

Annexure A –

QR contracts, Volume 4 –Table of Contents

Contents

	Page Number
1. PROGRAM DEFINITION	1
1.1 Introduction	1
2. QUALITY MANAGEMENT	2
2.1 Compliance.....	2
2.2 Quality Manual.....	3
2.3 Quality Plans	3
2.4 Inspection and Test Plans (ITP)	3
2.5 Reports of Inspections, Tests and Trials	4
2.6 Quality Control Register	4
2.7 Internal Audit.....	5
2.8 Quality Training	5
2.9 Quality Management System Information	5
2.10 Audits	6
2.11 Quality Control Requirements	6
2.12 Notice of Place of Manufacture and/or Source of Supply	7
3. PLANNING, PROGRAMMING AND PROGRESS MANAGEMENT	8
3.1 Project Management	8
3.2 Software.....	8
3.3 Programmes	8
3.4 Programme Submissions	9
3.5 Master Programme – First Submissions	9
3.6 Programme - Updates	10
3.7 Sub Programmes below the Master Programme.....	11
3.8 Supplementary Programmes List	11
3.9 Effects on Programme of Delays and Change	11
4. RECORD KEEPING, PROGRESS REPORTING AND CONTROL.....	12
4.1 Record Keeping.....	12
4.2 Progress Reporting	12
4.3 Exception Reporting	12
4.4 Visuals Reporting	12
5. INFORMATION MANAGEMENT	17
5.1 General	17
5.2 Project Management Information System (PMIS).....	17

5.3	Electronic Document Management System (EDMS)	17
5.4	Records	18
5.5	Document Submittal Register.....	20
5.6	Document Submissions.....	20
5.7	Electronic Submissions	20
6.	TECHNICAL INFORMATION MANAGEMENT.....	21
6.1	Scope.....	21
7.	CHANGE MANAGEMENT	22
7.1	Scope.....	22
7.2	Change Management Plan	22
8.	COMMERCIAL MANAGEMENT	23
8.1	General	23
8.2	Cash Flow Reporting	23
8.3	Variation Reporting.....	23
8.4	Variation Proposals	23
8.5	Monthly Contract Price assessments	24
9.	COST MANAGEMENT REPORTING.....	25
9.1	General	25
10.	STAKEHOLDER AND COMMUNICATIONS MANAGEMENT.....	26
10.1	General	26
10.2	Stakeholder and Communications Management Plan.....	26
10.3	External Communications.....	26
11.	SYSTEMS ASSURANCE.....	27
11.1	General	27
11.2	Independent Safety Assessor (ISA)	27
11.3	Safety Cases	27
11.4	System Assurance Activities	27
11.5	Systems Assurance Deliverables	28
12.	DESIGN MANAGEMENT	32
12.1	General	32
12.2	Design Verification Engineer (DVE)	32
12.3	DVE Certification	32
12.4	Design Plan	33
12.5	Design Submission Stages	33
12.6	Detailed Design Stage 1	33

12.7	Detailed Design Stage 2	34
12.8	Design Submission Requirements	36
12.9	Format of Calculations	37
12.10	Drawing and CAD Data	37
12.11	Detailed Design Stage 1 Submission (Preliminary Design)	37
12.12	Manufacture, Construction and Installation	38
12.13	Working Drawings	38
12.14	As-Built Drawings and Calculations.....	38
12.15	Detailed Topographical Survey.....	38
12.16	Design Checking Plan.....	39
13.	VALUE MANAGEMENT/VALUE ENGINEERING	42
13.1	General	42
13.2	VM/VE Management Plan.....	42
13.3	Reporting VM and VE	42
13.4	Register of VM/VE Initiatives	42
13.5	Approval and Acceptance of VM/VE Proposals	43
14.	REQUIREMENTS MANAGEMENT	44
14.1	General	44
15.	CONFIGURATION MANAGEMENT.....	45
15.1	General	45
16.	CONSTRUCTION, MANUFACTURING AND INSTALLATION.....	46
16.1	Demolition of Structures	46
16.2	Method Statements	46
16.3	Contractor's Equipment.....	47
16.4	Removal of Temporary Works and Facilities	47
16.5	Temporary Traffic Management	47
16.6	Disposal of Excavated Materials	48
16.7	Storage, Shipping and Delivery	49
17.	TESTING AND COMMISSIONING.....	51
17.1	Testing	51
17.2	Commissioning Co-ordination	52
18.	OPERATING AND MAINTENANCE MANUALS, RECORD DRAWINGS	53
18.1	General	53
18.2	Record Drawings	53
19.	TRAINING	55

