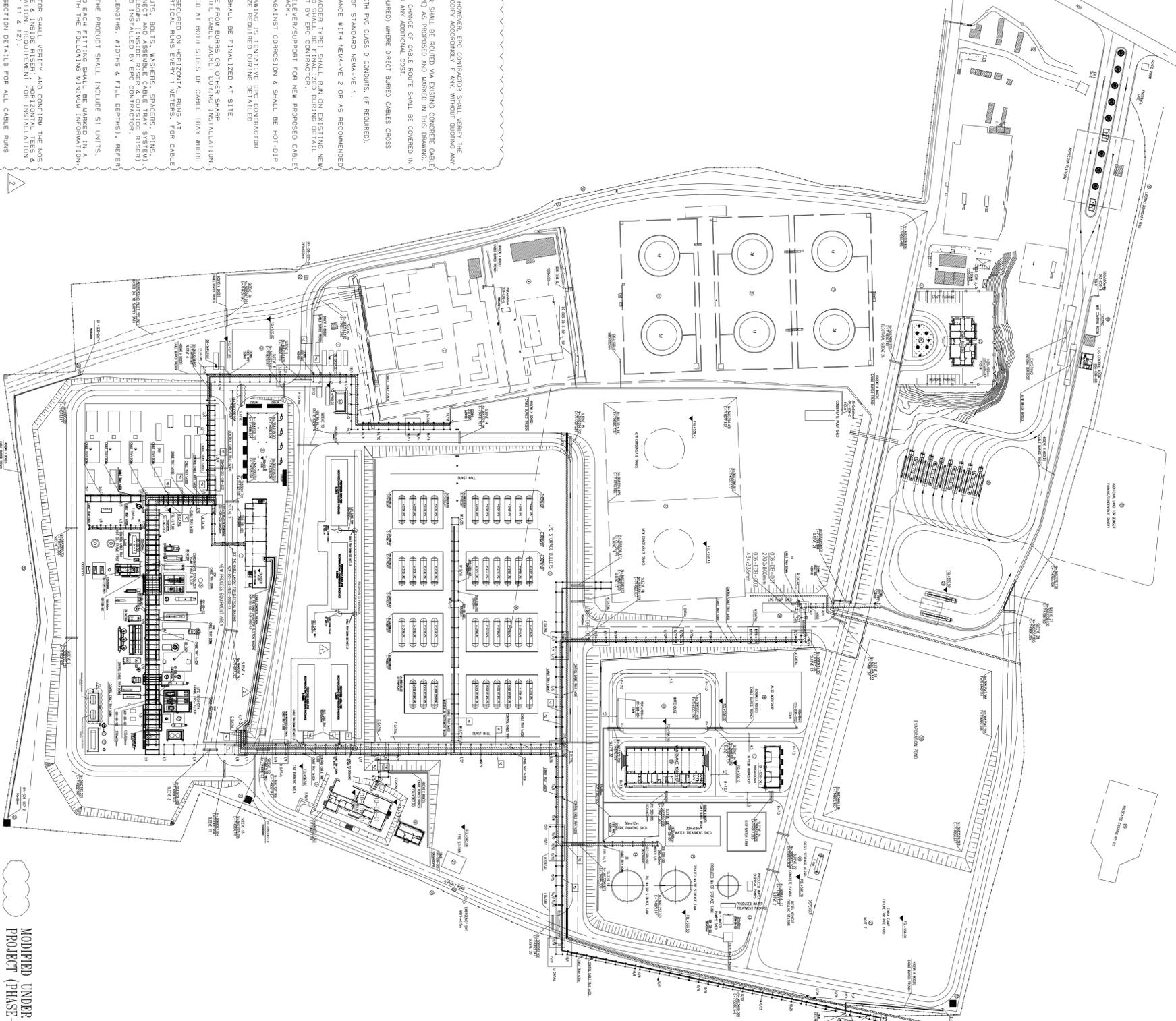


NO.	SIZE	LENGTH
1	100mm	100m
2	100mm	100m
3	100mm	100m
4	100mm	100m
5	100mm	100m
6	100mm	100m
7	100mm	100m
8	100mm	100m
9	100mm	100m
10	100mm	100m
11	100mm	100m
12	100mm	100m
13	100mm	100m
14	100mm	100m
15	100mm	100m
16	100mm	100m
17	100mm	100m
18	100mm	100m
19	100mm	100m
20	100mm	100m
21	100mm	100m
22	100mm	100m
23	100mm	100m
24	100mm	100m
25	100mm	100m
26	100mm	100m
27	100mm	100m
28	100mm	100m
29	100mm	100m
30	100mm	100m
31	100mm	100m
32	100mm	100m
33	100mm	100m
34	100mm	100m
35	100mm	100m
36	100mm	100m
37	100mm	100m
38	100mm	100m
39	100mm	100m
40	100mm	100m
41	100mm	100m
42	100mm	100m
43	100mm	100m
44	100mm	100m
45	100mm	100m
46	100mm	100m
47	100mm	100m
48	100mm	100m
49	100mm	100m
50	100mm	100m

