Amount

SCHEDULED-I ELEVATIONAL WORKS COMPRISING OF ACP CLADDING & STRUCTURAL GLAZING DESCRIPTION OF ITEM UNIT QTY Rate

GENERAL NOTES FOR ALL THE BILL OF QUANTITIES FOR VARIOUS WORKS ENNUMERATED IN THIS ESTIMATE / BOQ: -

The rates quoted herein-under for all the Items of this BOQ for Structural Repairs & Restoration Works shall be inclusive of the following Site Preparatory Works and nothing additional on account of the execution of the below mentioned site preparatory works shall be paid over and above the rates quoted for the respective line items of the BOQ.

SITE PREPARATORY WORKS (FOR STRUCTURAL REPAIRS & RESTORATION WORKS & ACP CLADDING & STRUCTURAL GLAZING WORKS)

A The rates quoted for the various items hereinunder includes the cost towards the Demolition / Dismantaling / Shifting / Reshifting & Refixing of all the existing items of work including all the internal & exterior areas where the works are to be carried out with respect to any material required to be removed for proper working on site & compliance of all the activities on site including removal of debris from site on day to day basis to avoid inconvinience to the residents / office, stacking the same till the time of removal at the desired location including carting away of debrirs at the designated PMC / PMRDA / PCMC designated limits including shifting, relocating & refixing the dismantled items if instructed by the Consultants and Bank's Engineer in charge and making good the same if damaged during shifting etc complete as per the the instructions and directions.

The above dismantling works are to be carried out upto the Terrace Floor level. The debris is to be carted outside the premises and disposed off at the PMC, PMRDA, PCMC or any Statutory Authority's designated place upto any lead. The serviceable and unserviceable materials excluding debris shall be stacked properly in the designated place and to be secured in safe custody till the disposal of the same. Sufficient manpower shall be provided for movement of furniture from one floor to other during execution. The demolition of the following item of works ie envisaged, however not limited to:

The rate shall also include removing the existing items mentioned above or any item required to be removed for smooth execution of all works on site with utmost care to ensure no damage is caused especially in case of fixtures & fittings & handing over the same to the Bank (For items as directed by the Consultant / Engineer-in-charge) & including Re-fixing the desired items such as Windows, Grills, Doors etc as per directions & instructions of the Consultant / Engineer-in-charge of the Bank.

Flooring of all types, Tiles of any type, floor finishes, Wall dados, kerbs, Water-proofing, Brick bat coba

Walls, Brick works, Platforms, Bunds, Stone work, Counters, tree guards, treads, risers etc

Concrete dismantling, mortar, RCC elements, Steel, structural steel etc

Water-Proofing - All layers upto the level of bare slab including dressing the slab to receive the new finishing material

Partitions of all types, Panelling of all types

Doors, Windows of all types, Steel work, Frames, Grills etc

False Ceilings of all types

SL.No

Wiring, Cables, Electrical fittings, fixtures, assessories, Cables, Wires, Cable Trays, Lighting fittings & fixtures,

Shifting of tables, chairs, furnitures items of all types such as Beds, Wardrobes, tables, counters, credenzas, TV units, loose furnitures such as sofas, chairs, decorative items etc complete.

Air Conditioning units of all types - AHU's, Indoor Units, Outdoor units of all types, Cooling towers, Chillers etc

Miscellaneous items such as Manure, Plants etc.

The above dismantling works are to be carried out upto the Terrace Floor level. The debris is to be carted outside the premises and disposed off at the PMC/PMRDA/PCMC designated place upto any lead. The serviceable and unserviceable materials excluding debris shall be stacked properly in the designated place and to be secured in safe custody till the disposal of the same. Sufficient manpower shall be provided for movement of furniture from one floor to other during execution.

