



Carpenter Road

Nga Tsin Long Road

Nam Kok Road

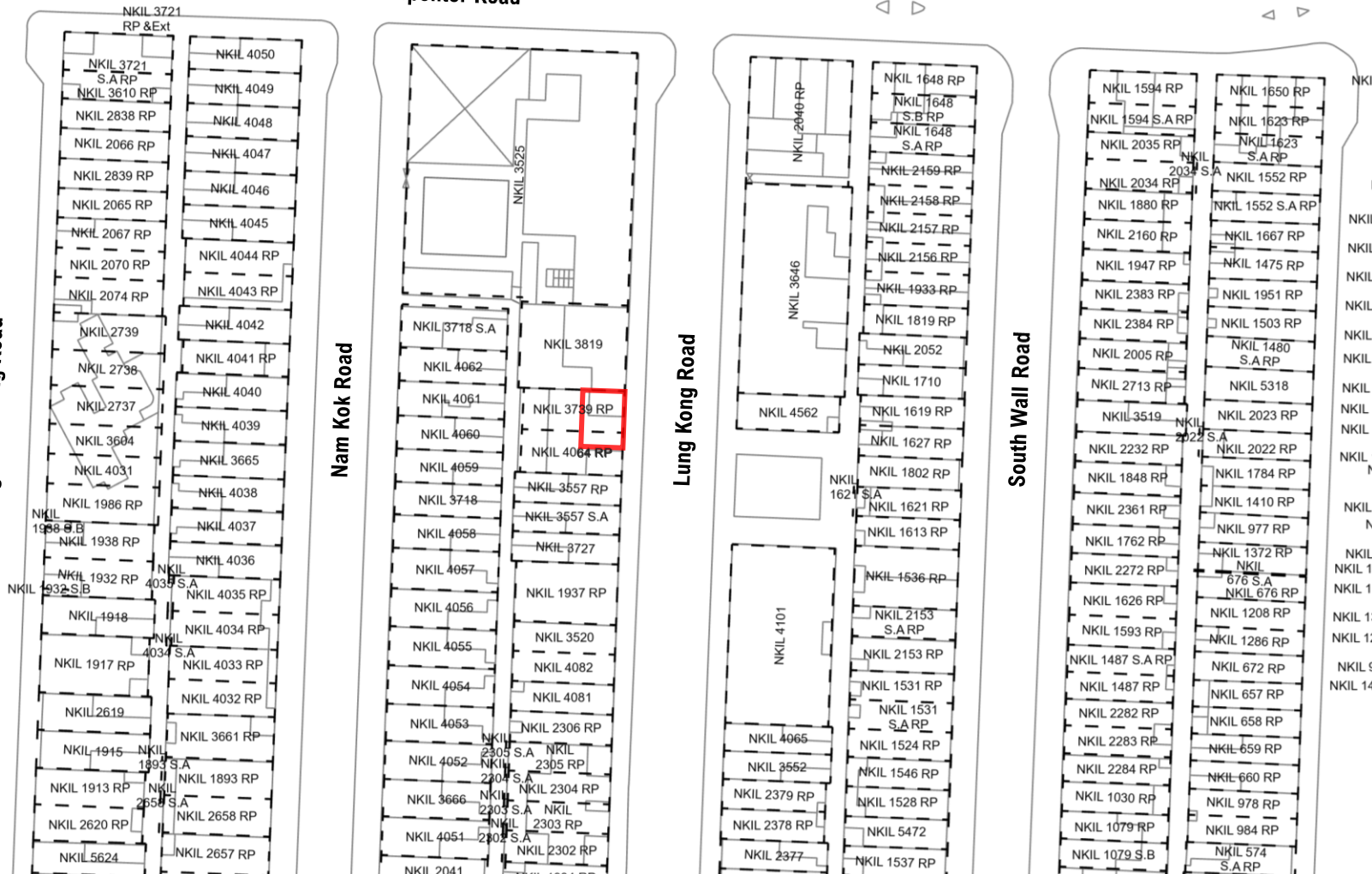
Lung Kong Road

South Wall Road

LEGEND

 Application Site

 Lots



Proposed Public Utility Installation (Transformer Room)