**NOTE**

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. PROPOSED CABLE ROUTE ARE BASED ON FEED STAFF, HOWEVER, EPC CONTRACTOR SHALL VERIFY THE CABLE ROUTE DURING DETAIL ENGINEERING & SHALL NOTIFY ACCORDINGLY IF ANY, WITHOUT QUOTING ANY ADDITIONAL COST.
3. ALL POWER & CONTROL CABLES SHALL BE ARMORED & SHALL BE ROUTED VIA EXISTING CONCRETE CABLE TRENCH, VIA NEW PROPOSED CABLE TRAY (LADDER TYPE) AS PROPOSED AND MARKED IN THIS DRAWING.
4. EQUIPMENT LOCATION MAY VARY, SUCH VARIATIONS AND CHANGE OF CABLE ROUTE SHALL BE COVERED IN EPC CONTRACTOR'S SCOPE OF WORK WITHOUT QUOTING ANY ADDITIONAL COST.
5. EPC CONTRACTOR SHALL USE CONDUIT/SLEEVE (IF REQUIRED) WHERE DIRECT BURIED CABLES CROSS THROUGH WATER COURSE.
6. ROAD CROSS OVERS SHALL BE THROUGH HIGH STRENGTH PCC CLASS D CONDUITS. (IF REQUIRED).
7. CABLE TRAY SHALL BE AS PER REQUIREMENT OF STANDARD NEMA-VE 1.
8. CABLE TRAY SHALL BE INSTALLED IN ACCORDANCE WITH NEMA-VE 2 OR AS RECOMMENDED BY THE MANUFACTURER.
9. EXTENSION OF NEW PROPOSED CABLE TRAY (LADDER TYPE) SHALL RUN ON EXISTING NEW PROPOSED PIPE-RACK AND PIPE SLEEPERS AND SHALL BE FINALIZED DURING DETAIL ENGINEERING AS PER UPDATED PIPING LAYOUT BY EPC CONTRACTOR.
10. CONTRACTOR SHALL DESIGN & PROVIDE CANTILEVER/SUPPORT FOR NEW PROPOSED CABLE TRAY TO BE INSTALLED ON EXISTING PIPE RACK.
11. GALVANIZED STEEL TRAY AFTER FABRICATION.
12. CABLE TRAY SIZE MARKED HERE IN THIS DRAWING IS TENTATIVE EPC CONTRACTOR SHALL FINALIZE THE ACTUAL CABLE TRAY SIZE REQUIRED DURING DETAIL ENGINEERING.
13. EXACT LOCATION OF CABLE TRAY SUPPORTS SHALL BE FINALIZED AT SITE.
14. OFFERED CABLE TRAY SYSTEM SHALL BE FREE FROM BURNS OR OTHER SHARP PROJECTIONS THAT COULD CAUSE DAMAGE TO THE CABLE JACKET DURING INSTALLATION.
15. CABLE PROTECTION COVER SHALL BE PROVIDED AT BOTH SIDES OF CABLE TRAY WHERE CABLE EXTENDED ABOVE GROUND.
16. INTERVALS BETWEEN SUPPORTS SHALL BE AS PER MANUFACTURER'S RECOMMENDATION, BUT SHALL NOT EXCEED 3 METERS AND ON VERTICAL CURVES EVERY 2 METERS. AT FIXINGS, REFER DWG. NO. 0193-ELF-6890.
17. ALL COMPONENTS (SCREWS, NUTS, BOLTS, WASHERS, SPACERS, PINS, CABLE CLIPS AND OTHER ITEMS USED TO CONNECT AND ASSEMBLE CABLE TRAY SYSTEM) SHALL BE PROVIDED BY EPC CONTRACTOR AND SHALL BE INSTALLED BY EPC CONTRACTOR.
18. FOR TYPICAL DIMENSIONS OF CABLE TRAY (LENGTHS, WIDTHS & FILL DEPTHS), REFER DWG. NO. 0193-ELF-6890 (SHEET 11 & 12).
19. DIMENSIONS AND MEASUREMENTS MARKED ON THE PRODUCT SHALL INCLUDE 51 UNITS.
20. EACH STRAIGHT SECTION OF CABLE TRAY AND EACH FITTING SHALL BE MARKED IN A PERMANENT AND READILY VISIBLE MANNER WITH THE FOLLOWING MINIMUM INFORMATION:
  - TYPE OF MATERIAL
  - SIZE
  - DATE OF FABRICATION
  - TYPE OF MATERIAL
21. DURING DETAIL ENGINEERING, EPC CONTRACTOR SHALL VERIFY AND CONFIRM THE ANGLES OF HORIZONTAL & VERTICAL ELBOWS (OUTSIDE & INSIDE RISERS), HORIZONTAL TEES & THEIR DIMENSIONS REQUIRED AS PER INSTALLATION REQUIREMENT FOR INSTALLATION DETAILS. REFER DWG. 0193-ELF-6890 (SHEET 11 & 12).
22. EPC CONTRACTOR SHALL IMPROVE THE CABLE SECTION DETAILS FOR ALL CABLE RUNS THROUGH ROADS AND THROUGH WATER COURSE.
23. EPC CONTRACTOR SHALL FOLLOW THE EXISTING CABLE ROUTE (VIA CABLE TRAY/CABLE TRENCH) FOR LAYING OF POWER CABLES OF NEW INSTRUMENT AIR COMPRESSOR PACKAGE.



