## पनवेल महानगरपालिका जाहीर निविदा दरपत्रक

आयुक्त, पनवेल महानगरपालिका हद्दीतील कामोठे येथील सेक्टर-३२, भूखंड क्र.०५ (क्षेत्र ६९०५.३२ चौ.मी.) या जागेत अग्निशमन केंद्राचे बांधकाम करणे. या कामाचे अंदाजपत्रक बनविण्याकरीता खाली नमूद केलेल्या बाबींकरीता खालील नमूण्यात दर मागविण्यात येत आहे.

अ.क्र.	कामाचे नाव	मुदत
१	पनवेल महानगरपालिका हद्दीतील कामोठे येथील सेक्टर-३२, भूखंड क्र.०५ (क्षेत्र ६९०५.३२ चौ.मी.) या जागेत अग्निशमन केंद्राचे बांधकाम करणे. या कामाचे अंदाजपत्रक बनविण्याकरीता खाली नमूण्यात दर मागविण्यात येत आहे.	<b>08 53</b> /२०२५ ते <b>93</b> / <b>37</b> /२०२५ (७ दिवस)

## Specification

No	DESCRIPTION	Unit	Quantity	Rate
	Design Wind Pressure unless specified (Kg / m2)	1.70		
	Proof Load at 1.5 Times of Design Wind Pressure (Kg / m2)	2.55		
Α	External Glazing - Semi-Unitized Glazing	193- × ×		-
	Design, Fabrication, Supply, Installation, cleaning & handover of Semi-Unitized glazing system designed to with stand the wind pressure of confirming to IS -875 part III. The profile system consist of glass which structurally glazed on sash profile with double sided tape & structural silicone, with necessary brackets of Aluminium alloy of 6005 T6 with MS HDG with three dimensional adjustment with serrations and serrated washers to arrest the wind load movement, Anchor, screws and fasteners with non staining weather sealant having colour matching to RAL shade of aluminium framing and Aluminium flashing sealed all around parameter inside and outside to seal the gaps between Semi-Unitized Glazing and the building structure all complete required to perform as per specification and drawing in conjunction with BOQ. M.S. insert need to consider as per structural requirements for Ground Floor.			
	The system design shall be based on closed joint system & with minimum 2 barrier gaskets for improved weather performance, drainage at all floor levels, spandrel panel shall have pressure release slots on vertical side of profile system to avoid condensation. The design to accommodate building movements, thermal expansions & the seismic movements. The system shall be designed considering surface temperatures of 80-90 deg Cel & temperature differential of 25 deg cel without creating excess stress in the system. All metal joints in the wet area shall be small joint sealant applied to ensure water tightness.			
	The two barrier gasket system consists of 1st & 2nd gasket barrier of EPDM gaskets to achieve the required compression & seal in the system. EPDM Gaskets shall be			

of micro cured (Online Curing) with shore A hardness of 60-65.			
Flashing / Trim / Floor Closure at Parapet level, floor level, beam bottom level and required flashings shall be provided continuously with required GI / EPDM membrane / Aluminium sheet. Internal & External concealed Flashings shall be 1.2 mm thk. EPDM membrane sheet. External exposed flashing shall be 2 mm thk. Aluminium sheet with SDF coated matching with external Aluminium profiles. Internal exposed flashing shall be 2 mm thk. Aluminium sheet with SDF coated matching with internal aluminium profiles.			
The extruded aluminium sections of Alloy 6063 T5 / T6 & tolerances confirming to DIN / EN standard from approved extruder. The structural profiles shall have minimum 2.5 mm wall thickness. All the internal & externally visible surfaces shall have high Durability (Akzonobel) / Super durable (Jotun) Powder coating of 60 - 80 micron confirming to AAMA 2604 (RAL colour as per Architect's approval). The non visible aluminium surfaces shall have minimum chromatizing treatment.  The quote rate shall include all design, engineering &			
shop drawing approval from architect & consultant, mock-ups, sample submission, handling of all materials (loading, unloading, shifting, etc.), scaffoly access equipment's etc. The quote rate shall include an duties, statutory obligations and safety code compliance as per industry standards.			
Semi-unitized Glazing System (A)			
Quote rate for complete system as mentioned above under (A) for Glazing at Ground & First Floor.	m²	378	
Quote rate for complete system as mentioned above under (A) for Glazing at Second & Third Floor.	m²	818	
Vision Glass : Extra over a.1 ( at Ground & First Floor.) Solar Glass (GLS 01)			
Providing & fixing the vision glass  Providing and fixing thin-film Cadmium Telluride (CdTe) BIPV or equivalent make glass panels of 18.24 mm total thickness (comprising 6 mm thick toughened glass + 1.52 mm PVB interlayer + 3.2 mm photovoltaic cell + 1.52 mm PVB interlayer + 6 mm clear toughened glass, with 100% heat soak testing). The CdTe thin-film BIPV or equivalent glass panels shall be of sizes as suggested by the Architect/PMC and shall be tested in accordance with IS 16077:2013 / IEC 61646:2008, as per BIS and IS guidelines. These panels shall have 20% transparency and a power output of 240 Wp or 160 Wp per panel, depending on size and transparency. The panels shall utilize Low-E (SnO <sub>2</sub> -coated) toughened laminated glass as the base. Each CdTe thin-film BIPV or equivalent glass panel shall have an open-circuit voltage (Voc) of 116 V and a short-circuit current (Isc) of 3.19 A, and shall be provided with a junction box complying with BIS and IS guidelines. All panels shall be tested under standard test conditions (STC): 1000 W/m², AM 1.5, and 25°C. The glass properties and specifications shall conform to those	m²	112	

