

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 2,000 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 AUTOMATIC SPRINKLER SYSTEM SUPPLIED BY A 135,000L SPRINKLER WATER TANK AND HAZARD CLASS OH3 SHALL BE PROVIDED TO THE ENTIRE BUILDING/STRUCTURE IN ACCORDANCE WITH LPC RULES INCORPORATING BS EN12845 : 2003 AND FSD CIRCULAR LETTER 3/2006 & 3/2012. 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 ONE NUMBER 135,000 LITRES SPRINKLER WATER TANK TO BE PROVIDED AS INDICATED ON PLANS.
- 2.4 ALL INSTALLED SPRINKLER SHOULD BE PENDENT TYPE AND THE TEMPERATURE RATING OF SPRINKLER HEAD SHALL BE 68°C UNLESS OTHERWISE SPECIFIED.
- 2.5 SPRINKLER CONTROL VALVE SET AND SPRINKLER INLET TO BE PROVIDED AS INDICATED ON PLANS.
- 2.6 ALL SPRINKLER PIPE SIZE SHOULD BE Ø32mm 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 **NO** SMOKE EXTRACTION SYSTEM WILL BE PROVIDED FOR THE STRUCTURE AS THE AGGREGATE AREA OF OPENABLE WINDOWS OF THE RESPECTIVE COMPARTMENT EXCEEDS 6.25% OF THE FLOOR AREA OF THAT COMPARTMENT.

5. NOTES FOR WATERWORKS

- 5.1 ALL EQUIPMENT USED IN THE INSTALLATION SHALL BE OF THE APPROVED TYPE AND APPROVED MAKE BY THE H.K.F.S.D.
- 5.2 ALL OVERFLOW PIPE OF WATER TANKS SHALL BE DISCHARGED IN A CONSPICUOUS POSITION TO THE COMMUNAL AREA WHERE IT IS EASILY VISIBLE AND ACCESSIBLE BY THE OCCUPANTS.
- 5.3 ALL ABOVE GROUND PIPEWORKS UP TO INCLUDING Ø150mm SHALL BE GALVANIZED MILD STEEL (G.M.S.) PIPES TO BS 1387 MEDIUM GRADE AND JOINTED WITH SCREWED FITTINGS, SCREWED FLANGES, OR SCREWED UNIONS.
- 5.4 ALL UNDERGROUND PIPEWORKS UP TO AND INCLUDING Ø150mm SHALL BE GALVANIZED MILD STEEL (G.M.S) PIPE TO BS 1387 HEAVY GRADE AND JOINTED WITH SCREWED FITTINGS, SCREWED FLANGES, OR SCREWED UNIONS.
- 5.5 ALL PIPEWORKS FROM Ø150mm UPWARDS SHALL BE DUCTILE IRON (D.I) TO BS 4722 AND JOINTED WITH FLANGE AND FLANGED FITTINGS.
- 5.6 ALL COPPER ALLOY GATE VALVE SHALL CONFORM TO BS 5154 AND CHECK VALVES CONFORM TO BS 5153.
- 5.7 ALL BALL FLOAT VALVES SHALL CONFORM TO BS 1221, PART 1.
- 5.8 NO WATER PIPE SHALL BE EMBEDDED WITHIN LOAD BEARING STRUCTURAL ELEMENTS SUCH AS COLUMNS, BEAMS AND SLABS IN LONGITUDINAL DIRECTION.

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
	EXISTING F. S. INSTALLTION

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
	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
	SPRINKLER / HOSE REEL PIPE
	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
	SELF-CONTAINED EMERGENCY FLUORESCENT LIGHTING UNIT
	EXISTING F. S. INSTALLTION

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

COLOUR CODE

PIPE SIZES	COLOUR
Ø25mm	LIGHT GREEN
Ø32mm	RED
Ø40mm	PURPLE
Ø50mm	YELLOW
Ø65mm	BLUE
Ø80mm	GREEN
Ø100mm	LIGHT BROWN
Ø150mm	DEEP BROWN

DRAWING LIST

DRAWING NO	DESCRIPTION
EP-10335-FS01	FS NOTES, LEGEND, ABBREVIATIONS AND DRAWING LIST
EP-10335-FS02	FIRE SERVICES INSTALLATION LAYOUT PLAN
EP-10335-FS03	SPRINKLER SYSTEM SCHEMATIC DIAGRAM WATER METER CABINET DETAILS
EP-10335-FS04	HOSE REEL SYSTEM SCHEMATIC DIAGRAM
EP-10335-FS05	LOCATION PLAN (1:1000)