**RE-ISSUED FOR TENDER**

MODIFIED UNDER MASHPA COMPRESSION PROJECT (PHASE-II) # 14-0193

NO.	DESCRIPTION AND CAPACITY	UNIT QTY.	REMARK
1	PIG RECEIVER & GAMING MANHOLE	SET 1	BY HBP
2	SLUG CATCHER	SET 1	BY HBP
3	SEPARATOR AREA	EXISTING	
4	PROCESS EQUIPMENT AREA	EXISTING	
5	NEW PROCESS EQUIPMENT AREA	EXISTING	
6	CCR (CENTRAL CONTROL ROOM)	SET 1	BY HBP
7	ELECTRICAL BUILDING	SET 1	BY HBP
8	POWER GENERATOR BUILDING	SET 1	BY HBP
9	LABORATORY	SET 1	BY COOCL
10	LPG STORAGE BUILTITS	SET 39	BY HBP
11	EXISTING CONDENSATE TANKS	SET 6	EXISTING
12	NEW CONDENSATE TANKS (TUBINE)	SET 2	BY COOCL
13	PRODUCED WATER TREATMENT SYSTEM	BY HBP	
14	FIRE WATER SYSTEM	BY HBP	
15	RAW WATER TREATMENT SYSTEM	BY HBP	
16	EVAPORATION POND	SET 1	BY HBP
17	W.P.E. & I WORK SHOP	SET 1	BY COOCL
18	AUTO WORK SHOP	SET 1	BY COOCL
19	MAINTENANCE WORK SHOP	SET 1	BY COOCL
20	WAREHOUSE	SET 1	BY COOCL
21	FIRE STATION	SET 1	BY COOCL
22	SECURITY WATCH TOWER	NOs. 5	BY COOCL
23	P.W.P. YARD (100m x 50m)	SET 1	BY COOCL
24	NEW FLARE K.O. DRUM	SET 1	BY HBP
25	RELOCATED EXISTING AIR RHT	SET 1	BY COOCL
26	EXISTING FLARE HEADER	SET 1	BY COOCL
27	NEW FLARE STACK	SET 1	BY COOCL
28	LOADING SYSTEM AREA	SET 1	BY COOCL
29	LPG LOADING AREA	SET 1	BY HBP
30	NEW CONDENSATE CHAMBER	SET 1	BY COOCL
31	ADDITIONAL LAND FOR BROWERS PARKING	SET 1	BY COOCL
32	ADMIN BUILDING	SET 1	BY COOCL
33	CLINIC	SET 1	BY COOCL
34	LPG PUMP SHED	SET 1	BY HBP
35	BOUNDARY WALL	SET 1	EXISTING
36	DETEL STORAGE VESSEL	SET 1	BY HBP
37	RELOCATING COMPRESSOR PACKAGES	SET 4	BY HBP
38	INSTRUMENT AIR COMPRESSOR	SET 1	BY HBP

