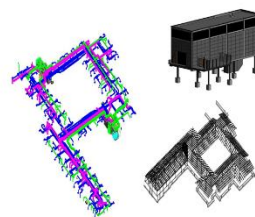


AEC - Design Build BIM Services

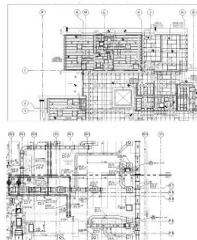
DESIGN BIM

Sr. No.	Tasks to cover for design build	Major Elements for 3D Drafting			
1	Architecture	Exterior wall	Interior wall	Doors & windows	Furniture
2	Structural	Column, Beam	Concrete	Steel	Roofing
3	Civil Site	Site topography	Landscape	Frame	Floor
4	Interior	Interior wall	Wall Paneling	Ceiling design, lighting	Furniture
5	Mechanical	Ducting, Piping & Fitting	Equipment	Accessories	Hangers
6	Plumbing	Piping & Fitting	Equipment	Accessories	Hangers
7	Fire	Piping & Fitting	Equipment	Accessories	Hangers
8	Electrical	Fixture & Fitting	Conduit	Cable Tray	Hangers
9	Utility	MC Plumbing	MC Electrical	MC EHV	MC Fire, Gas

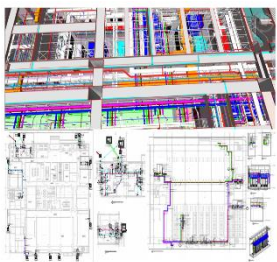
CONSTRUCTION BIM



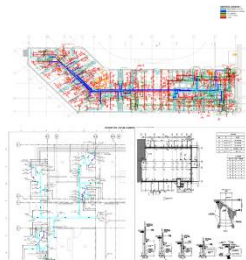
BIM 2D Drawing



AS BUILT BIM



CAD SERVICES



Index

- About us
- Services we do
- Execution Process
- D & D Core Team
- Project Reference
- Contact US

About us

At DESIGN AND DRAWING SOLUTION, we are offering AEC BIM solutions for design built projects which are backed by our technical excellence and experience. Our expertise on BIM team for architecture , structure and MEP team collaborate and give a complete solution for Design build projects design and construction documentation works .

There are always a challenge to collaborate the information and collecting all stakeholder information for design build project and Design Build contractors having many challenges to collaborate all BIM and Autodesk BIM 360 including all other platform has solution to collaborate all services together . Our team is trained all BIM Collaboration tool used by the general contractor s like BIM 360, PLANGRID, BLUEBEAM etc.

Our Experience team understand the workflow of design and build project execution process and we assist each stage of deliverables like Design BIM, construction state BIM and as built stage BIM WORKS.



6+
Years' Experience

300+
Completed Projects

150+
Customer world wide

TRADES TO COVER

- ARCHITECTURAL
- STRUCTURAL
- CIVIL SITE
- INTERIOR
- MECHANICAL
- PLUMBING
- FIRE
- ELECTRICAL
- UTILITY

BIM SERVICES

DESIGN BIM

- DESIGN 3D MODEL @ 300
- DESIGN 3D MODEL & DESING DRAWING

CONSTRUCTION BIM

- CONSTRUCTION 3D MODEL @ LOD (350 | 400)
- BIM Co-ordination

BIM 2D DRAWING

- Construction / Shop drawing

AS BUILT BIM

- As built Model @ LOD 500

CAD SERVICES

- 2D Co-ordination (Overlay)
- Shop Drawing
- As Built Drawing

DESIGN BIM

Sr. No	Trades to cover for design built	Major Elements for 3D Drafting			
1	Architecture	Exterior wall	Interior wall	Doors & windows	Fixture
2	Structural	Column , Beam	Concrete	Steel	Footing
3	Civil Site	Site topography	Landscape	Frame	Floors
4	Interior	Interior wall	Wall Panelling	Ceiling design , Lighting	Furniture
5	Mechanical	Ducting , Piping & Fitting	Equipment	Accessories	Hangers
6	Plumbing	Piping & Fitting	Equipment	Accessories	Hangers
7	Fire	Piping & Fitting	Equipment	Accessories	Hangers
8	Electrical	Fixture & Fitting	Conduit	Cable Tray	Hangers
9	Utility	UG Plumbing	UG Electrical	UG ELV	UG Fire , Gas

