# 惠僑英文中學

# WAI KIU COLLEGE

九龍深水埗石硤尾偉智街十七號　　電話: 852-2777 6289　傳真: 852-27767727

17 Wai Chi Street, Shek Kip Mei, Sham Shui Po, Kowloon, Hong Kong.　Tel: 852-2777 6289　Fax: 852-27767727

電郵地址(E-mail): wkc@wkc.edu.hk　　網址(Website): http://www.wkc.edu.hk


Ref. No.: WKCTD15-16／02

（請勿在招標書封面上顯示該公司的身份）

## 招標書
## 承投「提供 Wifi 900 服務」

執事先生／小姐：

現誠邀 貴公司承投提供隨付的投標附表上所列的項目及／或服務。倘 貴公司不擬接納部分訂貨，請於投標附表上清楚註明。

1. 投標表格必須填具 **一式兩份** ，並放置信封內封密。信封面應清楚註明：
（承投 **「提供 Wifi 900 服務」** 項目）投標書
投標書應寄往 **九龍深水埗石硤尾偉智街 17 號惠僑英文中學校長收**
並須於 **二零一五** 年 **十二 月 四** 日中十二時前送達上述地址。逾期的投標，概不受理。 貴公司的投標書有效期爲 **30 天** ，由上述截標日期起計。如在該 **30 天** 內仍未接獲訂單，則是次投標可視作落選論。另外亦請註意， 貴公司必須填妥投標表格第 II 部，否則標書概不受理。

2. 倘 貴公司未能或不擬投標，亦請盡快把投標表格寄回上述地址，並列明不擬投標的原因。

3. 學校招標承投所需~~物品／~~服務時，會以*「整批」~~／「分組」／「分項」~~形式考慮接受供應商的投標。

如 貴機構對是投標建議書有任何疑問，請致電 27776289 與電腦科主任 **邱虹虹老師** 聯絡。

惠僑英文中學校長

鄭智賢 謹啓

（鄭智賢）

二零一五 年 十一 月 十三 日

*請刪去不適用者

承辦服務投標表格

# 承投 「提供 Wifi 900 服務」

學校名稱及地址：惠僑英文中學　九龍深水埗石硤尾偉智街17號
學校檔號（由校方填寫）：Ref. No.：WKCTD15-16／02
截標日期／時間（由校方填寫）：二零一五年十二月四日中午十二時

第 I 部分

下方簽署人願意按照 貴校招標書上訂明的日期及校方所提出的服務內容範圍及細則，提供投標附表上所列項目的服務。下方簽署人知悉，所有未經特別註明的項目，均須按照教育局建議提供服務，投標書上述截標日期起計 **30 天** 內仍屬有效；校方不一定採納索價最低的投標書或任何一份投標書，並有權在投標書有效期內，採納某份投標書的全部或部份內容。下方簽署人亦保證其機構的商業登記及僱員補償保險均屬有效，而其機構所供應的服務不會導致學校運作出現困難。

下方簽署人謹聲明付予受其僱用以執行合約的非技術工人的每月工資將不會低於法定最低工資。

下方簽署人謹聲明在截標日期前五年內沒有因違反下列任何條例而被定罪或連續三年被扣共三分或以上：

(a) 因違反以下任何條例而被定罪
  (i) 『僱用條例』（第 57 章）及『僱用補償條例』（第 282 章）。【任何違返『僱用條例』及『僱用補償條例』而最高罰款相等於『刑事訴訟程序條例』（第 221 章）附表 8 所述第 5 級或以上罰款定罪，即屬違反這兩條例的定罪記錄】；
  (ii) 『入境條例』（第 115 章）。【任何違反第 115 章第 17I(1)條（僱用不可合法受僱的人違例事項）的定罪，即屬違反『入境條例』的定罪記錄】；
  (iii) 第 221 章第 89 條及第 115 章第 41 條（協助和教唆另一人違反其逗留條件）；
  (iv) 第 115 章第 38A(4)條（建築地盤主管因任何不可合法受僱的人接受在建築地盤的僱傭工作而觸犯的違例事項）；以及
  (v) 『強制性公積金計劃條例』（第 485 章）【任何違反第 485 章第 7 條（僱主須安排僱員成爲計劃成員）、第 7A 條（僱主及有關僱員須向註冊計劃作出供款）及第 43E 條（作出虛假或具誤導性的陳述）的定罪，即屬違『強制性公積金計劃條例』的定罪記錄】。
(b) 在扣分制度下，連續三年因不履行以下合約責任而被扣共三分或以上：在工資、每天准予工作時數上限、與其僱用以執行合約的非技術工人簽訂標準僱傭合約，以及自動轉賬方式支付工資方面的合約責任。

第 II 部分

再行確定投標書有效期

有關本投標書的第 I 部分，現再確定本公司的投標書有效期由 二零一五年十二月四日 爲 30 天 。

下方簽署人亦同意，投標書的有效期一經再行確定，其公司就該事項註明於投標表格內的預印條文，即不再適用。

日期：_____年_____月_____日

姓名（請以正楷填寫）：_____

簽署人：_____ 職銜：_____

（請註名職位，例如董事、經理、秘書等）

上方簽署人已獲授權，代表：

_____機構簽署投標書，該機構在香港註冊的辦事處地址爲

_____

電話號碼：_____ 傳真號碼：_____

## PART I–WiFi REQUIREMENTS SPECIFICATION

### 1. Introduction

The Contractor is invited to

- Build up a WiFi network in **WAI KIU COLLEGE** (The School); and
- Provide and maintain a WiFi service through **subscription mode**.

### 2. Background

The School will **enhance/top up** the IT infrastructure so as to set up the necessary WiFi environment in the school premises (full WiFi coverage in ALL classrooms) for supporting e-learning in class. Regarding the enhancement of WiFi infrastructure, we would like to hire a contractor to design, build, operate and maintain the whole infrastructure; and to pay for the service by subscription thereafter, through a **subscription** model.

### 3. User Requirements

This section specifies the user requirements of the School of the WiFi network. The Contractor shall be capable of supporting the requirements set out below.