- Providing barricade along the demarked periphery of site upto 2.0m Height temporarily with all warning signs and removing the same after the completion of the job complete including all necessary fittings as per specifications / instructions of the consultant. The Rate to include Providing, Fabrication & Errecting in position Structural steel ISMB / ISLC / Box sections, angles, beams including welding scaffolding in clouting, bare galvalume sheets supported and fixed on the structural steel vertical and horizontal supports including the fixing arrangements for sheets, assessories, fittings, fixtures etc complete. The rate shall also include Excavation for the M.S. Colums be erected in the area, Providing and Fixing anchor bolts for M.S. Column supports on all the four sides including Providing and applying 1:2:4 Cement Concrete Foundations & pedestals for the columns. The entire assembly shall be quantified in terms of Running Metres i.e. Perimeter length and comprising of the structural steel vertical and horizontal elements, cross bracings, galvalume sheets, cement concrete foundations etc irrespective of the weight of steel required in accordance with the details & instructions duly provided by the Consultants.
- Providing and erecting steel props to support the structure provisionally during Repairs, restoration and jacketing works etc and maintaining them in position until required as directed by the consultant.

	ELEVATIONAL WORKS COMPRISING OF ACP CLADDING & STRUCTURAL GLAZING								
SL.No	DESCRIPTION OF ITEM UNIT QTY Rate Amount								
	Providing and Fixing Nylon net for open areas all around the building about 8-10 Mts during construction to control debris & dust from spreading beyond the construction work as directed by Consultant.								
(ii)	Providing and Fixing Nylon Rope for tightening of Net. Rope 20 mm								
E	Providing and fixing in position 4 mm thk. plywood covering on windows and other utilities / machineries / flooring, etc to protect them from falling debris, etc complete and removing the same after completion of the work. Rate to also include Providing and laying in position 10-15 mm thk POP covering on flooring, etc. to protect them from falling debris, etc complete and removing the same after completion of the work.								
F	The rates quoted shall be inclusive of Providing Double Pole steel / metal scaffolding having two sets of vertical supports which shall be provided. The supports shall be sound and strong, tied together with horizontal steel / metal support pieces over which platform planks shall be fixed properly & secured. The rates quoted shall also include the provision of adequate number of steel Props using jointed adjustable props Acro or equivalent make supporting the entire structure in the viscinity & other necessary temporary supporting arrangements including bracings, steel angles, plates etc, which shall be provided for the areas in the viscinity in adequate numbers as directed by the Consultants including the safety netting of required stansard during the work for the work all around the buildings & structures and removal of the same after completion of the works including all the safety gadgets for the work-force such as Goggles, Handgloves, Helmets, Suspending belts & hooks, aprons, shoes & boots etc complete.								
G	The rates quoted shall be also inclusive of Providing & fixing U clamps, Anchor Bolts, Radium strips & removing and refixing of all require elements such as paver blocks, ACP, Structural glazing including frameless glazing etc complete and no extra claim on this account shall be entertained.								
Н	The rates quoted for all the items (Structural Glazing, IGU, Openable Glazing, ACP Cladding, Glass on Spider Fittings, Airfoil Louvers, Aerofoil Projection band etc) mentioned hereinunder shall include the following and no request for any additional extra / additional payment on account of the same shall be entertained. The rates quoted herein under for all the items of this BOQ to STRICTLY include the following (i to vi including Notes etc.), which shall be within the scope of the contracting agency and nothing extra on account of the herein mentioned below would be paid over and above the unit rate quoted for the respective item and for the entire scope, which may please be noted: -								
i	Designing, fabricating, testing, protection, installing and fixing in position the semi (grid) unitized system of structural glazing &/or AC Curtain Wall system, Frameless Glazing on Spider Fittings, Airfoil Louvers, Aerofoil projection etc for linear as well as curvilinear portions of the building for all heights and all levels, including:								
ii	Structural analysis & design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must pass the proof test at 1.5 times design wind pressure without any failure), including functional design of the aluminum sections for fixing glazing panels of various thicknesses, aluminium cleats, sleeves and splice plates etc gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)-cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalisation & drainage and protection against fire hazard including:								
iii	Fabricating and supplying supporting system, framework & grid as mentioned herein under the item-specifications & in M.S. hot dip galvanised / Aluminium alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimentional movement for achieving perfect verticality and fixing the element system rigidly to the RCC/ masonry/structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon seperator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers.								
	Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment, including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacture, as per the approved sealant design, within and all around the perimeter for holding glass.								
V	Providing and fixing in position flashings of solid aluminium sheet 1 mm thick and of sizes, shapes and profiles, as required as per the sit conditions, to seal the gap between the building structure and all its interfaces with the element system to make it watertight including protection from fire & its spread, fire stops, smoke seals & barriers between the floors & sideways.								