mentioned in the tender specification Annexure.			
Spandrel Glass : Extra over a.1 ( at Ground & First Floor.)			
Solar Glass (GLS 01) Providing & fixing the spandrel glass			
Providing and fixing thin-film Cadmium Telluride (CdTe) BIPV or equivalent make glass panels of 18.24 mm total thickness (comprising 6 mm thick toughened glass + 1.52 mm PVB interlayer + 3.2 mm photovoltaic cell + 1.52 mm PVB interlayer + 6 mm clear toughened glass, with 100% heat soak testing). The CdTe thin-film BIPV or equivalent glass panels shall be of sizes as suggested by the Architect/PMC and shall be tested in accordance with IS 16077:2013 / IEC 61646:2008, as per BIS and IS guidelines. These panels shall have 20% transparency and a power output of 240 Wp or 160 Wp per panel, depending on size and transparency. The panels shall utilize Low-E (SnO <sub>2</sub> -coated) toughened laminated glass as the base. Each CdTe thin-film BIPV or equivalent glass panel shall have an open-circuit voltage (Voc) of 116 V and a short-circuit current (Isc) of 3.19 A, and shall be provided with a junction box complying with BIS and IS guidelines. All panels shall be tested under standard test conditions (STC): 1000 W/m², AM 1.5, and 25°C. The glass properties and specifications shall conform to those mentioned in the tender specification Annexure.	m²	266	
Spandrel Shadow Box : Extra over a.1 (at Ground & First Floor.)			
Quote extra over on item (a.1) for providing and fixing the spandrel shadow box with the mineral wool insulation of 50 mm thick 128 kg/m3 density slab with inbuilt black veil of 0.65mm firmly held on the 1.5 mm thk. Aluminium sheet shadow box on front side & G.I. sheet (mill finish) of 1.5 mm thk on back side along with GI "L" shape stiffener for rigidity with 1.5 mm thk. thick with fixing to mullion and transom as per the intent drawing. Aluminium tray have SDF black coated Finish. GI tray shall have finish of Powder coating of C2 category with 15 years warranty (RAL colour as per Architect's approval. The insulation system shall meet 2 hour's firerated. The assembly is kept at least 50mm away from the glass surface. (Spandrel Panel Materials and Fixing System Should Be Followed As Per Approved Fire Test 'Ul Certificate')	m²	266	
Vision Glass: Extra over a.2 (at Second & Third Floor.)			
Solar Glass (GLS 01) Providing & fixing the vision glass			

Providing and fixing thin-film Cadmium Telluride (CdTe) BIPV or equivalent make glass panels of 18.24 mm total thickness (comprising 6 mm thick toughened glass + 1.52 mm PVB interlayer + 3.2 mm photovoltaic cell + 1.52 mm PVB interlayer + 6 mm clear toughened glass, with 100% heat soak testing). The CdTe thin-film BIPV or equivalent glass panels shall be of sizes as suggested by the Architect/PMC and shall be tested in accordance with IS 16077:2013 / IEC 61646:2008, as per BIS and IS guidelines. These panels shall have 20% transparency and a power output of 240 Wp or 160 Wp per panel, depending on size and transparency. The panels shall utilize Low-E (SnO <sub>2</sub> -coated) toughened laminated glass as the base. Each CdTe thin-film BIPV or equivalent glass panel shall have an open-circuit voltage (Voc) of 116 V and a short-circuit current (Isc) of 3.19 A, and shall be provided with a junction box complying with BIS and IS guidelines. All panels shall be tested under standard test conditions (STC): 1000 W/m², AM 1.5, and 25°C. The glass properties and specifications shall conform to those mentioned in the tender specification Annexure.	m³	203	
 Spandrel Glass : Extra over a.2 ( at Second & Third Floor.) Solar Glass (GLS 01)			
Providing & fixing the spandrel glass			
Providing and fixing thin-film Cadmium Telluride (CdTe) BIPV or equivalent make glass panels of 18.24 mm total thickness (comprising 6 mm thick toughened glass + 1.52 mm PVB interlayer + 3.2 mm photovoltaic cell + 1.52 mm PVB interlayer + 6 mm clear toughened glass, with 100% heat soak testing). The CdTe thin-film BIPV or equivalent glass panels shall be of sizes as suggested by the Architect/PMC and shall be tested in accordance with IS 16077:2013 / IEC 61646:2008, as per BIS and IS guidelines. These panels shall have 20% transparency and a power output of 240 Wp or 160 Wp per panel, depending on size and transparency. The panels shall utilize Low-E (SnO <sub>2</sub> -coated) toughened laminated glass as the base. Each CdTe thin-film BIPV or equivalent glass panel shall have an open-circuit voltage (Voc) of 116 V and a short-circuit current (Isc) of 3.19 A, and shall be provided with a junction box complying with BIS and IS guidelines. All panels shall be tested under standard test conditions (STC): 1000 W/m², AM 1.5, and 25°C. The glass properties and specifications shall conform to those mentioned in the tender specification Annexure.	m²	615	
Spandrel Shadow Box : Extra over a.2 ( at Second & Third Floor.)			
Quote extra over on item (a.1) for providing and fixing the spandrel shadow box with the mineral wool insulation of 50 mm thick 128 kg/m3 density slab with inbuilt black veil of 0.65mm firmly held on the 1.5 mm thk. Aluminium sheet shadow box on front side & G.I. sheet (mill finish) of 1.5 mm thk on back side along with GI "L" shape stiffener for rigidity with 1.5 mm thk. thick with fixing to mullion and transom as per the intent drawing. Aluminium tray have SDF black coated Finish. GI tray shall have finish of Powder coating of C2 category with	m²	615	

