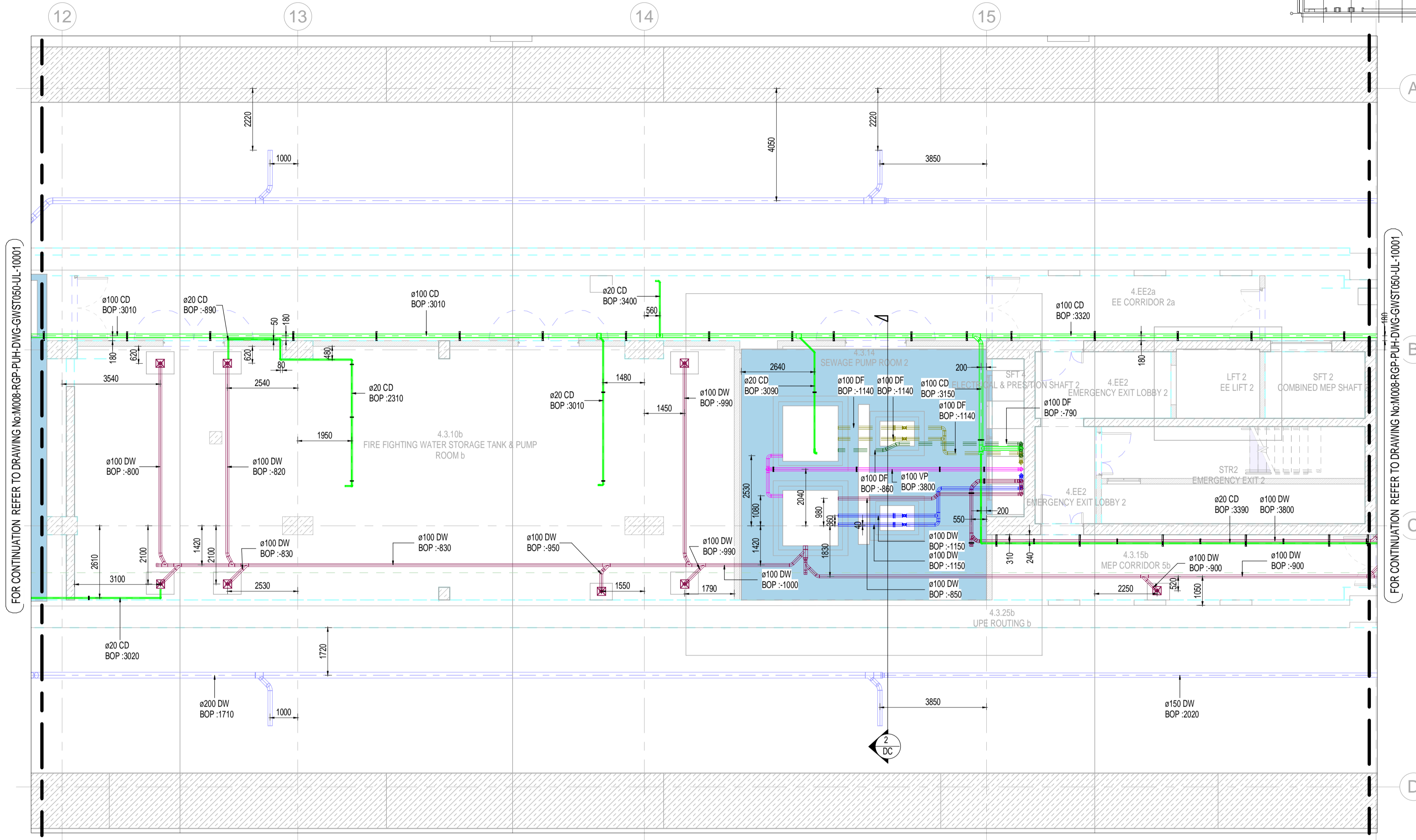
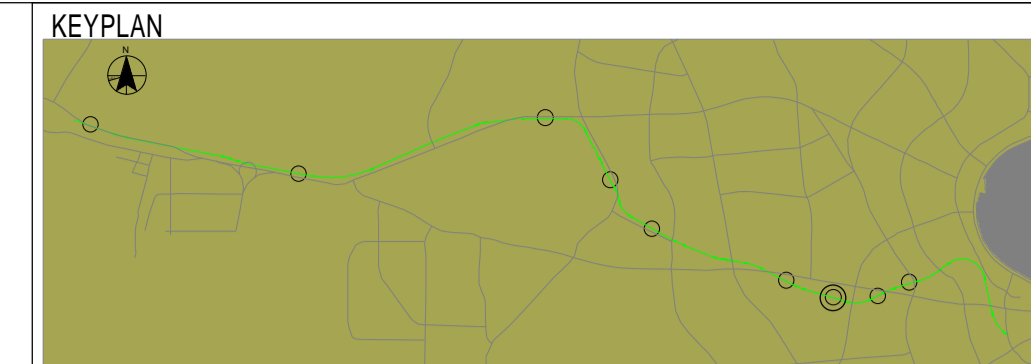
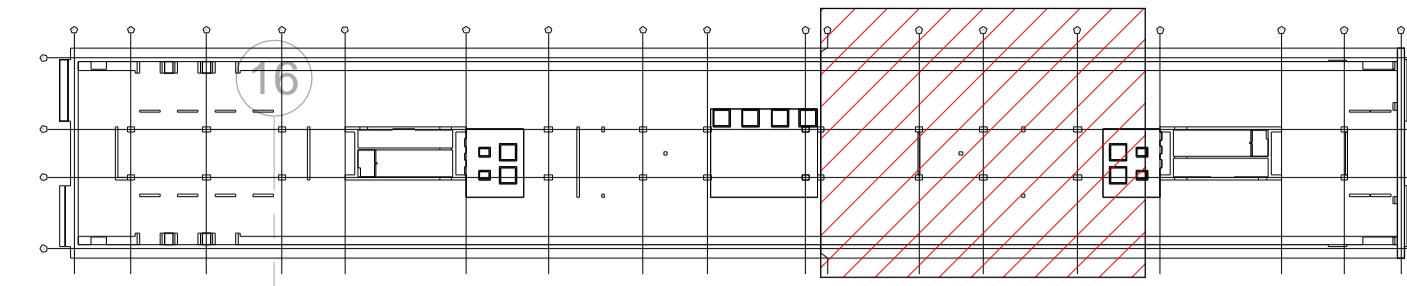
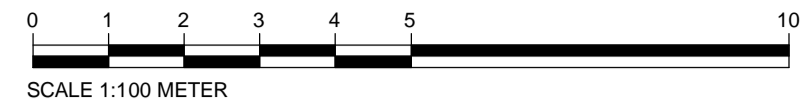
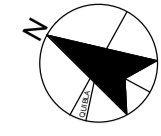


