

Modernisation of SB-Engineering Dept in North Yard, MDL Mumbai.

SCOPE OF WORK:

1. SCOPE OF WORK – CIVIL & INTERIOR:

A:GROUND FLOOR- WORKSHOP AREA

- Interior of Ground floor consists of Senior Mistry cubicle, Senior Charge-Hand Cabin, Changing Rooms, Locker room, Dining room, Common Utilities & Toilet blocks.
- Flooring of entire workshop area is finished with vitrified tiles.
- All partitions in work shop area are solid, finished with laminate
- Walls are finished with Luster paint.
- Ceiling structural members will be painted with red-oxide and metal paint.
- Hanging LED light fixtures are considered for general lighting.
- Selection of loose furniture items as per the design.
- Finishing the work on the lines of concept, tendering, provision of technical specification, finalising the contractor, working drawings, site supervision etc complete as per the broad scope work furnished in the agreement annexure.

B :FIRST FLOOR- OFFICE

- Interior of First floor consists of Reception, HOD's Cabin, Officer cabins, Senior Executives Workstations, Workstations, Staff Cubicles, Meeting room, Compactor Rooms, Training Hall, Changing & Locker room, Pantry, Toilet blocks and Dining room.
- Flooring of entire office area is finished with vitrified tiles.
- All cabin partitions in office area are solid, finished with veneer melamine polish and partly glazed ,wall paper finished.
- Cabin furniture is finished with veneer melamine polish.
- Work stations are finished with laminate.
- Lockers are metal powder coated finish
- Walls are finished with Luster paint
- False ceiling is partly finished with gypsum board, Plastic paint finish & partly with modular grid ceiling
- Recessed LED light fixtures are considered for general lighting.
- Selection of loose furniture items as per the design.
- Finishing the work on the lines of concept, tendering, provision of technical specification, finalising the contractor, working drawings, site supervision etc complete as per the broad scope work furnished in the agreement annexure.

C : REPAIR OR NEW ARCHITECTURAL WORK

- Demolition of existing internal walls/partitions on Ground and First Floor and providing necessary structural and architectural inputs to complete the layout as per the new design.
- Repair work for existing Columns.
- Waterproofing of existing roof and gutters with cold bitumen and SBS membrane/ Kemperol-V210.
- Tightening and repairing of existing roofing sheets.
- Replacing the existing north light glazing with new polycarbonate sheets.

- Extension of existing external toilet on ground floor and creating new toilets.
- Creating a structural framework (Truss work) to support the false ceiling of first floor.
- Extension of 1st floor slab.
- Raising ground floor level by one step and levelling the floor differences on the 1st floor slab.
- Demolition of existing windows on ground and first floor and proposing new windows to match the new internal room arrangement and existing facade.
- Demolition of existing internal staircase.
- 2 new external steel staircases to be designed to access the 1st floor for officers.
- Finishing the work on the lines of concept, tendering, provision of technical specification, finalising the contractor, working drawings, site supervision etc complete as per the broad scope work furnished in the agreement annexure.

2. SCOPE OF WORK - PLUMBING WORKS :-

SANITARY FIXTURES & C.P. FITTINGS:

Work under this section shall consist of transportation, furnishing, installation, testing and commissioning and all labour as necessary as required to completely install all sanitary fixtures, brass and chromium plated fittings and accessories as required by the drawings and specified hereinafter or given in the Bill of Quantities.

WATER SUPPLY:

Work under this section consists of furnishing all labour, materials equipment and appliances necessary and required to completely install the water supply system as required by the drawings, specified hereinafter and given in the bill of quantities.

INTERNAL DRAINAGE (SOIL, WASTE, VENT AND RAIN WATER PIPES):

Work under this section shall consist of furnishing all labour, materials, equipment and appliances necessary and required to completely install all soil, waste, vent and rainwater pipes as required by the drawings, specified hereinafter and given in the Bill of Quantities.