DESIGN MODEL @ LOD 300

We have AEC BIM team for architectural, structural including MEP all trades which are covered for design build projects. Our professional BIM team is efficient to develop both level 3D models works. i.e. design model @ LOD. Design Built Trades with model element details are as shown.

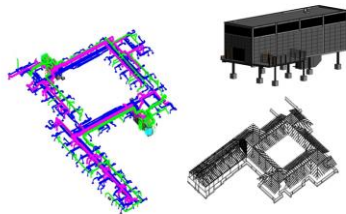
DESIGN DRAWING

Based on the design model, we produce the design drawing sets which will cover with.

1. Legend, Notes, Speciation
2. Floor Plans
3. Detail Sheet
4. Schedule

Sr. No	Trades to cover for design built	Major Elements for 3D Drafting			
1	Architecture	Exterior wall	Interior wall	Doors & windows	Fixture
2	Structural	Column , Beam	Concrete	Steel	Footing
3	Civil Site	Site topography	Landscape	Frame	Floors
4	Interior	Interior wall	Wall Panelling	Ceiling design , Lighting	Furniture
5	Mechanical	Ducting , Piping & Fitting	Equipment	Accessories	Hangers
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8	Electrical	Fixture & Fitting	Conduit	Cable Tray	Hangers
9	Utility	UG Plumbing	UG Electrical	UG ELV	UG Fire , Gas

CONSTRUCTION BIM

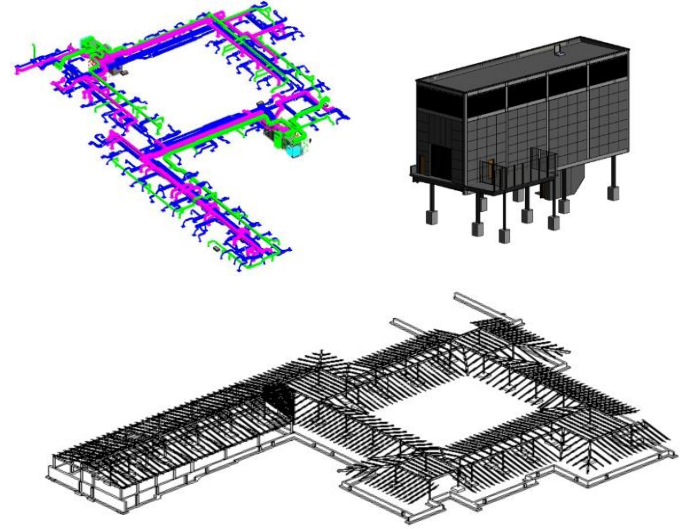


LOD 400 is a BIM model that includes highly detailed information for fabrication and installation. The elements have precise dimensions, materials, connections, and assembly details. It represents the design as it will be built, making it suitable for construction scheduling, and cost estimation.

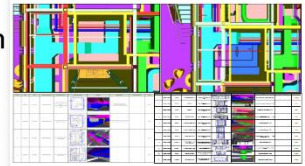
Our AEC team is trained to produce the LOD 400 3D model based on the details, specifications and manufacturing detail to complete 3D model @ LOD 400 .

Input

For LOD 400 detailed model we need project design/ contact / tender drawing will all construction details, specification and technical submittals.



BIM Co-ordination Clash Co-ordination



BIM co-ordination covers –

Based on controls, looped will be provided to produce lighting design and as per the final circuit design, power layouts to be produced and other layout like CCTV, Fire alarm drawings will be produced based on the reference designs and standard requirement.

1. Clash co-ordination
2. Generation of Report
3. Resolution

Clash co-ordination

We generate a coordinated BIM model after resolving the clashes among all disciplines – Architectural, Structural, Concrete, Mechanical, Electrical, Plumbing, Fire Protection, etc.