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LEGENDS	
SYMBOLS	DESCRIPTION
	CONDENSATE DRAIN PIPE
	WASTE PIPE
	PRESSURE WASTE PIPE
	TUNNEL PRESSURE WASTE
	VENT PIPE
	DRAINAGE FOUL
	DRAINAGE PRESSURE FOUL
	TRACKWAY DRAINAGE
	ELBOW DOWN
	ELBOW UP
	PIPE RISER
	FLOOR GULLY

ABBREVIATION	
ABBREVIATION	DESCRIPTION
CDP	CONDENSATE DRAIN PIPE
WP	WASTE DRAINAGE PIPE
FP	FOUL DRAINAGE PIPE
BOP	BOTTOM OF PIPE
DN	PIPE OFFSET DOWN
UP	PIPE OFFSET UP
F/A	FROM ABOVE
F/B	FROM BELOW
T/A	TO ABOVE
T/B	TO BELOW
H/L	HIGH LEVEL
CCO	CEILING CLEAN OUT
IL	INVERT LEVEL

- NOTES
- All dimensions are in millimeter unless otherwise specified.
 - This drawing should be read in conjunction with all relevant drawings and project specifications.
 - Where pipe enters a building it shall be accommodated in a sleeve and the space between the pipe and the sleeve shall be filled with approved material to prevent the passage of water, gas or insects.
 - All piping and fittings shall be secured by clips, brackets or clamps as per approved material submittal.
 - Allowance shall be made for free lateral movement with the clips, brackets or clamps.
 - Insulated piping shall be secured on clips or brackets that allow sufficient space behind the back of the pipe and the batten or wall to which the pipe is fixed for the insulation to be properly installed.
 - Hangers spacing shall be such that the piping is installed with out undue strains and stresses and provision shall be made of expansion, contraction, structural settlement and water-hammer.
 - All proprietary joints shall be made in accordance with the manufacturers instructions.
 - Satisfactory jointing techniques for all waste drainage service pipe work shall be established as per manufacturer recommendation.
 - All piping and fittings shall be cleaned internally and be free from particles of sand, soil metal filings and chips etc.
 - High level services should not be installed any lower than 3000mm AFFL.