REV	DESCRIPTION	DATE	BY
B	WSD SUBMISSION	10-12-2020	JN
A	FSD SUBMISSION	10-09-2018	HY

FSI CONTRACTOR
East Power Engineering Limited

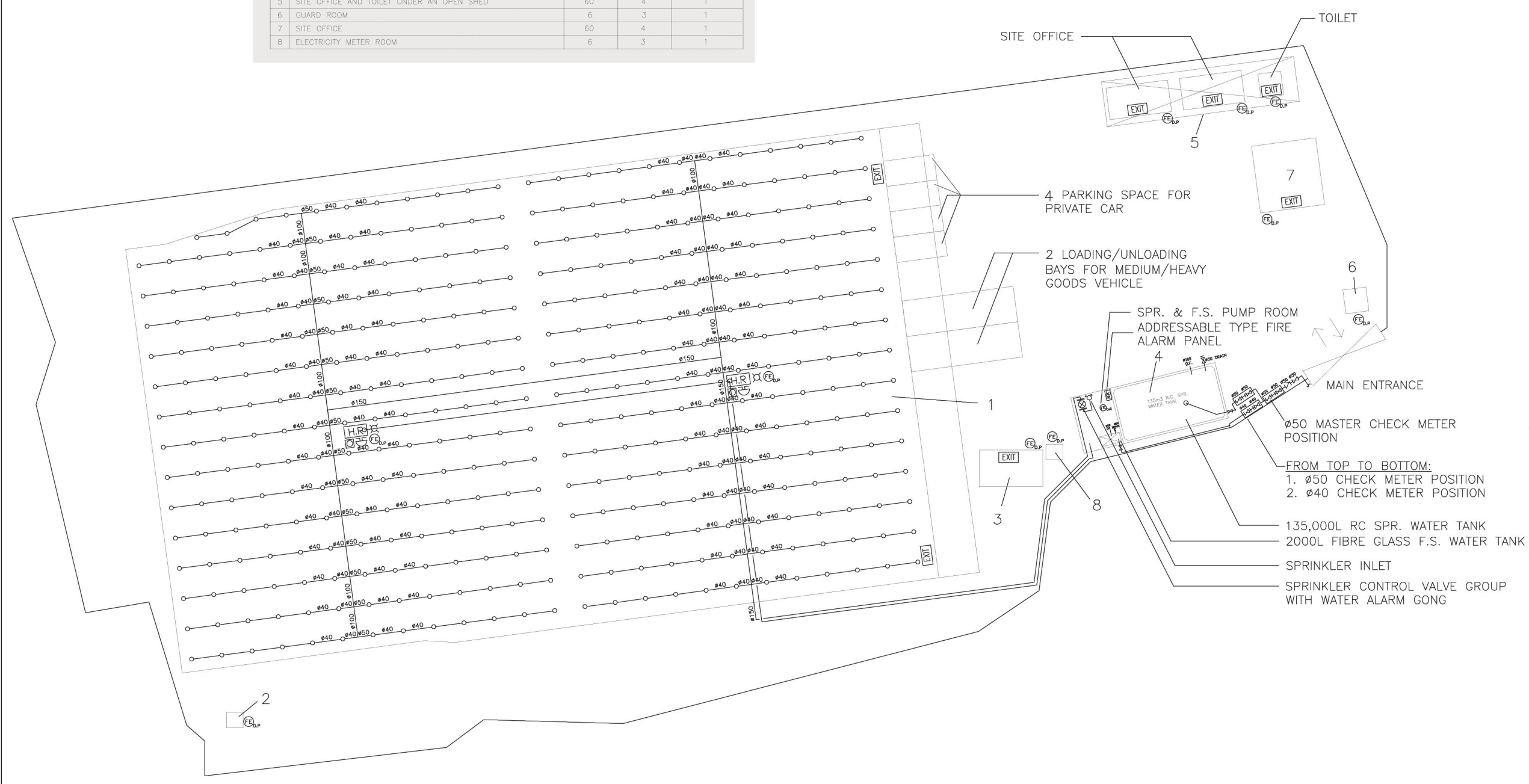


PROJECT
FIRE SERVICE INSTALLATION FOR TEMPORARY WAREHOUSE FOR STORAGE OF SPARE PARTS AND ADBLUE FOR A PERIOD OF 3 YEARS AT LOTS 1827 S.B(PART), 1827 S.B SS.1, 1828(PART), 1843(PART), 1844(PART), 1845(PART), 1846(PART), 1848 AND 1849 (PART) IN D.D. 125 AND ADJOINING GOVERNMENT LAND, HA TSUEN, YUEN LONG, N.T

