



10 July 2018

Dear Sir / Madam,

EOI Reference No. (357) in P/AE/PUR/AGC
Invitation to Expression of Interest (EOI) for Facility Management,
Maintenance and Operation Services for Zero Carbon Building
for the Construction Industry Council

You are invited to submit an EOI proposal for Facility Management, Maintenance and Operation Services for Zero Carbon Building for the Construction Industry Council (CIC) as specified in the invitation documents.

1. Your EOI proposal, **in copies specified in the invitation document**, should be submitted in a sealed envelope.
2. The vendor shall deposit a sealed envelope with a label as specified below into the tender box located at **CIC Headquarters - 38/F, COS Centre, 56 Tsun Yip Street, Kwun Tong, Kowloon, Hong Kong not later than 12:00 noon on 24 July 2018.** Late submissions will NOT be considered.

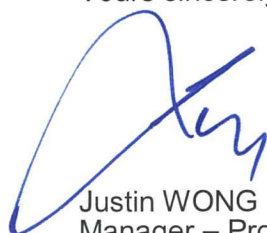
- a) Label with "Invitation to Expression of Interest (EOI) for Facility Management, Maintenance and Operation Services for Zero Carbon Building for the Construction Industry Council"

Please note that the envelope labelled with "Expression of Interest" shall **NOT** include any pricing details. Failure to do so will render the submission null and void. Submissions submitted after the above time or submissions deposited at places other than that stated above will **NOT** be considered.

3. In the event of Typhoon Signal No. 8 or above, or Black Rainstorm Warning is hoisted on the closing date, the closing time will be postponed to 12:00 noon of the next working day.
4. CIC is not bound to accept any proposal it may receive.

5. It should be noted that the CIC will not be responsible for the reimbursement of any cost incurred by you for the preparation of the submission.
6. The EOI documents can be downloaded from CIC's website: <http://www.cic.hk>.
7. For queries regarding this EOI invitation, please contact Ms. Winnie TO, Assistant Manager – Procurement, on telephone 2100-9088 or via e-mail: winnieto@cic.hk.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Justin Wong', is written over the printed name and title.

Justin WONG
Manager – Projects & Contracts Administration

Encl.

Construction Industry Council

Facility Management, Maintenance and Operation Services for
Zero Carbon Building for the Construction Industry Council

Please adhere the following label on a sealed envelope of your submission.

“Confidential”

Expression of
Interest

Construction Industry Council (CIC)
The Tender Box
38/F, COS Centre,
56 Tsun Yip Street,
Kwun Tong, Kowloon, Hong Kong

EOI

Ref. No.: [(357) in P/AE/PUR/AGC]

Facility Management, Maintenance and Operation Services for
Zero Carbon Building for the Construction Industry Council

Company Name: _____

Closing Time and Date: 12:00 noon on 24 July 2018

**Invitation
for
Expression of Interest (EOI)**

Facility Management, Maintenance and
Operation Services for Zero Carbon Building
for
the Construction Industry Council

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1. Background

- 1.1** Zero Carbon Building (ZCB)—the first zero carbon building in Hong Kong, was developed by the Construction Industry Council (CIC) in collaboration with the HKSAR Government. Completed in June 2012, it is an exhibition, education and information centre for low/zero carbon building design and smart technologies located in the commercial and industrial district of Kowloon Bay.
- 1.2** ZCB covers a total land area of 14,700m². It is a three (3) storey building with a net footprint of 1,400m² and a total gross floor area of 3,305m². ZCB is surrounded by an open landscape area which constitutes approximately 49% of the site (Refer to Annex A for the site plan). The building together with the open landscape area will hereto be referred to as the ‘Facility’.
- 1.3** ZCB's main objective is to be carbon neutral, i.e. achieving zero carbon emissions through balancing energy consumed with energy generated from onsite renewable energy sources on an annual basis. Surplus renewable energy generated is exported to the grid and electricity is imported from the grid when needed. ZCB integrates passive design, active systems and renewable energy generation to achieve zero carbon emissions. Since 2015, ZCB has achieved zero carbon status.
- 1.4** Energy is generated on site with a Combined Cooling Heating Power (CCHP) system using B100 biodiesel and 3 types of photovoltaics (PV) - polycrystalline, building integrated and cylindrical CIGS (Copper indium gallium selenide). The CCHP system generates power, heat for chilled water production for air conditioning, and heat for a desiccant dehumidification process. Biodiesel trigeneration accounts for approximately 65-70% of overall energy generation while PV accounts for 30-35%. These systems are critical to ZCB achieving its zero carbon objective.
- 1.5** Over 2,800 sensors have been installed throughout the building to monitor key environmental performance parameters including carbon dioxide (CO₂), temperature, humidity, etc. This information is constantly fed into and recorded in the Building Management System (BMS). The operation of the CCHP is controlled by a Central Control Monitoring System (CCMS) and the BMS. The operation of other building systems and equipment are also automatically controlled by the BMS. Manual override of systems and/or equipment may be selected as needed (Refer to Annex B for a list of key building services systems and equipment).

1.6 ZCB's missions include:

- Showcase state-of-the-art low/zero carbon building design and technologies to the construction industry locally and internationally with a view to promote their application in Hong Kong;
- Raise community awareness of low carbon living in Hong Kong and promote behavioural changes towards low carbon living by providing guided tours and organising education programs;
- Regularly disseminate the latest low/zero carbon building technologies and practices to industry stakeholders;
- Exhibit smart city technologies, enabling people in Hong Kong to have real life experiences of such technologies;
- Increase the utilisation of ZCB facilities including the multipurpose hall, indoor and outdoor exhibition spaces by stakeholders of the construction industry and related sectors, to create more benefits and strengthen ties with the industry.

1.7 The main facilities at ZCB (collectively referred to as “the Facility”) include:

Indoor facilities

- Exhibition areas (780m²)
- Eco-office (accommodating up to 10 staff) (65m²)
- Eco-home and display gallery (150m²)
- Multipurpose hall (MPH, for conferences, seminars, workshops, weddings etc.) (260 m²)
- Covered entrance area (100m²)
- Plants rooms (on the basement floor)

Outdoor facilities

- Eco-café (10m²)
- Souvenir shop (10m²)
- Eco-plaza and outdoor exhibition areas (900m²)
- Blackwater, greywater recycling & stormwater harvesting
- Commercial area (1,300m²)
- CIC-MiC (Modular Integrated Construction) demonstration centre (In-situ part 120m², modular exhibits 200m²) (Refer to Annex A)
- Open landscape area (comprising footpaths, sitting areas, an urban native woodland etc.)
- Two disabled and a coach parking space (Refer to Annex A for layout plans showing the key facilities)

- 1.8** ZCB offers up to four tours per day (maximum 50 visitors per tour, 1.5 hours per tour) and receive on average 150 visitors per day (both organised tours and walk-in visitors). Visitors comprise construction industry practitioners, students and members of the general public. In addition, the MPH and various outdoor spaces are available for rental by hirers to host various events (Refer to Annex C for spaces available to hirers).

ZCB's operating hours are shown below:

Exhibition area

- 9:00 a.m.- 6:00 p.m., 7 days a week (closed on Public Holidays)

Eco-office

- 8:30 a.m.- 6:20 p.m., 7 days a week

Multipurpose Hall

- 9:00 a.m.- 2:00 p.m. or 2:00 p.m.- 6:00 p.m. (Half day) or
- 9:00 a.m.- 6:00 p.m. (Full day)

Public Open Landscape Area

- 7:00 a.m.- 8:00 p.m., 7 days a week

- 1.9** Examples of the main types of events held in the MPH are listed below:

- Conferences and seminars;
- Ceremonies - signing ceremonies, award ceremonies, etc.;
- Exhibitions - environmental products, building materials; construction equipment, art and university graduation projects, etc.;
- Workshops – STEM, handicraft, art jamming and demonstrations, etc.;
- Festive events - Christmas show, etc.;
- Performances - concerts and singing contests, etc.;
- Community events - charity events, etc.; and
- Weddings.

- 1.10** To support ZCB's ongoing operation as an exhibition, education and information centre, with facilities for hire, and to maintain its zero carbon status, ZCB is seeking to engage a Contractor to:

- Manage and maintain onsite facilities to a high professional standard with a view to sustain ZCB as a high-end exhibition, education and information centre demonstrating green design and smart technologies to the construction industry and the general public;
- Manage and maintain all building plants, building services systems and equipment for operation in an efficient, optimal and reliable manner to maximise energy savings and achieve the zero carbon objective; and

- Provide competent technical and efficient functional support for smooth day-to-day operations at ZCB.

