

FIRE SERVICES NOTES:

1. HOSE REEL SYSTEM

- 1.1 HOSE REEL SHALL BE PROVIDED AT POSITIONS AS INDICATED ON PLANS.
- 1.2 THERE SHALL BE SUFFICIENT HOSE REELS TO ENSURE THAT EVERY PART OF THE BUILDING CAN BE REACHED BY A LENGTH OF NOT MORE THAN 30M OF HOSE REEL TUBING. ONE ACTUATING POINT AND ONE AUDIO WARNING DEVICE TO BE LOCATED AT EACH HR POINT. THE ACTUATING POINT SHOULD INCLUDE FACILITIES FOR THE FIRE PUMP START DEVICE INITIATION.
- 1.3 A MODIFIED HOSE REEL SYSTEM OF 2000 LITRES WATER TANK TO BE PROVIDED FOR THE ENTIRE BUILDING AS INDICATED ON PLAN.
- 1.4 NO FIRE SERVICES INLET TO BE PROVIDED FOR THE MODIFIED HOSE REEL SYSTEM.
- 1.5 TWO FIXED FIRE PUMPS (DUTY/STANDBY) TO BE PROVIDED AT SPR. & FS. PUMP ROOM.
- 1.6 THE HR SYSTEM INSTALLED SHOULD BE IN ACCORDANCE WITH PARA. 5.14 OF THE CODE OF PRACTICE FOR MINIMUM FIRE SERVICE INSTALLATION AND EQUIPMENT 2012.
- 1.7 AN INSTRUCTION PLATE SHALL BE PROVIDED NEXT TO THE BREAK GLASS UNIT FOR OPERATION OF HOSE REEL.

2. AUTOMATIC SPRINKLER SYSTEM

- 2.1 AN AUTOMATIC SPRINKLER SYSTEM SUPPLIED BY A 135,000L SPRINKLER WATER TANK TO BE PROVIDED TO THE ENTIRE STRUCTURE (TEMPORARY LOGISTICS CENTRE) IN ACCORDANCE WITH LPC RULES INCORPORATING BS EN12845 : 2015 AND FSD CIRCULAR LETTER 5/2020. THE SPRINKLER TANK, SPRINKLER PUMP ROOM, SPRINKLER INLET AND SPRINKLER CONTROL VALVE GROUP SHALL BE CLEARLY MARKED ON PLANS.
- 2.2 THE CLASSIFICATION OF THE AUTOMATIC SPRINKLER INSTALLATION TO BE ORDINARY HAZARD GROUP 3.
- 2.3 CATEGORY I MATERIAL ARE STORED IN THE TEMPORARY LOGISTIC CENTRE. THE MATERIAL ARE STORED IN POST-PALLET STORAGE (ST2). THE MAXIMUM STORAGE HEIGHT IS 4m.
- 2.4 STORAGE BLOCKS SHOULD BE SEPARATED BY AISLES NO LESS THAN 2.4m WIDE.
- 2.5 ONE NUMBER 135,000 LITRES SPRINKLER WATER TANK TO BE PROVIDED AS INDICATED ON PLANS.
- 2.6 ALL INSTALLED SPRINKLER SHOULD BE PENDENT TYPE AND THE TEMPERATURE RATING OF SPRINKLER HEAD SHALL BE 68 C UNLESS OTHERWISE SPECIFIED.
- 2.7 SPRINKLER CONTROL VALVE SET AND SPRINKLER INLET TO BE PROVIDED AS INDICATED ON PLANS.
- 2.8 ALL SPRINKLER PIPE SIZE SHOULD BE $\phi 32\text{mm}$ UNLESS SPECIFY.

3. FIRE ALARM SYSTEM

- 3.1 FIRE ALARM SYSTEM SHALL BE PROVIDED THROUGHOUT THE ENTIRE BUILDING IN ACCORDANCE WITH BS 5839-1 : 2002 + A2 : 2008 AND FSD CIRCULAR LETTER NO.1/2009 & 3/2010 & 2/2012. ONE ACTUATING POINT AND ONE AUDIO WARNING DEVICE SHOULD BE LOCATED AT EACH HOSE REEL POINT. THE ACTUATION POINT SHOULD INCLUDE FACILITIES FOR FIRE PUMP START AND AUDIO / VISUAL WARNING DEVICE INITIATION.
- 3.2 AN ADDRESSABLE TYPE FIRE ALARM PANEL TO BE PROVIDED AND LOCATED INSIDE G/F SPR. & F.S. PUMP ROOM.