	Double Leaf Side Hung Operable vent system mentioned in a.4 (size 1.6 mtr x 2.250 mtr)	m²	51	
	profile fixed at locking. The outer frame fixed to the unitised profile system with necessary \$\$316 screws & weather sealant applied from outside. The stepped glass design vent shall not be accepted.  The extruded aluminium sections of Alloy 6063 T5 / T6 & tolerances confirming to DIN / EN standard from approved extruder. The structural profiles shall have minimum 2 mm wall thickness. The transoms shall be flush transom with mullion at all levels. All the internal & external visible surfaces shall have high Durability (Akzonobel) / Super durable (Jotun) Powder coating of 60 - 80 micron confirming to AAMA 2604. The non visible aluminium surfaces shall have minimum chromatizing treatment. The grooves between glass to glass in the elevation shall be black in appearance.			
o k	Window  Quote extra over on item (a.1) for providing for the Double Leaf Side Hung Operable open out (cp. Lable) vent, the system shall have provision to accommodate European accessories with heavy duty Butt Hinges, handle lock, multipoint locking mechanism as per requirement, Friction stay, Limit arms, Microwave cured EPDM gaskets. The system to be sealed throughout the periphery using weather sealants, SS screws and fasteners of approved make, all in complete required to perform as per specification and drawing in conjunction with BOQ. The vent shall comprise of Aluminium outer frame with drainage provisions, crimped corner & shutter frame with Euro grooves with crimped corners & adaptor profile fixed at locking. The outer frame fixed to the			
	Aluminium tray have SDF black coated Finish. GI tray shall have finish of Powder coating of C2 category with 15 years warranty (RAL colour as per Architect's approval. The insulation system shall meet 2 hour's firerated. The assembly is kept at least 50mm away from the glass surface. (Spandrel Panel Materials and Fixing System Should Be Followed As Per Approved Fire Test 'Ul Certificate')  Double Leaf Side Hung Operable - Fire-man Access	n. Milis	200	
	Fire Stop: Extra over a  Quote extra over on item (a.1) for providing and fixing the spandrel shadow box with the mineral wool insulation of 50 mm thick 128 kg/m3 density slab with inbuilt black veil of 0.65mm firmly held on the 1.5 mm thk. Aluminium sheet shadow box on front side & G.I. sheet (mill finish) of 1.5 mm thk on back side along with GI"L" shape stiffener for rigidity with 1.5 mm thk. thick with fixing to mullion and transom as per the intent drawing.	R. Mtrs	206	
	approval. The insulation system shall meet 2 hour's fire- rated. The assembly is kept at least 50mm away from the glass surface. (Spandrel Panel Materials and Fixing System Should Be Followed As Per Approved Fire Test 'Ul Certificate')			

D			
В	Entrance Glazing - Semi-unitized Glazing		
	Design, Fabrication, Supply, Installation, cleaning & handover of Semi-unitize glazing system designed to with stand the wind pressure of confirming to IS -875 part III. The profile system consist of glass which structurally glazed on sash profile with double sided tape & structural silicone, with necessary brackets of Aluminium alloy of 6005 T6 with MS HDG with three dimensional adjustment with serrations and serrated washers to arrest the wind load movement, Anchor, screws and fasteners with non staining weather sealant having colour matching to RAL shade of aluminium framing and Aluminium flashing sealed all around parameter inside and outside to seal the gaps between Semi-Unitized Glazing and the building structure all complete required to perform as per specification and drawing in		
	conjunction with BOQ. M.S. insert need to consider as per structural requirements.		
	The system design shall be based on closed joint system & with minimum 2 barrier gaskets for improved weather performance, drainage at all floor levels, spandrel panel shall have pressure release slots on vertical side of profile system to avoid condensation. The design to accommodate building movements, thermal expansions & the seismic movements. The system shall be designed considering surface temperatures of 80-90 deg Cel & temperature differential of 25 deg cel without creating excess stress in the system. All metal joints in the wet area shall be small joint sealant applied to ensure water tightness.		
	The two barrier gasket system consists of 1st & 2nd gasket barrier of EPDM gaskets to achieve the required compression & seal in the system. EPDM Gaskets shall be of micro cured (Online Curing) with shore A hardness of 60-65.		
	Flashing / Trim / Floor Closure at Parapet level, floor level, beam bottom level and required flashings shall be provided continuously with required GI / EPDM membrane / Aluminium sheet. Internal & External concealed Flashings shall be 1.2 mm thk. EPDM membrane sheet. External exposed flashing shall be 2 mm thk. Aluminium sheet with SDF coated matching with external Aluminium profiles. Internal exposed flashing shall be 2 mm thk. Aluminium sheet with SDF coated matching with internal aluminium profiles.		
	The extruded aluminium sections of Alloy 6063 T5 / T6 & tolerances confirming to DIN / EN standard from approved extruder. The structural profiles shall have minimum 2.5 mm wall thickness. All the internal & externally visible surfaces shall have high Durability (Akzonobel) / Super durable (Jotun) Powder coating of 60 - 80 micron confirming to AAMA 2604 (RAL colour as per Architect's approval). The non visible aluminium surfaces shall have minimum chromatizing treatment.		