2. Scope of Services

The Contractor (“the Contractor”) shall provide all and adequate labour and manpower, stores and equipment at its own expense for the following Services (“the Services”) during the contract period (materials and parts will be reimbursable):

2.1 Facility Management and Operation Services

Facility management and operation services shall include but not limited to:

- 2.1.1 Operating, monitoring and maintaining all electrical & mechanical (E&M) facilities and building services installations;
- 2.1.2 Adjusting the settings of the access control/schedule and other parameters on the BMS and CCMS where authorised;
- 2.1.3 Managing the inventories on site, order, replace and provide additional items as and when required;
- 2.1.4 Coordinating with CIC/ZCB and relevant contractors and subcontractors to oversee various repair, maintenance, replacement and improvement/renovation works undertaken for the Facility and the open landscape area and ensure compliance with all applicable statutory requirements including public safety, occupational health and safety, fire safety, and environment etc.;
- 2.1.5 Systemically documenting and maintaining accurate and proper records including but not limited to repairs, maintenance, replacements (for all systems and equipment of the Facility), complaints, incidents, health and safety etc.;
- 2.1.6 Monitoring the list of licences/statutory certificates required for operation, building services systems, installations and equipment etc. and arrange for their timely renewal, liaising with the relevant government departments, statutory bodies and other relevant parties where required;
- 2.1.7 Managing the use of the open landscape area to ensure health, safety and easy access for the visiting public;
- 2.1.8 Managing car parking facilities and the electric vehicle charging system;
- 2.1.9 Providing technical and logistical support for CIC/ZCB and relevant consultants and contractors in the implementation of various projects from time to time which aim to enhance energy efficiency, maintenance and operational efficiency and effectiveness for ZCB (e.g. retrocommissioning, BIM-Asset Management, renewable energy storage etc.);
- 2.1.10 Ensuring site safety, site tidiness and site cleanliness at all times;

- 2.1.11 Attending the testing and commissioning of any new facilities/improvements/building services systems and equipment installed with relevant consultants, for handover and taking over of the facility management;
- 2.1.12 Assisting CIC/ZCB where necessary in the planning and execution of measures for green management of the Facility;
- 2.1.13 Taking over the management and maintenance responsibilities for the Facility, building services systems and equipment from respective contractors upon the expiry of Defects Liability Periods (DLP) or until a new contractor is appointed/a new contract is awarded for the management and maintenance service;
- 2.1.14 Managing and monitoring the security and cleaning service providers, which have been engaged separately by CIC, in daily operation, and for various events held at ZCB.
- 2.1.15 Providing access to unoccupied premises (including accompanying the visit) to CIC/ZCB's leasing agents and potential tenants, inspecting premises and notifying CIC/ZCB and the occupant/tenant of any irregularities;
- 2.1.16 Carrying out daily inspections of the site including all building facilities (plant rooms in particular) and the outdoor landscape area, including both hard and soft landscaping.

Exhibitions and Events

- 2.1.17 Assisting CIC/ZCB in the operation and manning of indoor and outdoor exhibitions, and in the smooth running of events held in the Facility, including but not limited to conferences, seminars, workshops, forums, ceremonies, press conferences and receptions etc.;
- 2.1.18 Assisting CIC/ZCB in event set-up—including setting up, dismantling and putting away furniture and equipment for exhibitions and events;
- 2.1.19 Conducting pre-event and post-event checks to ensure the proper functioning of all installations and equipment of the Facility and provide technical support should installations and equipment malfunction;
- 2.1.20 Providing crowd and admission control, organise placement of relevant signage, and attend to and escort any injured to hospitals if required;
- 2.1.21 Procuring and arranging festive and event decorations, including but not limited to temporary decorations, potted plants, seasonal flowers and publicity materials for the Facility;
- 2.1.22 Managing car parking arrangements for loading and unloading of goods;
- 2.1.23 Ensuring event organisers/contractors reinstate the Facility to its original condition upon each hire and event to a checklist to be agreed with CIC/ZCB;

2.2 Facility Maintenance Services

Facility management services shall include but not limited to:

- 2.2.1 Maintaining and keeping (including boundary and security fences belonging thereto) the building fabric, all systems and equipment, materials and inventory items provided by CIC/ZCB in good repair, fair wear and tear condition, and replace when necessary to meet the highest standard of public safety;
- 2.2.2 Providing minor and general day-to-day repair and maintenance services and coordinate and monitor the maintenance/replacement/rectification works in accordance with the schedule (Refer to Annex D for General and Minor Maintenance Schedule);
- 2.2.3 Regularly inspecting and carrying out electrical and mechanical repair and maintenance works in accordance with (Refer to Annex E for E&M Maintenance Schedule);
- 2.2.4 Monitoring the list of maintenance service contracts for the Facility, building services systems, equipment and open landscape area to arrange the timely tendering and renewal of all contracts;
- 2.2.5 Liaising and coordinating with relevant contractors, either appointed by CIC/ZCB or by the Contractor itself, in the delivery of the Services, ensuring fulfilment of the scope of maintenance services covered under each maintenance service contract and supervise repair/replacement/rectification works as required;
- 2.2.6 Reporting to CIC/ZCB any urgent repair, replacement or rectification works required and contact relevant contractors/sub-contractors to arrange for repairs, replacement, cleaning etc., reporting on the follow-up actions taken and works implemented within twenty-four (24) hours of reporting the event/incident;
- 2.2.7 Liaising and coordinating with the relevant contractor to maintain the soft landscaping (grass/turf, trees, bushes, plants, shrubs, flowers etc.) in the open landscape area (including the urban native woodland) to provide a safe and aesthetically pleasing environment for leisure and recreation;
- 2.2.8 Assuming the responsibility for tree management including tree planting, tree inspections, tree maintenance and protection works, and tree risk assessments by a competent person such as a Certified Arborist for the safety and utility of the open landscape area;
- 2.2.9 Carrying out or engaging relevant contractors, to carry out repair and maintenance for items not covered under an existing building repair and maintenance service contract;
- 2.2.10 Monitoring various kinds of works undertaken by CIC/ZCB, its maintenance service contractors and/or any other assigned service/works contractors to ensure that the highest protection has been given to the Facility as well as occupants/visitors inside the Facility and the security of the premises and the work site;
- 2.2.11 Based on repair/replacement/rectification works implemented, update Operation & Maintenance manuals (Refer to Annex F), as-built drawings, equipment and inventory schedules as appropriate;
- 2.2.12 Issuing work orders/tenders for repair/replacement/rectification works as agreed with CIC/ZCB.

CIC-MiC Demonstration Centre

Maintenance Services for MiC shall include but not limited to:

- 2.2.13 Regularly inspecting and providing minor and general repair and maintenance services for the building fabric (floors, walls, ceiling, windows, doors etc.), fixtures, furniture, signages and systems (e.g. MVAC);
- 2.2.14 Reporting to CIC/ZCB any urgent repair, replacement or rectification works required and contact relevant contractors/sub-contractors to arrange for repairs, replacement, cleaning etc., reporting on the follow-up actions taken and works implemented within twenty-four (24) hours of reporting the event/incident;
- 2.2.15 Regularly inspecting and carrying out electrical and mechanical repair and maintenance works (e.g. changing light bulbs);
- 2.2.16 Regularly inspecting and general repair and maintenance of CCTV and burglar alarm systems; and
- 2.2.17 Regularly inspecting and general repair and maintenance of rainwater/drainage system;

2.3 General Service Provision

General service requirements shall include but not limited to:

- 2.3.1 Managing and maintaining the Facility to enable its high building environmental performance ratings to be maintained (BEAM Plus Platinum, Indoor Air Quality-Excellent Class etc.);
- 2.3.2 Ensuring proper enforcement of relevant statutory regulations, the house rules of the Facility, the prevailing rules for functions and activities held at the Facility and any other guidelines, rules and regulations applicable to the Facility;
- 2.3.3 Checking and ensuring the health and safety of improvement works implemented at the Facility from time to time;
- 2.3.4 Establishing and publicising procedures for occupants/tenants/visitors to lodge complaints and maintain a mechanism for logging and tracing all complaints and resolution of complaints;
- 2.3.5 Conducting one (1) fire drill for the Facility and relief team and the staff of the Facility per annum. The Contractor shall prepare and submit an analytical report within two (2) weeks after fire drill on the observations of the drills and recommendations and/or follow-up actions to be taken in response to fire safety for the Facility and its users;
- 2.3.6 Providing precautionary and reasonable measures to avoid illegal entry or break-in of the Facility, especially after opening hours;
- 2.3.7 Working closely with the security service provider (engaged separately by CIC) to ensure proper use and maintenance of the security system;
- 2.3.8 Working closely with the security service provider to enforce rules and regulations governing entry into and use of the Facility;

- 2.3.9 Managing the operation and maintenance (working with the maintenance service provider) of the WLAN service available at the Facility to facilitate proper use of the service by staff, occupants/tenants and the public;
- 2.3.10 Performing duties of crowd control, traffic and car parking control, and management duties to maintain proper order of the Facility;
- 2.3.11 Providing all temporary signs and notices in a format, design and material at appropriate locations of the Facility if required by CIC/ZCB;
- 2.3.12 Clarify and verify scopes, quotations/tender prices for Services procured via the Contractor as and when required;
- 2.3.13 Liaising with relevant parties where necessary, in the verification of electricity consumption/operating costs (such as electricity and gas consumption charges), electricity feed-in to CLP etc.
- 2.3.14 Assisting in the performance evaluation of other service providers directly engaged by CIC/ZCB for the Facility;
- 2.3.15 Drawing up a detailed operation manual for the management and daily operation of the Facility upon commencement of Contract and to maintain and update the as frequently as required;
- 2.3.16 Conducting an annual management audit after completion of each year's Services, and submit a report to CIC/ZCB evaluating the effectiveness of and propose improvements to operational procedures and maintenance, facilities, energy savings, management of manpower, and material resources requirements etc.;
- 2.3.17 Submitting a monthly report summarising what Services were performed in the Facility during the month and follow-up actions and services scheduled for the upcoming month;
- 2.3.18 Attending monthly meetings to review the operation of the Facility and the performance of the Contractor for the previous month;
- 2.3.19 Attending any adhoc operational meetings for effective performance of the Services or resolution of contractual issues;
- 2.3.20 Achieving the targets for Key Performance Indicators (KPIs) as set out in Appendix G. CIC/ZCB will review these KPIs with the Contractor on a half yearly basis to evaluate whether they have been met; and
- 2.3.21 Accessibility to the Contractor by CIC/ZCB and tenants on a 24-hour basis should urgent actions be required or an event has occurred that may threaten the occupants/tenants/visitors' enjoyment of the Facility.