First we identify the clash and create a view points level wise or Zone wise as per schedule and working on resolution internally. If we found any critical clash, we use to generate report and to co-ordinate with the all stakeholders and providing optimize solution to complete. Once all the clashes has been resolved , we make the final model for next stage to produce the shop drawing and As built drawing.

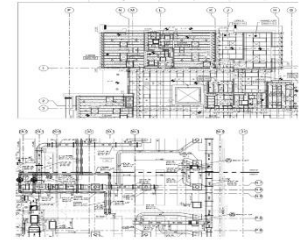


1. Generation of Report
2. Resolution

We have produced the clash report through Navisworks and provide the alternative optimize solutions to make clash free model.

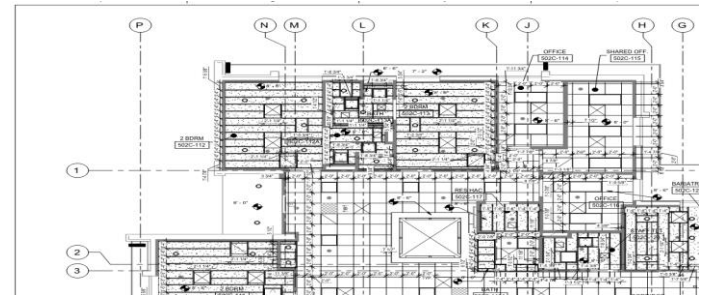
No.	Zone	Room	Room Name & No.	Clash Description	Room Number (2D)	3D View	2D View	Other Remarks	Status
1	Room Area	15.14 & C-1	CORRIDOR SSC-14	1. Room Clashing with wall and ceiling structure. 2. Room Clashing with Ceiling Structure.				1. Remove the Ceiling Duct. 2. Offset the Structural Piping.	Open
2	Room Area	15.14 & C-1	CORRIDOR SSC-14	Room Clashing with wall and ceiling structure.				1. Remove the Ceiling Duct. 2. Offset the Structural Piping.	Open
3	Room Area	15.14 & B-1	CORRIDOR SSC-14	Room Clashing with Room Duct and Piping					Open
4	Room Area	15.14 & B-1	CORRIDOR SSC-14	Room Clashing with Room Duct and Piping					Open
5	Additional Area	15.14 & C-1	CORRIDOR SSC-14	Room Clashing with Room Duct and Piping					Open
6	Additional Area	15.14 & C-1	CORRIDOR SSC-14	Room Clashing with Room Duct and Piping					Open
7	Additional Area	15.14 & C-1	CORRIDOR SSC-14	Room Clashing with Room Duct and Piping					Open
8	Additional Area	15.14 & C-1	CORRIDOR SSC-14	Room Clashing with Room Duct and Piping					Open
9	Additional Area	15.14 & C-1	CORRIDOR SSC-14	Room Clashing with Room Duct and Piping					Open
10	Additional Area	15.14 & C-1	CORRIDOR SSC-14	Room Clashing with Room Duct and Piping					Open
11	Additional Area	15.14 & C-1	CORRIDOR SSC-14	Room Clashing with Room Duct and Piping					Open
12	Additional Area	15.14 & C-1	CORRIDOR SSC-14	Room Clashing with Room Duct and Piping					Open
13	Additional Area	15.14 & C-1	CORRIDOR SSC-14	Room Clashing with Room Duct and Piping					Open
14	Additional Area	15.14 & C-1	CORRIDOR SSC-14	Room Clashing with Room Duct and Piping					Open
15	Additional Area	15.14 & C-1	CORRIDOR SSC-14	Room Clashing with Room Duct and Piping					Open

BIM 2D Drawing



Shop Drawing covers

1. Re-enforcement
2. Architectural wall
3. Interior
4. MEPF

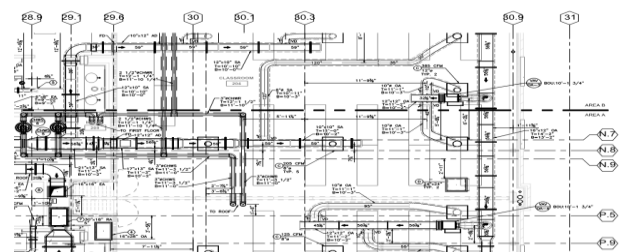


1. Re-enforcement - We produce reinforcement shop drawing of floor slab, foundation, CMU wall based on contract drawing to incorporate standard details and manufacturer details with proper dimensions and annotation.