	The quote rate shall include all design, engineering &			
	shop drawing approval from architect & consultant,			
	mock-ups, sample submission, handling of all materials			
	(loading, unloading, shifting, etc.), scaffoldings, access			
	equipment's etc. The quote rate shall include all duties,	9 9 999		
n e i	statutory obligations and safety code compliance as per			
8	industry standards.			
	Semi-unitized Glazing System (B)			
	Quote rate for complete system as mentioned above	2	70	
	under (B) for Glazing	m²	78	
	Vision Glass : Extra over b.1			
	Vision Glass + Openable Glass (GLS 01) : 30 mm DGU		Is s	
	Providing & fixing the vision glass			
	6 mm thk. Low-E HS glass + 16 mm air gap with Black			
- 11	Anodized Spacer + 8 mm Clear toughened glass (with			
	100% Heat Soak tested). The glass properties &	m <sup>2</sup>	78	
	specification shall confirm to as mentioned in tender			
	specification Annexure.			
	Aluminium Frame Double Leaf Openable Door			
	Quote extra over on item (b.1) for Design, fabrication,			
	supply, installation, testing, protection, cleaning &			
	handover of Aluminium Double Leaf Openable door			100
	system custom designed. The system shall have Low			
	Threshold profile at bottom with the possibility of drain			
	container, wool pile with silent film for weather			
	protection and complete air seal. The shutter			
	engagement shall be minimum of 6 mm at Outer and			
	Shutter profile to ensure water and air tightness. The			
	outer frame fixed to the Semi-Unitized Curtain wall profile			
	system with necessary SS316 screws & weather sealant			
	applied from outside. The Aluminium Outer & shutter			
	profile to be designed with Euro grooves to ensure			
	smooth movement of the shutter with the Heavy duty			
	Hinges. Outer & Shutter shall have crimped corner for			
	rigid connection, angle cleat not accepted.			
	The system shall be designed to accommodate			
	European accessories with Heavy duty Hinges assembly			
	& conceal door closer considering the weight of the			
	shutters, Handle & locking with manual operation,			
	multipoint locking as per requirement, Microwave cured			
	EPDM gaskets to accommodate glass thickness as per			
	structural requirement, weather sealants at top & Side of			
	Outer. Adaptor profile at junction for proper sealing, SS			
	316 grade screws of approved make, all in complete			
	required to perform as per specification and drawing in			
	conjunction with BOQ. Complete system shall be			
	warranted for minimum 15 years against design &			
	workmanship defects. The entire periphery shall be			
	sealed by application of approved Non staining			
	weather silicon sealant between the Outer frame and mullion from both outside and inside to make the Door			
	그리고 하는 사람들은 아무리 아무리 있다면 없다면 하는 것이 되었다면 하는 것이 되었다면 하는 것이 되었다면 하는 것이 되었다면 하는데 되었다면 하는데 하는데 되었다면 하는데			uses refe
	water & air tight.			