### 3.1 Standard Provision

- **WiFi Internet Connectivity**–coverage required:
  - use IEEE 802.11 a/b/g/n/ac network or above with **at least one AP per location**
    - Rm 102, Rm 104, Rm 105, Rm 106, Rm 107
    - Rm 201, Rm 202, Rm 203, Rm 204, Rm 205, Rm 206, Rm 207, IT Room (資訊科技室)
    - Rm 301, Rm 302, Rm 303, MMLC(多媒體教室)
    - Rm 401, Rm 402, Rm 403
- **Number of Concurrent Connection**– with at least 1 Mbps upload / download bandwidth per connection for browsing web pages.
  - Classrooms, IT Room, MMLC – at least 43 concurrent connections at each location.
- **Wifi Controller** – Support 23 AP. Support portal page and Active Directory/RADIUS/LDAP integration.
- **Authentication Method-**
  - Use Hong Kong Education City accounts for authentication to save the effort for device registration.
  - User account system being used by school
  - MAC Address Authentication
  - RADIUS Authentication

- **Session Control** –allow multiple devices per user account to be authenticated using Hong Kong Education City.
- **Internet Content Filtering Service**– based on filtering profile commonly adopted by most schools and specific requests made by the School on content filtering.
- **Existing NetworkFacilities** – not rely on any existing network facilities and cabling of the School, nor interfere with the existing WiFi network of the School.
- **Existing Broadband Network** –use the existing broadband link for the WiFi service.
- **Managed Service**– operate the WiFi network using managed service model, provide end-to-end service including provision, monitoring and maintenance service.
- **Service Level Agreement**–ensure at least 99.7% availability of the WiFi service,support four-hour response time and four-hour service recovery with active monitoring, helpdesk support with support hours from Mon to Sun 00:00 am to 11:59 pm, and provide monthly monitoring reports for the School.
- **WLAN system access control** –mac address filtering.
- **MAC Address Monitoring** –The lists of filtering and filtered mac addresses are to be monitored by **the Contractor and the School**.
- **Integration of networks** – system integration with existing network of the school.
- **Monitoring of WiFi network**– Managed services model with partial monitoring by the School including but not limited to AP atatus and usage, client status, activity log and alarms.

### 3.2 Add-on Service (to be aligned with Part II)

- **WiFi coverage**– a. to include Staff Room and Office. Staff room with round 50 staffs and Office with around 11 staffs.
  b. to include Physic Lab and Chem Lab, with at least 43 concurrent connections at each location, and with with at least 1 Mbps upload / download bandwidth per connection for browsing web pages.
- **Broadband Service**– provide at least **300 Mbps** Internet connection at school, and allowing upgrade to 1Gbps.
- **Redundancy**–increase the availability of the WiFi service

### 3.3. Deliverables

3.3.1 The Contractor is required to provide the following deliverables for the WiFi network design:

- Master Activity Plan
- Network Configuration Report and Network Diagram
- Network Test Plan and Network Test Result Report
- Operation Manual for End User
- User Acceptance Test Plan

3.3.2 The Contractor is required to provide the monthly monitoring report with the following items:

- Network Health Report
- Network Usage Report
- Reporting of security incidents
- Reporting on trend and statistics of incident and their analysis
- Reporting of the failure rate for all equipment with detailed fault analysis
- Problem log and incident log for critical failure of the network
- Statistical report on the type and no. of calls
- Summary of the outstanding enquiry for the month-to-date

## 4. Technical Specification (Standard Provision)

### 4.1 WiFi Network

4.1.1 The Wireless LAN (WLAN) System of the WiFi network shall support simultaneous dual-operation-mode that is FAT Access Point (AP) and Thin Access Point are both supported together withWLAN Controller. WLAN Controller shall capable of fully centralized provisioning, configuration and monitoring all Aps functionalities; a backup of the WLAN Controller shall be available.

4.1.2 The thin client WLAN Access Point (AP) shall be a high performance wireless network access device, which shall be connected with the Power over Ethernet (PoE) Access Switches via Structured Cabling System. Appropriate type of connection cables between WLAN APs and the antennashall be provided.

4.1.3 The WLAN APs shall be compatible with IEEE 802.11a/b/g/n/ac standardor above, support dual band of 2.4GHz and 5GHz. For 2.4Ghz the data rates of performance is up to 150Mbps. For 5Ghz the data rates of performance is up to 300Mbps.

4.1.4 The Contractor shall design the WLAN System to provide the coverage for the required wireless coverage place. The received signal strength measurement from the WiFi Service at the WiFi client device (such as tablet PC or notebook computer) is no worse than -68 dBm. The Contractor shall provide certificate or test report to illustrate that the WiFi client device for testing satisfies the power emission requirement.

4.1.5 The WLAN AP shall support DHCP, PoE, WPA2, IEEE 802.1x and certificate authentication.

4.1.6 The WLAN System shall support automatic channel selection, protocol filtering, multicast/broadcast storm filtering and load balancing.

4.1.7 The WLAN system shall allow multiple devices per user account to be authenticated using Hong Kong Education City accounts, or equivalent.

4.1.8Each WLAN AP shall be able to support at least concurrent 43 users connecting to the network simultaneously. In no circumstance shall the speed of data transmission symmetrically fall below the data rate requirement at any place or any corner or any highly congested area within the areas being covered. In case the transmission speed is below the said data rates, the Contractor shall be responsible for all remedial measures to rectify or configure fine-tuning of antenna or even increase the quantity of the WLAN AP at Contractor's own costs in order to meet the data rate requirement as mentioned in the Specification. A complete set of catalogues with brand and model shall be submitted and highlighted for reference. The catalogues shall show all the features and technical specifications of the products and systems.

4.1.9 The system shall provide bandwidth control per user basis.

4.1.10The WLAN shall allow different authentications by using Service Set Identifiers (SSIDs).

4.1.11 The SSIDs shall be able to be set hidden from searching by WiFi devices. The devices have to manually set SSID to make connection.

4.1.12Individual APs shall be allowed to be assigned by more than one SSIDs.