- REFERENCES:
- M008-ARE-ARC-MD3-GWST050-CL-00101.S4.P7
 - M008-ARE-ARC-MD3-GWST050-ZZ-00101.S4.P11
 - M008-HLQ-MEP-MD3-GWST050-PL-00101.RVT
 - M008-SSF-ARC-MD3-GWST050-CL-00301.S3.P16
 - M008-SSF-ARC-MD3-GWST050-ZZ-00101.S3.P19
 - M008-SSF-STR-MD3-GWST050-CL-00301.S3.P14
 - M008-SSF-STR-MD3-GWST050-ZZ-00101.S3.P24
- SCHEMATICS AND DETAIL INSTALLATION REFERENCES :
- M008-HLQ-PUH-DWG-GWST050-AA-10001-10002
 - M008-HLQ-PUH-DWG-GWST050-AA-10041

ISSUED FOR CONSTRUCTION	DATE	BY	REVISION
C2	30-12-2017	JF	IM
C1	13-11-2016	IM	MN

SCALES @ A1	ISSUING OFFICE	PROJECT NUMBER
1:100	DOHA	M008

CLIENT APPROVAL	STATUS	PURPOSE OF ISSUE
A - APPROVED	S4	FOR CONSTRUCTION APPROVAL
B - APPROVED WITH COMMENTS		
C - DO NOT USE		

CONTRACTOR
PORR - SBG - HBK JOINT VENTURE
 P.O. BOX 207471 DOHA QATAR

CONSULTANT:
HOARE LEA QATAR LLC
 P.O. BOX 201834 DOHA QATAR

SUB CONTRACTOR
PSC S.P.A.
 Viale Scharounelli 27/28 - 00173 ROMA
 TEL: 06/72630488 FAX: 06/72671393
 Website: www.pscgroup.com QATAR - ITALY

PROJECT
**DESIGN & BUILD PACKAGE 2
 GREEN LINE UNDERGROUND**

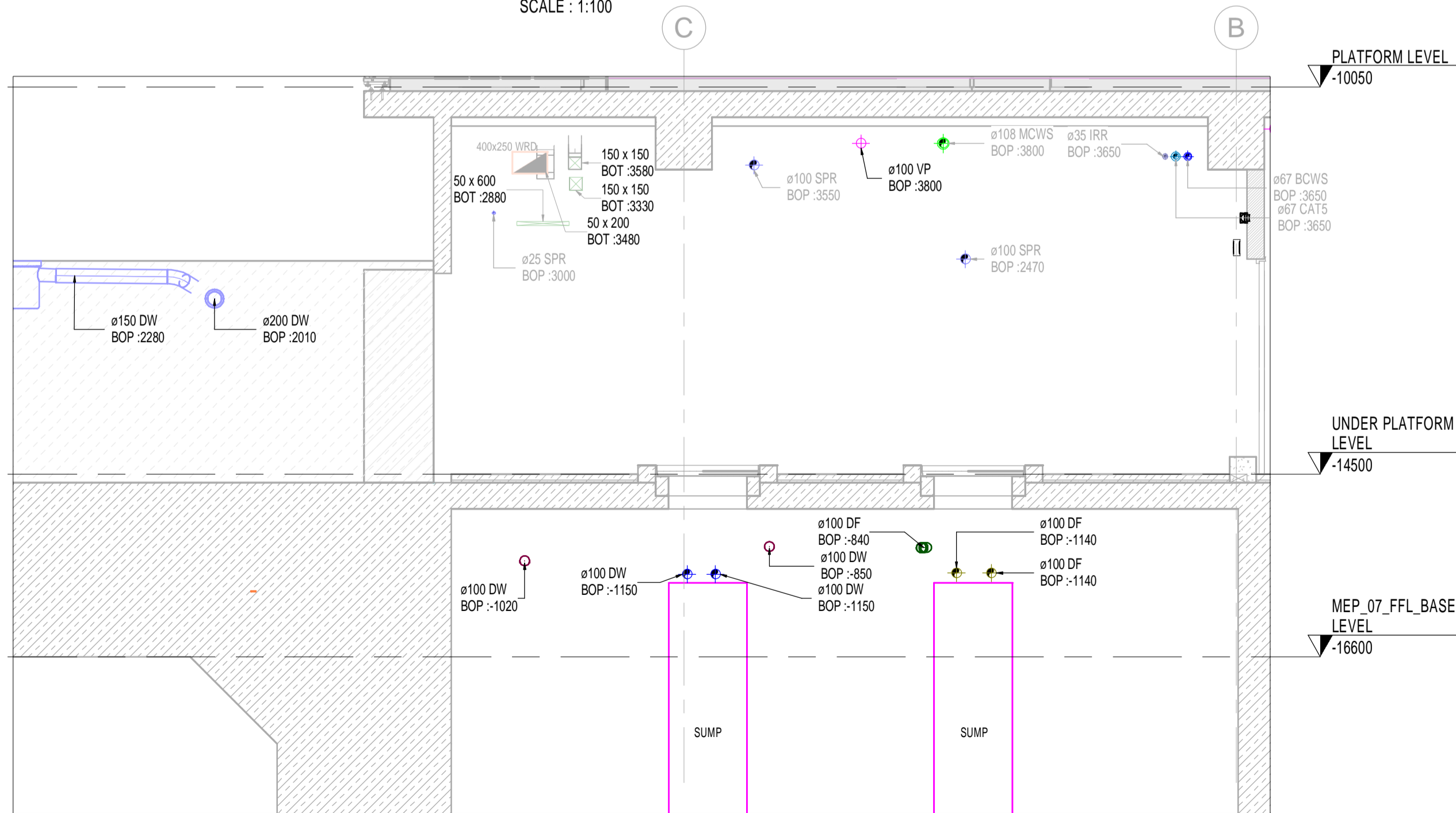
TITLE
SHOP DRAWINGS STATION - AL RAYYAN / AL QADEEM UNDER PLATFORM LEVEL - FOUL AND WASTE DRAINAGE SERVICES (STATION CENTRAL EAST)