2.4 Contractor Requirements

Requirements of the Contractor shall include but not limited to:

2.4.1 Deploying only technically qualified and competent staff:

- To operate the building services systems and equipment to enhance energy efficiency, thermal comfort, and facilitate the achievement of the zero carbon objective;
- To keep facilities in good order and drive preventive maintenance;
- To ensure smooth day-to-day operation of the Facility and provide professional and efficient support for events/activities held at ZCB;
- To prevent damage to CIC/ZCB property and injury to persons;

2.4.2 Establishing an onsite management office at ZCB and be responsible for manning the management office daily from 8:30 a.m. to 6:30 p.m., Mondays to Sundays, including general public holidays. An onsite facility management (FM) team, comprising both technical and operational staff, shall be provided exclusively for the management, maintenance and operation of the Facility. The team shall comprise a **total of four (4) staff including:**

- **One (1) facility services manager** to supervise the onsite team;
- **Two (2) technical support staff**, whom shall be able to provide technical support in the daily operation and monitoring of building services systems and equipment, and also perform the role of a technician providing hands-on support to carry out day-to-day repairs and maintenance works as required. At least one technical support staff shall be a registered electrical worker with relevant health and safety certifications; and
- **One (1) administrative and general operational support staff**
On any given day, the FM management office should be manned by at least three (3) out of the four (4) staff, one (1) of which must be technical support staff. All staff on duty shall manage the office until 6:30 p.m. The staff in each respective role shall have appropriate professional and technical qualifications;

2.4.3 Arranging their onsite staff and making available the monthly duty roster of all staff to CIC/ZCB;

2.4.4 Extending their operation hours beyond 6:30 p.m. (on an hourly basis) to provide operational support for various events held in the Facility from time to time;

2.4.5 Being the first point of contact for CIC/ZCB, all building occupants/tenants and consultants/contractors/sub-contractors for all routine matters;

2.4.6 Providing a high standard of customer service at all times and that all of the Contractor's management staff, employees, agents and sub-contractors etc. shall behave themselves and conduct the business in a courteous, respectful and professional manner;

2.4.7 Ensuring that their onsite staff are familiar with the operation of the Facility, and be familiar with all exhibitions/events held at CIC/ZCB in order to answer public enquiries and provide general docent service to visitors if required;

- 2.4.8 Keeping staff turnover rate to a minimum without compromising the quality of the Services provided; and
- 2.4.9 Avoiding causing nuisance or annoyance to the general public whilst providing the Services.

2.5 Contract Period

The Contractor shall provide facility management, maintenance and operation services initially for a fixed term period of two (2) years, commencing 1 December 2018, and is renewable for another two (2) years from 1 December 2020 subject to performance review and mutual agreement between the Contractor and CIC/ZCB.

3. Open and Competitive Selection Process

- 3.1** The process of the competitive selection of the Contractor shall be conducted under the following two stages under the described terms:

- (a) Stage 1 - Expression of Interest (EOI)

Open to all contractors who are able to demonstrate the required capabilities, experience and resources to be shortlisted for the Tendering Process (Stage 2) to undertake the Services.

- (b) Stage 2 - Selective Tendering Process

Subject to this Invitation Document, only the shortlisted Respondents from the EOI process (Stage 1) will be issued the detailed Tender Documentation for the services referred to under this Invitation Document. Tender submissions by the selective tenderers shall include but not limited to the submissions of technical and fee proposals, in which these proposals will be evaluated by an assessment panel formed by the CIC.

4. EOI Proposal

- 4.1** Any parties interested in the Project shall submit their EOI Proposal to demonstrate their competence and capabilities in carrying out the Services, including but not limited to the following key items:

- (a) **Company's Profile, Background and Expertise**

(b) **Staff Resources**

- (i) An organisation chart indicating the proposed project team structure and strength of the team in the provision of the Services as outlined in Section 2 - Scope of Services. The team shall only include members who have the qualifications, knowledge, competence and relevant experience in the provision of the scope of Services and in meeting the general service and contractor requirements outlined in Section 2;
- (ii) Details of all the members of the proposed team, including but not limited to their qualifications, strengths and experience; and
- (iii) Total number of staff and annual staff turnover, referencing in particular, the maximum number of staff turnover for any particular site under the Contractor's management.

- (c) A brief summary statement on the **Contractor's Approach in fulfilling the facility management, maintenance and operational service requirements** for ZCB and their capabilities in implementing the proposed approach.

- (d) A list of **Relevant Project References/Experience** (in the past 5 years) in the provision of services with a similar scope/nature as outlined in Section 2 for:

- (i) Facility management and operation;
- (ii) Facility maintenance;
- (iii) General service provision; and for
- (iv) Management and maintenance of key building services systems and equipment as cited in Section 1.5 and Annex B.

- 4.2** The Respondents shall fully respond to the information required for the EOI, and shall be prepared both to answer supplementary questions on, and further discuss their EOI submission if required.

5. Submission

- 5.1** This invitation for EOI does not constitute an invitation to offer or an offer in relation to the services to the CIC, nor does this document or any document made available pursuant to this invitation constitute any contract or agreement of any kind whatsoever with the CIC.

- 5.2** All costs associated with any submission in response to this invitation shall be entirely the responsibility of the interested contractors. The CIC reserves the right to accept or reject any EOI submission at its discretion and without assigning any reason or explanation.

- 5.3** The CIC reserves the right to cancel or terminate the process of EOI and/or Invitation to Tender at any time or during any stage of the process without giving the reason for such action. The CIC shall not be liable to any party for any loss or damage, cost or expense as a result of such action.
- 5.4** Interested parties shall submit TWO (2) hard copies and corresponding files in electronic form (e.g. in MS Word 2013 / MS Excel 2003 / PDF format) stored in an electronic medium (e.g. USB / CD-ROM / DVD-ROM) of the EOI Proposal in a sealed envelope marked “EOI Proposal”. The EOI submission should be submitted to the Tender Box of the CIC at 38/F, COS Centre, 56 Tsun Yip Street, Kwun Tong, Kowloon, Hong Kong **on or before 12:00 noon on 24 July 2018 (‘the Closing Date’)**. Please note that any submissions that are submitted after the Closing Date and/or not in compliance with the requirements as stated in this Invitation Document will not be considered by the CIC whose decision will be final.
- 5.5** The EOI submission **must be contained in a sealed envelope marked with the following information:**

Ref. (357) in P/AE/PUR/AGC

Invitation for Expression of Interest for Facility Management, Maintenance and Operation Services for Zero Carbon Building for the Construction Industry Council

Attention: Procurement Department

- 5.6** In the event that a Typhoon Signal No. 8 or above or Black Rainstorm Warning is hoisted on the Closing Date, the EOI closing time will be postponed to 12:00 noon on the following working day.
- 5.7** Contractors that are successfully shortlisted after the submission of the EOI Proposal (with or without being interviewed) will be notified and invited to bid at the tendering stage (Stage 2 in Section 3.1(b)).

6. Pre-qualification Requirements/Criteria

- 6.1** Contractors complying with the following minimum requirements will be considered for pre-qualification:
- (a) History of establishment - established at least 8 years;
 - (b) Track record and job references in providing services of a similar nature and scale to the Services;

- (c) A competent onsite project team of at least four (4) staff (refer to Section 2.4.2 for detailed requirements) with relevant qualifications, knowledge, expertise and experience in the provision of all of the following:
- (i) Facility management and operation services;
 - (ii) Facility maintenance services; and
 - (iii) General services as outlined in Section 2 of this document; and
 - (iv) Management and maintenance of key building services systems and equipment as cited in Section 1.5 and Annex B.

The onsite team shall be supported and considered together with the Contractor's headquarter resources including but not limited to technical support, administrative support, and general operational support etc.;

- (d) Demonstration of financial resources to undertake the Services, one (1) copy of Audited Financial Statements for the past two (2) years; and
- (e) The company's total annual turnover in Hong Kong dollars and Audited Financial Reports showing the available financial resources (year 2016 and 2017), including financial investments and payback periods, and revenue/income sources and expenses/expenses.