4.1.13Using Windows DHCP server with configuration services and it shall support at least 30 queries/sec.

4.1.14 The Contractor shall provide a Captive Portal so that a landing page shall display on the user's browser when the user starts a browser session with the WiFi Service on the WiFi client device.

4.1.15The landing page shall only be prompted once for the same session of the user so that the user will not have to go through the landing page when a new browser session is initiated from the same WiFi client device.

4.1.16The WLAN system shall suspend the session of the user once the session control is expired and the suspension time shall be configured by the school.

4.1.17The Contractor shall in provision of the service comply with non-interference requirements of and shall not cause interference prohibited under the Telecommunication Ordinance (Cap 106) or any other laws or regulation of Hong Kong.

4.1.18The WLAN System shall provide termination of idle sessions and control of the duration features.

4.1.19 The WLAN System shall provide Wireless Client roaming when users moving from the WiFi signal coverage area of one Access Point to another Access Point within the School.

4.1.20The coverage of the designated area of the School shall be fully covered.

4.1.21The Contractor shall allow costs in their quotations to provide sufficient quantity and its cabling work required, including but not limited to supply and install the Fibre optics, Cat 6 cable, Conduit, cable patch panel, cable faceplate, Cable patch cord. The Contractor shall agree all cabling works constructed by the Conractor shall be parts the property of the School. The Contractor shall not remove or damage the cabling without written permission of the School.

4.1.22The Contractor shall provide complete set of WLAN Systems which consist of Wireless Access Point, Connection Cable, Authentication System, Wireless LAN Controller, PoE Switch, and horizontal UTP Cat 6 cable/OM3 Fiber, patch cable UTP Cat 6 cable / OM3 Fiber Optics, any required license and all associated accessories. All cable shall have warranty certificate (i.e. 25 years warranty) from the orginal factory. The Contractor shall also use UTP cable as backbone with aggregation of two to four UTP cables.

4.1.23The WLAN System shall be certified by OFCA and copy of certificates issued by OFCA shall be attached to the proposals.

4.1.24 The Contractor shall ensure that there is no interference between WLAN Access Points due to limited non-overlapping channels assignment when the WLAN AP is installed. The Contractor shall be responsible at his own costs for providing solution to eliminate the interferences including but not limited to reassignment of the non-overlapping channels, adding extra APs with lower transmission power and/or replacement of the WLAN AP.

4.1.25 The WLAN System shall support Web GUI management.

4.1.26 The WLAN System shall allow users to input MAC address list for filtering through management tools or web portal provided by the vendor.

4.1.27 The School shall has administrative right to configure all network equipment in the WiFi system including but not limited to WLAN Controller, APs, and Switches.

4.1.28 The WLAN Controller shall support time control for accessing WiFi service.

4.1.26 FTP service shall not be allowed in the WiFi network (to avoid exchanging credential and files in plain text without any encryption).

4.1.27The WLAN System shall support IPV6 addressing method.

**4.2 Core Switch**

4.2.1 The Core Switch would be responsible for connecting all PoE access switches in typical floors for WLAN AP. AP shall not be connected to the core switch directly.

4.2.2 The Core Switch shall be capable of providing the required bandwidth, QoS, and policy-based routing to carry all sorts of information including video, voice, data, image, etc.

4.2.3 Each Core Switch shall provide a Gigabit Ethernet connection to each PoE Access Switch in typical floors.

4.2.4 The Core Switch shall support Layer 2 and Layer 3 switching and capable of providing the wired speed performance.

4.2.5 The Core Switch shall support basic IP unicast routing protocols, Static route, Routing Information Protocol (RIPv1, RIPv2), inter VLAN routing.

4.2.6 The Core Switch shall support Internet Group Management Protocol (IGMP) snooping and multicast and unicast storm control, Spanning-Tree Protocol. The Core Switch shall provide at least 24 ports 10/100/1000BASE-T(RJ45), 4 combo ports 1000BASE-X(SFP,LC), AC power supply.

4.2.7 The Core Switch shall support WebGUI Management, Access Control Lists (ACLs), DHCP Interface and SNMP.

4.2.8 The Core Switch shall support VLANs including support for IEEE 802.1Q and IEEE 802.1p.

4.2.9 The Contractor shall be responsible for creating VLAN and routing policy as well as fine tuning the new Core Switch for the existing network of the School and the new WiFi network.

## 4.3 PoE Access Switch

4.3.1 The Access Switches shall be deployed to provide high performance interconnectivity between the Core Switches and the WLAN APs on typical floor.

4.3.2 The Access Switch shall consist of 8/12/24/48 x 10/100/1000Base-T Ethernet ports, with minimum of 1 x 1000Base-T / 1000Base-SX SFP Gigabit Ethernet uplink ports connected with the Core Switch.

4.3.3The Access Switch shall be used for connecting the WLAN APs.The Contractor shall determine the Maximum power loading of the devices to be connected with the PoE Access Switches. The Contractor shall provide additional PoE Access Switch(es) if the total power loading summed up from the PoE devices exceeds the maximum power loading capacity of the PoE Access Switch.

4.3.4The Access Switches shall support VLANconfiguration.

4.3.5The Access Switches shall be at wired speed.

4.3.6The Access Switches shall be provided sufficient port density to meet all the required links.

4.3.7The Access Switches shall support PoE and shall conform to IEEE 802.af / IEEE 802.3af standard, which delivers power over single copper UTP cable for WLAN AP.

4.3.8The Access Switches shall support Internet Group Management Protocol (IGMP) snooping and multicast and unicast storm control, IEEE 802.1D Spanning-Tree Protocol.

4.3.9The Access Switches shall support Virtual local area network (VLANs) including support for IEEE 802.1Q and IEEE 802.1p.

4.3.10The Access Switches shall support WebGUI Management, Access Control Lists (ACLs), DHCP Relay and SNMP.