	ELEVATIONAL WORKS COMPRISING OF ACP CLADDING & STRUCTURAL GLAZING								
CL N.	DESCRIPTION OF ITEM	LINUT	OTY	Deta	Ame				
vi vi	Making provision for drainage of moisture/ water that enters the system element to ma pressure equalization, providing suitable gutter profiles at bottom (if required), making ne numbers etc. complete. This item includes cost of all inputs of designing, labour for finstallation of glazed units, T&P, scaffolding and other incidental charges including was services, cranes or cradles etc. as described above and as specified. The item includes the design including shop drawings checked by a structural designer, duly approved by Archit also includes the cost of all mock ups at site, cost of all samples of the individual compone tests on the assembled working structural glazing as specified, cleaning and protection till the the end, the Contractor shall provide a water tight system having all the performance charact Architectural drawings, as per item description, as specified, as per the approved shop draw in-Charge.	cessary had be cessary from tages etcest of get, Concents for the handing teristics of the cessary had be cessary from the handing teristics of the cessary had be cessary from the cessary from	ooles of rog and instance, enablinetting all cultant & esting in gover of tetc. all con	equired sizes stallation of any temporary the structure Engineer-in-can approved the building for applete as reconstants.	and of required aluminium grid, y structures and al and functional charge. The item laboratory, field or occupation. In juired, as per the				
	All the items / Elements (Structural Glazing, IGU, Openable Glazing, ACP Cladding, Gla Projection band etc) mentioned hereinunder shall be designed so as to sustain the wind designed in accordance with the I.S codal provisions and all the applicable codal standards are Note:- 1. The cost of providing extruded aluminium frames, shadow boxes, extruded alumin the curtain glazing and vermin proof stainless steel wire mesh shall be included in the capt the work is quantified and nothing extra on account of the same shall be paid over and above payment, only the actual area of structural glazing (including width of grooves) on the extended aluminium frames.	pressure nd applica nium sect ioned ite ve the qu	e of mining the of mining the of mining the of the	mum of 2.0 l tural designing ng for fixing er relevant in . However, fo	(pa and shall being practices in the grooves of tem under which or the purpose of				
	Note:- 2. The following performance test are to be conducted on the system element from the certified laboratories accreditated by NABL(National Accreditation Board for Testing and Calibration Laboratories), Department of Science & Technologies, India. Cost of testing is included in the rates quoted. The Architect will decide the duration & magnitude of testing on the basis of the milestones achieved in the work. Performance Testing of Structural glazing system Tests to be conducted in the NBL Certified laboratories								
1	Providing and fixing Structural glazing system with Single Glass of approved make having aluminium minimum main frame size of vertical of 100mm X 55mm x 2mm thick and aluminium horizontal minimum size of 75mm x 65 x 2mm made out of specially designed extruded aluminium sections to withstand wind pressure as per BIS code and fabricated, fixed at all levels, elevation and heights to the Masonry / RC walls / RC supporting elements with necessary clamps, brackets and anchor fasteners. All clamps and brackets shall be Mild Steel Hot dip galvanized minimum 80 microns thick and shall conform to IS: 4759-1996. The extruded aluminium section shall be powder coated in approved colour with a anodic coating of minimum 15 microns. Extruded section shall be of 6063 T5 or T6 alloy conforming to ASTM B 221. Any other fastening straps, nuts, bolts, rivets, washers, etc. shall be in stainless steel SS 304 grade. All tapes shall be of Norton make. Vendor to prepare detailed shop drawings, fabrication drawings based on elevation / architectural drawings, with all details and submit for obtaining necessary approval prior to commencement of work and execute as specified and as directed by the Engineer-in-Charge. The Glass panels shall be assembled in the factory/ workshop of the glass manufacturer / processor. "(Payment for fixing of Glass Panels in the curtain glazing is included in cost)".		665						
	etc all complete for the required performance, as per the Architectural drawings, as per the approved shop drawings,								