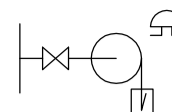


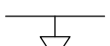


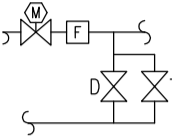











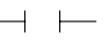




4. MISCELLANEOUS F.S. INSTALLATION

- 4.1 PORTABLE FIRE EXTINGUISHER WITH SPECIFIED TYPE AND CAPACITY TO BE PROVIDED AT LOCATIONS AS INDICATED ON PLANS.
- 4.2 SUFFICIENT EMERGENCY LIGHTING SHALL BE PROVIDED THROUGHOUT THE ENTIRE BUILDINGS/STRUCTURES IN ACCORDANCE WITH BS 5266: PART 1 AND BS EN 1838.
- 4.3 SUFFICIENT DIRECTIONAL AND EXIT SIGN SHALL BE PROVIDED IN ACCORDANCE WITH BS 5266: PART 1 AND FSD CIRCULAR LETTER 5/2008.
- 4.4 NO EMERGENCY GENERATOR TO BE PROVIDED FOR SERVING THE EMERGENCY POWER. DUPLICATED POWER SUPPLIES FOR ALL FIRE SERVICES INSTALLATIONS COMPRISING A CABLE CONNECTED FROM ELECTRICITY MAINS DIRECTLY BEFORE THE MAIN SWITCH.
- 4.5 WHEN A VENTILATION/AIR CONDITIONING CONTROL IS PROVIDED, IT SHALL STOP MECHANICALLY INDUCED AIR MOVEMENT WITHIN A DESIGNATED FIR COMPARTMENT.
- 4.6 NO DYNAMIC SMOKE EXTRACTION SYSTEM SHALL BE PROVIDED SINCE EITHER THERE BE NO FIRE COMPARTMENT EXCEEDING 7000 CUBIC METRES OR THE AGGREGATE AREA OF OPENABLE WINDOWS OF THE RESPECTIVE COMPARTMENT EXCEEDS 6.25% OF THE FLOOR AREA OF THAT COMPARTMENT.
- 4.7 THE AGGREGATE AREA OF OPENABLE WINDOWS ABOUT 736 SQUARE METRES EXCEEDING 6.25% OF THE FLOOR AREA OF THE STRUCTURE 1

PUMP SCHEDULE:

DESCRIPTION	PRESSURE (BAR)	FLOW (L/MIN.)	PUMP SPEED (RPM)	PUMP RATING (KW)	POWER SUPPLY (volts/phases/Hz)
SPRINKLER JOCKEY PUMP (SJP-1)	5	60	2900 MAXIMUM	2.2 KW	380/3/50
SPRINKLER PUMPS (SP-1 AS DUTY & SP-2 AS STAND-BY PUMP)	1.4 / 2.9 / 3.2	2250 / 1350 / 1100	2900 MAXIMUM	18.5 KW	380/3/50
FIRE SERVICES PUMPS (FP-1 AS DUTY, FP-2 AS STAND-BY PUMP & FJP AS JOCKEY PUMP)	5	60	2900 MAXIMUM	2.2 KW	380/3/50

LEGEND (FOR SCHEMATIC DIAGRAM)

-  HOSE REEL W/ LOCKABLE GLASS FRONTED NOZZLE BOX, STRIKER, C/W FIRE ALARM BELL & BREAK GLASS UNIT
-  150mm FIRE ALARM BELL
-  BREAK GLASS UNIT
-  FAST RESPONSE TYPE SPRINKLER HEAD
-  FLOW SWITCH
-  MONITORED GATE VALVE
-  SPRINKLER ZONE SUBSIDIARY CONTROL VALVE ASSEMBLY INCLUDES ZONE SUBSIDIARY CONTROL VALVE, FLOW SWITCH, TEST GATE VALVE AND DRAIN VALVE
-  GATE VALVE
-  NON RETURN VALVE
-  VORTEX INHIBITOR
-  BALL FLOAT VALVE
-  PRESSURE SWITCH
-  PRESSURE GAUGE WITH COCK
-  AUTOMATIC AIR VENT WITH COCK
-  SPRINKLER / HOSE REEL PIPE
-  SPRINKLER CONTROL VALVE SET
-  LEVEL SWITCH (HIGH LEVEL SIGNAL & LOW LEVEL SIGNAL)
-  FLEXIBLE CONNECTOR
-  CHECK METER POSITION
-  PLUG
-  Y-STRAINER
-  SPRINKLER / F.S. INLET
-  SPRINKLER PROVING PIPE