EXTERNAL DRAINAGE SYSTEM (SEWERAGE AND STORM WATER):

- Work under this section shall consist of furnishing all labour, materials, equipment and appliances necessary and required to completely install the drainage system as required by the drawings and specified hereinafter or given in the Bill of Quantities.
- Without restricting to the generality of the foregoing, the drainage system shall include:
Sewer lines including excavations, pipe lines, man holes, drop connections, underground storm water drains, including pipes, man holes, catch basins and open drains, thrust blocks.

3. SCOPE OF WORK - ELECTRICAL WORKS :-

The scope of work shall cover the supply, Installation, Testing & Commissioning of the electrical equipment like Distribution Boards, Cables, Switchgear, Lighting fixtures, Earthing, Inverter, Fire Alarm, Public Address, EPABX/Telephone system, Rodent Repellent, Data Networking.

1.0 MAIN LT PANEL & DISTRIBUTION BOARDS

The scope of work for the Panel & Distribution Board shall cover the supply and Installation as described in the specification, as per drawings and schedule of quantities

Prior to installation of DB's the supplier/contractor shall submit for consultant's approval the shop/vendor drawing consisting of G.A. drawing, sectional elevation, single line diagram, bill of material etc. and design calculations indicating type, size, short circuiting rating of all the electrical components used, bus bar size, internal wiring size, DB dimension, color, mounting details etc.. The contractor shall submit manufacturer's catalogues of the electrical components installed in the DB's. Contractor has to submit the 3 sets of as built drawings & drawings shall be provided by the contractor after successfully completion & commissioning of entire electrical system.

HVAC PANEL (IP65)

The scope of work for the HVAC Panel (IP65) shall cover the design, manufacture, check test, supply and Installation as described in this specification, as per drawings and schedule of quantities

Prior to fabrication of the Panels the supplier/contractor shall submit for consultant's approval the shop/vendor drawing consisting of G.A. drawing, sectional elevation, single line diagram, bill of material etc. and design calculations indicating type, size, short circuiting rating of all the electrical components used, bus bar size, internal wiring size, Panels dimension, color, mounting details etc.. The contractor shall submit manufacturer's catalogues of the electrical components installed in the Panels. Contractor has to submit the 3 sets of as built drawings & drawings shall be provided by the contractor after successfully completion & commissioning of entire electrical system.

2.0 LT XLPE CABLES

The scope of work shall cover supply, laying, testing and commissioning of medium voltage XLPE cables.

The specification provided in the technical specs gives the general requirement of cables. However, it is the responsibility of the vendor to take the joint measurement and obtain client's approval before the placement of orders to the main supplier / manufacturer.

Contractor shall submit the as built drawing of the cable laying drawing. Also,

The supplier shall submit following:

Data sheet indicating results of tests.

Test report

3.0 INTERNAL WIRING

The scope of work shall covers, definition of point wiring, system of wiring and supply, installation, connection, testing and commissioning of point wiring for light points, ceiling fan points, exhaust fan points, convenience socket outlet points, power socket outlet points, bell outlet points etc. including fixing of light fixtures, ceiling fan, exhaust fan, wall fan, bell etc.

4.0 ELV WIRING

The scope of work shall cover the supply, installation, connection, testing and commissioning of the wiring for Telephone / Computer / Fire detection / Public Address system. Scope include supply of telephone cables, Multiple flexible wires, Shielded Wire, CAT-6 UTP computer signal wire, Fibre optics, Junction boxes, Outlet boxes, and other related accessories required to complete the wiring and installation.

5.0 LIGHT FIXTURE

The scope of work shall cover the supply, installation and testing of various types of LED light fixtures are used in the project. Also,

As per of the proposal the bidder furnish relevant descriptive and illustrative literature on lighting fixtures and accessories and following drawings/ data for the respective lighting fixtures:-

- 1 Dimensional Drawings
- 2 Mounting details cable entry facilities and weights.
- 3 Light distribution diagrams (Zonal & Isokandora)

- 4 Light absorption and utilization factors.
- 5 Lamp output V/S temp. curves.

6.0 EARTHING SYSTEM

The scope shall cover the Design, assembling, testing, painting, supply, delivery at site with all related accessories as per the specifications as specified in the technical specification sheet. Compliance with the provisions of this specification shall not relieve the Bidder of the responsibility of furnishing apparatus and accessories of proper design, electrically and mechanically suited to meet the operating requirements under the specified service conditions and be suitable for the purpose of which they are intended.