	EPDM Gaskets shall be cut to required length in loose condition to have tight joints at corners. Wherever necessary the joints of gaskets shall be vulcanized sealed with neutral colour silicon sealant. EPDM Gaskets shall be of micro cured (Online Curing) with shore A hardness of 65-70. Micro wave cured gaskets of approved make with 15 years of guarantee for any visible defect i.e. cracking / brittleness. Gaskets shall be inserted between frames, glazing beads and glass, from inside and out side around the periphery of the glass to make the doors air and water tight. Glazing gasket to be check as per glass thickness mention in BOQ.  All Door shall be supplied and installed at site with good quality self adhesive non staining protection film / tapes to provide safety against external scratches at site. The protection film shall be removed only at the time of handing over or as per instruction of Site-in-charge.  The extruded aluminium sections of Alloy 6063 T5 / T6 & tolerances confirming to DIN / EN standard from approved extruder. All the external & internal visible surfaces shall have high Durability Super durable Powder coating of 60 - 80 micron confirming to AAMA 2604. The non visible aluminium surfaces shall have minimum chromatizing treatment.  The system shall be designed to accommodate Offset Handle on both side considering the we' she shutters fitted on shutter with appropriate system shall be warranted for minimum 15 years against design & workmanship defects. Material of Handle as per Architect approval.  The quote rate shall include all design, engineering & shop drawing approval from architect & consultant, mock-ups, sample submission, handling of all materials (loading, unloading, shifting, scaffoldings, access equipment's etc. The quote rate shall include all duties, statutory obligations and safety code compliance as per industry standards.  Quote rate for complete system as mentioned above as			
	Quote rate for complete system as mentioned above as per B			
	For Double leaf Outside openable Door.			
	Size as per drawing (approx. Width: 3.240 m x Height: 2.3 m 2 Nos.)	m²	15.00	
	Vision Glass (GLS 05) : 24 mm DGU			
	Providing & fixing the vision glass on the Aluminium Frame Door			
	6 mm HS Neutral Low-E Glass + 12 Air Gap + 6 mm Clear FT glass (with 100% Heat Soak tested) as mentioned in tender specification Annexure	m²	12.00	
_	Alumainiuma Claudelinas Carra de C			
С	Aluminium Cladding Canopy System			
	Design, Fabrication, Supply, installation, protection, cleaning & handover of 3 mm thk. online pre-coated aluminium cladding system, custom designed to withstand the design wind pressure of 1.2 kPa confirming to wind tunnel test report (The system must pass the			

		1
proof test at 1.5 times design wind pressure without any failure).		
Aluminium sheet with SDF coating of 60 - 80 micron confirming to AAMA 2604 for shade as per architect's approval using grid work of prefabricated aluminium extruded sections or 100% HDG MS structure to with stand the design wind pressure confirming to IS -875 part III. The fastening cleating of Aluminium alloy 6063 T5 & MS with HDG with 100 micron with serrations and serrated washers to arrest the wind load movement, fasteners 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 in conjunction with BOQ. Aluminium panel shall have sub frame all around panel and aluminium stiffener profile as per structural requirements. Exposed groves filled with non-staining & non-bleeding weather silicone. Aluminium sheet alloy shall be Alloy 3003 - Temper H14 or Alloy 3105— Temper H3. Note: Consider Civil Tolerance of +/-20 mm. in Height. The MS Supporting Structure members & any additional supports shall be according to Structural requirement.		
Copping panel shall have stiffeners fixed continuously from below to support the live load & load coming from BMU as per requirement. Also copping needs to be provided with 1.5 mm Aluminium strip of 30mm over groove having SDF coating of colour matching to sheet fixed with sealant bedding. For copping primary seal of 1.2 mm GI sheet & minimum 1 mm thk. EPDM membrane should be fixed. GI Sheet & EPDM should be 75 to 100 mm. min. overlapped & sealed with proper weather sealant.		
Prefabricated grid mullions are fixed on to the RCC and concrete masonry walls with SS 316 anchor bolts as recommended by approved supplier to support given design loads. The brackets shall have provision movement to accommodate the construction tolerances with +25mm plumb in case of RCC structure and + 20mm plumb incase of steel structure. Use of aluminium brackets with serration and serrated washers to prevent wind direction movement after final position. Use of Hot Dipped galvanised brackets with serrations and serrated washers on to Steel structures. The design shall accommodate the building movements, thermal expansion and seismic movements.		
All the internal & external visible surfaces shall have High Durability/ Super durable (Akzonobel/ Jotun) Powder coating of 60 - 80 micron confirming to AAMA 2604 (shade as per Architect's approval). The non visible aluminium surfaces shall have minimum chromatizing treatment.		
The quote rate shall include all design, engineering & shop drawing approval from architect & consultant, mock-ups, sample submission, handling of all materials (loading, unloading, shifting, etc.), scaffoldings, access		

	equipment's etc. The quote rate shall include all duties, statutory obligations and safety code compliance as per Industry standards.			
	Aluminium Cladding System			
	Quote rate for complete Aluminium Cladding System as			
	mentioned above under (C)	m²	115	
	Mild Steel Structure Work			
	Providing & fixing of Steel Structure (E250 grade) with	Kg	4,000	
	HDG 100 micron finish.	ĸg	4,000	
D	Aluminium Vertical Box Fins			
	Design, fabrication, supply, installation, testing, protection, cleaning & handover of Aluminium Vertical Box Fin system custom designed to withstand the design wind pressure confirming to wind tunnel test report (The system must pass the proof test at 1.5 times design wind pressure without any failure).			
	Aluminium box fins shall be made out of rectangular box shape having size of min. 200x100x3 mm spaced at distance as per tender intent drawings/Pattern. Fins are fixed with continuous horizontal aluminium angle which fixed with Aluminium/SS316 bracket & Horizontal member as per structural requirement with necessary fasteners & nut bolt in SS 316 with provision to accommodate movement at all floor levels. The bracketing system with Aluminium with built in serration & serrated washers. Extrusion thickness as per structural requirements.			
	All fabricated sections shall be supplied and installed at site with good quality self adhesive non staining protection film / tapes to provide safety against external scratches at site. The protection film shall be removed only at the time of handing over or as per instruction of Site-in-charge.			
	The extruded aluminium sections of Alloy 6063 T5 / T6 & tolerances confirming to DIN / EN standard from approved extruder. All the internal & external visible surfaces shall have high Durability Super durable Powder coating of 60 - 80 micron confirming to AAMA 2604 with 25 years warranty. The non visible aluminium surfaces shall have minimum chromatizing treatment.			
	The quote rate shall include all design, engineering & shop drawing approval from architect & consultant, mock-ups, sample submission, handling of all materials (loading, unloading, shifting, scaffoldings, access equipment's etc. The quote rate shall include all duties, statutory obligations and safety code compliance as per industry standards.			
	Quote rate for complete Aluminium Vertical Box Fins as			
	mentioned above as per D			
	Quote rate for complete system as mentioned above under (D)	Rmts	737	
		4		
Е	Horizontal Louvers			