**GENERAL NOTES**

1. ALL DIMENSIONS ARE IN MILLIMETERS. ALL COORDINATES AND ELEVATIONS ARE IN METERS, UNLESS OTHERWISE SPECIFIED.
2. ALL COORDINATES ARE BASED ON UTM PROJECTION, GRID ZONE 49N, WGS 84. COORDINATES TAKEN FROM THE PROJECT DATA.
3. THE DEPTH OF THE EXISTING CABLE IS 0.7 METERS UNDER THE FLOOR LEVEL. INDICATIVE ONLY. IT SHALL BE ADJUSTED AT SITE.
4. ALL CABLES SHALL BE IN CABLE TRAY OR BURIED. THE CABLE ROUTE IS INDICATIVE ONLY. IT SHALL BE ADJUSTED IN DIFFERENT AREA UNIT.
5. THE MATERIAL OF CABLE WILL BE USED IN DIFFERENT AREA UNIT.
6. THE STEVE FOR CROSSING ROAD SHOULD BE BURIED NO SMALLER THAN 1m.
7. THE CABLE TRAY SHOULD BE TRIED BY HOLDDOWN PLATE(SUPPLIED BY VENDOR). ONE END OF THE HOLDDOWN PLATE SHOULD BE COMPRESS WITH THE INSIDE EDGE OF CABLE TRAY. THE OTHER END OF THE HOLDDOWN PLATE SHOULD BE WELDED WITH SUPPORT. PLEASE SEE THE CONNECT DRAWING OF HOLDDOWN PLATE (IF RETAIN).

**LEGEND**

- PER RACK
- ELECTRICAL CABLE TRAY (LADDER TYPE)
- ELECTRICAL CONTROL CABLE TRAY
- CABLE BURIED TRENCH
- CABLE DOWN

**EQUIPMENT AND BUILDING LIST**

NO.	DESCRIPTION AND CAPACITY	UNIT QTY.	REMARK
1	PIG RECEIVER & GAMING MANHOLE	SET 1	BY HBP
2	SLUG CATCHER	SET 1	BY HBP
3	SEPARATOR AREA	EXISTING	
4	PROCESS EQUIPMENT AREA	EXISTING	
5	NEW PROCESS EQUIPMENT AREA	EXISTING	
6	CCR (CENTRAL CONTROL ROOM)	SET 1	BY HBP
7	ELECTRICAL BUILDING	SET 1	BY HBP
8	POWER GENERATOR BUILDING	SET 1	BY HBP
9	LABORATORY	SET 1	BY COOCL
10	LPG STORAGE BUILTITS	SET 39	BY HBP
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15	RAW WATER TREATMENT SYSTEM	BY HBP	
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19	MAINTENANCE WORK SHOP	SET 1	BY COOCL
20	WAREHOUSE	SET 1	BY COOCL
21	FIRE STATION	SET 1	BY COOCL
22	SECURITY WATCH TOWER	NOs. 5	BY COOCL
23	P.W.P. YARD (100m x 50m)	SET 1	BY COOCL
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25	RELOCATED EXISTING AIR RHT	SET 1	BY COOCL
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27	NEW FLARE STACK	SET 1	BY COOCL
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33	CLINIC	SET 1	BY COOCL
34	LPG PUMP SHED	SET 1	BY HBP
35	BOUNDARY WALL	SET 1	EXISTING
36	DETEL STORAGE VESSEL	SET 1	BY HBP
37	RELOCATING COMPRESSOR PACKAGES	SET 4	BY HBP
38	INSTRUMENT AIR COMPRESSOR	SET 1	BY HBP

**REFERENCE POINT**

BS-01	N (m)	E (m)	ELEVATION(m)	REFERENCE
BS-01	716211.47	555.47	UNW 1031984	

**REFERENCE DOCUMENTS**

DOC. NO.	DOC. NO.
NGP-000-BN-15.01-0001-00	
NGP-000-EL-15.05-0001-00	
NGP-000-EL-15.01-0008-24	

**GENERAL INFORMATION**

PROJECT NO: MNSP4 1247

CONTRACTOR: HONG KONG HUIHUA GLOBAL TECHNOLOGY LIMITED

CLIENT: OIL & GAS DEVELOPMENT COMPANY LTD.

CONSULTANT: Zispan Engineers (Pvt.) Ltd.

DATE: 14-01-2018