7. Tentative Procurement Plan

7.1 It is anticipated that the procurement plan may be as follows:

Phase	Tentative Schedule
Formal Tendering	End July/ Early August 2018
Tender Evaluation	Mid-August 2018
Tender Award	End August/Early September 2018

8. Enquiries

8.1 Please write to the Procurement Department by e-mail or by post for any queries concerning this Expression of Interest (EOI) invitation with the details as below:

Ms. Winnie TO
Assistant Manager – Procurement
Construction Industry Council
38/F, COS Centre
56 Tsun Yip Street, Kwun Tong
Kowloon, Hong Kong

Tel: (852) 2100-9088
Fax: (852) 2100-9439
E-mail: winnieto@cic.hk

9. List of Annexes

Annex A - Site Plans of Zero Carbon Building

Annex B - Key Building Services Systems and Equipment

Annex C - Rental Spaces

Annex D - General and Minor Maintenance Schedule

Annex E - E&M Maintenance Schedule

Annex F - List of Operation and Maintenance Manuals

Annex G - Key Performance Indicators

Annex A - Site Plans of Zero Carbon Building

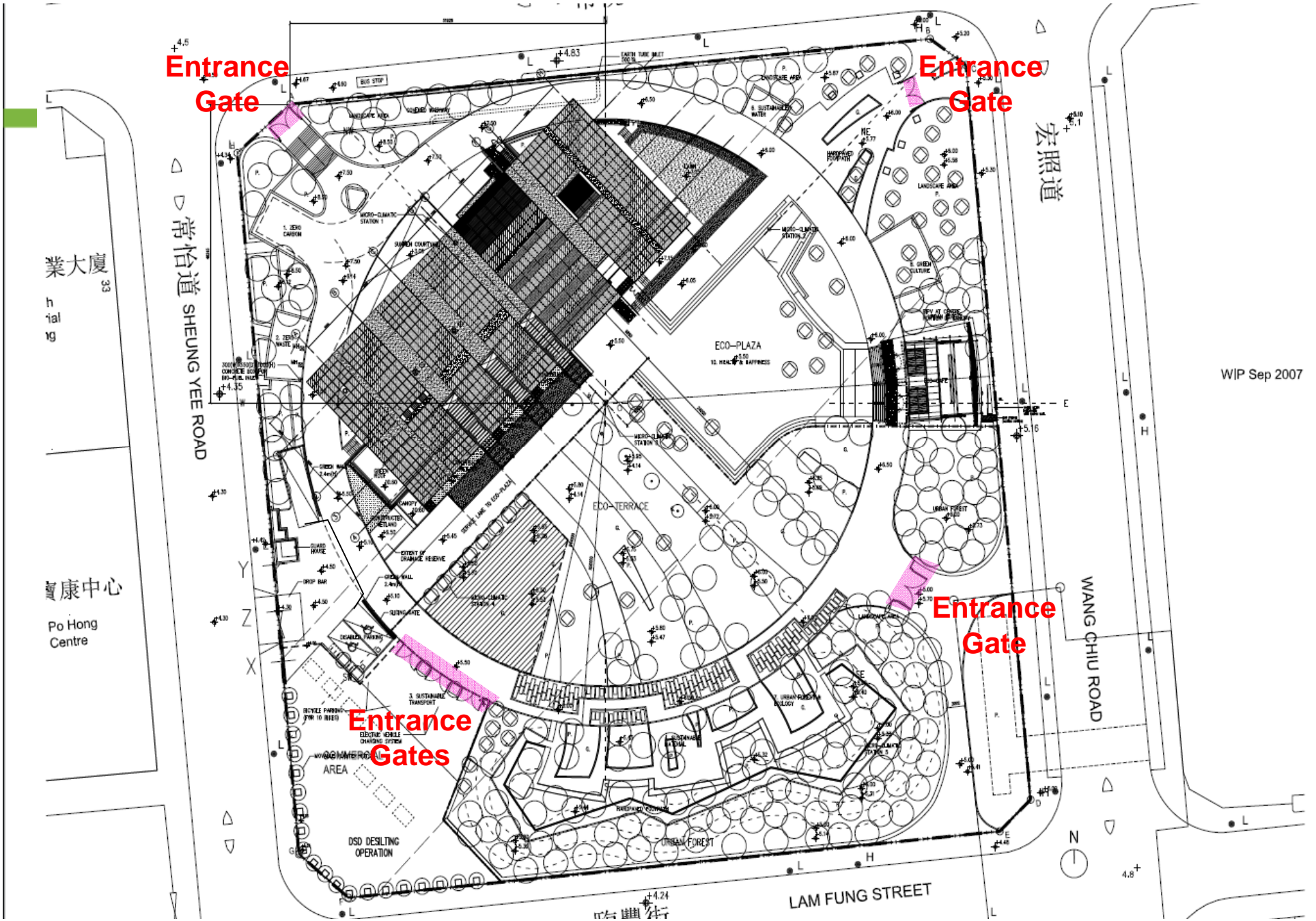


Annex A - Site Plan of Zero Carbon Building





Master Plan

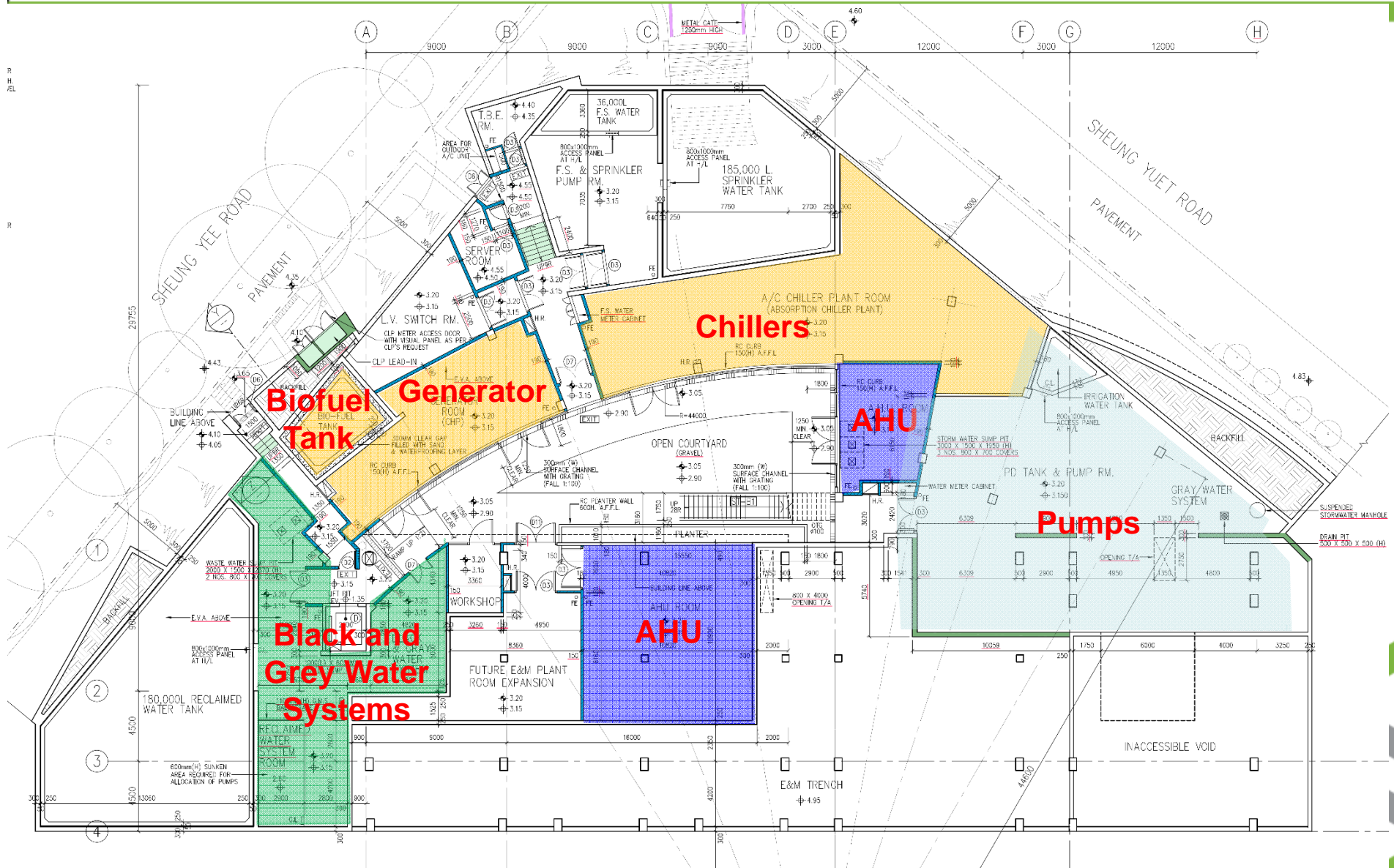


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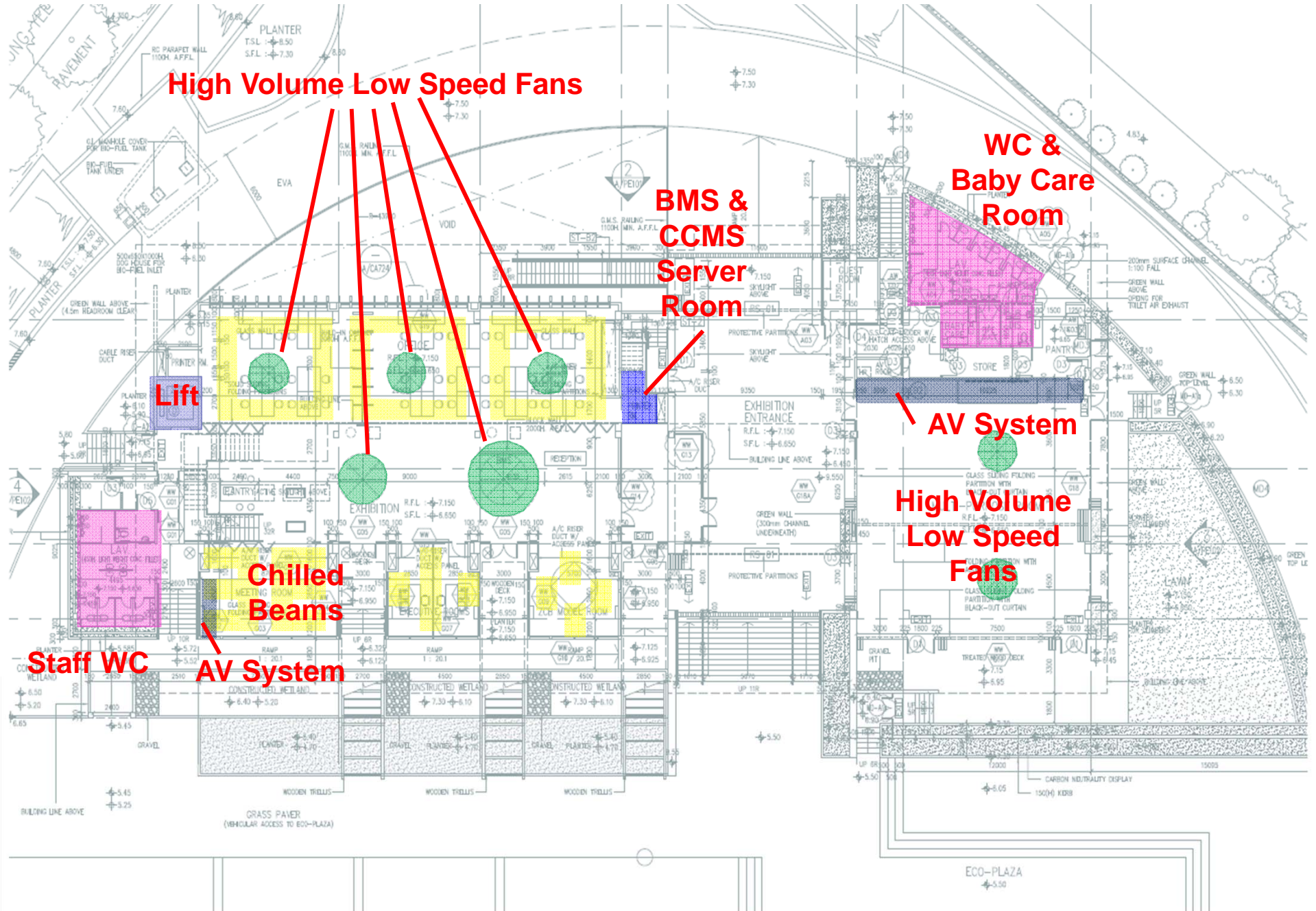