DRAWING TITLE
FS NOTES, LEGEND, ABBREVIATIONS AND DRAWING LIST

	INITIAL	DESIGNATION	DATE
DRAWN BY	HY	A.Eng	18-06-2018
DESIGNED BY	HY	A.Eng	18-06-2018
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APPROVED BY	-	-	-
PROJECT NO.	10335-HSK225		
PAPER SIZE	A3	PLOT SCALE	1 : 1
DRAWING NO. EP-10335-FS01			
SCALE	N. T. S.	REVISION	B

NO	STRUCTURE CONTENT	GFA (m ²)	HEIGHT (m)	NO. OF STOREY
1	WAREHOUSE FOR STORAGE OF SPARE PARTS AND ADBLUE	3,560	10	1
2	ELECTRICITY METER ROOM	9	3	1
3	TOILET	20	3.5	1
4	FS WATER TANK & PUMP ROOM	60	4.5	1
5	SITE OFFICE AND TOILET UNDER AN OPEN SHED	60	4	1
6	GUARD ROOM	6	3	1
7	SITE OFFICE	60	4	1
8	ELECTRICITY METER ROOM	6	3	1



FROM TOP TO BOTTOM:
 1. Ø50 CHECK METER POSITION
 2. Ø40 CHECK METER POSITION

REV	DESCRIPTION	DATE	BY
B	WSD SUBMISSION	10-12-2020	JN
A	FSD SUBMISSION	10-09-2018	HY

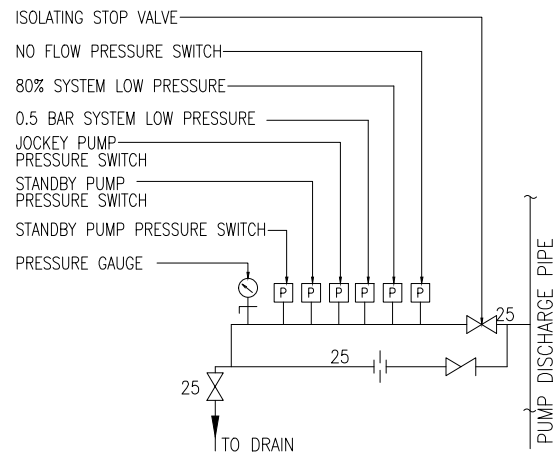
FSI CONTRACTOR
East Power Engineering Limited

PROJECT
 FIRE SERVICE INSTALLATION FOR TEMPORARY WAREHOUSE FOR STORAGE OF SPARE PARTS AND ADBLUE FOR A PERIOD OF 3 YEARS AT LOTS 1827 S.B(PART), 1827 S.B SS.1, 1828(PART), 1843(PART), 1844(PART), 1845(PART), 1846(PART), 1848 AND 1849 (PART) IN D.D. 125 AND ADJOINING GOVERNMENT LAND, HA TSUEN, YUEN LONG, N.T

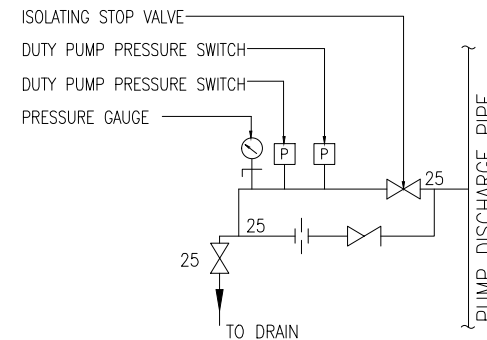
DRAWING TITLE
 FIRE SERVICES INSTALLATION LAYOUT PLAN

	INITIAL	DESIGNATION	DATE
DRAWN BY	HY	A.Eng	18-06-2018
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PAPER SIZE	A3	PLOT SCALE	1 : 1
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SCALE	1 : 450	REVISION	B