2. Stud and CUM Wall - We produce wall shop drawing of all type of wall based on contract drawing to incorporate standard and manufacturer details with proper dimensions and annotation.

3. Interior - We produce interior shop drawing of all type of wall based on contract drawing to incorporate the required and manufacturer details with proper dimensions and annotation.

4. MEPF - We produce MEPF shop drawing based on contract drawing to incorporate standard details, equipment details with proper dimensions and annotation.

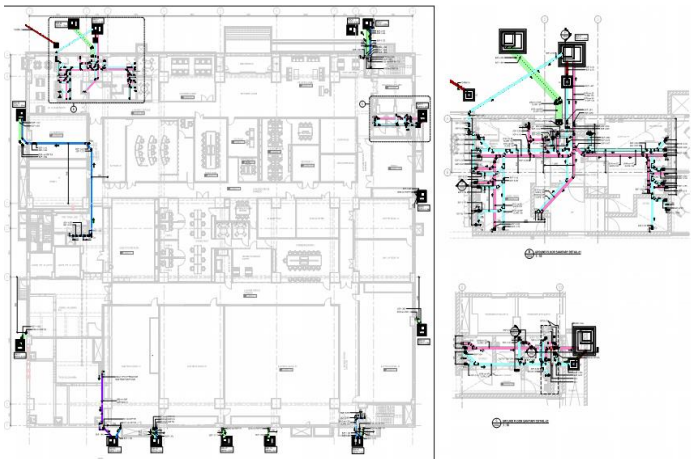
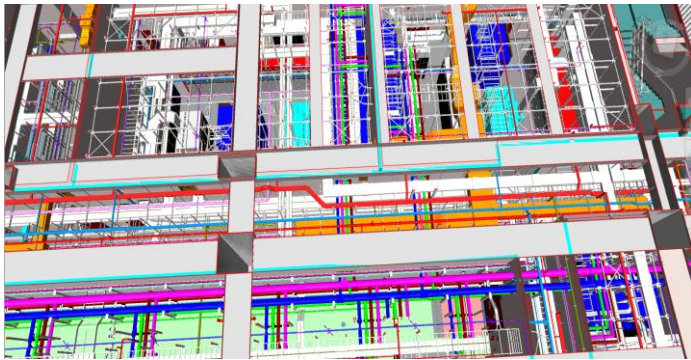


AS BUILT BIM



As Built Model & Drawing

Based on the site mark-ups, we create as built 3D model & Drawing and prepare the as built set for project hand over and record.



CAD SERVICES



2D Co-ordination (Overlay CAD)

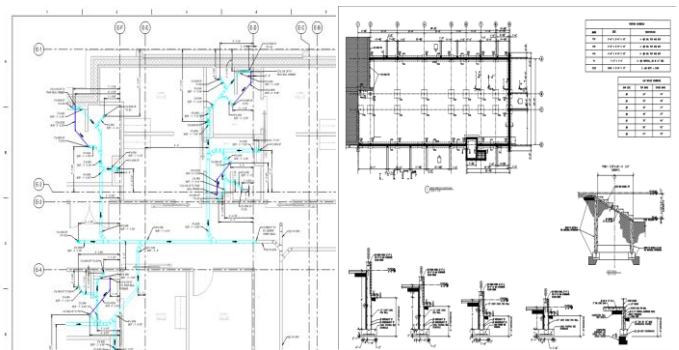
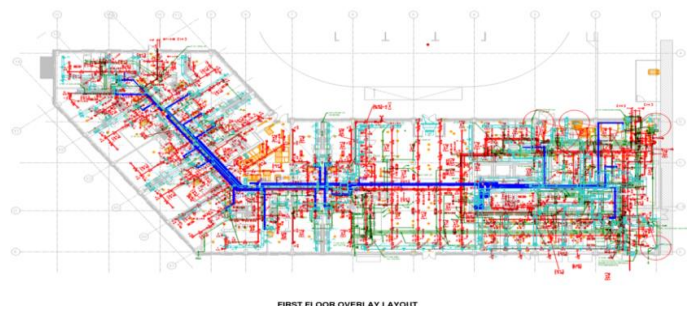
Our cad team produce the CAD overlay co-ordination drawing to overview the conflict of other trades.