Basement Floor Plan

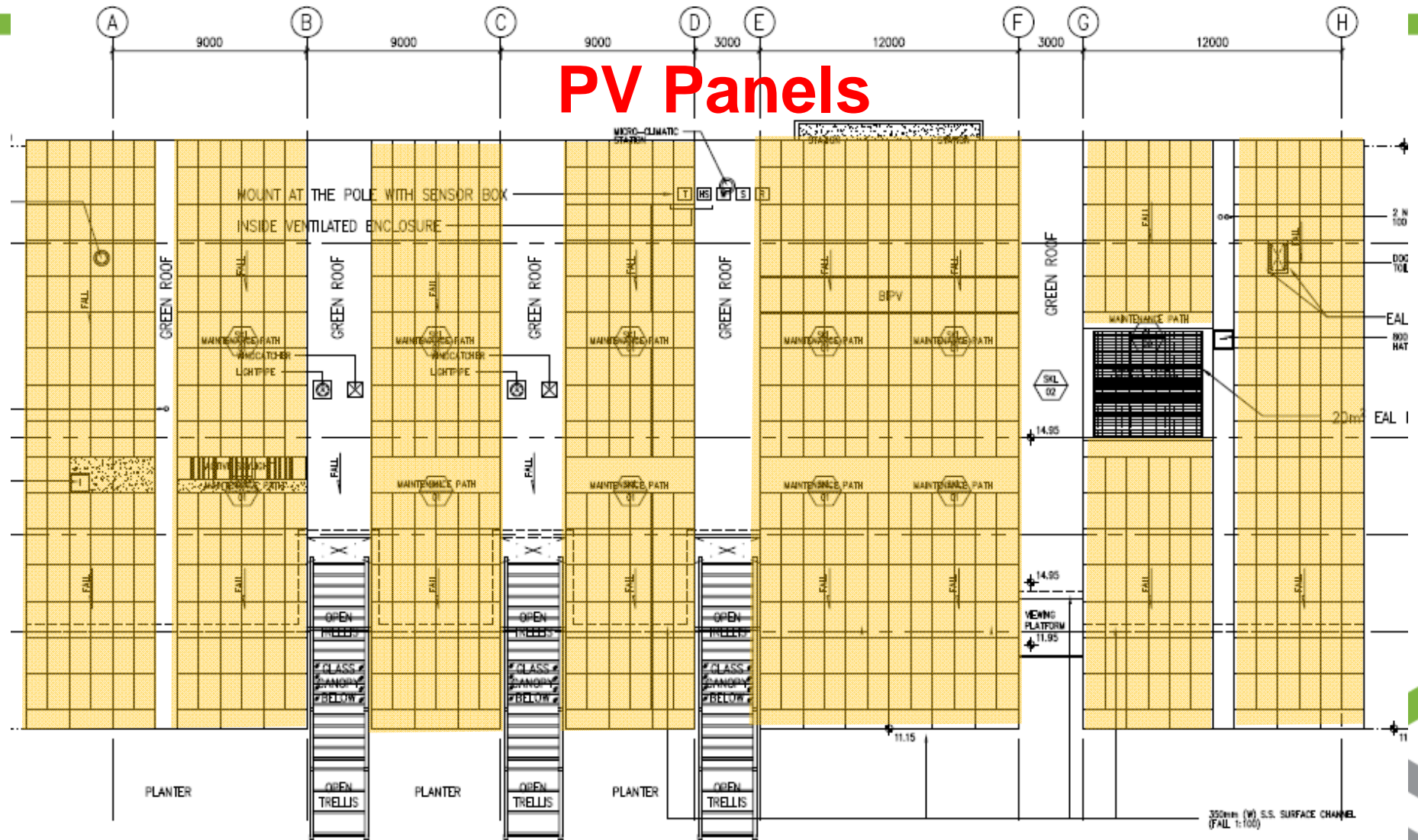


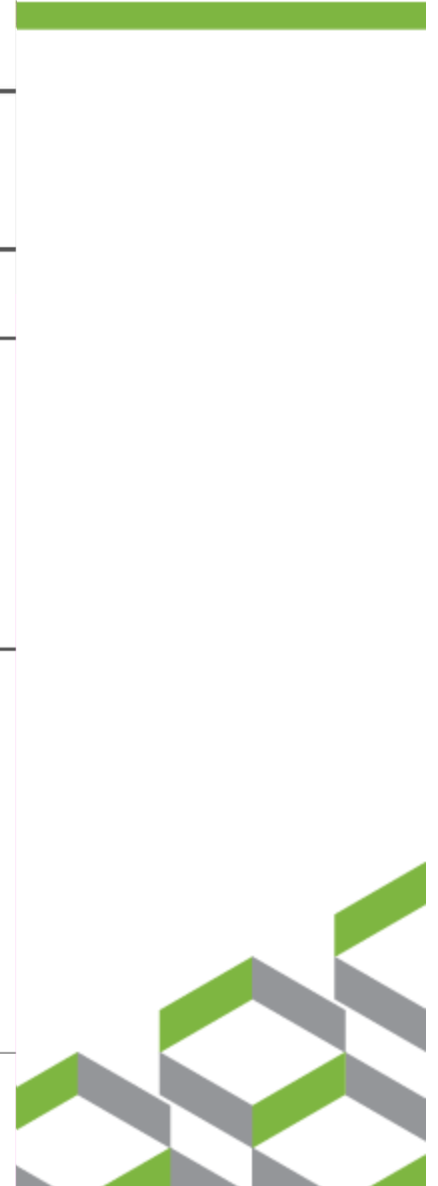
Ground Floor Plan



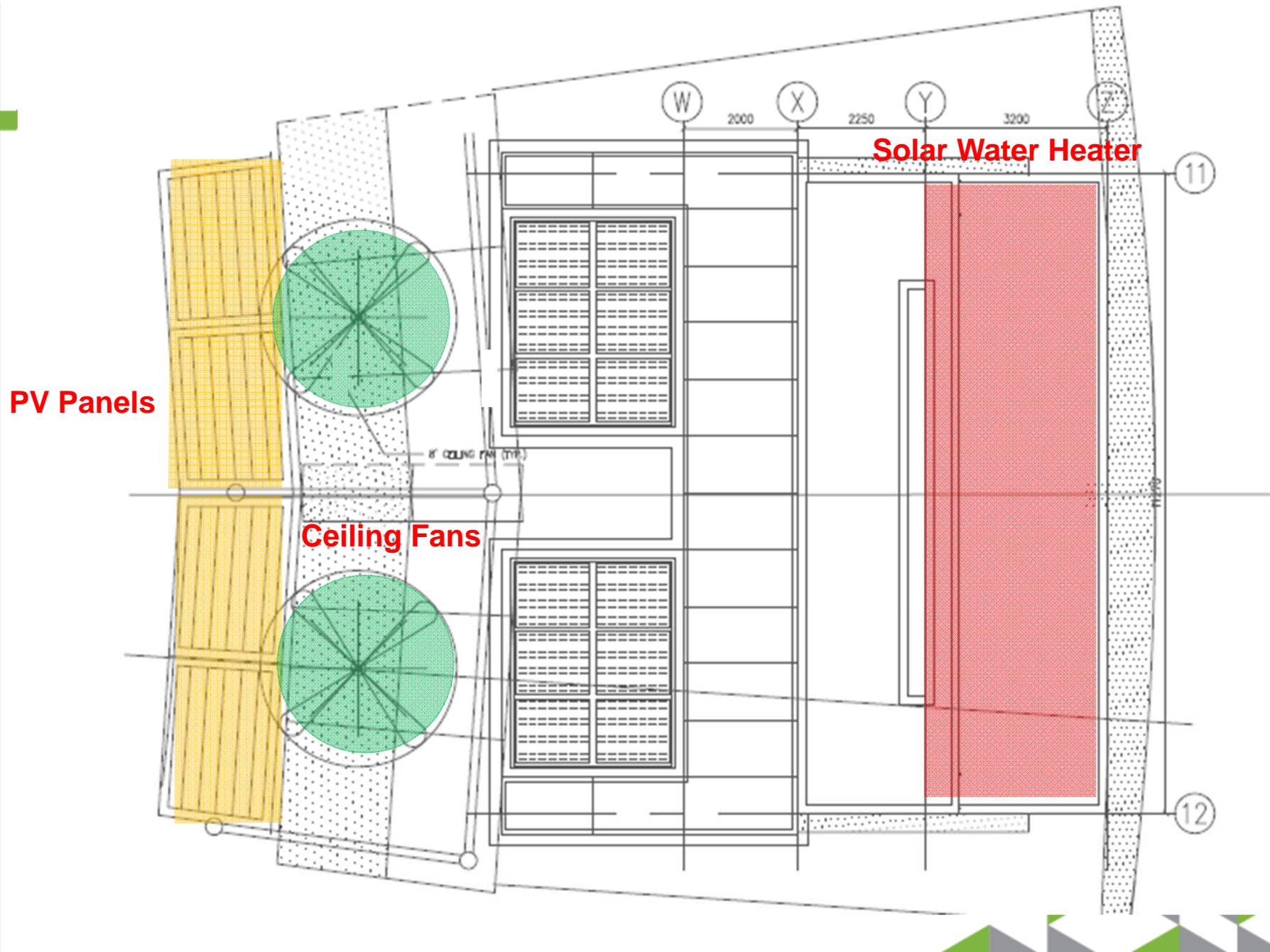


Roof Plan

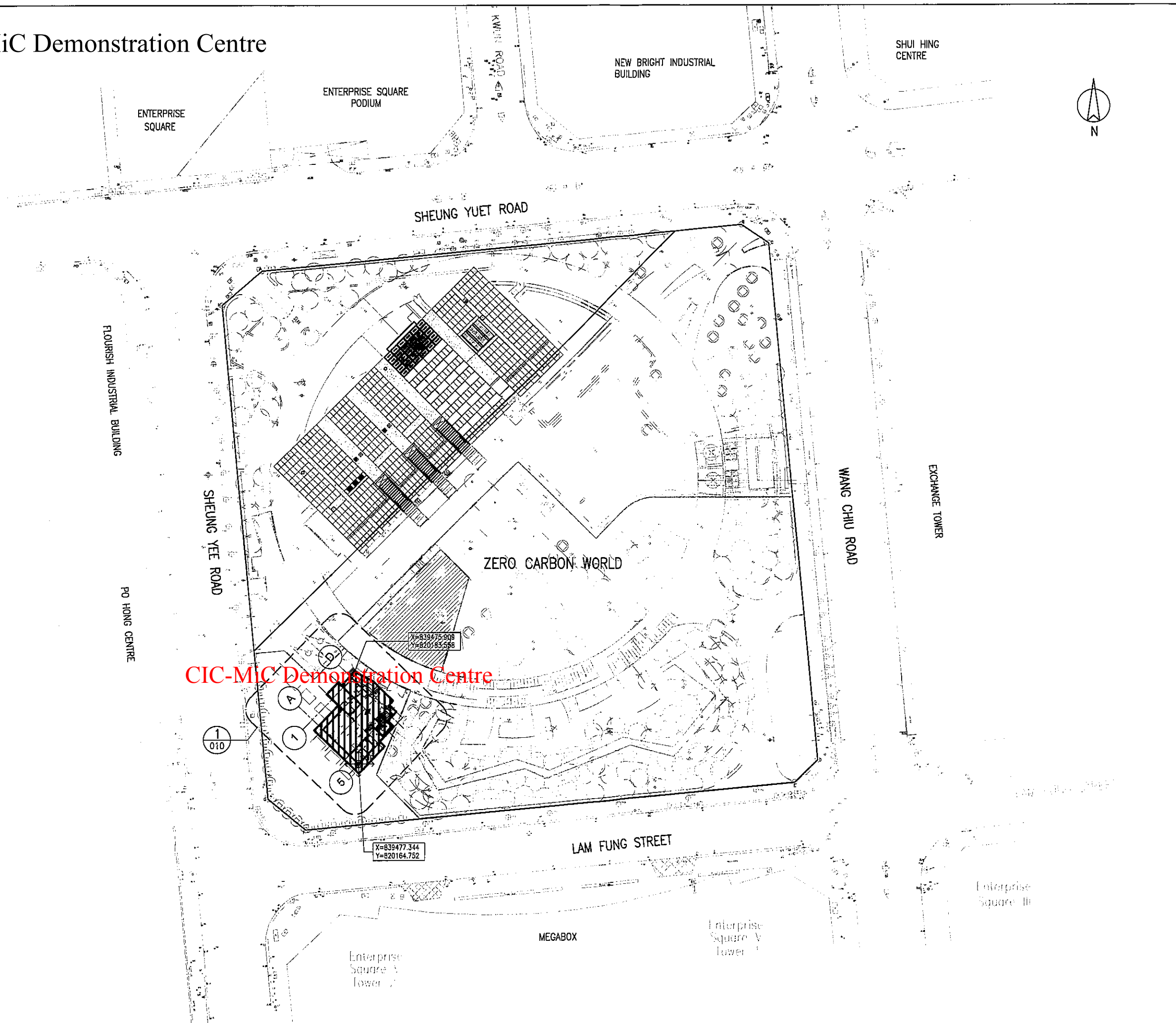




Eco-Café Roof Plan



CIC-MiC Demonstration Centre

[illegible]

Independent Verifying Person's Signature

This Drawing has been examined in accordance with the duty of Independent Verifying Person and complies with the relevant standards and regulations.

Project Title	CIC - MIC DEMONSTRATION PROJECT - GBP SUBMISSION
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Drawing Title