Design, Fabrication, Supply, Installation, Cleaning & Handover of Aluminium Horizontal Louvers system, custom designed to with stand the wind pressure confirming as per IS -875 part III, the design wind pressure confirming to wind tunnel test report (The system must pass the proof test at 1.5 times design wind pressure without any failure).	
Aluminium Horizontal Louvers shall be made out of standard Z shape having size of 100 & 1.5 mm. min. thickness spaced at equivalent distance of 90 mm C/C along with stiffener for rigidity (as per detail Tender drawing/as directed by Architect/ MEP). Horizontal Louver are fixed with continuous & conjunction with Vertical & Horizontal aluminium framing as per tender intent drawings. Vertical Aluminium framing are fixed with MS bracket on RCC structure with necessary fasteners & nut bolt in SS 316 with provision to accommodate movement at all floor levels. The profile system is based on necessary connector of Aluminium alloy of 6005 T5 & MS with 100 % HDG with three dimensional adjustment with serrations and serrated washers to arrest the wind load movement, Anchor, screws and fasteners with non staining & non bleeding weather sealant and Aluminium flashing sealed all around periphery inside and outside to seal the gaps between Aluminium framing and the building all complete required to perform as per speciment and drawing in conjunction with BOQ. All fasteners, nut bolt & screws should be of SS 316 grade. 100 % HDG M.S. insert need to consider as per structural requirements & Screw for fixing MS insert should be SS316/SS 410 grade.	
Note: Consider Civil Tolerance of +/- 20 mm. in Height.	
Cost to include aluminium Mosquito mesh from inside.	
The design to accommodate building movements, thermal expansions & the seismic movements. The system shall be designed considering surface temperatures of 80-90 deg Cel & temperature differential of 25 deg cel without creating excess stress in the system. All metal joints in the wet area shall be small joint sealant applied to ensure water tightness.	
The extruded aluminium sections of Alloy 6063 T5 / T6 Alloy 3003, Alloy 6063 & tolerances confirming to DIN / EN standard from approved extruder. All the internal & external visible surfaces shall have High Durability/ Supel durable (Akzonobel/ Jotun) Powder coating of 60 - 80 micron confirming to AAMA 2604 (shade as per Architect's approval). The non visible aluminium surfaces shall have minimum chromatizing treatment.	
The quote rate shall include all design, engineering & shop drawing approval from architect & consultant mock-ups, sample submission, handling of all materials (loading, unloading, shifting, etc.), scaffoldings, access equipment's etc. The quote rate shall include all duties	
statutory obligations and safety code compliance as pe industry standards.	

	Quote rate for complete system as mentioned above under (E) Providing & fixing Z louvers and Framing system.	m²	39	
F	Glass Railing With Balustrade			
	Design, supply and install Glass Railing system having height of 1200 mm from FFL, custom designed to with stand the design wind pressure & live Load confirming to relevant IS codes. The design shall accommodate glass panel of height 900 mm. & Glass thk. of 13.52 mm thk. Sentry laminated glass and its dead load. The glass will be fixed with (SS 316 Grade) balustrade post having minimum thickness of 12 mm as per structural requirement to be fixed with necessary connection made out of stainless steel fittings of approved design with necessary termination /bends etc. complete. It shall consist of 50 mm dia. S.S. hand rail fixed on balustrade.  Design shall accommodate floor movement of 25 mm at the floor bottom SS base plate, with SS 316 grade fasteners and anchor bolts 316 grade of approved make, weather sealants of Dow Corning or approved make, Teflon/ nylon bushes & separators to prevent bimetallic contacts, all in complete required to perform as per specification and drawing in conjunction with BOQ.  The quote rate shall include all design, engineering & shop drawing approval from architect & consultant, mock-ups, sample submission, handling of all materials (loading, unloading, shifting, etc.), scaffoldings, access equipment's etc. The quote rate shall include all duties,			
	statutory obligations and safety code compliance as per			
	Industry standards.			
	Glass Railing System			
	Quote rate for complete system as mentioned above under (F)	Rmts.	46	
	Glass :- 13.52 mm Thk. Sentry Plus Laminated Providing & Fixing the glass on the Spider wall system			
	GLASS: 6 mm Clear toughened glass + 1.52 mm Sentry laminated interlayer + 6 mm Clear toughened glass (with 100% Heat Soak tested).	m²	42.0	
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G	Pergola - Aluminium horizontal Box Louvers  Design, Fabrication, Supply, Installation, Cleaning &			
	Handover of Pergola - Aluminium horizontal Box Louvers system custom designed to with stand the design wind pressure confirming to IS -875 part III.			
	Aluminium horizontal Box Louvers shall be made out of grid of rectangular box shape as main and sub member having size of minimum 300x150x3 mm. Aluminium horizontal Box Louvers shall be made out of rectangular box shape having size of minimum 200X100X3 mm spaced at equivalent distance of 375 mm C/C. The Thickness of the members & any additional supports shall be according to Structural requirement. Louver are fixed on Aluminium tube framing /steel structure with necessary fasteners in SS316 & Aluminium/MS brackets with provision to accommodate movement at all floor			