SL.No	DESCRIPTION OF ITEM	UNIT	QTY	Rate	Amount	
	The rate shall also include the Aluminium framework sections, transomes, mullion sections & supporting grid / framework as required to support the glass and for errection of structurally safe & sound glazing system. For payment, only the actual elevational area of glass on the face of the glass panels (excluding the areas of the grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm."					
	Rate for provide Fire stops at all floor levels. Rate including EPDM gaskets, open cell polyethylene backer rods etc. The Structural glazing sealant shall be Dow Corning / GE / Mecoy and weather sealant shall be Dow Corning / GE / Mecoy. All sealants shall be black in colour etc., complete all as directed.					
	Providing 6 mm thick toughened reflective soft coated Advantage Blue / green low E hard coated glass having Light Transmission (VLT) Not more than 35 to 40 %, Reflectance 10 to 20% outside, Direct Solar Energy Transmittance - 35%, Solar Heat Gain Coefficient - 0.45 Shading Coefficient - 0.53, U - Factor 3 W/m2 deg K, Sound Insulation - 31db outer lite)					
	The supporting framework shall have the following specifications: -					
	Providing and supplying aluminium extruded tubular and other aluminium sections as per the architectural drawings and approved shop drawings, the aluminium quality as per grade 6063 T5 or T6 as per BS 1474,including super durable powder coating of 60-80 microns conforming to AAMA 2604 of required colour and shade as approved by the Engineer-in-Charge. (The item includes cost of material such as cleats, sleeves, screws etc. necessary for fabrication of extruded aluminium frame work. Nothing extra shall be paid on this account).					
	Note:- As mentioned above, the Architect will decide the duration & magnitude of testing on the basis of the milestones achieved in the work. Performance Testing of Structural glazing system Tests to be conducted in the NBL Certified laboratories are as follows: -					
	Performance Laboratory Test for Air Leakage Test (-50pa to - 300pa) & (+50pa to +300pa) as per ASTM E-283-04 testing method for a range of testing limit 1 to 200 mVhr					
	Static Water Penetration Test. (50pa to 1500pa) as per ASTME- 331-09 testing method for a range up to 2000 ml.					
	Dynamic Water Penetration (50pa to 1500pa) as per AAMA 501.01- 05 testing method for a range upto 2000 ml					
	Structural Performance Deflection and deformation by static air pressure test (1.5 times desing wind pressure without any failure) as per ASTME-330-10 testing method for a range upto 50 mm					
	Seismic Movement Test (upto 30 mm) as per AAMA 501.4-09 testing method for Qualitative test. Tests to be conducted on site.					
	On site Test for Water Leakage for a pressure range 50 kpa to 240 kpa (35psi) upto 2000 ml					
2	Extra (Over and above the rate quoted for Item No 1 above) for Designing, Supplying, Assembling / fabricating, Installation, finishing, testing and fixing in position of Openable side / top hung vision glass panels (IGUs) including providing and supplying at site all accessories and hardwares for the openable panels as specified and of the approved make such as heavy duty stainless steel friction hinges, min 4 -point cremone locking sets with stainless steel plates, handles, buffers etc. including necessary stainless steel screws/fasteners, nuts, bolts, washers etc. all complete as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Architect & Engineer- in-Charge. (For payment, only the actual elevational area of glass openable windows on the face of the glass panels (excluding the areas of the grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm)		70			

SL.No	DESCRIPTION OF ITEM	UNIT	QTY	Rate	Amount
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3	Designing, Supplying, Assembling / fabricating, Installation, finishing, testing and fixing in position of shadow box of required size and shape, for fixing in the spandrel portion of the structural glazing, in linear as well as curvilinear portions of the building by providing semi-rigid, inorganic, non-combustible fibre glass wool insulation 50 mm thick, conforming to IS: 8183 and BS: 3958 Part 5. The insulation layer shall have facing (factory bonded on surface of the fibre glass insulation layer), of black non-woven fibre glass tissue of nominal thickness 0.5 mm and nominal mass not less than 60 gm / sqm, made of randomly oriented glass fibres distributed in a binder by a wet-lay process including fixing 1.5 mm thick solid aluminum sheet backing using, 6 mm thick cement board including SS rivets, nuts, bolts, washers etc complete.	Sq.Mts	75		
4	Designing, Supplying, Assembling / fabricating, Installation, finishing, testing and fixing in position of Spandrel Glass Panels comprising of 6 mm thick heat strengthened monolithic float glass of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade so as to match the colour and shade of the IGUs in the vision panels etc. ,all complete for the required performances as specified, as per the Architectural drawings, as per the approved shop drawings, as specified, and as directed by the Engineer- in-Charge."For payment, only the actual area of Panel with Spandrel glass on face # 1 of the glass panels (Not considered under quantification in Item No 1 above) (but excluding the area of grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm. (i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 K etc. The properties of performance glass shall be decided by the Architect & Engineer- in- charge as per the site requirements.		75		
5	Designing, Supplying, Assembling / fabricating, Installation, finishing, testing and fixing in position Curtain Wall with 2 Hours Fire Rated <u>Aluminium Composite Panel Cladding</u> in combination of solid/Metallic colours, including all necessary frame work and complete weather sealing, with open grooves for linear as well as curvilinear portions of the building, for all heights and all levels etc. including:	Sq.Mts	3005		
	Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design.				
	Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metalic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, EPDM, Neoprene, backer rods etc.				