7.0 FIRE ALARM SYSTEM

The scope of work shall cover the Supply, installation, testing & commissioning of Intelligent Analog Addressable Fire Alarm System in accordance with the specifications, drawings & schedule of quantities. Microprocessor based addressable and intelligent (analog), fire detection and alarm system complete with addressable, intelligent (analog) heat and smoke sensors, Addressable Manual call point and hooters. The distributed Intelligent Fire Alarm Control Panel (FACP) shall function as fully stand-alone panel. FACP shall have its own microprocessor, software and memory complying with BS5839 Part 4 (1995) and should bear CE mark.

The Fire Alarm Panel shall have the facility to integrate an emergency voice alarm communication system. Digitally stored message sequences shall notify the building occupants that a fire or life safety condition has been reported. Message generator(s) shall be capable of automatically distributing up to eight (8) simultaneous, unique messages to appropriate audio zones within the facility based on the type and location of the initiating event.

The supplier shall submit following:

- a. GA drawing.
- b. Data sheet indicating results of tests.
- c. Test reports.
- d. O & M manuals.

8.0 PUBLIC ADDRESSABLE SYSTEM

The scope of work under this head shall include designing supplying and installing of Public Address System. The work under this system shall consist of furnishing all materials, equipment's and appliances and labour necessary to install the said system, complete with Speakers, Amplifiers, Mike and Zone selection Panel.

The PA System is designed to serve the multipurpose of playing music, making general announcement or to transmit the fire tone under fire condition.

9.0 RODENT REPELLENT SYSTEM

The scope of work shall cover the supply, installation, testing and commissioning of RODENT REPELLENT system with relevant equipment and instruments. The work is to be carried out as per technical specification, BOQ & Drawings.

10.0 DATA & NETWORKING SYSTEM

The scope of the work shall cover the supply, installation, testing and commissioning of Data & Networking system with relevant equipment and instruments. The work is to be carried out as per the technical specification, BOQ & Drawings. The scope of work also covers the supply, installation, testing & commissioning of the optical fiber cable from source network rack to 1st floor network rack of Ship Building.

Scope shall also include SITC of network switch & patch panel. Prior to purchase of any network components approval shall be taken before.

Scanning of Data point to be included in installation of Data point.

11.0 MOTION SENSORS

The scope of work shall cover the supply, Installation, testing & commissioning of the Motion sensors for Cabins to save energy. The Motion sensors will control ON/OFF of AC Indoor unit & Lights. Motion sensors shall be provided with Two way wiring system with 2way Switch as per the Single line diagram in order to override Motion sensors in case of failure of the same.

12.0 STANDALONE CALL BELL SYSTEM

The scope of work shall cover the supply, Installation, testing & commissioning of the battery operated call bell system. The installation of the system is carried out as per technical specification & BOQ.

4. HVAC WORKS :-

The general character and the scope of work to be carried out under this contract is illustrated in Drawings, Specifications and Schedule of Quantities. The Contractor shall carry out and complete the said work under this contract in every respect in conformity with the contract documents and with the direction of and to the satisfaction of the Consultant / Architect/ Client.

The contractor shall furnish all labour, materials and equipment as listed under Schedule of Quantities and specified otherwise, transportation and incidental necessary for supply, installation, testing and commissioning of the complete air conditioning system and ventilation system as described in the Specifications and as shown on the drawings.

This also includes any material, equipment, appliances and incidental work not specifically mentioned herein or noted on the Drawings / Documents as being furnished or installed, but which are necessary and customary to be performed under this contract for completion of entire work.

The detailed scope of work has been indicated in the Bill of Quantities (BOQ) Price Bid Part-II at Enclosure-1.

5. FOLLOWING OF GRIHA NORMS DURING CONSTRUCTION:

The project will be certified under IGBC norms. The contractor shall at all times follow Certain methodologies for construction and product list for construction materials. The Expenditure on this account shall be borne by the contractor and no extra cost shall be acceptable.

Note: Contractors to Submit all materials technical specification/GA/Catalogue for approval before ordering it.