## 4.4 Firewall

4.4.1 The performance of the Firewall shall not be degraded with 100% Internet bandwidth utilization.

4.4.2 Network Address Translation (NAT) is required.

4.4.3 Access control Policy is required.

4.4.4 The configuration settings of the appliance shall be allowed to export to files for backup and restore for rapid recovery and shall control all incoming and outgoing Internet traffic, serving as the sole entry and exit point between the Internet and the WLANs in all locations.

4.4.5 The configuration settings of the appliance shall support blocking specific network ports, including ports of Transmission Control Protocol (TCP) and User Datagram Protocol (UDP). Blocking denial of service (DoS) attacks and malformed packet attacksshall also be configured.

4.4.6 The firewall policy should be applied to control network traffic such that public users should be prohibited to access the internal network segments of the School.

4.4.7 The Contractor shall be responsible for replacing the existing Firewall for the existing network and the new wi-fi netowrk of the School if the firewall malfunctions.

**4.5Service Requirements**

4.5.1 The Contractor shall be responsible for the total project management and shall assign a person to act as the single contact point to the School regarding all related activities of the contract.

4.5.2 The project manager of this project shall be permanent staff of the contractor for at least 6 months. The contractor shall prove that the project manager is the permanent staff by providing supporting documents during tender submission.

4.5.3 The project manager shall attend the project meeting before completion of the project.

4.5.4The Contractor shall provide rack/cabinet or use existing school rack if there is available rack space. All switches/firewall shall be properly installed into wall mounted cabinet or rack.

4.5.5 Cables shall be labelled with connected port and its device id.

4.5.6 All the equipment shall be labelled with an identifiable id.

4.5.7The placement of cables, cabinets, racks and appliances shall be shown on the network diagram.

4.5.8 Switches and/or other appliances shall be properly installed into cabinet/rack with appropriate ventilation.

4.5.9 Cable length shall not be excessive nor too short in which preventing door opening or closing.

4.5.10 13A power cord(s)shall be bundled with appliance(s).

4.5.11 Cable shall be properly set up onto appropriate cable management guide.

**4.6Service Level Requirements**

4.6.1 The Contractor shall provide incident/problem report to the School by the 5th working days after each incident and the resolution taken.

4.6.2 The Contractor shall derive mechanism, including forms and reference tables for measuring and recording the Service Level Measures, to ease the administration and monitoring by the School.

4.6.3 Advanced notice by at least 2 weeksshall be given to the School prior to all scheduled maintenance. At most 4 scheduled maintenances per year are excluded from the calculation of Service Levels. No more than 1 hour service interruption or an agreed time slot is accepted for each scheduled maintenance.

4.6.4 Service Level, expressed in percentage, is the ratio of actual available time to the scheduled available time for the WiFi network of the School and is calculated according to the following formula:

Service Availability Level = (Schedule Uptime within the month– Unscheduled Downtime within the month) / Scheduled Uptime within the month, where

Scheduled Uptime: The duration, in unit of minutes, for the WiFi network of the School is scheduled to be available for the month. The duration will exclude the scheduled downtime, which is defined as duration agreed between the School and the Contractor during which the service may be made purposefully unavailable to users.

Unscheduled Downtime: The amount of time, in unit of minutes, for unscheduled maintenance of hardware or software of the Contractor that are unavailable due to their malfunctioning excluding the causes by failure of hardware supplied by the School or the environmental causes not under the Contractor's control.

## 4.7Service Level Rebates

4.7.1 The Service Rebates to the School operate as liquidated damages for the performance fallen short of the target service levels over a period of one month. The service measures stipulated in 4.7 will be used to determine the Service Rebates in Service Availability (S1) and Service Resumption Time (S2).

4.7.2 The application of the Service Level Rebates adjustment to the monthly charge will commence with effective from the acceptance of the reliability test.

4.7.3 For each month, the Service Rebates for different service measures (S1, S2) will be calculated as below if the Contractor cannot meet the target Service Levels for the WiFi network of the School:

Failure Hour x [(Yearly Subscription Fee ) /(365 x 24)] x 2, where

Failure Hour: The unscheduled downtime or the time to resume the network due to the failure of hardware or software which is provided by the Contractor. Failure Hour is calculated in the increment of 0.5 Hour.

4.7.4 The Service Rebates of the WiFi network of the School, if any, will be paid by crediting the invoice of the following month.

## 4.8Helpdesk Service

4.8.1 The Helpdesk Service shall maintain dedicated hotline, including phone, email and fax, for enquiriesand complaints.

4.8.2 The Helpdesk Service shall answer enquiries and complaints originated from the School concerning theService.

4.8.3 The Helpdesk Service shall operate from Mon to Sun 00:00 am to 11:59 pm.

4.8.4 The Helpdesk Service shall maintain call logs on enquiries and complaints. The information shall be included but not be limited to date, time, description of issues, contact information, and follow-up actions. The Contractor shall observe and comply with Personal Data (Privacy) Ordinance in handling all information relating to these enquiries and complaints.

4.8.5 The Contractor shall provide the following information concerning the Helpdesk service related to the implementation of the Service:

- Detailed information of the helpdesk office, such as address, phone number, fax

number; and

- Facilities, computer systems and equipment provided in the helpdesk office, such as private branch exchange (PBX), keyline telephone system (KTS), interactive voice response system (IVRS) and voice recording system.

4.8.6 The Contractor shall provide helpdesk staff with the necessary tools, including but not limited to hardware and software, related training for supporting the Service.

4.8.7 The Contractor shall not make use of the Helpdesk Service to transmit anymessage or conduct any activity which is not connected with the provision of theService. The School shall have the full discretion to determine whether anysuch message or activity is in breach of this provision. The Contractor shallforthwith stop transmitting such message or conducting such activity and refrainfrom doing it further once the School has notified the Contractor in writingor verbally of its determination.

**4.9 User Acceptance Test**

4.9.1 The Contractor shall assist the School in User Acceptance Test for acceptance of the Service, including but not limited to the WiFi Service (the networking facilities and the WLAN) and related services.

4.9.2 The contractor will be required to perform test making reference to theUser Acceptance Testand System Test documents atwww.edb.gov.hk/ited/wifi900. They include the types of testing to be performed, the requirements to be tested, the testing environment, testing tools and pass/fail criteria as reference to the Contractor.