	PEGGD17716 :	LINIT OTY Date			
SL.No	DESCRIPTION OF ITEM The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with	UNIT	QTY	Rate	Amount
	serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins				
	and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic				
	contacts all complete required to perform as per specification and drawing. (The item				
	includes cost of material such as cleats, sleeves, screws etc. necessary for fabrication of				
	extruded aluminium frame work. Nothing extra shall be paid on this account). The item				
	includes cost of all material & labour component, the cost of all mock ups at site, cost of all				
	samples of the individual components for testing in an approved laboratory, field tests on				
	the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing				
	over of the building for occupation. Base frame work for ACP cladding is payable under the				
	relevant aluminium items.				
	The Contractor shall provide curtain wall with aluminium composite panel cladding, having				
	all the performance characteristics all complete, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the				
	Engineer-in-Charge. However, for the purpose of payment, only the actual area on the				
	external face of the curtain wall with Aluminum Composite Panel Cladding (including width				
	of groove) shall be measured in sqm. up to two decimal places."				
6	Designing, Supplying, Assembling / fabricating, Installation, finishing, testing and fixing in	Sq.Mts	371		
	position of suspended Spider Glazing system designed to withstand the wind pressure as				
	per IS 875 (Part-III). The Suspended System held with Spider Fittings of SS-316 Grade Steel of				
	approved manufacturer with glass panel having 12 mm thick clear toughened glass held together with SS- 316 Grade Stainless steel Spider & bolt assembly with laminated glass fins				
	21 mm thick. The Glass fins and glass panel assembly shall be connected to Slab/beams by				
	means of SS- 316 Grade stainless steel brackets & Anchor bolts and at the bottom using SS				
	channel of 50x25x2mm using fastener & anchor bolts, non staining weather sealants of				
	approved make, Teflon/ nylon bushes and separators to prevent bi-metallic contacts, all				
	complete to perform as per specification and approved drawings. The complete system to				
	be designed to accommodate thermal expansion & seismic movements etc. The joints				
	between glass panels (6 to 8 mm) and gaps at the perimeter & in U channel of the assembly to be filled with non staining weather sealant, so as to make the entire system fully water				
	proof & dust proof.				
	The rate shall include all design, Engineering and shop drawing including approval from				
	structural designer, labour, T&P, scaffolding, other incidental charges including wastage,				
	enabling temporary services all fitting fixers nut bolts, washer, Buffer plates, fastener,				
	anchors, SS channel laminated glass etc & all fittings, fixtures etc in SS all complete. For the				
	purpose of payment, actual elevation area of Glazing including thickness of joints and the portion of Glass panel inside the SS channel shall be measured.				
	portion of Glass patier inside the 33 Chaillier shall be fileasured.				
	The rate quoted shall also include any additional supporting 12 mm thk toughened vertical				
	glass at right angle to the Spider Glazing system for the span. All the damages to the floor				
	work to be reinstated without any extra cost. The rate shall include the cost of all the				
	necessary patch fittings if any, other fittings, fixtures, hardwares, bolts, fasteners including				
	supporting arrangements, adhesives etc required for the entire span and height of the system etc complete including making the system completely air tight to prevent air loss &				
	ensuring water-tight system at each & every level for the entire height etc complete as per				
	the directions of Engineer-in-Charge and in line with the technical specifications.				
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SL.No	DESCRIPTION OF ITEM	UNIT	QTY	Rate	Amount
7	Designing, Supplying, Assembling / fabricating, Installation, finishing, testing and fixing in position Fully glazed double leaf frameless Sliding door with 12 mm thk Toughened Glass on special sliding fittings, fixtures, floor channels, heavy duty special hardware, fittings & fixtures, Patch fittings including side panels in M.S sections as and wherever required and directed including encasing the said sections with ACP of approved make & color (ACP would be paid under relevant item) as per the directions of the Architect & Engineer in charge. All damages to the floor work to be reinstated without any extra cost. Cost of all the necessary fittings to be included in the quoted rate complete in all respects including making necessary holes etc as per drawings and directions of Engineer-in-Charge.	Sq.Mts	10	nate	Anivant