Overlay drawing can be done through CAD and PDF as well.

Shop Drawing

Co-ordination :-Co-ordination with architectural, structural along with other services to fix the BOP, BOD with proper dimension and annotation.

Dimension and Annotation :- Providing proper dimensions and annotation inline with client standard or as per general standard shop drawing .

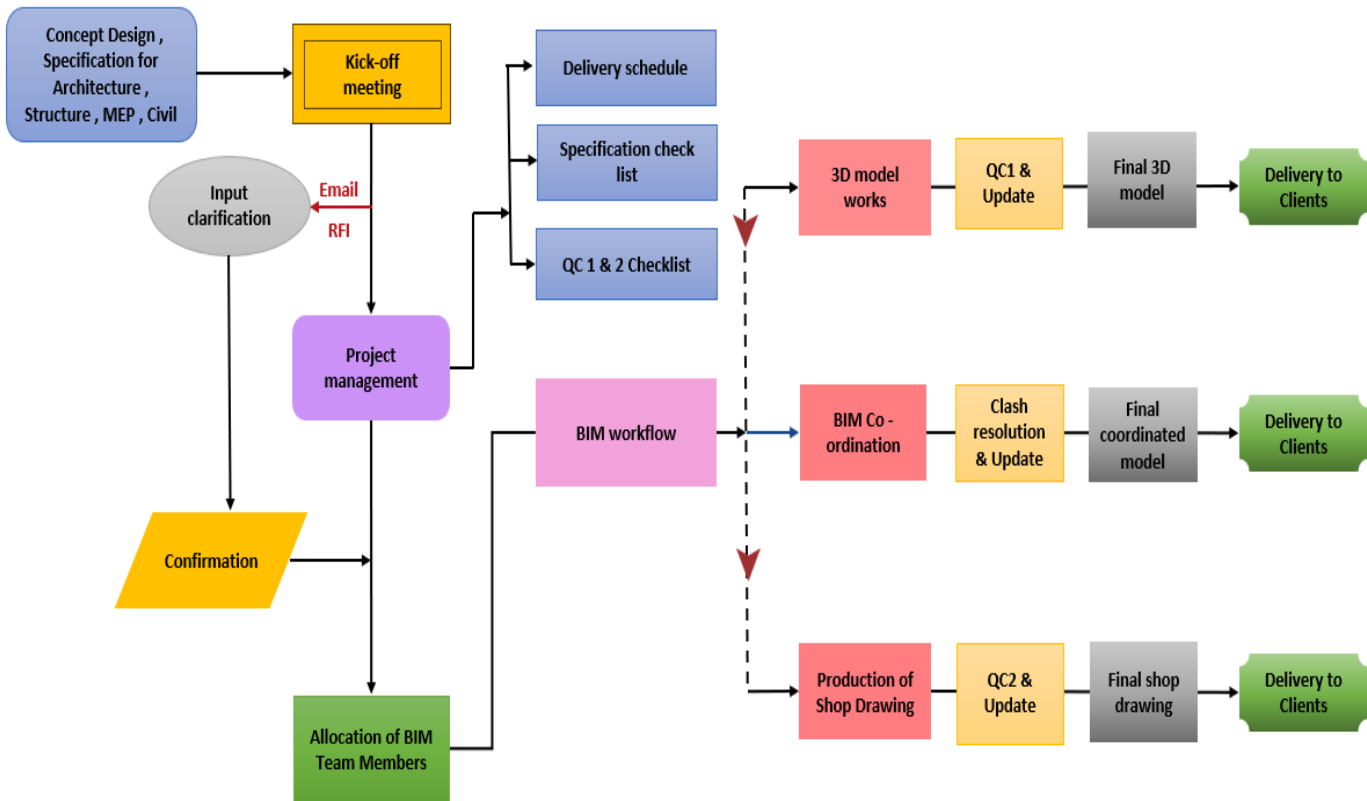


As built Drawing

Our cad team draft the CAD drawing from redline mark-ups and Our As-built/Redline Markup Service is ideal for creating your as-builts drawings or design modifications in AutoCAD.

Markups:
RED ink for drawing changes

Execution Process



QC-1



QC 1 – 3D Model Checklist – AEC DESIGN BUILD

Date: 28-12-2024 Rev: R0

ARCHITECTURE	STRUCTURAL	CIVIL SITE	MECHANICAL DUCTING
1 GRID PLACEMENT & DIMENSION	1 PILE	1 GRID PLACEMENT DIMENSION & PROPERTY LINE	1 DUCT LIVER
2 LEVEL CREATION	2 FOOTING	2 LEVEL CREATION & NORTH ARROW PLACEMENT	2 WRAPPING
3 EXTERNAL WALL, INTERIOR WALL	3 COLUMN	3 SITE TOPOGRAPHY & RELEVANT FEATURES	3 ELBOWS FOR SPIRAL DUCT
4 DOOR, WINDOW	4 CONCRETE PIRE	4 STORM PIPE	5 TAPS
5 FOUNDATION (IF APPLICABLE)	5 PEDESTAL	5 SANITARY PIPE	6 TRANSITION
