

ECLIPSE ACCESS FLOOR SYSTEM

SPECIFICATION

JS Series (Welded Steel with Lightweight Cementitious Core) U2500

PART 1 GENERAL

1.1 Related Documents and Submittals for Evaluation

- a) Product data for each type of Eclipse access flooring specified.
- b) Shop drawings indicating the complete layout of the access floor panels, including details of adjoining work and installation tolerances. Typical section plans to include details, elevation and descriptive notes of all materials, finishes and accessories.
- c) Samples for selection and verification purposes to be submitted for Architects approval.

1.2 Summary of Work

Provide design services, materials, labor and equipment necessary to deliver and install all access floor systems.

PART 2 PRODUCT DEFINITIONS

Eclipse access floor systems consist of a portable assembly of interchangeable modular panels selected to meet specific loads supported by adjustable elevated understructures that positively locate, engage and secure the panels, forming an accessible underfloor cavity to accommodate electrical and mechanical services.

Finished floor height of the system above the sub-floor to be specified by the Architect or user, shall be indicated on the contract documents.

The required Finish Floor Height (FFH) shall be _____mm. (to indicate)

2.1 SYSTEM SELECTIONS

- a) Eclipse U2500 floor panels, welded steel with lightweight concrete infill complete with cornerlock understructure system
Or
- b) Eclipse U2500 floor panels, welded steel with lightweight concrete infill complete with a stringerless understructure system that allows free access.
Or
- c) Eclipse U2500 floor panels, welded steel with lightweight concrete infill complete with bolted stringer understructure system.

2.2 SYSTEM PERFORMANCE STANDARDS

- a) Tested in accordance with (CISCA) Ceiling and Interiors System Construction Associations publication under 'Recommended Test Procedures for Access Floors'.
- b) System must conform to the requirements of local statutory authority and be certified accordingly. Particularly the local Fire Safety Bureau's requirements.
- c) Other relevant standards of testing available upon request.

2.3 SYSTEM PERFORMANCE REQUIREMENTS

- i) Eclipse U2500 Floor Panels
 - a) Nominal Size: 600x600mm welded steel panels with lightweight concrete infill
 - b) Panels to be easily located and removed without disturbing adjacent panels and understructure by one person using a portable lifting device and shall be interchangeable except where cut for special conditions.
 - c) **Concentrated Load**, the panels shall be capable of supporting a concentrated load of 11.4kN on 6.45cm² at any location with a maximum top surface deflection not to exceed 2mm after the load is removed.
 - d) **Uniform Distributed Load**, the panels shall be capable of supporting a uniform load of 29.0kN/m² with a maximum top surface deflection of 2mm. Panel shall not exceed a permanent set of 0.5mm, after the load is removed.
 - e) **Ultimate Concentrated Load**, the panels shall be subjected to a safety factor of 2.5 times its concentrated load capacity. Failure is defined as the point at which the panel will no longer accept the load.
 - f) **Rolling Load**, the surface deformation of the panel shall not exceed not exceed 1mm for ten passes of a 365kg load.
 - g) **Impact Load**, panels and supporting understructure shall withstand without failure an impact load of 40kg dropped from a height of 1000mm. Failure is defined as the point at which the panel will no longer accept the specified loads.
 - h) **Non-Combustibility**, the system shall be classified as non-combustible.

ii) Understructure

Pedestals

- a) Provide manufacturers standard pedestal assembly, FFH 50~1500mm, fabricated of a square base with not less than 100cm² of bearing area and assemble with a stud or tube that is designed to engage the pedestal head assembly that is made either of steel or aluminum or a combination of both. When required, the head shall provide a means to fasten the floor panel or stringer directly to the head.
- b) Provide a means of leveling and locking the pedestal assembly at a selected height, which requires deliberate action to change height setting and prevents vibrating displacement.
- c) All steel components to be hot dip galvanized.
- d) **Axial Load**, pedestals shall withstand a 22.25KN axial load without any permanent deformation.

Stringers (For Bolted Stringer System)

- a) Provide manufacturers standard steel stringer fabricated with galvanized steel forming a rigid grid to support the panel flange.

iii) Floor Coverings

- a) All surface coverings to be factory applied by the manufacturer of the access floor panels.
- b) **High Pressure Laminate**, provide 1.5mm thick high wear type fabricated in one piece to cover entire panel surface.

iv) Edge Trim

- a) Edge trims where specified, should be attached by the manufacturer using either mechanical method and or by adhesive onto the perimeter of each panel.

v) Accessories

- a) Provide manufacturers standard fascia plates, ramps, steps and panel lifting devices to ensure complete assembly of the system.

PART 3 QUALITY ASSURANCES

- 3.1 Ensure that all access-flooring materials are obtained from a single manufacturer to avoid incompatibility.
- 3.2 Floor system and accessories are to be installed by an authorized representative of the manufacturer, according to manufacturer's recommendations.

PART 4 DELIVERY, STORAGE AND HANDLING

- 4.1 Materials are to be delivered in access floor manufacturers original, undamaged and unopened packages, all clearly labeled with the manufacturer's name and product identification.
- 4.2 Materials are to be stored according to manufacturers instructions; avoid overloading building structure.
- 4.3 Materials should be protected from staining, discoloration and damage.

PART 5 EXECUTION

5.1 INSTALLATION

- a) Install access floor system and accessories in accordance with the manufacturers instructions and under the supervision of the manufacturers authorized representative.
- b) Pedestal locations shall be identified from approved shop drawings and mark onto the sub-floor so that the mechanical and electrical work can take place without interference with pedestal installation.
- c) Whenever possible, panels should be laid out in a way that keeps the number of cut panels at the perimeter to a minimum.
- d) No dust and debris producing operations by other trades will be permitted in areas where access floor is being installed to ensure proper bonding of pedestals to the sub-floor.
- e) Installed access floor shall be level within plus or minus 1.5mm in 3000mm, and plus or minus 2.5mm over the entire floor area.
- f) Install access floor to be rigid, firm and free of rocking, vibration, rattle, squeaks and other unacceptable performance.
- g) After completion of work, Main Contractor and or owner shall suitably protect the completed access floor from damage.
- h) For further details on installation, please refer to our installation manual that is available upon request.

PART 6 MANUFACTURERS

6.1 Subject to compliance with requirements, provide Eclipse Access Floor System by:

- Getz Bros & Co (S) Pte Ltd
31 Kaki Bukit Road 3
Techlink #05-18/19
Singapore 417818
Tel: 6740 1831 / 806 Fax: 6469 0862