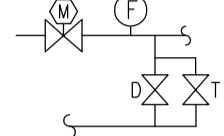

















ABBREVIATION

- H.R. HOSE REEL
- F.S. FIRE SERVICES
- SPR. SPRINKLER
- U/G UNDERGROUND
- T/A TO ABOVE
- T/B TO BELOW
- F/A FROM ABOVE
- F/B FROM BELOW
- H/L HIGH LEVEL
- M/L MIDDLE LEVEL
- L/L LOW LEVEL
- W/ WITH
- FFL FINISHED FLOOR LEVEL
- FE FIRE EXTINGUISHER
- DP DESIGN POINT

DRAWING LIST:

DRAWING NO.	REVISION	DRAWING TITLE
FS-01	C	F.S. NOTES., BLOCK PLAN, LEGEND, ABBREVIATION, DRAWING LIST, PIPE MATERIAL SCHEDULE, PUMP SCHEDULE. VERTICAL LINE DIAGRAM,
FS-02	C	FIRE SERVICES INSTALLATION LAYOUT PLAN
GBP-01	C	STRUCTURE 1 – GROUND FLOOR PLAN & CALCULATION

LEGEND (FOR LAYOUT PLAN)

-  HOSE REEL W/ LOCKABLE GLASS FRONTED NOZZLE BOX, STRIKER, C/W FIRE ALARM BELL & BREAK GLASS UNIT
-  150mm FIRE ALARM BELL
-  BREAK GLASS UNIT
-  SPRINKLER HEAD
-  SPRINKLER HEAD (DOUBLE LAYER)
-  FLOW SWITCH
-  MONITORED GATE VALVE
-  SPRINKLER ZONE SUBSIDIARY CONTROL VALVE ASSEMBLY INCLUDES ZONE SUBSIDIARY CONTROL VALVE, FLOW SWITCH, TEST GATE VALVE AND DRAIN VALVE
-  GATE VALVE
-  NON RETURN VALVE
-  VORTEX INHIBITOR
-  BALL FLOAT VALVE
-  SPRINKLER / HOSE REEL PIPE
-  PRESSURE SWITCH
-  SPRINKLER CONTROL VALVE SET
-  CHECK METER POSITION
-  SPRINKLER / F.S. INLET
-  5kg CO2 TYPE FIRE EXTINGUISHER
-  4kg DRY POWDER TYPE FIRE EXTINGUISHER
-  PUMP
-  150mm WATER ALARM GONG
-  EMERGENCY LIGHTING
-  EXIT SIGN
-  ADDRESSABLE TYPE FIRE ALARM PANEL
-  PUMP CONTROL PANEL


COLOUR CODE

PIPE SIZES	COLOUR
$\phi 25\text{mm}$	LIGHT GREEN
$\phi 32\text{mm}$	RED
$\phi 40\text{mm}$	PURPLE
$\phi 50\text{mm}$	YELLOW
$\phi 65\text{mm}$	BLUE
$\phi 80\text{mm}$	GREEN
$\phi 100\text{mm}$	LIGHT BROWN
$\phi 150\text{mm}$	DEEP BROWN

C	REVISION	15-09-2021	JN
B	REVISION	11-10-2017	HY
A	FSD SUBMISSION	10-07-2017	HY
REV	DESCRIPTION	DATE	BY

FSI CONTRACTOR

East Power Engineering Limited



PROJECT
FIRE SERVICES INSTALLATION WORK AT
LOTS 3043(PART), 3044(PART), 3051(PART), 3052,
3053(PART), 3054, 3055(PART), 3056
S.A(PART),3056 S.B(PART), 3057, 3058(PART),
3059, 3060, 3061, 3062(PART), 3063(PART),
3072(PART), 3108(PART), 3144(PART), 3200
RP(PART), 3207(PART), 3208, 3209 RP(PART),
3210(PART), 3211 RP(PART) & 3213 S.B RP(PART)
IN D.D. 129, HA TSUEN, YUEN LONG, N.T

DRAWING TITLE
F.S. NOTES, BLOCK PLAN, LEGEND, ABBREVIATION, DRAWING LIST,
PIPE MATERIAL SCHEDULE, PUMP SCHEDULE, VERTICAL LINE
DIAGRAM.