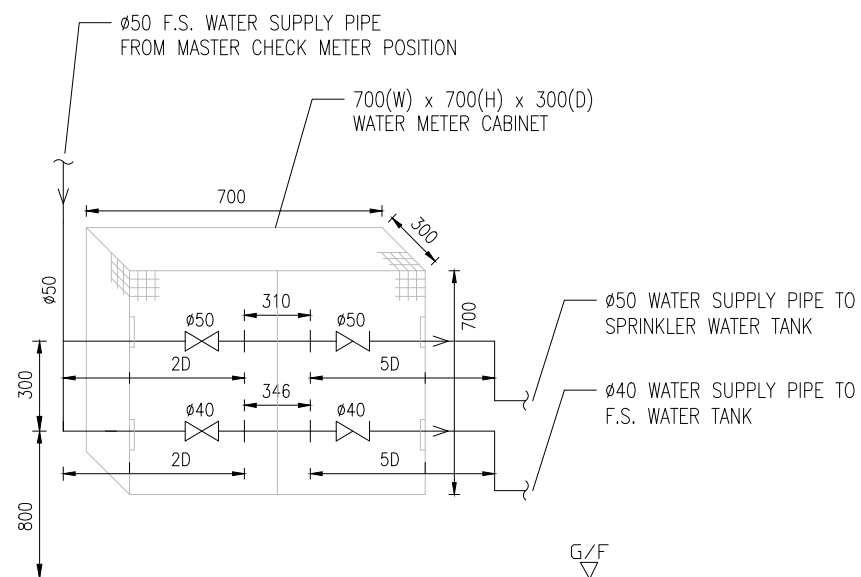
DESCRIPTION	PRESSURE (BAR)	FLOW (L/MIN.)	PUMP SPEED (RPM)	PUMP RATING (KW)	POWER SUPPLY (volts/phases/Hz)
SPRINKLER JOCKEY PUMP (SJP-1)	5	60	2900 MAXIMUM	2.2 KW	380/3/50
TWO SPRINKLER PUMPS (SP-1 AS DUTY & SP-2 AS STAND-BY PUMP)	1.4 / 2.9 / 3.2	2250 / 1350 / 1100	2900 MAXIMUM	18.5 KW	380/3/50