SITE PLAN

Drawn By	TC		
Checked By	PC		
Approved By	KB		

Project No.	Issue Date.
260511	05MAR18
Cgd File No. (dwg)	

SCALE. 1:400

Drawing No.
A/002

Authorised Person's/
Registered Structural Engineer's Signature

CLIENT

 CONSTRUCTION
INDUSTRY COUNCIL
建造業議會

LEAD CONSULTANT

ARUP One Arup & Partners
Hong Kong Limited

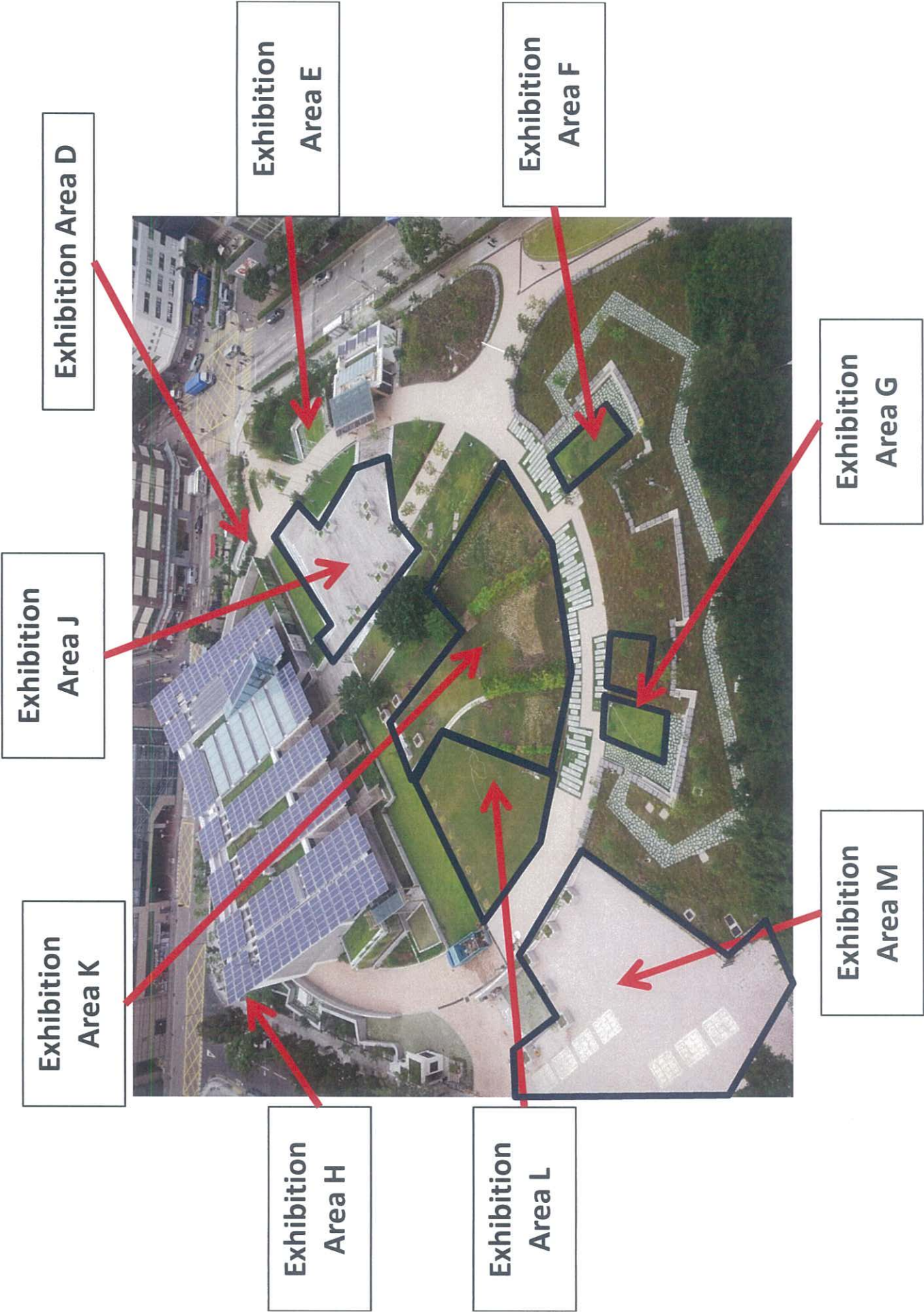
Level 5, Festival Walk, 80 Tel. Des. Avenue, Kowloon Tong,
New Territories, Hong Kong
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☒ Architectural
☐ Structural
☐ Building Services