19.1	Training requirement	55
19.2	Training Objectives.....	55
19.3	Selection of Trainees.....	55
19.4	Training Methods.....	55
19.5	Contractor's Training Staff.....	56
19.6	Training Locations	56
19.7	Training Equipment	57
19.8	Administration	57
20.	HEALTH AND SAFETY MANAGEMENT	58
20.1	General	58
20.2	Legislation, Codes of Practice etc	58
20.3	Management Responsibility.....	59
20.4	Subcontractors	59
20.5	Breach of Health and Safety Obligations	59
20.6	Contractor's Documentation	59
20.7	Health and Safety Plan	60
20.8	Health and Safety Manual Procedures	61
20.9	Risk Assessments	62
20.10	Method Statements	63
20.11	Contractor's Safety Arrangements	63
20.12	Employer Safety Audits	64
20.13	Internal safety audits	64
20.14	Reporting of Accidents, Incidents and Dangerous Occurrence	65
20.15	Monthly Reports	65
20.16	Health and Safety Staff.....	65
20.17	Health and Safety Promotion and Incentive Schemes.....	66
20.18	Health and Safety Information.....	66
20.19	Health and Safety Training	67
20.20	Alcohol and Drugs	67
20.21	Emergency Procedures and Facilities	67
20.22	First Aid Facilities	68
20.23	Tunnel and Underground Work.....	68
20.24	Standby Contractor's Equipment.....	68
20.25	Lifting Appliances and Lifting Gear.....	69
20.26	Fire Precautions	69

20.27	Dangerous Goods, Dangerous Substances.....	70
20.28	Passenger Hoists	71
20.29	Excavations	71
20.30	Site Transport	71
20.31	Driving/Operator's Licenses.....	71
20.32	Specialist Safety Equipment	72
20.33	Personal Protective Equipment (PPE)	72
20.34	Ladders, Temporary Access	72
20.35	Working Over or Near Water	73
20.36	Work Over Public Areas	73
20.37	Site Security	73
21.	SUSTAINABILITY.....	74
21.1	General	74
21.2	GSAS Rating System Elements: Categories and Criteria.....	74
21.3	Urban Connectivity	74
21.4	Site.....	76
21.5	Energy	77
21.6	Water	78
21.7	Materials	78
21.8	Indoor Environment.....	79
21.9	Cultural and Economic Value	81
21.10	Management and Operations	81
22.	ENVIRONMENTAL.....	83
22.1	General	83
22.2	Management and Subcontractors	83
22.3	Personnel.....	84
22.4	Breach of Environmental Obligations	84
22.5	Environmental Management System Manual (EMS Manual).....	85
22.6	Environmental Impact Assessment Report (EIA Report)	85
22.7	Environmental Management Plan (EMPs)	85
22.8	Environment Mitigation Implementation Plan.....	86
22.9	Risk Assessments	86
22.10	Environmental Inspections and Monitoring by the Contractor	86
22.11	Environmental Audits by the Contractor	87
22.12	Environmental Audits by the Employer	88

22.13 Reporting of Environmental Incidents	88
22.14 Monthly Reports	88
22.15 Sources of Nuisance	89
22.16 Batching and Crushing Contractor's Equipment	89
22.17 Water Borne Silt and Debris	89
22.18 Mitigation of Environmental Impacts	89
22.19 Land Use and Property Impacts	89
22.20 Transport and Traffic Impacts	90
22.21 Visual and Landscaping Impacts.....	90
22.22 Air Quality Impacts	90
22.23 Soils, Geology and Water Quality Impacts.....	92
22.24 Water Quality	93
22.25 Water Pollution: Marine Based Operations	94
22.26 Noise Impacts.....	94
22.27 Noise Control.....	94
22.28 Waste Impacts.....	95
22.29 Socio-economic Impacts	95
22.30 Ecology Impacts	96
22.31 Other Impacts	97
22.32 EMP Template.....	97
23. RISK MANAGEMENT.....	99
23.1 General	99
23.2 Risk management plan	99
24. INTERFACE MANAGEMENT.....	100
24.1 General	100
24.2 Interfaces	100
24.3 Interfacing Parties.....	100
24.4 Responsibilities of the Contractor	100
24.5 Interface Management System (IMS).....	101
24.6 Interface Management Plan (IMP)	101
24.7 Responsibility Interface Matrix and Interface Sheets	102
24.8 Interface Register	103
24.9 Coordinated Design Interface Programme (CDIP) and Report.....	103
24.10 Design Control Interface Documents	103
24.11 Interface Management Software and Reporting	103

25. SURVEY	104
26. SITE MANAGEMENT	105
26.1 Access to the Site.....	105
26.2 Site Installation	105
26.3 Site Conditions, Maintenance and Clearance	106
26.4 Site Traffic Management and Transport Safety	108
27. SITE AND LABOUR CAMP WELFARE.....	110
28. CONTRACTOR'S ORGANISATION AND SUPERINTENDENCE.....	111
28.1 Organisation chart	111
28.2 Key personnel.....	111
28.3 Design Team	113
28.4 Subcontractors	113
28.5 Architecture.....	114
28.6 Signage.....	114
28.7 HSSE Staff	114
28.8 Responsibility Matrix.....	115

Appendix A - Program Definition

Appendix B - File Naming Conventions and Metadata Requirements

Appendix C - CAD Manual

Appendix D - GIS Manual

Appendix E - Building Information Modelling - Standards, Methods, and Procedure