	INITIAL	DESIGNATION	DATE
DRAWN BY	HY	A. ENG	10-07-2017
DESIGN BY	CM	FM	10-07-2017
CHECK BY	CM	FM	10-07-2017
APPROVED BY	-	-	-

PROJECT NO. 10309 - HSK245

PAPER SIZE A1 PLOT SCALE 1 : 1

DRAWING NO.
EP-10309-FS01

SCALE	N.T.S	REVISION	C
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NO	STRUCTURE CONTENT:	AREA (m ²)
1	TEMPORARY LOGISTICS CENTRE	11,780
2	SITE OFFICE	130
3	SPR. & F.S. PUMP ROOM & SPR. WATER TANK	82
4	ELECTRICITY METER ROOM	45
5	ELECTRICITY METER ROOM	3
6	ELECTRICITY METER ROOM	4
7	TOILET	14

SPRINKLER INLET

SPRINKLER CONTROL VALVE GROUP WITH WATER ALARM GONG

135,000 LITERS R.C SPR. WATER TANK

2,000 LITERS FIBRE GLASS F.S. WATER TANK

SPR. & F.S. PUMP ROOM

RAIN SHELTER

VEHICULAR ACCESS ROAD

RAMP

LOT BOUNDARY

PROJECT NO. 1
 EAST POWER ENGINEERING
 NO. 100, YUEN LONG

REV	DESCRIPTION	DATE	BY
C	REVISE	15-09-2021	JN
B	REVISE	11-10-2017	HY
A	FSD SUBMISSION	10-07-2017	HY

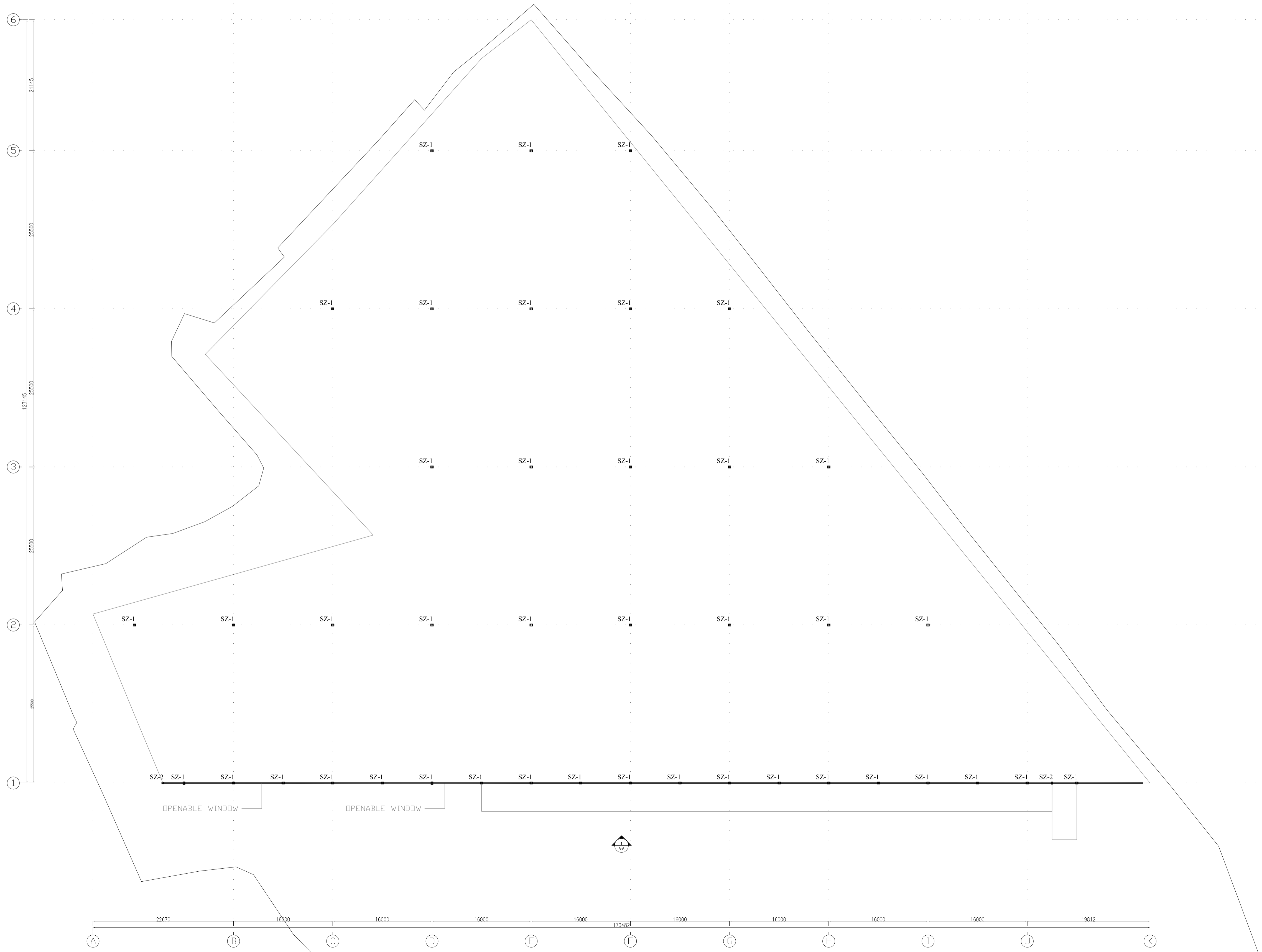
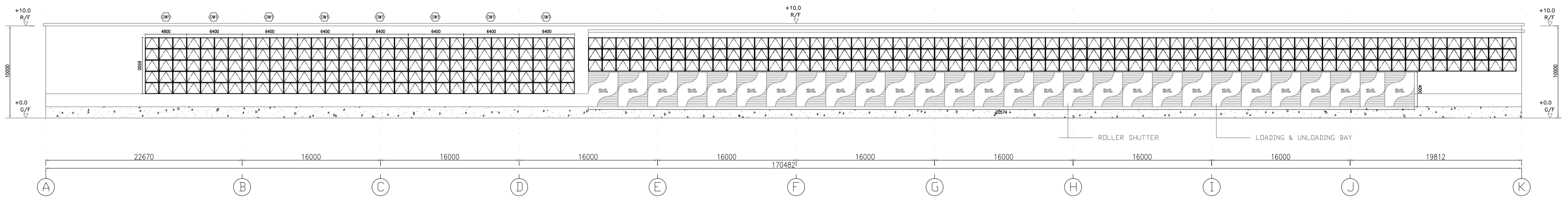
FSI CONTRACTOR