Annex B - Key Building Services Systems and Equipment

Air Conditioning System
Biodiesel Generator
Adsorption Chiller
Desiccant Humidifier
Ventilation System (PAU & AHU)
Electric Chillers
Variable Air Volume (VAV) Control
Underfloor Air Supply System
High Volume Low Speed Fans
Chilled Water Pumps
Condensing Water Pumps
Cooling Towers
Chilled Beams
Central Control Monitoring System (CCMS)
Fire Services System
Automatic Sprinkler System
Fire hydrant/ Hose Reel System
Fire Alarm System
Emergency Battery Lighting System
Plumbing and Drainage Systems
Fresh Water System
Flushing Water System
Black Water System
Grey Water System
ELV Systems
CCTV System
Public Announcement (PA) System
Intercom System
Emergency Call Bell System
ELV System (Magnetic Door, Break Glass, Release Button)
Outdoor PA System
PV System
BMS
CCMS
PMS
Electrical Monitoring System (EMS)
Solar Hot Water System (Control Equipment)
Lighting System
Skylight
Lift System
Passenger Lift

Annex C - Rental Spaces



Annex D - General and Minor Maintenance Schedule

1. The Contractor shall, at its own expense including but not limited to costs of labour and material of matching and equivalent specification (unless otherwise specified), carry out and complete any day-to-day repair and maintenance works including but not limited to the following within the specified time and in compliance with any guidelines and instructions as may be given by CIC/ZCB from time to time:

Nature of Works

(a) General Maintenance

- Clear blockage of outdoor surface channels, gutters, drains, sewers, manholes
- Repair/replace defective locks, closers, hinge, latch, bolts or any other ironmongery of doors and gates
- Repair/replace signs and notices
- Repair/replace benches, chairs and tables
- Repair cupboards and fix furniture
- Repair/replace litter containers
- Repair/replace broken glass or windows (except curtain wall and tempered glass)
- Repair/replace first-aid equipment
- Repair minor damage to wall and floor surfaces and minor touch-up of paints
- Replace/re-fix floor tiles/carpets
- Replace/re-fix false ceiling tiles other than gypsum board ceiling

(b) Toilet Facilities

- Replace water closet seats and covers
- Repair flush water tanks
- Repair defective flush toilets and urinals
- Refix/replace coat hooks
- Refix/replace locking device for water closet cubicle compartment doors
- Refix/replace soap/spectacle holders
- Clear blockage of water closets, urinals, wash hand basins, sinks, drains, sewers and surface channels
- Replace washers of leaking faucets
- Replace broken/defective mirrors
- Repair/replace soap dispensers
- Repair/replace toilet paper holders and paper towel holders
- Repair/replace hygiene units
- Repair/replace hand dryers

(c) General Electrical Equipment

Annex D - General and Minor Maintenance Schedule

Nature of Works

- Replace faulty fluorescent tubes, compact fluorescent lamps, LED lighting, light bulbs, magnetic and electronic ballasts of all light fittings including general lighting, exhibit lighting and decorative lighting
 - Investigate minor electrical faults and reset MCBs after clearing of faults
 - Repair/replace faulty or defective plugs and sockets
2. The Contractor shall take up all the respective operation and maintenance works for necessary repair and replacement of faulty appliances, equipment and systems and other damages. The Contractor shall exercise every reasonable step to monitor the rectification progress and to minimize the period of service suspension.
 3. The Contractor shall coordinate with the agents/partners and/or other related parties as specified by CIC/ZCB for the general maintenance of exhibits.

Annex E - E&M Maintenance Schedule

The Contractor should uphold the conditions of the Facilities and carry out routine inspections and preventive maintenance for the Facilities. Inspection records shall be properly kept. At a minimum, the inspection and preventive maintenance schedules shall include but not limited to the following key items:

Equipment	Inspection & Preventive Maintenance	Frequency
Chillers	<ul style="list-style-type: none"> - Check for any abnormal noise, vibration, pressure drop and temperature - Check running current - Check oil level in compressors - Check for leakages 	Daily
	<ul style="list-style-type: none"> - Check compressor oil pressure and temperature - Check operation of temperature and current limiting module - Check the liquid of refrigerant level - Check operation of flow switch - Check oil system 	Monthly
	<ul style="list-style-type: none"> - Check for oil filter or drier as required - Check compressor oil pressure replace oil filter as required - Inspect wiring connection and check overheating 	Every 6 months
	<ul style="list-style-type: none"> - Check control panel, functional tests control and safety cut out - Clean condenser tubes and chiller tubes as required for the performance of chiller - Check and clean motor starter and contactors 	Yearly
Cooling Towers	<ul style="list-style-type: none"> - Check cooling water for clarity, odour, surface debris and temperature - Check strainers - Check float valves - Check water treatment dosing equipment and conductivity sensors - Check water treatment chemicals for adequacy and safety - Check fans, drives and gearbox - Check water level of basin - Check bleed-off valve - Check air inlets and fan screens 	Weekly
	<ul style="list-style-type: none"> - Check cooling water quality - Check internal surfaces of cooling towers/ evaporative condenser for scale, rust, sludge and biofilm accumulation - Check condition/cleanliness of fill pack/tubes - Check condition/cleanliness of drift eliminators - Check condition/cleanliness of distribution troughs/spray headers and nozzles - Check for system leakage and overflow from cooling towers - Clean strainers - Carry out water sampling 	Monthly
	<ul style="list-style-type: none"> - Adjust and lubricate pumps and pump motors - Adjust and lubricate fans and fan motors - Adjust and lubricate valves - Clean water distribution pipe work, including nozzles 	Every 3 months
	<ul style="list-style-type: none"> - Tighten all fasteners - Clean water basin and all internal surfaces of 	Every 6 months

Annex E - E&M Maintenance Schedule

Equipment	Inspection & Preventive Maintenance	Frequency
	cooling towers - Remove drift eliminators and fills for cleaning - Remove end cap in each header for cleaning	
Water Pumps	- Check running currents - Check for any leakages - Flush the discharge pipeline to prevent pipe blockage	Daily
	- Check for any serious reduction on pump performance, which may possible due to wear of stator and/or rotor - Check that the sheath is not damaged - Check that the cables are not kinked or nipped - Check that all parts are in good condition, and that bolts and nuts are securely tightened - Check that parts are not worn to such an extent that pump performance is affected - Check that the oil is clean and is not mixed with water - Check that equipment does not leak or is otherwise damaged	Every 6 months
	- Check all fasteners for tightness - Replace oil at pump cooling system	Yearly
Fresh/Flushing/ Reclaimed Water Tanks	- Close the inlet and outlet valves of the water tank - Empty the water tank through washout pipe - Thoroughly scrub and clean the water tank and the inlet/outlet pipes with fresh water - Drain dirty water through washout pipe - Scrub water tank thoroughly with a solution of chloride of lime or bleaching powder containing not less than 50 parts per million of chlorine solution - Rinse water tank thoroughly with fresh water - Drain water through the washout pipe. - Refill water tank with fresh / flushing water - Open the inlet and outlet valves and the water tank is ready for use - Carry out water sampling for Legionnaire's bacteria test and total bacteria count	Every 3 months
AHU/Fan/Fan coils	- Check for any abnormal noise and vibration - Check drainage condition, if blocked - Check and clean air filters	Monthly
	- Re-grease bearings and lubricate all moving parts - Check condition and tension of V-belts	Quarterly
	- Clean out dirt and dust from motor - Replace air filter if necessary - Check and clean cooling coils if necessary	Yearly
Ceiling Fans	- Check for any abnormal noise and vibration	Monthly
	- Re-grease bearings and lubricate all moving parts - Check condition and tension of V-belts	Quarterly
	- Clean out dirt and dust from motor	Yearly
Underfloor Air Diffusers	- Remove the diffuser cover for cleaning	Every month
Chemical Dosing Units	- Check timer and level sensor relay	Monthly
	- Check suction tube of each dosing pump and	