8	Designing, Supplying, Installation, finishing, testing and fixing in position Automatic operation system for the Main Entrance Door suitable for existing double leaf frameless glazed door made of 12 mm thick glass with opening size of about 2.4m x 2.4m consisting of solid state controller unit, heavy duty reversible motor, adjustable timer, gear for transmission, sensors on both sides, associate cabling and circuit etc., so as to provide flawless automatic operation, with all labour, material, equipment, handling, transportation, workmanship, preparation of working drawings, testing, etc., all complete, as per manufacturer specifications and instructions of the Engineer The Electric operating Mechanism shall be mounted and concealed within the Stainless Steel header and the Controller Unit shall be Micro Processor Based. Weather stripping shall be provided along the edges of sliding door panels. Basic sensor system shall be of active infrared sensors type, header mounted on each side of the door and shall remain active thoughout the door opening & closing cycle.	No	1		
	Two pulsed infrared photoelectric beams (Hold-open) to be mounted in jambs. The entire door unit shall be in plumb, level, true in line & shall be weather tight with sealand/joing filler/gaskets. The Door unit shall be installed in coordination with wall flashings & other components of construction.				
9	Designing, Supplying, Assembling / fabricating, Installation, finishing, testing and fixing in position of Storm Resistant Rain Defence Performance Double Bank Louvers as per manufacturers standards and specifications to the utility areas, Services etc and to be made up of Aluminium Extrusion of 6063 T6 alloy tested by AMCA/BSRIA to maintain the pressure drop below 8 mm and the airflow co-efficient to be not more than 0.28 to provide good airflow and excellent Rain defense of Class A including necessary ventilation to exhaust out the AC return. The panel size should be as per the directions of the Architect or Engineer in charge and as per drawings & details issued and shop drawings duly approved and should sustain the wind pressure of minimum of 2.0 Kpa and shall be designed in accordance with the I.S codal provisions and all the applicable codal standards and applicable Structural designing practices. The Elevation should be continuous line with Powder coating finish to stand a warranty of 20 years.		85		
10	Designing, Supplying, Assembling / fabricating, Installation, finishing, testing and fixing in position of Airfoil Louver (Elevational cantilever projection) comprising of 150 mm width for an Projection {Projection of the outermost point from the finished Elevational line (After cladding / glazing)} of minimum of 1000 mm module with 5 blades of pitch 170 mm and blade span of minimum 2386 mm to sustain a minimum wind loading of 2.0 Kpa. The blade thickness to be minimum of 2 mm to sustain sustain the wind pressure of minimum of 2.0 Kpa and shall be designed in accordance with the I.S codal provisions and all the applicable codal standards and applicable Structural designing practices including Aluminium outrigger of 6 mm thickness & width of 150 mm. The coating to be Powder coated as per the architectural intent with warranty of 5 years. The measurements for this items shall be considered as running metre length X total projection i.e. Projection of the outermost point from the finished Elevational line after cladding / glazing.		75		

SL.No	DESCRIPTION OF ITEM	UNIT	QTY	Rate	Amount
10	Designing, Supplying, Assembling / fabricating, Installation, finishing, testing and fixing in	Sq.Mts	85		
	position of 3mm thick 6063 T6 Aluminium Laser / CNC Cut Elevational Panels (Jali design) of				
	approved make, color, shape, size & design and to have monotonous span without joint as				
	per manufacturers specifications & standards with a warranty of 20 years. The product				
	compoisition to be Aluminium with extended exterior coatings and with a warranty for				
	coating of 20 years. The assmbly to be fixed using 19mm SS 316 (10mm or 20mm), Coloured				
	22mm Wafer Head Screws, Aluminium rivets etc complete to the satisfaction of the				
	Architect & Engineer in charge and as per directions				
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		GRAND TOTAL			
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