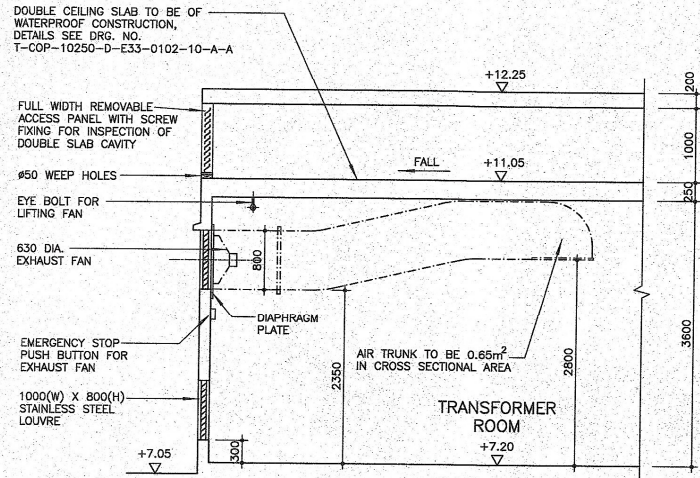
Location Plan

Not to scale

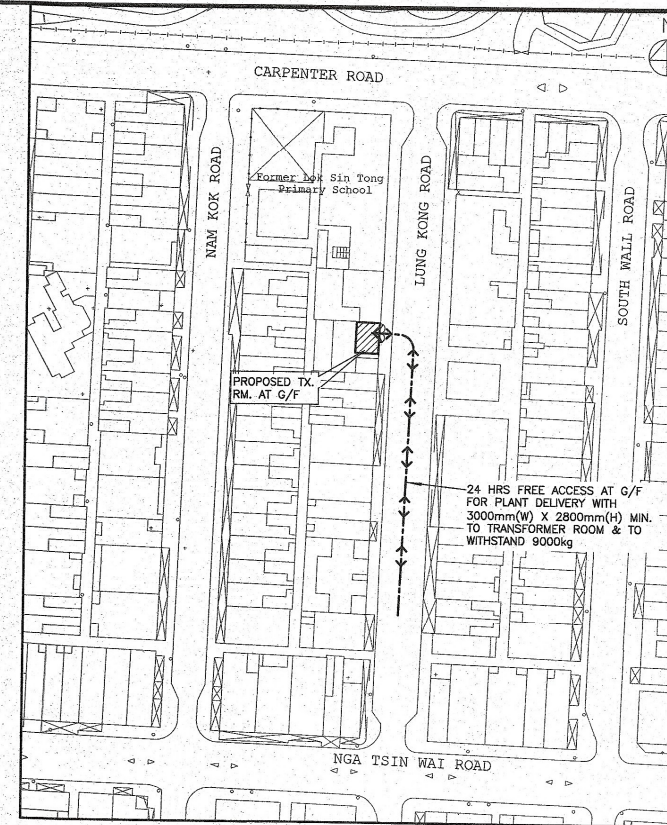
September 2024

NOTES:

- IF THERE IS A RAMP AT THE PLANT DELIVERY ROUTE, STRUCTURAL STEEL HAULAGE LUG(S) SHOULD BE PROVIDED AND MAINTAINED BY CUSTOMER FOR PLANT DELIVERY INSIDE TRANSFORMER ROOM. EYE BOLT(S) SHOULD BE PROVIDED. THE ACTUAL NUMBER(S) AND LOCATION(S) OF THE HAULAGE LUG(S) AND EYE BOLT(S) SHOULD BE COORDINATED AT SITE WITH CLP'S ENGINEER.
- NO MODIFICATION OF ACB LOCATION(S) WILL BE ACCEPTABLE WITHOUT CLP PRIOR AGREEMENT.



