

CEILING FINISHING			
SYMBOL	DESCRIPTION	CHARACTERISTIC	STANDARD
C1	PLAIN PLASTERED RC CEILING	<div><div>Materials in accordance with section CONCRETE FOR STRUCTURES of part civil work</div><div>Finishing : Color specified later</div></div>	
C2	4 MM.THK ALUMINIUM COMPOSITE WITH FR	<div><div>Skin Material: Aluminium Alloy 3,XXX Series</div><div>Core Material: fire rate material consisting of Aluminium trihydroxide which achieve the B1fire test</div><div>Finishing : Color specified later</div><div>Coating System :<div><div>*Front side : Kynar 500 Resin based Polyvinylidene Difluoride(PVDF) or equivalent on the top side</div><div>*Back side : Polyester Based Stove Enamel</div></div></div><div><div>Coating Layer: 2 or 3 coats not less than 25 micron</div><div>Production method : Hot-Melt Bonding</div><div>Nominal Thickness : 4.0 mm.</div><div>Weight : 7.60 ±0.06 kg/m<sup>2</sup> : 4.0 mm.</div><div>Standard Panel Sizes:1250 ±20x2440±50 mm.</div><div>Tensile strength : &gt;5.0 kg/mm<sup>2</sup> : 4.0 mm.</div><div>Yield strength : &gt;4.5 kg/mm<sup>2</sup> : 4.0 mm.</div><div>Elongation : &gt;5%</div><div>Impact Resistance : &gt;1600 kg(Maximum Load)</div><div>Deflection temperature : &gt;113 °C</div><div>Toxicity Test : PASS</div><div>With 10 years guarantee of material and 5 years guarantee of installation.</div></div></div> <div>NCCA(European Coil Coating Association) AAMA(American Aluminium Manufacture Association) BS476 part6 BS476 part7 UL94 ASTM E8 ASTM D638 ASTM D732 ASTM D648 ASTM E119 ASTM E108</div>	

REMARK

- For C2

Silicone sealants and adhesives shall be of the highest quality and tested for strength, adhesion, weatherproofing non-staining and durability for this specific application. Submit test data to the EGAT for approval. Provide custom color silicone as required by EGAT
- For C2

the silicone sealant shall have a 10 year guarantee of material
- The ceiling suspension system is the interlocking and knock-down system by screw and rivet, no welding
- Provision for precise for wind security brackets and accessible wind security brackets at selective areas, design cater for wind speed not less than 32m/second
- Other standard except as specified must be submitted for approval by EGAT
- Other test reports may be required by EGAT if necessary

ROOFING SPECIFICATION		
DESCRIPTION	CHARACTERISTIC	STANDARD
METAL SHEET ROOFING	<div><div>The Boltless system with galvanized clip on the top and Bolt system on the bottom ( Double skin roof system )</div><div>The Control zone : The Boltless system with galvanized clip.</div><div>Aluminium-zinc alloy coated not less than 150 g/m<sup>2</sup> (A2150)</div><div>The base metal (BMT) thickness shall not be less than 0.42 mm.</div><div>The Minimum yield strength of 550MPa (G550)</div><div>Finish coating<div><div>*Front side : Primer not less than 5 micron and not less than 17-20 micron polyester resin on the top coat</div><div>*Back side : not less than 10 micron polyester resin on the back side</div></div></div><div>Color is specified later</div></div> <div>TIS 1128-2535 ASTM A792 or AS2728 or AS1397 AS 3566 Class 3 (Bolt)</div>	
INSULATION SYSTEM	<div><div>Material: Spray polyurethane cellular plastic foam</div><div>Closed cell content : &gt;95%</div><div>Thickness : Not less than 3 inch.thk.</div><div>Tensile strength : Approx. 3 kg/cm<sup>3</sup></div><div>Density : 35-50 kg/cu.m.</div><div>Thermal Conductivity(K value): &lt;0.022 W/m<sup>2</sup></div><div>Flammability : Self extinguishing grade B2</div><div>Blowing agent (NON CFC11) : NEW TYPE 141B</div><div>Burning Characteristics : Self extinguishing grade B2</div></div> <div>ISO 844 ASTM C177 ASTM D 2856 ISO 845 ASTM D1623 ASTM D-2842 DIN 4102 ISO 2796</div>	

REMARK

- The rain gutter for metal sheet roofing system shall be made of not less than 4 mm.thk. fiber-glass and With 10 years guarantee of material and installation.
- Installation shall be installed in between of double skin roof system, double wall system and RC roof deck
- Other standard except as specified must be submitted for approval by EGAT
- Other test reports may be required by EGAT if necessary

DOOR SPECIFICATION

SYMBOL	DESCRIPTION	SYSTEM/MATERIAL
D1	DOUBLE SWING DOOR	STEEL PANEL AND FRAME AND LAMINATED GLASS SYSTEM
D2	SINGLE SWING DOOR FIRE EXIT	STEEL PANEL AND FRAME
D3	ROLLING SHUTTER DOOR	SOLID STAINLESS STEEL BLADE AND FRAME

WINDOW SPECIFICATION

SYMBOL	DESCRIPTION	SYSTEM/MATERIAL
W1	FIXED GLASS	REFLECTIVE LAMINATED GLASS SYSTEM
W2	FIXED GLASS	REFLECTIVE LAMINATED GLASS SYSTEM
W3	ALUMINIUM LOUVERS	PERFORMANCE ALUMINIUM
W4	ALUMINIUM LOUVERS	PERFORMANCE ALUMINIUM