Annex E - E&M Maintenance Schedule

Equipment	Inspection & Preventive Maintenance	Frequency
	<ul style="list-style-type: none"> ensure no air bubble - Clean chemical tanks if contaminated (empty the tank, flush with plenty of water and then refill chemical) 	
FH/HR System	<ul style="list-style-type: none"> - Check to ensure all hydrant outlets and hose reel nozzles are intact and are not damaged or misused for other purpose 	Quarterly
	<ul style="list-style-type: none"> - As routine quarterly maintenance. - Check the operation of all fire hose reels and hydrant valves - Test the pressure and flow of the water supply on the hose reel and fire hydrant installation 	Yearly
Fire Alarm System	<ul style="list-style-type: none"> - Visual check AFA control panel for proper operation 	Quarterly
	<ul style="list-style-type: none"> - As routine quarterly maintenance - Random check 20 nos. of smoke or heat detector for corrected function 	Yearly
Sprinkler System	<ul style="list-style-type: none"> - Visual check sprinkler heads and replace painted or distorted sprinkler heads - Check sprinkler water alarm gongs for correct function. - Check all pressure gauges for proper system pressure - Check all sprinkler inlets to ensure that threads are in order and no leakage occurs, and repair as necessary 	Quarterly
	<ul style="list-style-type: none"> - As routine quarterly maintenance - Check sprinkler flow switch alarms for correct function - Test the pressure and flow of the water supply on the sprinkler installation 	Yearly
Portable Fire Extinguisher System	<ul style="list-style-type: none"> - Visual check for the condition of fire extinguisher and sand bucket and it is properly located. 	Quarterly
	<ul style="list-style-type: none"> - As routine quarterly maintenance - Random check the certification of fire extinguisher and refill as necessary. 	Yearly
Reclaimed Water System	<ul style="list-style-type: none"> - Check system operation - Carry out water sampling 	Monthly
	<ul style="list-style-type: none"> - Replace filter 	Bimonthly
	<ul style="list-style-type: none"> - Replace UV lamp - Clean the unit of UV Sterilizer - Clean quartz sleeve 	Yearly
	<ul style="list-style-type: none"> - Replace Quartz sleeve 	Every 3 years
Lighting System	<ul style="list-style-type: none"> - Inspect luminaries for correct operation; renew lamps, starter switches, on control gear, and check wiring terminations, if necessary - Self-test the luminaries with emergency conversion kit to ensure the battery back-up function correctly 	Monthly
	<ul style="list-style-type: none"> - Clean light-controlling surface (reflectors and diffusers/louvers) at intervals - Clean lamps/tubes 	Every 6-12 months as required
RCD	<ul style="list-style-type: none"> - Self-test the RCD to ensure the unit function correctly 	Every 3 months
MCBs	<ul style="list-style-type: none"> - Clean all external and internal dust and dirt from the equipment 	Yearly

Annex E - E&M Maintenance Schedule

Equipment	Inspection & Preventive Maintenance	Frequency
	<ul style="list-style-type: none"> - Inspect cable insulation and insulation within the distribution board for evidence of damage or overheating - Check fuse for fused connection units, renew where necessary - Check that the mechanism of all MCBs operates freely - Check all cable terminations and earth connections for tightness - Check that all conduit and cable gland terminations associated with the distribution board are tight - Check paintwork for corrosion. If present, clean and repaint as necessary 	
CCTV System	<ul style="list-style-type: none"> - Clean the viewing screen of monitor - Clean the lens of camera - Clean the front glass of weatherproof housing 	Monthly
PA System	<ul style="list-style-type: none"> - Clean the ceiling speaker surface with soft dry cotton cloth - Clean the cabinet, panel and control console with a soft cloth 	Every 6-12 months as required
Emergency Call Bell System	<ul style="list-style-type: none"> - Push the emergency call bell button and make sure that there is a buzzer and indication lamp function properly 	Every 6-12 months as required
Biodiesel Generator	<ul style="list-style-type: none"> - Check condition of air cleaners, fuel oil filter elements and lubricating oil filter elements - Check coolant water level, leaks - Check lubricating oil level and leaks and top up or change - Check fuel oil levels and leaks - Check fuel injectors (visual only) - Check fan belt condition and tension correct - Check starter battery condition, voltage and specific gravity of electrolyte - Check alternator brushes - Check condition of switchboard lamps, fuse, meter, contactors and other switches - Check output of battery charger - Check for loose electrical and mechanical connections and tighten - Check regulation of alternator voltage and frequency 	Monthly
Biodiesel Pump	<ul style="list-style-type: none"> - Check for any leakage - Check for any serious reduction on pump performance, which may possible due to wear of stator and / or rotor - Check that the sheath is not damaged. - Check that the cables are not kinked or nipped - Check that all parts are in good condition, and that bolts and nuts are securely tightened - Check that parts are not worn to such an extent that the pump performance is affected - Check that the oil is clean and is not mixed with water - Check that equipment does not leak or is otherwise damaged 	Every 6 months
	<ul style="list-style-type: none"> - Check all fasteners for tightness - Replace oil at pump cooling system 	Yearly

Annex E - E&M Maintenance Schedule

Equipment	Inspection & Preventive Maintenance	Frequency
BMS	<ul style="list-style-type: none"> - Software configuration setting check - Network point status summary operation - Check wiring connection 	Every 3 months
	<ul style="list-style-type: none"> - Check graphic formation - Check manual override function - Check individual critical points function properly 	Every 6-12 months as required
Lift	<ul style="list-style-type: none"> - Comply with the statutory requirement 	-
PV Panels	<ul style="list-style-type: none"> - Check the status of field devices via the Work Station computer - repair/replace the wear-out portion if necessary - Check and backup the system software parameter - Identify the frequency failure item via the workstation computer for corrective maintenance arrangement - Visual check the condition of control and power supply unit for the active equipment such as Inverter - Check the information display 	Yearly
Eco-tower (Light Pipes & Wind Catchers)	<ul style="list-style-type: none"> - Clean the solar collection dome (external surface) 	Monthly
Microclimate Stations	<ul style="list-style-type: none"> - Clean the surface of the measuring instruments 	Monthly
	<ul style="list-style-type: none"> - Calibrate measuring instruments 	Yearly

Annex F - List of Operation & Maintenance Manuals

Operation & Maintenance (O&M) Manuals include but are not limited to the following:

- O&M Manual for Lift Installation
- O&M Manual for Combined Cooling, Heating and Power System and Central Control Monitoring System
- O&M Manual for Roller Blind
- O&M Manual for Aluminium Cladding and Window Wall
- O&M Manual for Colt Solarfin Systems
- O&M Manual for Electrical Actuator
- O&M Manual for Fall Arrest System
- O&M Manual for Original User Manual
- O&M Manual for Electrical Installation
- O&M Manual for ELV Installation
- O&M Manual for PV System
- User Manual for EMS (included in O&M Manual for Electrical Installation)
- O&M Manual for Fire Services Installation
- O& M Manual for BMS System
- O& M Manual for MVAC System
- O& M Manual for Renewable Energy System
- O& M Manual for Irrigation System
- O&M Manual for Green Roof
- O&M Manual for Raised Floor

Annex G - Key Performance Indicators

Performance Measures	Performance Indicators	Target
(a) Statutory Compliance	Compliance with all relevant statutory regulations.	100% compliance
(b) Customer Satisfaction	Percentage of customers who are satisfied with the overall management, various facilities and service manner of the Facility in customers satisfaction surveys	<ul style="list-style-type: none"> – 80% in the first year – 90% in the second year
(c) Response to Complaints and Enquiries	Occasions in which the Contractor fails to respond within the specified time: <ul style="list-style-type: none"> – Verbal reply or written reply, as the case requires, within 3 or 7 days respectively from receiving the complaint or enquiry – Verbal report to CIC/ZCB immediately, followed by a written report within 3 hours for incidents that may attract media's attention, fatal cases, accident cases and cases that may involve claims 	Zero occurrence
(d) Complaints	Number of substantiated complaints pertaining to the scope of services of the Contractor	No more than 2 complaints in a year
(e) Repair and Maintenance Services	Number of cases of repair and maintenance not completed within specified timeframe	No more than 4 occurrences in a year
(f) Timeliness and Quality of Submissions	Number of cases of reports and documents not submitted within the agreed schedules and/or of the required quality	No more than 4 occasions in a year
(g) Response Time for Emergency Call-out Services	Timeframe for response upon the receipt of emergency call-out to Contractor	Follow up by communications (e.g. email/telephone) within 30 minutes and if the contractor's staff is to come on site, not more than 2 hours from the time of emergency call
(h) Staff Turnover	Number of staff changed	No more than 1 in a rolling 5-month period
(i) Certificates, Licences and Contracts	Obtain/Renew ZCB certificates, licences and maintenance service contracts (including tendering) in a timely manner (i.e. before expiry dates)	Zero occurrence