4.9.3The Contractor shall upon request by the School arrange briefings to the School and/or Responsible Parties of the School, with briefing materials, prior to the User Acceptance Test when required.

4.9.4The Contractor shall provide detailed acceptance test plan and a step by step testing procedure with expected results against the requirements set out in this specification.

4.9.5The Contractor shall provide, configure and set up the proper software and hardware for the School to carry out the User Acceptance Test.

4.9.6The Contractor shall be required to carry out tests to demonstrate that the equipment and system meet the specification and other contractual requirements. The Contractor shall also be responsible for the timely preparation and compilation of all test schedules, test procedures and test reports.

4.9.7The Contractor shall follow the agreed standards as laid down in this specification for the testing methods and procedures.

4.9.8The Contractor shall submit a schedule of site performance and commissioning tests at least 3 working days prior to the commencement of the scheduled commissioning date.

4.9.9Special tools, test equipment, test objects and simulators required for the demonstration of either bench or commissioning tests shall be made available by the Contractor at no extra charge to the School.

4.9.10All test equipment used by the Contractor shall be properly and periodically calibrated. Measuring standards used in calibration shall be traceable to international or national measurement standards, or to an industry recognized manufacturer's reference, subject to approval of the School.

4.9.11Calibration procedures and results shall be documented and signed by certifying body where applicable. The Contractor may be requested to show evidence of calibration of test equipment by submission of copies of these calibration records prior to conduction of any tests.

4.9.12The Contractor shall submit the User Acceptance Test report within 3 working days. The acceptance of the installation will only be granted after receiving a satisfactorily UAT report from the Contractor.

4.9.13All equipment to be installed may be subject to inspection and bench testing. The Contractor shall meet the cost of deliveries for bench test. Notwithstanding, the Contractor shall have carried out the tests in accordance with the requirements and procedures stipulated in this specification and submitted the associated test reports for inspection.

## 4.10Termination of Service

4.10.1 The School reserves the right to terminate all or part of the Service at any time if:

- The Contractor fails to meet the target service levels under Service Level Requirements for two consecutive months, or three months in total within the committed subscription period;
- The School suspects that unauthorized activity has occurred or is occurring in relation to the Service;
- The provision of the Service will cause the School to be in breach of any applicable law;
- The School reserves the right to terminate the contract at any time by giving written notice 10 working days in advance after the committed subscription period of service.

## 5. Technical Specification (Add-on Requirement)

### 5.1 Broadband Service

5.1.1 provide at least 300Mbps Internet connection at school and allow upgrade to 1Gbps
5.1.2 free fibre installation and service provisioning
5.1.3 free router on-loan

### 5.2 Redundancy

5.2.1 redundant WLAN controller with automatic failover from the primary WLAN controller to secondary WLAN controller.

## 6. Schedule of Work

6.1 The Contractor shall provide the service according to the following schedule.

| Phase | Items | Starting Date | Ending Date | Service fee |
|---|---|---|---|---|
| I | Buildup of WiFi network | On or before 16 Dec 2015 | 1 Jan 2016 | 0 |
| II | Subscription of service | 1 Jan 2016 | 31 Dec 2018 | Quoted price |
| | | | 31 Dec 2020 | Quoted price |

## 7. Terms of Payment

7.1 The subscription will be paid in arrears of each month during the subscription period.

## 8. Price Proposal

8.1 The Service Provider is required to provide a breakdown on the service charges for each of the service items as set out in the Price Proposal at **PART II - PRICE SCHEDULE**. Failure in complying with this requirement will render the quotation disqualified.

8.2 Please note that due to resources constraint or other operational considerations of the School, the School has the absolute discretion to accept the whole of the Services or just part of the Services as listed out by items in the Price Proposal.

8.3 Set up cost will not be considered as a part of the cost in subscription mode.

## 9. Invitation for Quotations

9.1 Quotations are invited for the execution of the whole of the Services as described in this document. Quotations for part but not all of the Services will not be considered.

9.2 Please provide two sets of quotation documents for processing of the quotation.

## 10.Tender Preparation and Submission

10.1 The Service Provider isrequired tosubmitthe followinginformation and document.

- AStatement of Compliance to provide response that the quotation complies with all requirements stated in this Specification.
- Price Schedule
- No upfront cost or one off cost schools shall be paid throughout the entire subscription period.
- Proposed AP location mark on the Floor plan.
- Proposed Network infrastructure show on the Network Diagram.
- Implementation Plan.
- WLAN system certificates issued by OFCA.
- Product information including technical and descriptive literature and catalogues. Information provided by the manufacturer shall be able to substantiate that the products offered meet the mandatory Technical Specification.

## 11. Enquiry

For enquiry, please contact **Miss Yau Hung Hung** of the School at **hhyau@outlook.com** or by phone at **27776289**

## PART II - PRICE SCHEDULE

### 1. Price details for Standard Provision

| Standard Provision | 3 years | | 5 years | | School's choice on confirmation |
|---|---|---|---|---|---|
| | Monthly price | Annual price | Monthly price | Annual price | |
| WiFi Service Subscription(Requirement as stated in Part I) | | | | | |
| Total in HK$ | | | | | |

### 2. Price details for Add-on Services (Offer will be considered on itemized basis)

| Add-on Service | | 3 years | | 5 years | | School's choice on confirmation |
|---|---|---|---|---|---|---|
| Item | Description | Additional monthly price | Additional annual price | Additional monthly price | Additional annual price | |
| WiFi coverage for other areas | ● Staff Room with around 50 staffs<br>● Office with around 11 staffs | | | | | |
| | ● Chem lab and Phy lab | | | | | |
| Broadband service | 300Mbps Internet Connection (Requirement as stated in Part I 5.1) | | | | | |

| Add-on Service | | 3 years | | 5 years | | School's choice on confirmation |
|---|---|---|---|---|---|---|
| **Item** | **Description** | **Additional monthly price** | **Additional annual price** | **Additional monthly price** | **Additional annual price** | |
| Redundancy | Redundant WLAN controller with automatic failover from the primary WLAN controller to secondary WLAN controller | | | | | |

