



TERMS OF REFERENCE

IMPROVEMENT OF STRUCTURAL GLASS CANOPY AT THE CONNECTING BRIDGE ON THE 7TH FLOOR ASEC NEW BUILDING

I. BACKGROUND

The ASEAN Secretariat (ASEC) was established in February 1976 by the Foreign Ministers of ASEAN. It was first housed at the Department of Foreign Affairs of Indonesia in Jakarta and moved to the current location at 70A Jalan Sisingamangaraja, Jakarta since 1981. Currently, the ASEAN Secretariat is housed in two buildings:

1. The Heritage Building since 1981. The building has 9 stories with approximately 11,000 sqm in total area.
2. The New Building which was inaugurated in 2019. The building consists of two towers, and each has 16 stories with approximately 44.000 sqm in total area. The building is located adjacent to the ASEC Heritage Building.

In April 2021, during heavy rain and strong winds, several roof glass segments on the 7th Floor Connection Bridge of the ASEC New Building became detached and fell to the level below. To prevent similar incidents in the future, ASEC engaged a professional structural engineering consultant to conduct a comprehensive evaluation, including inspection of the installed materials through standardized testing and the development of a structural analysis model to simulate the bridge's performance under heavy rain and strong wind conditions in Jakarta.

Based on the consultant's assessment and detailed findings, the existing glass roof segments were connected using adhesive sealant, which provides insufficient tensile capacity to withstand severe weather conditions. To enhance structural integrity and safety, the consultant recommends replacing the existing glass segments with new glass panels supported by spider joints, ensuring improved durability and resistance to extreme weather. In line with these findings, ASEC requires the services of a qualified contractor to strengthen the structural integrity of the existing glass canopy on the 7th Floor Connecting

Bridge. The scope of improvements will include the installation of new glass segments, glass-to-glass connection joints, supporting steel frames, and other necessary remedial works.

II. OBJECTIVES

The objective of this project is to improve the structural integrity and safety of the glass canopy at the connecting bridge of the ASEC New Building by replacing the existing glass canopy with new glass segments incorporating spider joints while ensuring full compliance with the consultant's engineering design recommendations, work methods, material specifications, and any other necessary improvements.

Furthermore, the contractor is expected to complete the works within the agreed schedule, maintain tidiness throughout the construction process, and deliver the project without any accidents or damage to ASEC property or to staff and visitors.

III. EXPECTED DELIVERABLES

1. Completed and fully inspected structural improvement work of glass canopy on the 7th Floor Connecting Bridge at ASEC New Building by providing materials in accordance with technical specifications, applying precise installation techniques, and ensuring full compliance with applicable engineering standards and regulations.
2. All technical documents mentioned in the scope of work below, which cover but not limited to shop drawing, as built drawings, weekly report, testing report, warranty certificates, and material data sheet for approval.

IV. SCOPE OF WORKS

The Scope of Work for this project consists of the following but not limited to:

1. Preparation of Works

The contractor shall prepare all necessary manpower, tools, materials, safety equipment, and protective measures to ensure that existing building elements are not damaged during the execution of works, including safety barriers, floor protection, and other protective equipment. Any damage caused by the contractor must be repaired or compensated at no additional cost to ASEC.

2. Documentation and Handover Requirements

The contractor must provide complete documentation, including:

- a. Material specifications, brochures and data sheets for all items used in the works.
- b. Shop drawings and installation layout plans.
- c. As-built drawings, reflecting the final configuration.
- d. Method statement and installation procedures for all works.
- e. Testing reports (e.g., pull-out test, anchor bolt test, water-tightness test if applicable).
- f. Warranty certificates.
- g. Progress reports, submitted daily, weekly, and monthly, detailing the status of the work.
- h. Any other documents may be requested by ASEC to support inspection, verification, handover, or any other documentation related to this project.

3. Careful Removal of Existing Materials

The contractor shall carefully remove all existing glass canopy components, including glass panels, sealant connections, supporting frames, metal fittings, and any accessories. All removed materials must be handled properly and will coordinate with ASEC maintenance for ASEC safekeeping or removal by vendor.

4. Installation of New Glass Segments, Spider Joints, Sealants, and Accessories

The installed system shall be executed according to the design drawing. To ensure overall performance and safety, all glass panels shall be free from cracks, chips, edge defects, or distortion. In addition, sealants shall be applied neatly and uniformly to provide proper waterproofing and long-term durability.

5. Replacement of Steel Frames and Other Accessories

The contractor shall replace steel frames and any related accessories as required by the consultant's design.

6. Miscellaneous Repair for the Concrete Area (Refer to the Consultant Report)

The contractor shall carry out all miscellaneous concrete repair works:

a. Column Repair by Epoxy Resin Injection

Cracks in columns shall be repaired using epoxy resin injection to restore strength and prevent further damage.