DOOR AND WINDOW REMARK

- Laminated glass : Two lites of glass laminated with polyvinyl butyral(PVB). Units shall conform to ANSI Z97.1 and CPSC 16CFR1201 for safety glazing. Provide PVB interlayer of structurally required, Reflective Glass coated on the external surface of building enclosures.
- Laminated glass shall conform to TIS 1222-2539 " Glasses for use in building : Laminated safety glass "
- For external door the laminated glass system, the external glass shall reflective glass and the internal glass shall frosted or clear anneal glass, with PVB film
- For external window the laminated glass system, the external glass shall reflective glass and the internal glass shall be frosted or clear anneal glass, with PVB film
- For Internal door and window the laminated glass system, the glass shall frosted or clear anneal glass, with PVB film
- The thickness of laminated glass system shall be not less than 10 mm.thk.
- Glass block shall conform TIS 1395-2544
- The aluminium frame shall be finished with powder coating system color specified later
- W3, W4 The exterior aluminium louvers is assemble from ventilation hidden mullion louvers system achieve a BSRIA or AMCA class 99% class A) for face area velocity up to 2.0 m/s an airflow performance class 2 and Pressure Drop must be Less than 40 Pa., titanium color coating shall be specified later.
- For W3 with full set of rolling shutter door's accessories, motor operation and wind lock equipment.
- The movable fiberglass insect screen, power coating with aluminium frame is required to be installed at the back of louvers.
- Main extruded structural aluminium frames shall be not less than 2.00 mm.thk.
- Full set of aluminium frame installing equipment, heavy duty hardware and accessories
- Fire exit door shall conform to BS476 part 20 , BS476 part 22 and TIS 1220-2541
- The door and window materials shall be supplied, assembled and installed with a 10 year guarantee of installation.
- For Silicone sealants and adhesives shall be of the highest quality and tested for strength, adhesion, non-staining and durability for this specific application. Submit test data to the EGAT for approval. Provide custom color silicone as required by EGAT
- For the silicone sealant shall have a 10 year guarantee of material
- The contractor shall be submit the installation details, shop drawings and mock-up to EGAT before the installation work.
- Other standard except as specified must be submitted for approval by EGAT
- Other test reports may be required by EGAT if necessary

EXPANSION JOINT

- Expansion joint for the building shall be the highest quality and heavy duty
- Expansion joint installing at 2 different parts of the building to cover the building's expansion joint.
- Expansion joint for flooring system, installed on the floor connection of RC ground floor.
- Expansion joint for walling system, installed on the RC beam connection of the internal beam's surfaces starting from the ground floor to the RC roof beam, also the internal RC wall of internal cable trench the GIS room.
- Other standard except as specified must be submitted for approval by EGAT
- Other test reports may be required by EGAT if necessary

PAINTING SPECIFICATION

- For exterior, 100% pure acrylic paint, premium grade with the highest grade of the chosen brand, contain no added lead and no add mercury, the color is a UV protective type and volume solid not less than 30%, color specified later, combination with 2 color, is required for exterior paint, 2-3 times top coating after primer system.

- For interior, the 100% pure acrylic paint, premium grade with the highest grade of the chosen brand, contain no added lead and no add mercury, volume solid not less than 30%, color specified later, combination with 2 color is required.

- For exterior and interior, The primer shall be in accordance with TIS 1123-2555 : Masonry primer, and the top coat shall be premium grade in accordance with TIS 2321-2549 : Weather resistant emulsion paints. The primer paint shall be the same brand as the top coat , with 10 years warranty.

- For exterior, Any parts without paint coated shall be coated with fungus resistant primer.

- For interior steel structure of aluminium composite wall and exterior steel rod suspending the aluminium shading, also the steel supporting of aluminium louvers, the enamel paint shall be in accordance with the instruction of the aluminium composite's manufacturer.

- Anti-corrosive primer (orange shade) shall be in accordance with TIS 2386-2551 : Anti-corrosive zinc phosphate priming paint. The top coat shall be in accordance with TIS 327-2553 : Alkyd gloss enamel. The primer paint shall be the same brand as the top coat.

IDENTIFYING SIGN

- Room Name Sign

1. Material

2. Font

3. Size, Technic and Application

Hairline stainless steel

JS Sdayu

Shall be submitted for approval by EGAT

- Building Identification Sign

1. Material

2. Color

3. Font

4. Holding and Setting

0.8 mm.thk. Stainless steel fold in alphabet shape with the thickness of 5 cm. The alphabet is 30 cm. height

polyurethane color used for stainless steel only, Color mixed code : C-100, M-80, Y-0, K-0 or pantone code 072.

JS Sdayu

Shall be submitted for approval by EGAT

REMARK

- the contractor shall be submit the sample of all kind of the sign's material to EGAT's Architect for approval before installation.
- the size, color and font of the alphabet specified as EGAT's standard.

CABINET NO. V5

RUN NO. 1311

FOR BIDDING ONLY

0	-	NEW STANDARD 115 kV GIS BUILDING	RUSSAMEE M.	JARUEK KH.	-	-	-	-	-	-
REV.NO.	JOB NO.		DRAWN	INITIATED	VERIFIED	VALIDATED	RECOMMENDED	CONCURRED	APPROVED	DATE

ELECTRICITY GENERATING AUTHORITY OF THAILAND									
DRAWN	RUSSAMEE M.	VALIDATED	Kimpha S.				DRAWING NAME		
INITIATED	JARUEK KH.	RECOMMENDED	J				STANDARD 115kV GIS BUILDING		
VERIFIED	Allope P.	CONCURRED	S				DESCRIPTION OF DETAIL DRAWING		
APPROVED	A.C.I.		DATE 22/9/18				SPECIFICATION		
ASSISTANT GOVERNOR-TRANSMISSION SYSTEM ENGINEERING							JOB NO.	REPLACING DWG.NO.	DWG.NO.
							-		SD-GIS-7-01A
									02 REV.
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