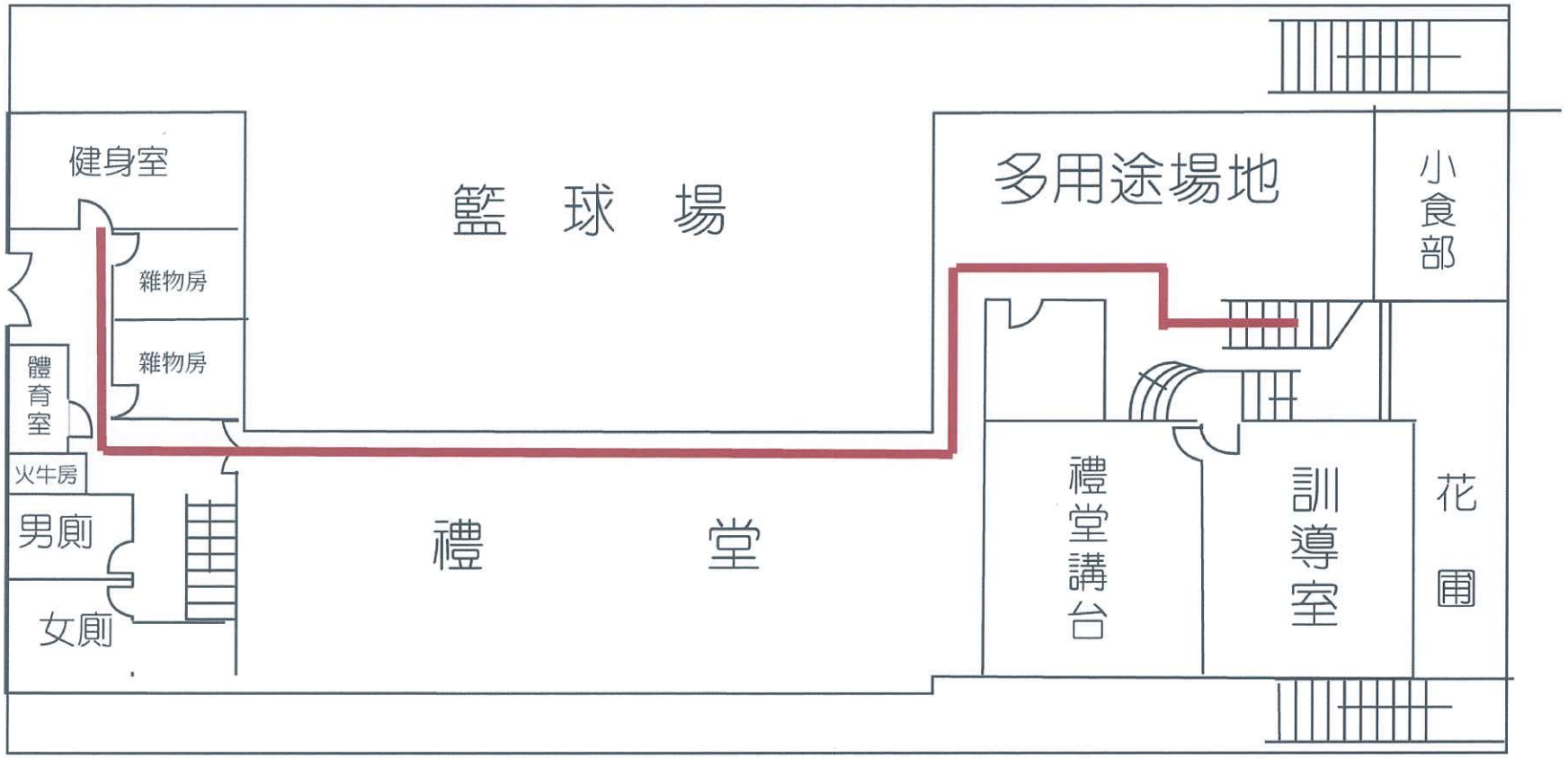
## 3. Details of equipment to be proposed in the Buildup of WiFi network in the School

| Items | Quantity | Model |
|---|---|---|
| WiFi Controllers | | |
| Access Points | | |
| Router/Firewall | | |
| Core Switch | | |
| Access PoE Switches | | |
| LAN Cables | | |
| Others (please specify) | | |