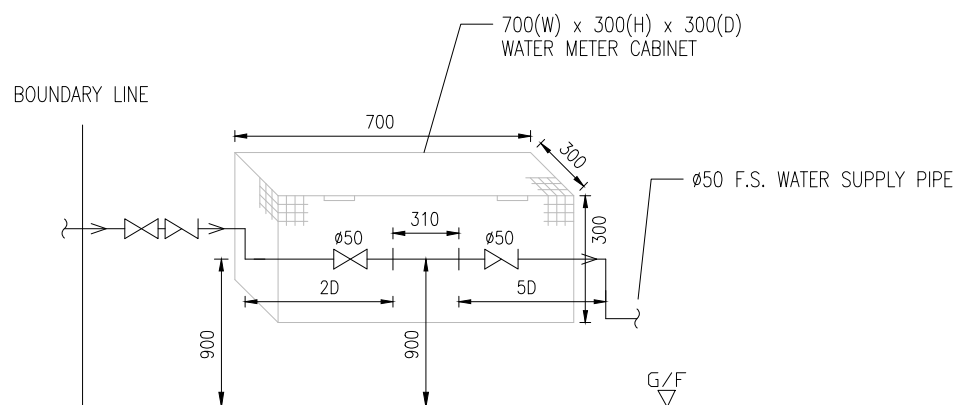
DETAIL 'F' PRESSURE SWITCH ASSEMBLY ARRANGEMENT FOR SPRINKLER JOCKEY PUMP



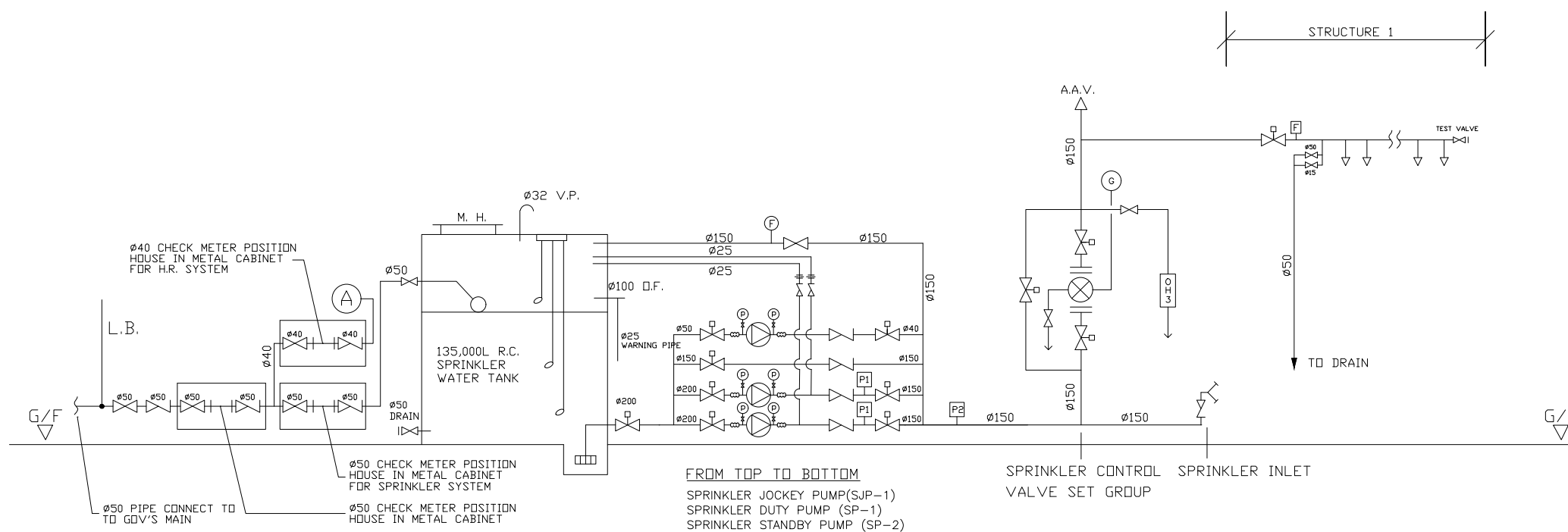
DETAIL 'G' PRESSURE SWITCH ASSEMBLY ARRANGEMENT FOR SPRINKLER DUTY/STANDBY PUMP



DETAIL 'B' OF WATER METER ARRANGEMENT IN WATER METER CABINET



DETAIL 'A' OF MASTER WATER METER ARRANGEMENT IN WATER METER CABINET



SPRINKLER SYSTEM SCHEMATIC DIAGRAM

B	WSD SUBMISSION	10-12-2020	JN
A	FSD SUBMISSION	10-09-2018	HY
REV	DESCRIPTION	DATE	BY

FSI CONTRACTOR
East Power Engineering Limited



PROJECT
FIRE SERVICE INSTALLATION FOR TEMPORARY WAREHOUSE FOR STORAGE OF SPARE PARTS AND ADBLUE FOR A PERIOD OF 3 YEARS AT LOTS 1827 S.B(PART), 1827 S.B SS.1, 1828(PART), 1843(PART), 1844(PART), 1845(PART), 1846(PART), 1848 AND 1849 (PART) IN D.D. 125 AND ADJOINING GOVERNMENT LAND, HA TSUEN, YUEN LONG, N.T

DRAWING TITLE
SCHEMATIC DIAGRAM FOR SPRINKLER SYSTEM AND WATER METER CABINET DETAILS

	INITIAL	DESIGNATION	DATE
DRAWN BY	HY	A.Eng	18-06-2018
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PAPER SIZE A3 PLOT SCALE 1 : 1

DRAWING NO.
EP-10335-FS03

SCALE	N. T. S.	REVISION	B

PUMP SCHEDULE

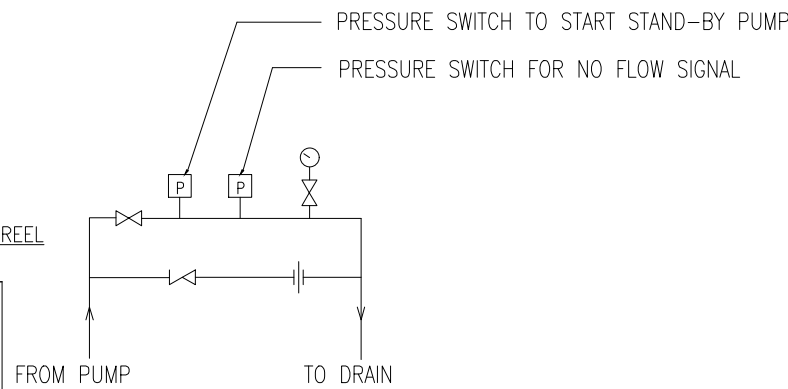
DESCRIPTION	PRESSURE (BAR)	FLOW (L/MIN.)	PUMP SPEED (RPM)	PUMP RATING (KW)	POWER SUPPLY (volts/phases/Hz)
TWO FIRE SERVICES PUMPS (FP-1 AS DUTY & FP-2 AS STANDBY PUMP)	5	60	2900 MAXIMUM	2.2KW	380/3/50

