEP, Revit Architecture and Revit Structure), NavisWorks, Autodesk Fabrication ,AutoCAD MEP .

Knowledge in US and World Standard BIM execution process.

Our top management is having more than 10 years of experience in BIM execution US process and standards which leads the timely completion of complex projects.

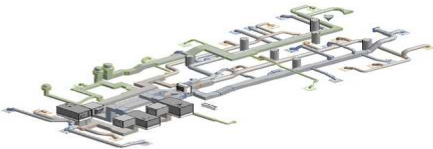
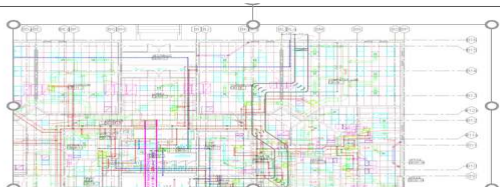
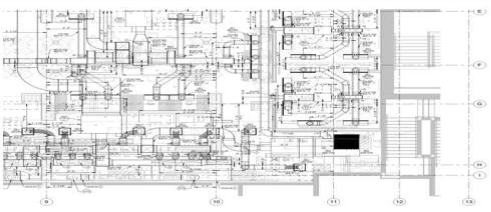
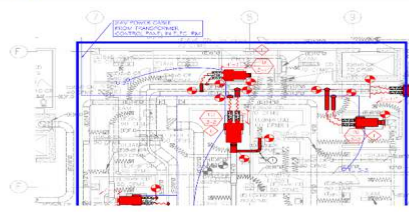
Project Cost Optimization

D&D delivered a high quality product within a short timeline and provided coordination support. This allowed for a faster and more cost effective project completion.

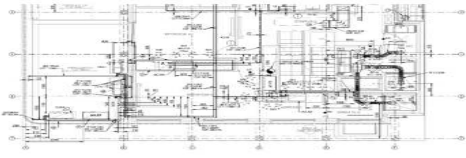



Project Snaps

We have already delivered more than 100 BIM/CAD projects throughout the world basically in countries like USA , UK ,Australia and New Zealand & India. Below are latest project details of BIM/CAD services for Mechanical System .










USA

| | |
|---|--|
|  |  |
| IVCHC CA, USA | Mcc Cb MI, USA |
|  |  |
| Eddie V's Prime Seafood FL, USA | Roybal CA, USA |

Australia and New Zealand

| | |
|---|--|
|  |  |
| 42 Draper St VIC, Australia | East School Christchurch, NZ |
|  |  |
| ABQ Christian School VIC, Australia | ADHB Auckland, NZ |

Contact us

| | | | |
|---|-------------------|---|--|
| Registered Office, Mumbai | | Channel Partner-USA | |
| DESIGN AND DRAWING SOLUTION | | Engineering Enviroement | |
|  DESIGN AND DRAWING SOLUTION ONE STOP ARCHITECTURE MEP BIM CAD SOLUTION | |  Engineered Environments, LLC | |
| Plot No X2/1, MIDC PH-II Dombivli East, Central Mumbai – 421203, Thane, MH, INDIA | | 9210 SAN MATEO BLVD NE ALBUQUERQUE, NEW MEXICO 87113, United State | |
| Kolkatta office:- | | Barker Blue Inc | |
|  DESIGN AND DRAWING SOLUTION ONE STOP ARCHITECTURE MEP BIM CAD SOLUTION | |  barkerblue | |
| Geetanjali Apartment, 39,Bangur Avenue , C Block ,Lake Town , Kolkata-55 ,West Bengal , India | | 363 N Amphlett Blvd, San Mateo, CA 94401, United States | |
| US VOIP | (+1)-214-431-5193 |      | |
| Office No | (+91)913-771-8446 | | |
| Whats App | (+91)913-771-8446 | | |
| Email - info@dndrawing.com / irshad@dndrawing.com | | | |