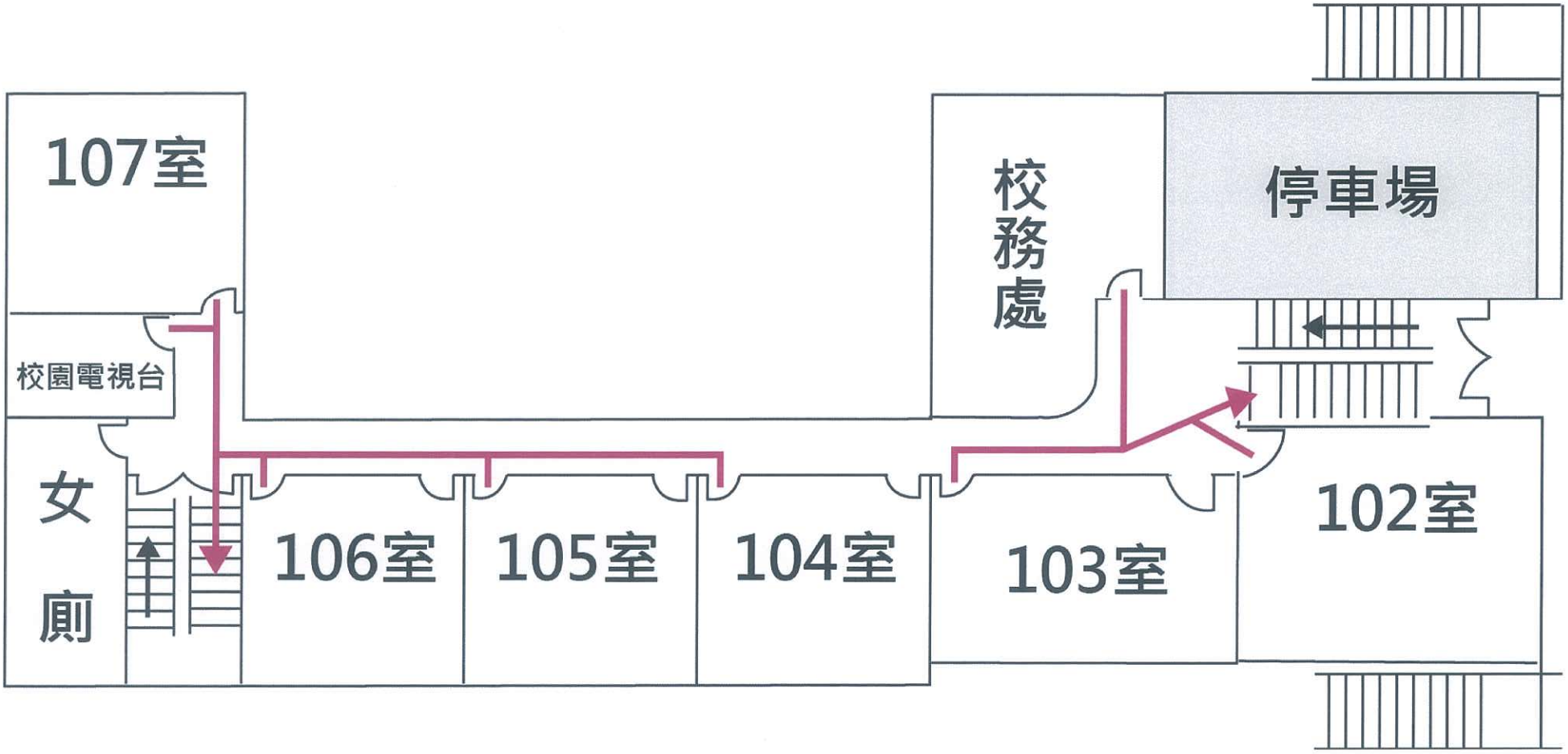
## 4. A floor plan (provided by the School) is attached.