6 FLOOR SLAB & FINISH	6 PILASTER	6 DOMESTIC WATER PIPE	7 END CONNECTION
7 CEILING/ROOF	7 BEAM	7 GAS PIPE	8 FLEX
8 EXTERIOR TREATMENT (DIFF WALL PROFILE, SWEET REVEAL ETC)	8 COLUMN CAP	8 ELECTRICAL & COMMUNICATION DUCT BANK	9 DAMPER INFORMATION
9 MILLWORK & FFE (IF APPLICABLE)	9 DROP PANEL	9 ELECTRICAL & COMMUNICATION CONDUIT	10 CEILING ACCESS
10 SANITARY FIXTURES (IF APPLICABLE)	10 WALL	10 FIRE WATER PIPE	11 VAV INFORMATION
11 SITE TOPOGRAPHY & RELEVANT FEATURES	11 LINTEL	11 MANHOLE	
12 WALL SECTIONS	12 CANOPY	12 INLET	
13 WALL JUNCTION DETAILS	13 RIT	13 CATCH BASIN	
14 FOUNDATION DETAILS (IF APPLICABLE)	14 INSERT PLATE	14 STORM FILTER	
15 DOOR DETAIL (HEAD & JAMB DETAIL)	15 SLAB	15 FIRE HYDRANT	
16 WINDOW DETAIL (HEAD, JAMB & SILL DETAIL)	16 FLOOR SLOPE	16 CLEANOUT	
17 CEILING DETAILS	17 FLOOR DROPP / FOLD		
18 ROOF DETAILS	18 FLOOR DRAIN		
19 EAVE DETAILS	19 FLOOR DECK		
20 MILLWORK & FFE DETAILS (IF APPLICABLE)	20 JOINT		
21 SANITARY FIXTURES (IF APPLICABLE)	21 TRENCH		
	22 FINO		



MUMBAI/KOLKATA (INDIA)

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QC-2



QC2 – D & D DRAWING CHECKLIST

Date: 28/12/2024

Rev:

Common Checklist	Architecture	Civil Site	Fire
Title Block	1 Walls, Windows & Fixture Tags	1 Site topography	1 Plumbing Pipe, Fitting & Equipment's dimensions
1 Key Plan	2 Walls, Windows & Fixture Annotations	2 Landscape, Frame, Floors	2 Pipe, Equipment Elevation Tag (COP, BOP)
2 Revision Check	3 Standard Dimension	3 Standard Annotations	3 Equipment & Fixture Tags & Annotation
3 Date	4 Schedule Detailed Sheet	4 Required Sections & Elevations	4 Required Sections & Elevations
4 Scale	5 Legends & Notes	5 Legends & Notes	5 Schedule Detailed Sheet
5 Title	6 Elevations & Sections		6 Legends & Notes
6 Consulting Details			
7 Client Details			
8 Sheet Key Notes			
B General Notes and Sheet Key Notes			
1 General Notes			
2 Sheet Key Notes			
C Aesthetic Review / Grid Review			
1 Drawing Presentation			
2 Grid Check			
D Project Specific			
1 Sheets Referenced in Appendix A Present			
2 Schedules Present			
3 Finishes Present			
4 Elevations to Finish Schedules Proper			
5 Missing Key Drawing-Specific Information			
6 Proper Drawing Reference Details			
7 Relevant Annotation Information			



MUMBAI/KOLKATA (INDIA)

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Core Team

Irshad Ali Shaikh

CEO – Co-Founder

Mr. Irshad Ali is the co-owner & founder of DESIGN AND DRAWING SOLUTION. He is having more than 15 years of experience in Building services in construction Industry throughout AEC project execution process from Pre-construction, construction processes like MEP engineering consulting, Designing, installation and handover process of the project.

He has completed BE in Mechanical Engineering from Pune University with Post Graduation in Project Management (PGPPM) from NICMAR Pune, India. In his small journey, he has successfully delivered the more than hundred BIM/CAD project for his satisfied client with the best quality and unique team effort.

He has experienced in all kinds of projects i.e., starting from Residential township, Commercial IT buildings and parks, Malls, High rise building, Hotel, Hospital & Institutional building. Including building Infrastructure projects like metro, airports, globally i.e. USA, Australia, New Zealand & India.

Karishma Bibi

Sales Head

She is the co-owner of DESIGN AND DRAWING SOLUTION and well experienced in offshore sales development initiatives. She is having a good knowledge of result-oriented sales development processes and customer retention. She is leading the complete sales team for B2B sales within the company and managing and monitoring the effectiveness of the entire sales cycle. She has implemented her interior design expertise to improve the technical expertise for client communication for offshore sales which helps her build a long-term relationship with new and existing clientele.

Rupam Mondal

Production Manager

He holds a Mechanical Engineering diploma from WBSCTE, India and having more than 7 years' experience in Building construction Industry for MEP engineering, Drafting, of 3D , 4D , 5D & 6D BIM service .


He is having expertise in MEP engineering calculation, with all Autodesk BIM/CAD tools like Revit , Fabrication, AutoCAD MEP ,Navis works and AutoCAD and has complete knowledge of engineering and drafting services for all stages (Pre/post) of construction process .

He is working in DESIGNING AND DRAWING SOLUTION since from starting period of the company. With a short period of time , He has gained the managing process of the company , client communication, project management process and assisting with innovative (R & D) solution of new process , tools for new requirement of clients.

Project References

DESIGN & BUILT		
MARTINSBURG VA MEDICAL CENTER	STT DATA CENTER	MORGAN STATION
HOSPITAL FACILITY	DATA CENTER	RAILWAY STATION
MARTINSBURG , USA	NAVI MUMBAI , INDIA	CHICAGO , IL , USA
		
		
NICTD	RACINE CONG	RGIA
HIGHWAY	BRIDGE	AIRPORT
CHESTERTON , IN, USA	CHICAGO , IL , USA	HYDRABAD , INDIA

Contact US



DESIGN AND DRAWING SOLUTION
ONE STOP BIM | CAD | MEP
ENGINEERING SOLUTIONS

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