East Power Engineering Limited

PROJECT
 FIRE SERVICES INSTALLATION WORK AT
 LOTS 3043(PART), 3044(PART), 3051(PART), 3052,
 3053(PART), 3054, 3055(PART), 3056
 S.A(PART), 3056 S.B(PART), 3057, 3058(PART),
 3059, 3060, 3061, 3062(PART), 3063(PART),
 3072(PART), 3108(PART), 3144(PART), 3200
 RP(PART), 3207(PART), 3208, 3209 RP(PART),
 3210(PART), 3211 RP(PART) & 3213 S.B RP(PART)
 IN D.D. 129, HA TSUEN, YUEN LONG, N.T

DRAWING TITLE
 FIRE SERVICES INSTALLATION LAYOUT PLAN

	INITIAL	DESIGNATION	DATE
DRAWN BY	HY	A. ENG	10-07-2017
DESIGN BY	CM	PM	10-07-2017
CHECK BY	CM	PM	10-07-2017
APPROVED BY	-	-	-
PROJECT NO.	10309		
PAPER SIZE	A1	PLOT SCALE	1 : 1
DRAWING NO.	EP-10309-FS02		
SCALE	1 : 350 @A1	REVISION	C



REV	DESCRIPTION	DATE	BY
C	REVISE	15-09-2021	JN
A	GENERAL SUBMISSION	14-09-2018	HY

FSI CONTRACTOR
East Power Engineering Limited

PROJECT
 FIRE SERVICES INSTALLATION WORK AT
 LOTS 3043(PART), 3044(PART), 3051(PART), 3052,
 3053(PART), 3054, 3055(PART), 3056
 S.A(PART), 3056 S.B(PART), 3057, 3058(PART),
 3059, 3060, 3061, 3062(PART), 3063(PART),
 3072(PART), 3108(PART), 3144(PART), 3200
 RP(PART), 3207(PART), 3208, 3209 RP(PART),
 3210(PART), 3211 RP(PART) & 3213 S.B RP(PART)
 IN D.D. 129, HA TSUEN, YUEN LONG, NT

DRAWING TITLE
**STRUCTURE 1 -
 GROUND FLOOR PLAN & CALCULATION**

	INITIAL	DESIGNATION	DATE
DRAWN BY	HY	ENG	14-09-2018
DESIGN BY	CM	PM	14-09-2018
CHECK BY	CM	PM	14-09-2018
APPROVED BY	-	-	-
PROJECT NO.	10309		
PAPER SIZE	A1	PLOT SCALE	1 : 1
DRAWING NO.	EP-10309-GRP01		
SCALE	1 : 350 @A1	REVISION	C