	levels. The bracketing system with Aluminium with built in serration & serrated washers. Extrusion thickness as per			
	structural requirements. M.S. insert need to consider in			
	grid member as per structural requirements.			
	The extruded aluminium sections of Alloy 6063 T5 / T6 &			
	tolerances confirming to DIN / EN standard from			
	approved extruder. The structural profiles shall have			
	minimum 2 mm wall thickness. All the internal &			
	externally visible surfaces shall have high Durability			
	(Akzonobel) / Super durable (Jotun) Powder coating of	ar e y fe		
	60 - 80 micron confirming to AAMA 2604 (RAL colour as			
0.5	per Architect's approval). The non visible aluminium			
	surfaces shall have minimum Chromotizing treatment.			
	The quote rate shall include all design, engineering &			
	shop drawing approval from architect & consultant,			-
	mock-ups, sample submission, handling of all materials			
	(loading, unloading, shifting, etc.), scaffoldings, access			
	equipment's etc. The quote rate shall include all duties,			
	statutory obligations and safety code compliance as per			May 5
	industry standards.			
	Pergola - Aluminium horizontal Box Louvers			
	Quote rate for complete system as mentioned above	Sqm.	287	
	under (G)	sqiii.	207	
	SOLAR PANELS :-			
Sr. No.	Description	Quantity	Units	Rate
2.000	Solar Module 550Wp + Topcon Bifacial (IEC 61853-1, IEC 61853-	40	Nos	3.
1	2, ALMM Certified)	40	1105	
	Solar Grid Tie String Inverter 20KW 3-Phase (IEC 61683, IEC			
2	60068, IEC 61727, IEC 62116, EN 50530, IS 16169, IS 16221	1	No	
	(BIS)) Safety Standards - IEC 62109-1/2, IES 61000 - 6-1/-2/-3/-4)		i e lle	
3	Solar Module Mounting Structure	1	Set	
	Solar DC Cable UV protected 1500 V DC FLEXIBLE (CLASS 5)			
	ATC CONDUCTOR, CROSS LINKED LSOH INSULATED, AND			
4	EXTRUDED CROSS LINKED LSOH OUTER SHEATHED	300	Mtrs	
	SOLAR CABLE AS PER TUV. [RED/BLK COLOUR] - 1 CORE			
	X 4 SQ. MM. For String cabling and Earth Looping			
	DCDB/ Array Junction Box 2 in 2 out 1000V DC 2 SPD Enclosure	1	Ma	12-1
5	IP65	1	No	
-	ACDB/ AC Control Panel 1 in 1 out 63A 320VAC SPD Enclosure		NI.	
6	IP65	1	No	
	Cu Flexible FRLS Cable 1100 V FLEXIBLE (CLASS 5) BARE		1 20	
	COPPER CONDUCTOR, PVC (TYPE D) INSULATED, AND			-
7	EXTRUDED PVC (TYPE ST3) OUTER SHEATHED	20	Mtrs	Name of the State
	INDUSTRIAL CABLE GEN. AS PER IS 694 [FLEXIBLE			N. TILIE
	CABLE] - 4C x 6SQMM			
	AL ARMOURED 1100 V SOLID ROUND (CLASS 1)			
	ALUMINIUM CONDUCTOR, XLPE INSULATED,			
	INSULATED CORES LAYING FOR LAID UP, PVC TAPE			
8	I/SH, SINGLE LAYER GALVANISED STEEL FLAT	50	Mtrs	B O.P.
	STRIP ARMOURED AND EXTRUDED ST2 PVC OUTER			
	SHEATHED LV POWER CABLE GENERALLY AS PER			
	IS 7098 PART-1 CABLE - 3.5C x 25SQMM			
9	Generation Meter 10/40 3 Phase	1	No	
10	MCB with Enclosure	1	No	
11	GI Strip 25 x 3 with Sleeves and Insulators for DC/AC/LA earthing	180	Mtrs	
11		-		
12	Earth Pit with Copper Bonded Rod 17mm / 1000mm with Backfill	3	Sets	

13	Lightning Arrester conventional with Accessories	1	Set	
14	BOS (MC4 Connectors, Cable Tray, Conduit, Cable Tie. Lugs, Glands)	1	Set	
15	Logistic Loading Unloading	1	Set	
16	Installation and Commissioning	22	KWp	
	MEP:-	1 1 1 1 1 1 1 1 1		
Sr. No.	Description	Unit	Qty	Rate
1	TEST LINK FOR EARTH PIT	Nos.	31.00	
2	DOWN CONDUCTOR TEST LINK WITH ENCLOSURE	Nos.	22.00	
3	Test link for lightning protection	Nos.	20.00	
4	Street light - decorative light pole (As mentioned in DWG)	Nos.	25.00	

## NOTES -

1	The Contractor should comply with all requirements of the contract terms and conditions of this tender. Any exclusions of BOQ item or conditional submission is not
	acceptable.