TO OPERATE FIRE HOSE REEL
使用消防喉
 (1) BREAK GLASS OF THE FIRE ALARM CALL POINT. (OR)
 打破火警鐘玻璃
 ACTIVATE FIRE ALARM CALL POINT.
 按動火警鐘
 (2) OPEN CONTROL VALVE BEFORE RUNNING OUT HOSE.
 先開啓水喉，再拉出膠喉
 (3) TURN ON WATER AT NOZZLE AND DIRECT JET AT BASE
 OF FIRE.
 將喉咀開啓，然後射向火之底部
 (NOT SUITABLE FOR ELECTRICAL FIRES)
 不適用於電火
 (WATER STRICTLY RESERVED FOR FIRE USE)
 除滅火用途，不准濫用

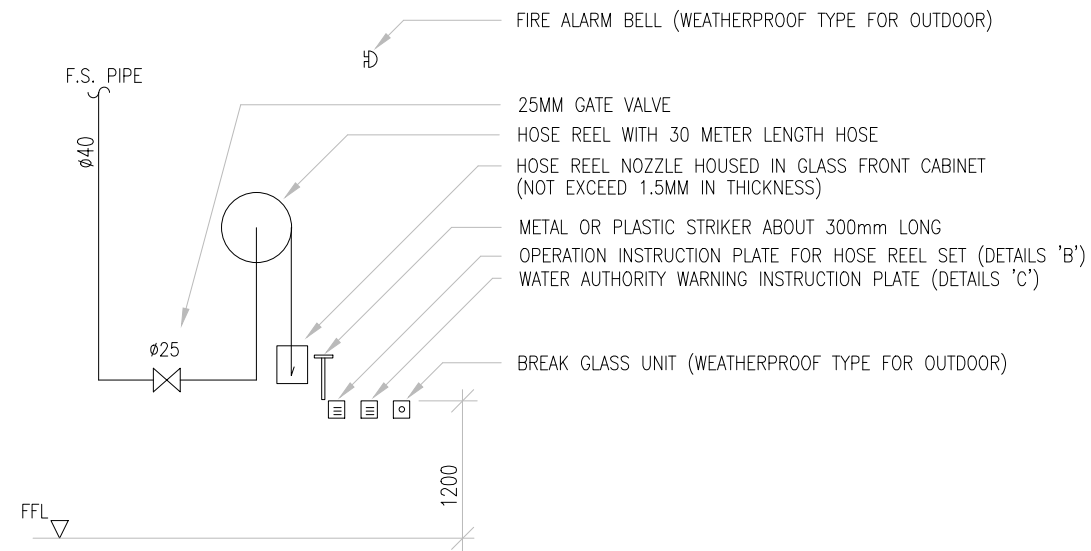
DETAILS 'B' INSTRUCTION PLATE FOR HOSE REEL

消防用水
 嚴禁作其他用途
 USE OF WATER FROM FIRE SERVICES
 FOR PURPOSES OTHER THAN FIRE
 FIGHTING IS STRICTLY PROHIBITED
 水務監督辦事處 Office of the Water Authority