All cracks must be cleaned and properly prepared before injection.

b. Beam Repair by Epoxy Resin Injection

Cracks in beams shall also be repaired using epoxy resin injection. The resin must fully fill the cracks, and the surface shall be patched and finished neatly.

c. Tightening of Existing Bolts to Meet Specified Torque Requirements

All existing bolts in the work area shall be tightened to the required torque values using calibrated tools. Bolts must be inspected before tightening, and any damaged or corroded bolts shall be replaced. **Torque records shall be documented and submitted for review.**

7. Repainting The Existing Steel Structure at The Connecting Bridge

The Contractor shall repaint the entire existing steel structure at the connecting bridge using the same color as the current condition.

a. Surface Preparation

All steel surfaces must be cleaned before painting. Rust, loose paint, dust, oil, and other dirt must be removed using proper cleaning methods.

b. Application of Anti-Corrosion Primer

After cleaning, an anti-corrosion primer must be applied to all steel surfaces in accordance with the approved specifications.

c. Final Coating

The Contractor shall apply the required paint coats according to the approved color and specifications. Each coat must be applied after the previous layer has dried properly. The final result must be smooth and even, without runs or defects.

8. Quality and Warranty

The contractor shall ensure that all works meet quality standards, including alignment, stability, and functionality of all installed elements. All finishes and installations must be defect-free, safe, and ready for immediate use. A minimum 1-year warranty shall cover all materials and installation. During this period, the contractor must respond to any reported defects or failures within 3 working days and carry out all necessary repairs or corrections at no additional cost to ASEC.

I. GENERAL REQUIREMENT

1. Site Visit and Verification of Existing Conditions

The contractor should conduct a preliminary site visit to verify existing conditions. ASEC will not be responsible for additional costs arising from unverified site conditions.

2. Cleanliness, Housekeeping, and Waste Management

The contractor shall maintain a clean and tidy work area during and after work. All tools, equipment, and waste must be properly managed and removed.

3. Minimizing Disruption to ASEC Operations

The contractor shall carry out works with minimal disruption to ASEC operations and follow all safety protocols. All works and schedules must be coordinated with the ASEC team to avoid operational disruptions.

II. CONTRACTOR QUALIFICATIONS

The Contractor must provide the following documents in their submitted documents:

1. Relevant Experience

The contractor must have a minimum of 5 years of experience in the installation of glass canopy / glass roof / spider joints / façade / curtain wall for buildings, structure or other related works. A list of relevant completed projects must be included in the submitted document, indicating the year in which the works were carried out.

2. Record of Similar Projects

The contractor must have completed a minimum of three (3) similar renovation or interior projects, supported by at least three (3) reference letters with good recommendation/feedback from previous clients. Additional value will be given if the contractor can provide more than three (3) reference letters.

3. Valid Business Licenses, Financial Report, and Other Documents

The contractor must hold valid business licenses (e.g., SIUP/NIB) categorized under *Konstruksi Bangunan Sipil Lainnya, Konstruksi Baja, Pekerjaan Konstruksi Khusus Lainnya*, or other licenses related to this project. Additional certifications, such as ISO 9001 (Quality Management), ISO 45001/SMK3 (Occupational Health and Safety), or other related license will be considered as added value.

4. Work Methodology

The contractor must demonstrate technical knowledge by submitting a clear work methodology. Additional value will be given to methodologies that cover the full scope of work and incorporate risk mitigation or other relevant construction strategies.

5. Schedule

The contractor must submit a project schedule aligned with ASEC's target deadlines. Additional value will be given if the schedule includes material delivery schedule, manpower allocation schedule, or other relevant schedules that support effective planning and execution, while remaining practical and achievable.

6. Manpower and Organizational Structure

The contractor must provide details of manpower and organizational structure to ensure the project is completed properly. At a minimum, the team should include 2 supervisors, 2 health and safety officers, and 6 workers, with each personnel's name and contact information provided. Additional value will be given if the contractor can provide more personnel beyond the minimum requirement.

7. Worker Licenses and Health & Safety Certification

Considering that the project involves working at height, the Contractor shall assign a minimum of 3 (three) certified personnel, consisting of:

- 2 (two) dedicated Health, Safety, and Environment (HSE) personnel holding valid Health and Safety (K3 Umum) certification; and
- 1 (one) supervisor/field worker holding a valid certification for Working at Height issued by a recognized institution.

All required licenses/certifications must be valid and issued by recognized institutions. Copies of the valid licenses/certifications shall be submitted as part of the tender documents. Failure to submit the required valid certifications shall result in disqualification.

V. TERMS OF PAYMENT AND CURRENCY

The terms of payment for this project are as follows:

- 20% Down Payment (DP)
- Term 1 (30%) after the project reaches 50% progress
- Term 2 (25%) after the project reaches 75% progress
- Term 3 (20%) after the project reaches 100% progress and all documents related to project completion have been completed and received by ASEC.
- The remaining 5% (retention) will be settled after the project is finished, including the maintenance & warranty period (1-year).

VI. DURATION, WORK SCHEDULE AND WARRANTY

The work shall be finished in 16 (sixteen) weeks. The work schedule in accordance with ASEC procedure is as follows:

- a) Weekdays after office hours: 5PM until 10PM
- b) Saturday, Sunday, and national holiday: 8AM until 10PM

The above work schedule might change as determined by ASEC

Upon completion of the project, the contractor must provide a 1-year warranty letter stating its guarantee for the structural integrity improvements of the class canopy on the 7th Floor Connecting Bridge of the ASEC New Building.

APPENDICES

APPENDIX 1 – EXISTING LAYOUT

APPENDIX 2 – CONSULTANT DESIGN FOR THE IMPROVEMENT OF GLASS
CANOPY

APPENDIX 3 – ESTIMATION OF QUANTITY

APPENDIX 4 – MATERIAL SPECIFICATIONS

APPENDIX 5 – TERMS AND TECHNICAL REQUIREMENTS