Annex: Floor Plan of the School

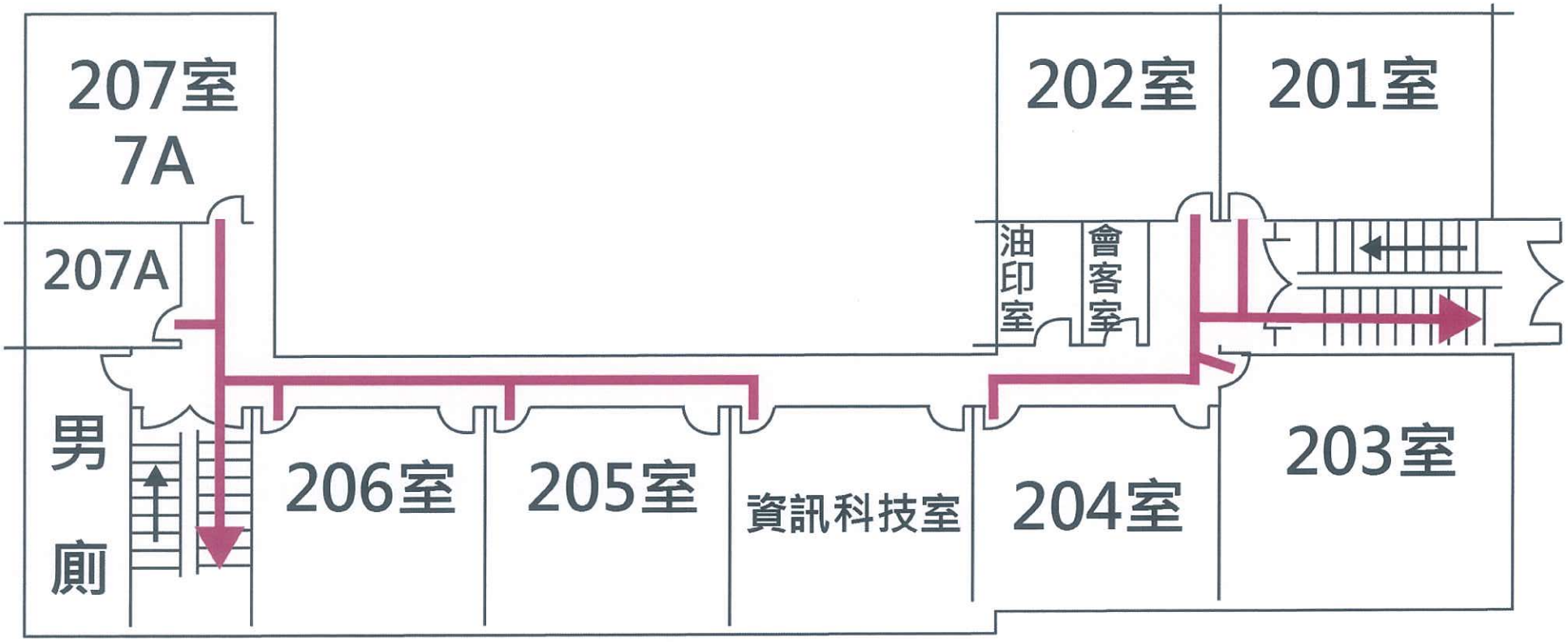
# 地下緊急疏散路線圖



# 一樓平面圖



# 二樓平面圖



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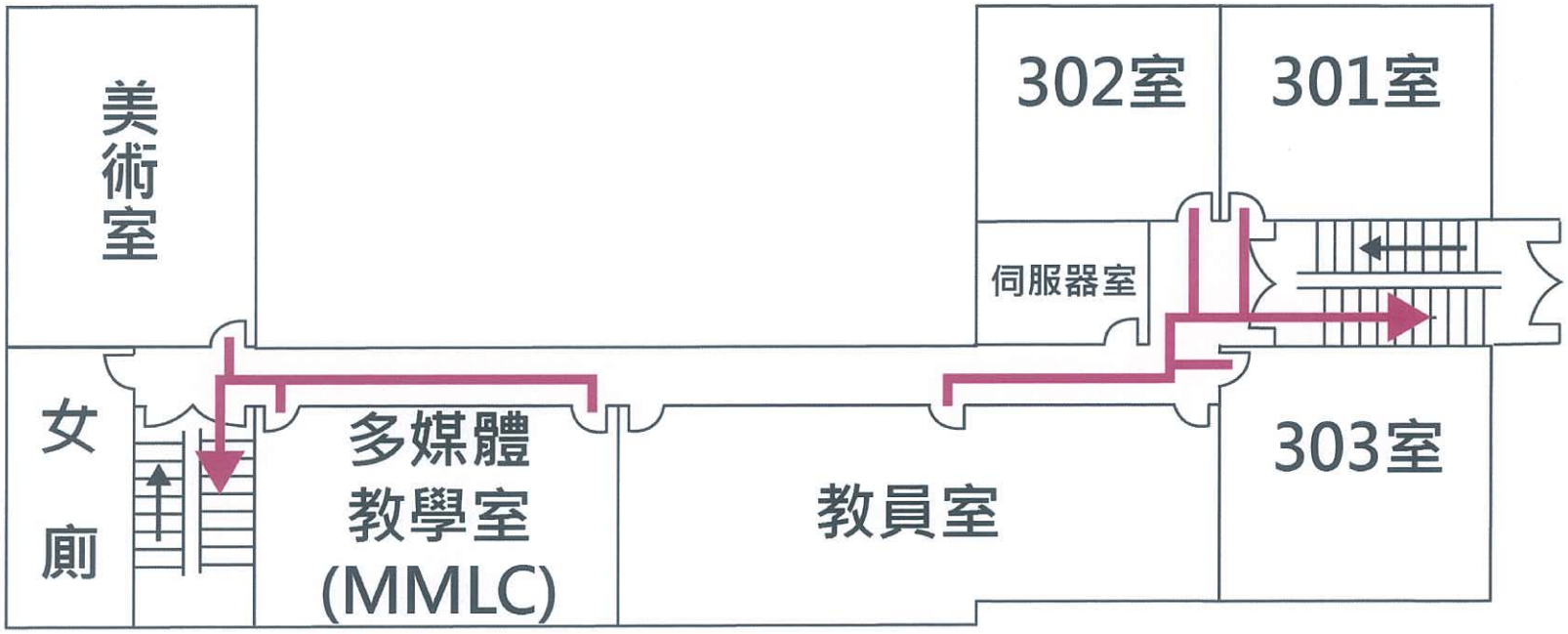
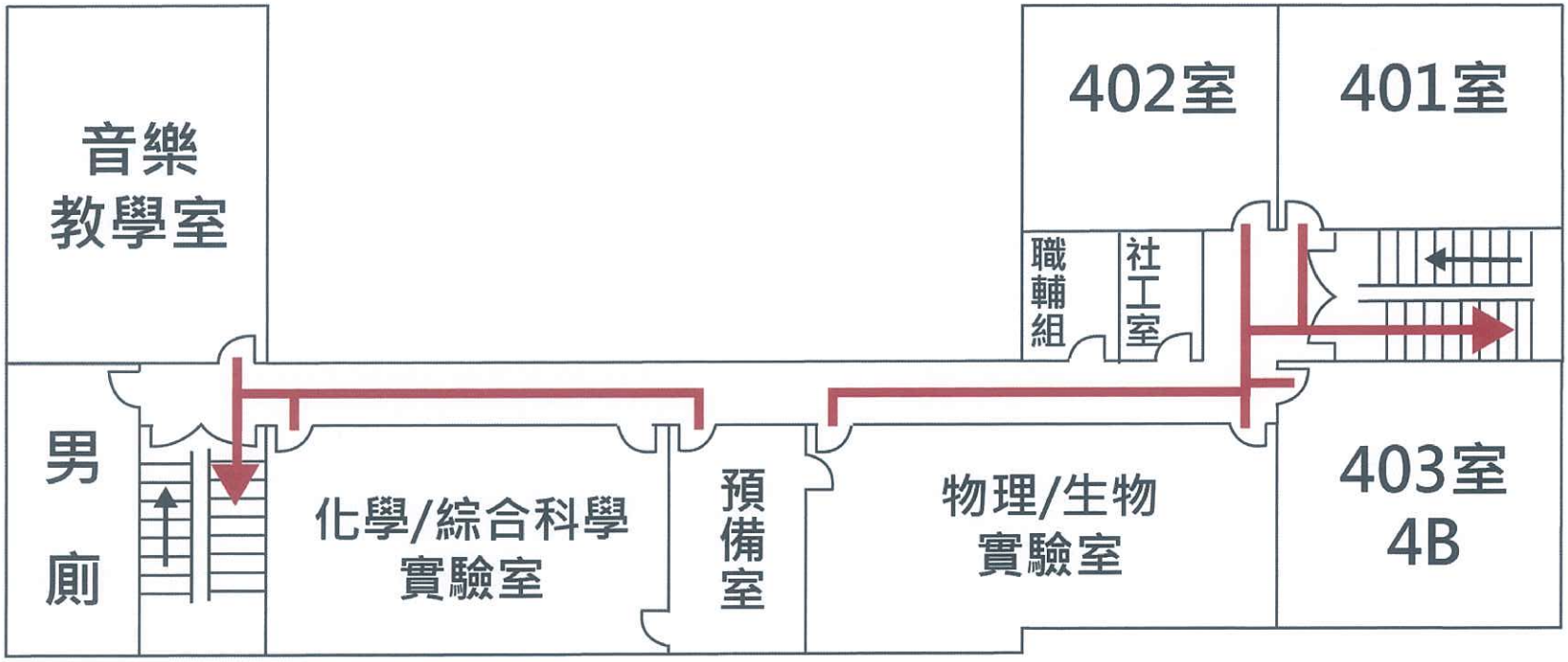
# 四樓緊急疏散路線圖