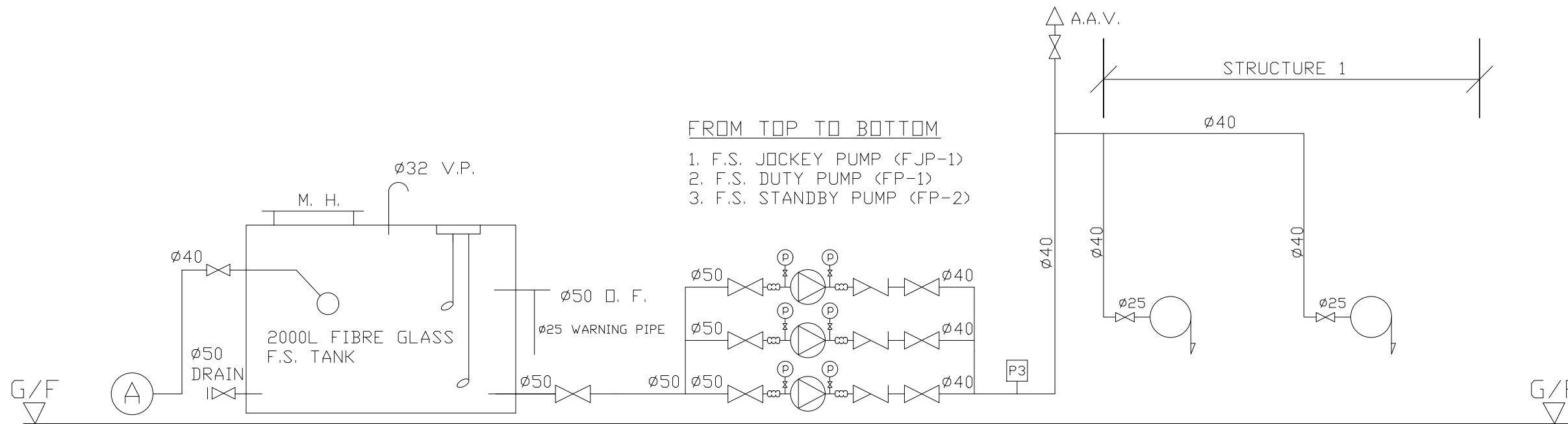
DETAILS 'C' WARNING INSTRUCTION PLATE



DETAIL ARRANGEMENT FOR 'P3'