CLIENT
QATAR RAILWAYS COMPANY
 P.O. BOX 29988 DOHA QATAR

DRAWING NUMBER
M008-RGP-PUH-DWG-GWST050-UL-10002

SHOP DRAWINGS STATION - AL RAYYAN / AL QADEEM UNDER PLATFORM LEVEL - FOUL AND WASTE DRAINAGE SERVICES (STATION CENTRAL EAST)

SCALE : 1:100



SECTION-DC
 SCALE : 1:50

- ALL DRAINAGE PIPES SUCH AS SOIL, WASTE, VENT AND INCLUDING CONDENSATE DRAIN SHALL BE GALVANISED SEAMLESS STEEL PIPE CONFORMING TO BS1387 MEDIUM CLASS UPTO 50MM DIAMETER AND HUBLESS CAST IRON PIPE FROM 65MM DIAMETER
- ALL RAIN WATER PIPES SHALL BE GALVANISED SEAMLESS STEEL PIPE UPTO 75MM DIAMETER AND CAST IRON PIPE FOR PIPES ABOVE 75MM
- THE HUBLESS CAST IRON PIPES AND FITTINGS SHALL BE WITH STAINLESS STEEL COUPLINGS HAVING STAINLESS STEEL 316 GRADE STRAPS & CLAMPS, SINGLE NUT BOLT & EPDM RUBBER GASKETS
- FOR THE CHANGE OF DIRECTION AND LEVELS, APPLICATION OF CONCENTRATED LOADS, JOINTS POINTS, FITTINGS AND VALVES EXTRA SUPPORT SHALL BE PROVIDED AS PER THE SITE CONDITION.
- THREADED ROD SHALL BE HOT DIPPED GALVANIZED IRON.

GALVANIZED STEEL PIPES PIPE SUPPORT SCHEDULE			
PIPE DIA	PPR PIPE OUTSIDE DIA (NOMINAL)	DISTANCE BETWEEN SUPPORTS	THREADED ROD SIZE
mm	mm	M	-
15	21.3	2.0	M8
20	26.7	2.0	M8
25	33.4	2.0	M8
32	42.2	2.7	M8
40	48.3	2.7	M8
50	60.3	3.0	M8
65	73	3.4	M10
70	78	3.4	M10
80	88.9	3.7	M10
100	110	3.0	M10
125	135	3.0	M10
150	160	3.0	M10
200	210	3.0	M12