Item rate mentioned in the BOQ includes complete system of the façade details as per the terms of Tender Document. Therefore the rates for some of the accessories of the system not mentioned in the BOQ, but tenderer must be aware of the total cost of the complete system including necessary accessories as shown in the detailed drawings. No variations will be allowed for the components or accessories, which are not specifically mentioned in the BOQ.

- The Quantities noted in the Bill of Quantities are terrative and any changes will not allow the contractor to claim extra on the rates quoted.
- Quantities stated in the item are not to be used for ordering of any materials The Contractor shall verify quantities independently through design and survey and orders shall be placed with suppliers and sub-contractors including any required wastage after getting approval of the Engineer before proceeding with the same.
- Any defective or unapproved materials or components shall be removed from site immediately by the contractor upon instruction by the Engineer at no additional cost
- The Contractor shall be responsible for the protection of his works and materials from delivery to site, handling any number of times, during storage, progress of the site works and after installation until the works are handed over to the Client.
- 7 The Contractor shall be responsible for the coordination of his works with other trade items located or adjacent to their works.
- The Contractor shall note that the space for storage at the site is limited and shall allow for phased delivery of materials to site to avoid congestion. The Contractor shall arrange temporary storage off site and within allocated space on site & at his own cost.
- **9** Rates shall be quoted based on the Tender Documents.
- The Contractor shall provide temporary access to the entire façade by means of rigid double-legged steel scaffolding or other access method accessible at all locations.
- Price of each item entered in the Bill of Quantities shall be considered as self-supporting and will not have any bearing on other items.
- The Contractor is required to verify the quantities stated in the Bill of Quantities and is required to highlight any variations, to the provided quantities. Detailed calculations of quantities are to be provided with the tender submission.

13	Tenderer should also comply with all local regulations and guidelines, any changes in the design that will be required to meet the regulations should be highlighted before the award of tender. No variations will be allowed for any changes needed in the design to comply with local statutory requirements.			
14	Tenderer is requested to submit the summary of warranties including the conditions attached to the warranty as metioned in the technical spcifications.			
15	Tenderers should follow the materials and brands as specified in the base tender, any alternate proposal shall only be submitted as an alternate item with price variations.			
16	Tenderers should strictly follow the archiectectural design intent, grids and façade tender details in terms of dimensions, basic system, materials and finishes.			
17	Any discrepancy in the tender drawing/architectural drawing/BOQ subjected to be notify before submitting commercial proposal, will not be accepted during execution/design stage.			
18	Mode of Measurement for façade elements shall be only visible elevation areasas mentioned in the technical specifications. All flashings, and Top roof copings of ACP/Aluminium sheet/Any metal panel shall not paid extra as they are considered part of the system.			
19	All metal surfaces shall be provided with protective Low tac tape.			
20	All extruded aluminium sections shall be as per specified alloy and shall be free of die marks and other defects.			
21	Mock up shall be done by the contractor free of cost at locations identified Client representatives prior to commencement of installation of façade elements			
22	Client reserves the right to operate or delete the quote rate from the Scope of contractor or may get it executed by other agency and no compensation on such account shall be made to the contractor.			
23	Any Free issue of cladding material, Steel framing members, hardwares is solely the decision of client.			
24	All the test Certificates and Quality Certificate for all Façade items must be Provided by Fabricators.			
25	Visual Mock-up's are not paid separately. If visual mock-up is approved or approved with rectifications, the same can be part of installed façade and same quantity will be reduced from the BOQ.			
26	The thickness and size mentioned in BOQ / Specification / contract documents are minimum thickness. The price quoted shall be deemed to achieve final system designed as per wind load/structure and no extra claim shall be payable in this regard.			
27	After award of contract all variation need to be highlighted during shop drawings submission.			
28	Fabricator can't change the grid & dimensions sizes after award of contract.			

वर नमूद सुचित दर्शविलेल्या बाबींचे पुरवठा करणारे पुरवठादार/दुकानदार/उत्पादक/विक्रेते यांनी नमूद केलेल्या बाबींकरीता असलेले दर स्वत:च्या लेटरहेडवर महापालिकेच्या कार्यालयात अथवा ई-मेल द्वारे pmcbandhkamdept01@gmail.com /panvelcorporation@gmail.com यावर दिनांक 99 / 99 /२०२५ पर्यंत पाठवावे ही विनंती, सदर दर हे अंदाजपत्रक तयार करणेसाठी गृहित धरणेत येणार आहेत.

कार्यकारी अभियंता पनवेल महानगरपलिका

जा.क्र पमपा/बांधकाम/६४२४/प्र.क्र.१४/**४७४८** /२०२५ , दि . **०३** /**७७** /२०२५ **प्रत माहितीस्तव** — १. माहिती फलक करीता