TYPICAL ARRANGEMENT OF HOSE REEL



SCHEMATIC DIAGRAM FOR HOSE REEL SYSTEM

REV	DESCRIPTION	DATE	BY
B	WSD SUBMISSION	10-12-2020	JN
A	FSD SUBMISSION	10-09-2018	HY

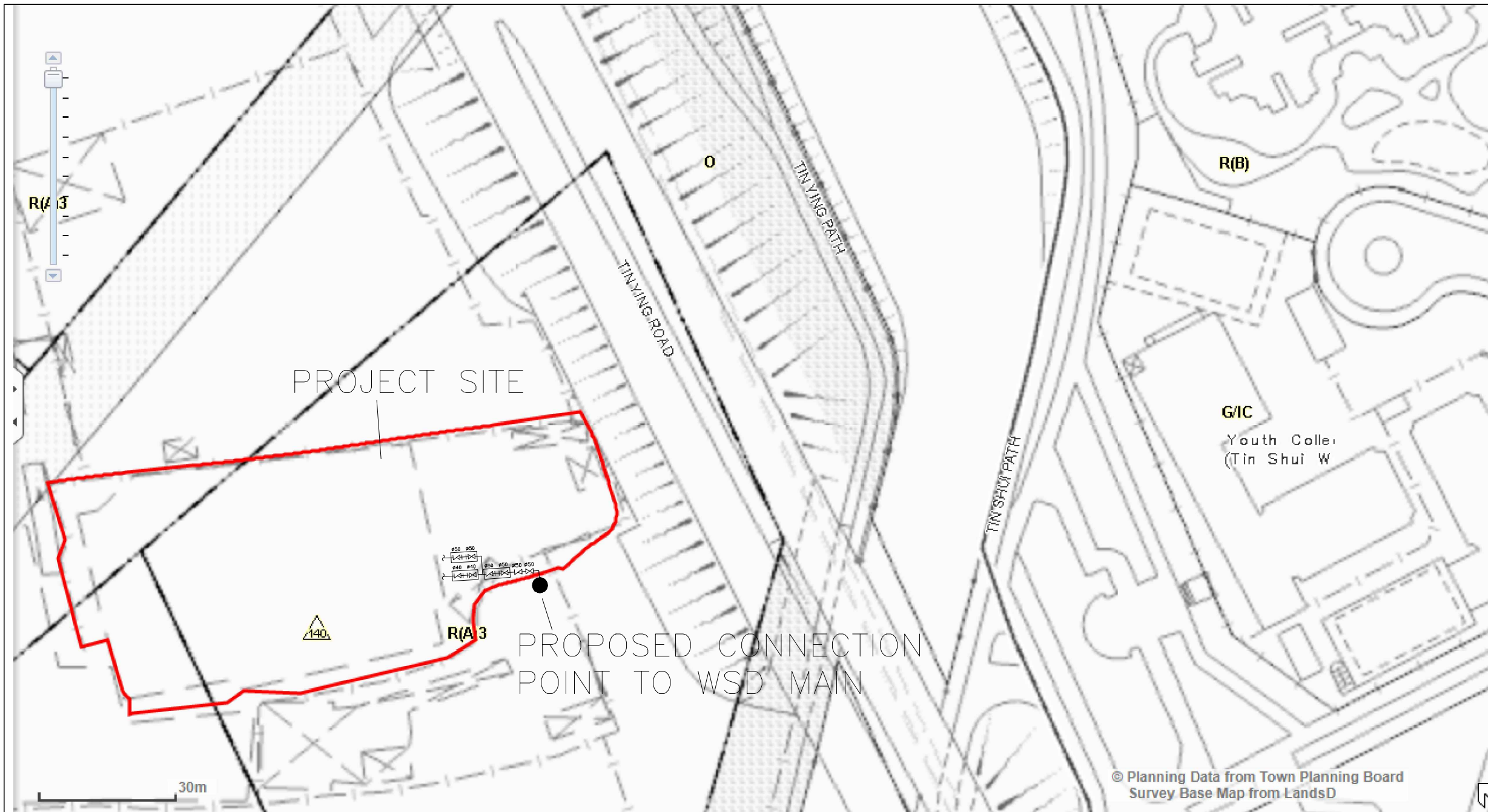
FSI CONTRACTOR
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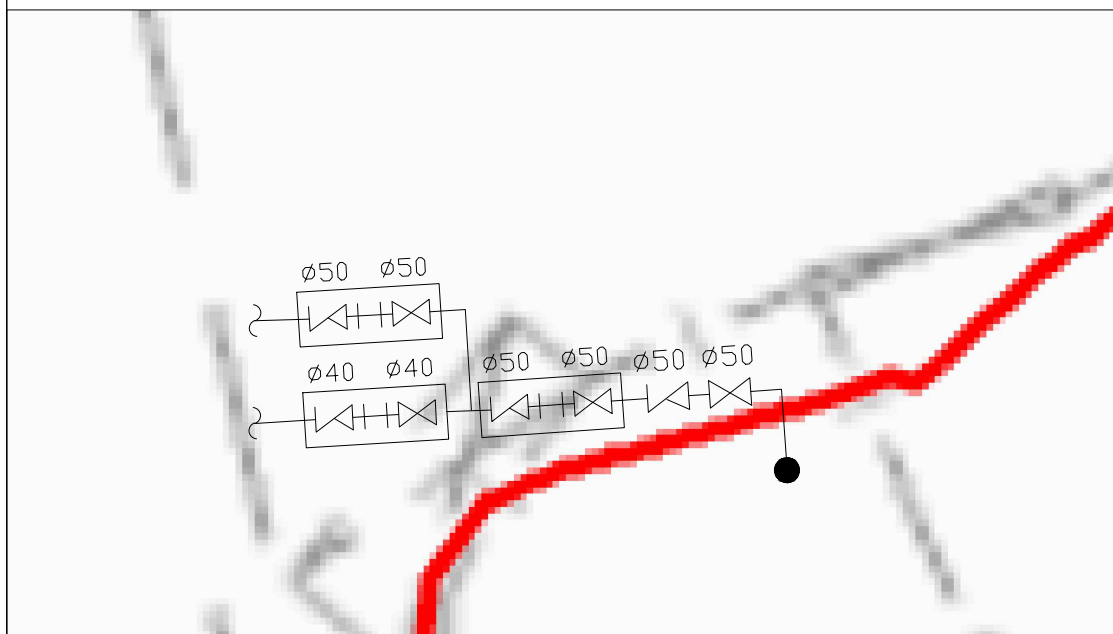
PROJECT
 FIRE SERVICE INSTALLATION FOR TEMPORARY WAREHOUSE FOR STORAGE OF SPARE PARTS AND ADBLUE FOR A PERIOD OF 3 YEARS AT LOTS 1827 S.B(PART), 1827 S.B SS.1, 1828(PART), 1843(PART), 1844(PART), 1845(PART), 1846(PART), 1848 AND 1849 (PART) IN D.D. 125 AND ADJOINING GOVERNMENT LAND, HA TSUEN, YUEN LONG, N.T.

DRAWING TITLE
 SCHEMATIC DIAGRAM FOR HOSE REEL SYSTEM

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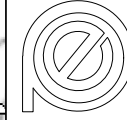
LOCATION PLAN (1:1000)



DETAILS OF WATER CONNECTION POINT (1:300)

REV	DESCRIPTION	DATE	BY
B	WSD SUBMISSION	10-12-2020	JN
A	FSD SUBMISSION	10-09-2018	HY

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DRAWING TITLE
LOCATION PLAN

	INITIAL	DESIGNATION	DATE
DRAWN BY	HY	A.Eng	18-06-2018
DESIGNED BY	HY	A.Eng	18-06-2018
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PAPER SIZE	A3	PLOT SCALE	1 : 1

DRAWING NO.
EP-10335-FS05

SCALE	N.T.S	REVISION	B