SECTION ALONG 630 DIA. EXHAUST FAN



BLOCK PLAN SCALE 1:1000



- GENERAL NOTES**
- THE SUBSTATION MINIMUM CLEAR HEADROOM SHOULD BE 3.3m. SUBJECT TO THE FOLLOWING CONDITIONS, THE HEADROOM SHOULD BE:
 - 3.6m FOR GROUND SUBSTATION WITH 800mm SQUARE OPENING WITH LOUVER FOR 630mm DIAMETER EXHAUST FAN
 - 3.8m FOR GROUND SUBSTATION WITH 1000mm SQUARE OPENING WITH LOUVER FOR 800mm DIAMETER EXHAUST FAN
 - MINIMUM LEVEL OF TRENCH AT INLET TO BE 100mm MINIMUM BELOW PAVEMENT LEVEL FOR LV CABLES AND 100mm BELOW PAVEMENT LEVEL FOR HV CABLES. ALL CABLE TRENCHES TO BE COVERED WITH 5mm THICK CHEQUER PLATE & JUNCTIONS WHERE SHOWN CHAMFERED TO BE 150mm x 150mm. THE CABLE TRENCH OUTLET MUST BE FREE FROM OBSTRUCTION.
 - IF IT IS A SUSPENDED SLAB, THE MINIMUM THICKNESS OF REINFORCED CONCRETE WITH MIN. STRENGTH OF 30mpa IN 28 DAYS SHOULD BE 200mm AND TO WITHSTAND A SUPERIMPOSED LOAD OF 7kpa AND THE PLANT LOADS AS SPECIFIED. IF IT IS LAID ON GRADE, THE SOIL BELOW SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY DETERMINED IN ACCORDANCE WITH B.S. 1377:1990 PART 4.
 - TRANSFORMER ROOM SHALL BE CONSTRUCTED WITH REINFORCED CONCRETE OR CONCRETE BLOCK OF BS 6073 PART A WITH A COMPRESSIVE STRENGTH OF NOT LESS THAN 20N/mm².
 - AREA HATCHED FOR SWITCHGEAR ERECTION SHALL BE DESIGNED TO WITHSTAND A MAXIMUM STATIC PLUS DYNAMIC LOAD OF 17kN PER PANEL. THE MINIMUM DIMENSIONS FOR THE 11kV SWITCHGEAR BASE SHALL BE 1400mm x 500mm PER PANEL ON A DENSE CONCRETE & COMBINED CONSTRUCTION OF 450mm IN THICKNESS MIN. WITH MIN. STRENGTH OF 30mpa IN 28 DAYS & SOME SHRINKAGE REINFORCEMENT, IF IT IS LAID ON GRADE. PLEASE ALSO REFER TO NOTE NO. 3 ABOVE ON COMPACTING OF SOIL. MINIMUM TOP COVER TO REINFORCEMENT IN THE CONCRETE TO BE 80mm. FINISHED TOP SURFACE TO BE LEVEL TO WITHIN A TOLERANCE OF 1mm IN 1000mm.
 - AREA HATCHED TO BE 1500mm x 1800mm FOR TRANSFORMER FOUNDATION TO WITHSTAND A LOADING OF 800kg. IF IT IS LAID ON GRADE, A DENSE CONCRETE FOUNDATION WITH MIN. STRENGTH OF 30mpa IN 28 DAYS AND AT LEAST AS DEEP AS THE BOTTOM OF CABLE TRENCH CONSTRUCTION & WITH SHRINKAGE REINFORCEMENT SHALL BE MADE. PLEASE ALSO REFER TO NOTE NO. 3 ABOVE ON COMPACTING OF SOIL. THE TOP LEVEL OF FOUNDATION TO BE LEVELLED WITH FINISHED FLOOR LEVEL.
 - SUBSTATION WALLS AND THE CEILING SHOULD BE GEMENT AND SAND PLASTERED. TWO COATS OF LIQUID APPLIED WATERPROOFING COATING AND TWO COATS OF LIGHT GREY EPDM DUSTPROOF COATING SHOULD BE APPLIED AT BOTTOM 1500mm HIGH OF THE WALL. ABOVE 1500mm HEIGHT, THE WALL AND THE CEILING SHOULD BE FINISHED WITH ONE COAT OF LIQUID PEPOLYMER SEALING AND TWO FINISHING COATS OF WHITE MORTAR BASED COATING IN GLOSSY FINISH.
 - FLOOR BASEMENT, GROUND FLOOR AND UPPER FLOOR TRANSFORMER ROOMS, ALL GROUND BEAMS AND FLOOR BEAMS TO BE LOWERED 1200mm FROM FINISHED FLOOR LEVEL FOR CONSTRUCTION OF CABLE TRENCHES.
 - ALL EXTERNAL STEELWORKS STAINLESS STEEL SHALL COMPLY TO BS EN 10088-1 GRADE 1.4404 (316L). THIS REQUIREMENT APPLY FOR DOORS, DOOR FRAMES, LOUVERES, RAT GUARDS, INTERNAL STEELWORK (BAR TRUNNING, HANGERS, CHEQUER PLATE, ETC.) SHALL BE ABOVE 1500mm HEIGHT. STEEL TO BS EN 10025:2004 GRADE S275 AND FINISHED WITH ONE COAT OF CALCIUM PLUMBAZE PRIMER AND TWO FINISHING COATS OF GLOSSY SYNTHETIC PAINT.
 - DETAILED ARRANGEMENT OF CABLE TRAY FOR INSTALLATION OF INTERNAL WIRING AND CONTROL WIRING TO BE DETERMINED ON SITE.
 - 25mm DIA. GALVANIZED STEEL RING EYE BOLT TO BE PROVIDED AND INSTALLED ON INTERNAL WALL AT 100mm FROM BOTH SIDES OF ALL DOORS AND AT 1000mm ABOVE FINISHED FLOOR LEVEL.
 - THE CUSTOMER'S INSTALLATION INCLUDING THE GENERAL SAFETY REQUIREMENTS FOR THE SWITCHROOM SHALL COMPLY WITH THE ELECTRICITY ORDINANCE.
 - HOSTING SYSTEM SHALL BE ELECTRICALLY OPERATED. AN EMERGENCY LOWERING DEVICE WITH HANDWHEEL SHALL BE PROVIDED. ELECTRICITY SUPPLY SHALL BE CONNECTED TO THE LANDLORD'S ESSENTIAL BOARD WITH STANDBY GENERATOR BACK UP.
 - THE LAYOUT DRAWING IS PREPARED FROM BUILDING PLANS SUBMITTED. CLP POWER HONG KONG LIMITED MUST BE INFORMED IMMEDIATELY OF ANY MODIFICATIONS TO THE BUILDING PLANS WHICH MAY AFFECT THE DRAWING.
 - DOOR CONTACTS SHALL BE INSTALLED FOR ALL WICKET DOORS INSIDE THE TRANSFORMER ROOM.

FIRE PROTECTION REQUIREMENTS

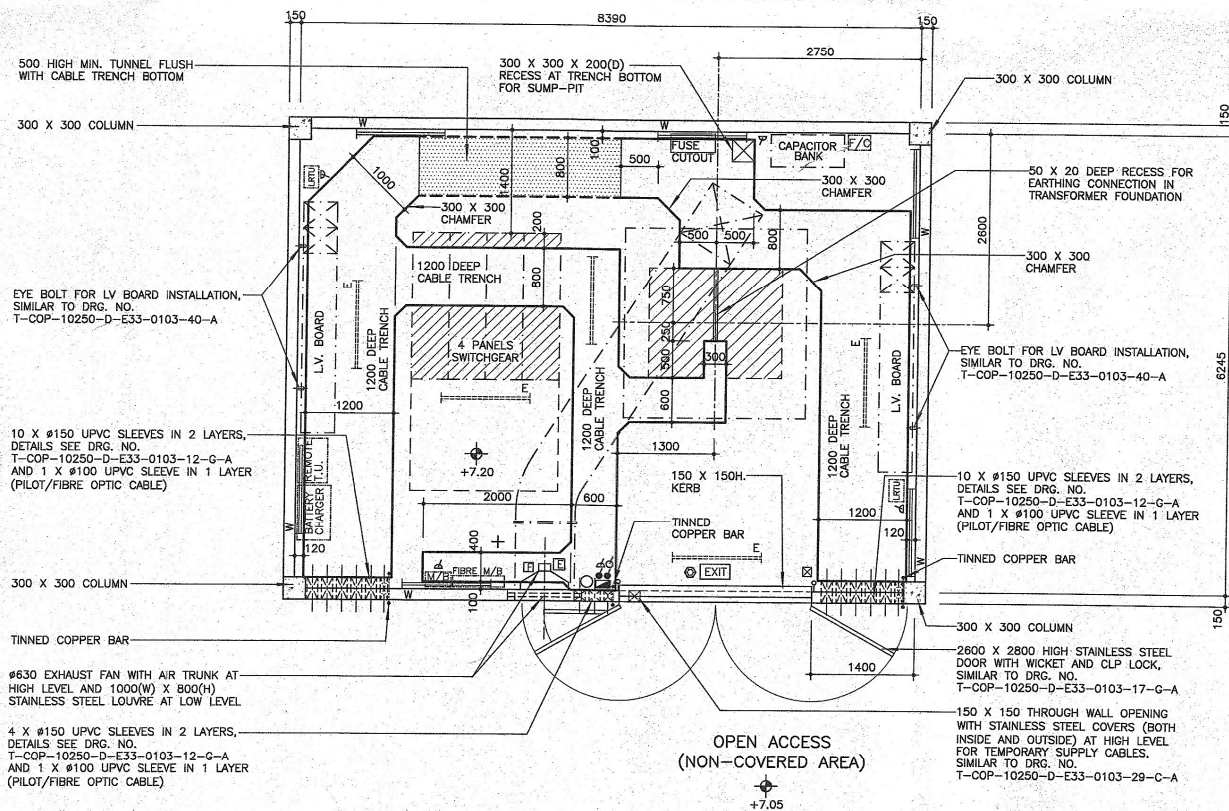
- THIS TRANSFORMER ROOM SHALL COMPLY FULLY WITH THE STANDARD REQUIREMENTS OF HONG KONG FIRE SERVICES DEPARTMENT FAILURE TO COMPLY IN ANY RESPECT MAY RESULT IN A DELAY TO THE PROVISION OF A SUPPLY.
- THE TRANSFORMER ROOM TO BE COMPLETELY SEPARATED FROM THE REMAINDER OF THE BUILDING AND TO BE 2 HOURS FIRE RESISTANT PERIOD IN ACCORDANCE WITH BS 476:1987.
- ALL WALL OPENINGS TO LEAD DIRECT TO OPEN AIR.
- THE 150mm HIGH CONCRETE KERB, AS SHOWN, TO BE CONSTRUCTED BY CUSTOMER AFTER CLP POWER'S PLANT HAS BEEN INSTALLED AND BEFORE TRANSFORMER ROOM IS ENERGISED.
- THIS ROOM IS TO BE PROVIDED WITH FIRE EXTINGUISHING APPARATUS TO THE SATISFACTION OF THE DIRECTOR OF FIRE SERVICES. PORTABLE EXTINGUISHER(S), AS SHOWN, WILL BE PROVIDED BY CLP POWER HK LTD. ADDITIONAL EQUIPMENT, IF ANY, WILL BE PROVIDED BY CUSTOMER.
- IF AUTOMATIC FIRE ALARM INSTALLATION IS REQUIRED BY THE HONG KONG FIRE SERVICES DEPARTMENT, HEAT DETECTION TYPE IS TO BE PROVIDED.
- THIS ROOM SHALL BE INCORPORATED IN BUILDING PLANS FORMALLY APPROVED BY HONG KONG GOVERNMENT. IF NOT YET OBTAINED, APPROVAL FROM THE BUILDING ORDINANCE OFFICE, BUILDINGS AND LANDS DEPARTMENT SHALL BE OBTAINED.
- ALL LININGS FOR ACOUSTIC AND THERMAL INSULATION PURPOSES IN DUCTINGS AND CONCEALED LOCATIONS SHALL BE OF CLASS 1 OR 2 RATE OF SURFACE SPREAD OF FLAME AS PER BRITISH STANDARD 476: PART 7 OR ITS INTERNATIONAL EQUIVALENT, OR BE BROUGHT UP TO THAT STANDARD BY USE OF AN APPROVED FIRE RETARDANT PRODUCT ACCORDING TO THE REQUIREMENT OF FIRE SERVICES DEPARTMENT.

ELECTRICAL FITTINGS

- ALL METAL WORK MUST BE BONDED TO THE EARTHING TERMINAL AT THE DISTRIBUTION BOARD WITH COPPER CONDUCTOR NOT LESS THAN 6mm².
- ALL INTERNAL WIRING TO BE PROVIDED AND INSTALLED BY CUSTOMER EXCEPT THE A.C. SUPPLY SOURCE WIRING.

LEGEND

- DISTRIBUTION UNIT**
- SA LIGHTING SWITCH WITH PILOT LIGHT
 - SA, 2-WAY LIGHTING SWITCH WITH PILOT LIGHT
 - D.P. EXHAUST FAN SWITCH WITH PILOT LIGHT
 - 13A 3 PIN SOCKET OUTLET
 - 13A FUSED SPUR UNIT C/W D.P. SWITCH
 - EMERGENCY STOP PUSH BUTTON FOR EXHAUST/FRESH/AUXIAL FAN
 - FAN CONTROL PANEL
 - LV MONITORING PANEL
- 1.2m TWIN LAMPS (18 LED STANDARD TUBE WITH G5 OR G13 BI-PIN CAP BASE) TO BE FIRED ON WALL AT 2.1m ABOVE FLOOR LEVEL.**
- 1.2m TWIN LAMPS (18 LED STANDARD TUBE WITH G5 OR G13 BI-PIN CAP BASE) TO BE SUSPENDED AT 2.8m FROM FLOOR LEVEL
 - 1.2m TWIN LAMPS (18 LED STANDARD TUBE WITH G5 OR G13 BI-PIN CAP BASE) TO BE FIRED ON WALL AT 2.1m ABOVE FLOOR LEVEL WITH EMERGENCY LIGHTING UNIT
 - 1.2m TWIN LAMPS (18 LED STANDARD TUBE WITH G5 OR G13 BI-PIN CAP BASE) TO BE SUSPENDED AT 2.8m FROM FLOOR LEVEL WITH EMERGENCY LIGHTING UNIT
- EXIT SIGN BOARD ABOVE DOOR - ELECTRICITY SUPPLY TO BE CONNECTED TO THE LANDLORD'S ESSENTIAL BOARD WITH STANDBY GENERATOR BACK UP**
- 4.5kg CO₂
 - EYE BOLT
 - EYE BOLT FOR SAFETY HARNESS AT 1200mm FROM FLOOR LEVEL, DETAILS SEE DRG. NO. COP-10250-D-E33-0103-37-A
 - EYE BOLT AT HIGH LEVEL/CEILING FOR LIFTING FAN
 - PLASTIC CHAIN STORAGE BOX DETAILS SEE DRG. NO. T-COP-10250-D-E33-0103-27-A
 - METALLIC CONDUIT SYSTEM FOR ACCESS CONTROL SHOULD BE PROVIDED FROM ACCESS DOOR TO THE REMOTE TERMINAL UNIT, DETAILS SEE DRG. NO. T-COP-72000-D-E33-0103-23-B-A



LAYOUT PLAN OF TRANSFORMER ROOM AT G/F



REV.	DESCRIPTION	DATE	SIGN

PLANNING AND DESIGN

APPROVED BY: [Signature] DATE: 16/8/2024

CHECKED BY: [Signature] DATE: 12/8/2024

DRAWN: LIU YING KA DATE: 12-AUG-2024

DRAWING TITLE:
PROPOSED LAYOUT OF STANDALONE TRANSFORMER ROOM FOR LUNG KONG ROAD KOWLOON CITY

SCALE: 1 : 50 (mm) PROJECT NO. WS240225

DRAWING No. : WS/TR/2023-222