

Contents

S. No.	Description	Page
1.	Categories/Classes of planning	1
2.	Explanation of classes	1
3.	Preparation of various bill of quantities	2
4.	Preparation of various building specifications	3
5.	Converting the above documents to the tender documents	4
6.	Shortlisting/Prequalification of tenderers	4
7.	Floating tender, closing, scrutiny and negotiation	4
8.	Tender bond	5
9.	Site handover, commencement of construction, supervision and control by the various agencies working in the contract area	7
10.	Co-ordination, Liaison	8
11.	Contractor's organisation's structure levels	8
12.	Contractor's agent	8
13.	Internal dealings with contractor's organisation and dealings at site	9, 10
14.	Elaboration of co-ordinations as pointed out earlier	10
	Architectural/Structural	10
	Structural/Mechanical/Engineering	11
	Electrical/Mechanical/Engineering	11
	Reflected ceiling plans	11
	Structural finishes/Electrical	12
	Structural/Plumbing and Drainage	12
	Services/Finishes	13
	External services/External works	13
	Liaison to the statutory bodies	14
	Structural/Structural	15
15.	Liaison	
	Main contractor/Sub-contractor	15
	Sub-contractor/Sub-contractor	17
	Main contractor/Resident engineer and Engineer	17
	Contractor/Other main contractors	17
	Main contractor/Local statutory bodies	18
	Main contractor/Engineer	18
16.	What a contractor's agent is supposed to do	18
	Maintaining site diary, site diary	19
	Some consultants prefer daily job records	20
	Daily report submittal	20
	Material submittal	20
	Material submittal proforma/sheet	21

Shop drawing/Working drawing, proforma	22
Weekly programme	22
Quarterly programme	23
Complete programme/Bar schedule, chart	23
Allocating percentages to a particular activity/operation	26
Revised programme	26
Monthly progress report, monthly technical and co-ordination meeting internal as well as external, contract site meeting	26
Minutes of technical and co-ordination meeting	28
Monthly progress report	31
Special and instant meetings	37
Site memorandum	38
Site instruction, Engineer's instruction	39
Valuation	40
Valuation to sub-contractor/minor sub-contractor	41
Reflected ceiling plan	41
Record drawing/As built drawings	42
Request for inspection	42
Test report/Material test record	42, 43
Concrete pour control, Ready mix concrete	43
Material status schedule	46
Working drawing and shop drawing	46
Complete co-ordination and liaison	46
Liaison	46
Internal dealings with the contractor's organisation	46
Material requirement	46
Co-ordination with garage	46
Daily report to the head office	47
Co-ordination with the main quantity engineer/surveyor	47
Co-ordination with the office manager, staff and other agents	47
Co-ordination with the contracts manager	47
Miscellaneous labour problems	48
Co-ordination with other sections of the company	48
Agent's dealings at site	49
Daily programme	49
Daily supervision	49
Daily material order	50
Solving the instant site problems	50
Solving the problems with the resident engineer/consultants	50
Solving staff disputes and ordering	51
Labour bills for wages, overtimes and leave salaries	51
Labour working on contract	52
Preparing rebar schedule	52
Proposals for alternatives to the resident engineer/consultants	52
Technical study of the job and instructions	52
Daily meetings and general liaison	52
Analysis of the project cost based on programme	53

17.	What a deputy agent/sub-agent should do	56
18.	What a site engineer should do	57
19.	What a general foreman should do	58
20.	What an assistant engineer should do	58
21.	What a foreman should do	58
22.	What a plant engineer or foreman should do	59
23.	What is an office manager	59
24.	Time clerk/keeper, Storekeeper	59
25.	What a mechanical engineer should do	59
26.	What an electrical engineer should do	60
27.	What a plumbing and drainage engineer should do	63
28.	What a road engineer should do	64
29.	Specialists works	65
30.	Engineer and his supervision	65
	Engineer's office structure's levels	66
31.	Resident engineer and supervision	67
32.	What a resident engineer should do	67
	Contractual/Legal aspect	74
33.	Architectural engineering consultant	74
34.	Structural engineering consultant	74
35.	Civil works engineering consultant	74
36.	Mechanical engineering consultant	75
37.	Electrical engineering consultant	75
38.	Plumbing and drainage engineering consultant	75
39.	Quantity engineering consultant	75
40.	Office staff	75
41.	Inspectors/Clerk of works	75
42.	Working relations	76
43.	Records to be kept in the resident engineer's office	78
44.	Corresponding proformas/Supervisory records	81
	Engineer's instructions	82
	Minutes of the co-ordinations and technical meeting	83
	Minutes of the contract site meeting	85
	Remedial works/Notes, Remedial note	87
	Confidential Letter	87
	Variation Order	88
	Snagging List/Format	88
	Progress Charts	88, 89, 90
	Day works	91
	Contractor's letter to engineer for practical completion	92
	Completion Certificate correspondences for practical and final completions	
	Site Clarification, General Inspection request	94
	Concrete pour inspection request, Daily Job Records	95, 96
	Accident Report on site	97
	Proforma for the infrastructural chamber's record	98
	Proforma for the testing and commissioning	99
45.	Operations/activities involved in swimming pool construction	99

46.	General activities in a building construction/execution	102
47.	Sports courts surfacing	108
48.	Epoxy floors, concrete auxiliaries & resin compounds	110
49.	Knowledge of different types of contracts	111
	Package deal contract	111
	Bills of quantity contract	112
	Schedule of rates contract	112
	Lump sum contract	112
	Itemised lump sum contract	112
	Bill of quantity plus percentage rate contract	113
	Cost plus percentage contract	113
	Cost plus fee contract	113
	Labour rate contract	113
	Target contract	114
	Construction by direct labour	114
	Sub-contract	114
50.	Some miscellaneous contract terms	114
	Prime cost sum	114
	Provisional sum	114
	Price enhancement on the materials	114
	Enhancement on wages	115
	Extras	115
	Lump sum itemised contract	115
	Bill of quantity contract	115
	Fixation of extra prices	115
	Unforeseen circumstances	116
	Loaded price	116
	Claims	116
	Delay claims	116
	Practical completion	117
	Civil engineering project management	118
51.	Management contract for building projects (typical)	
	Civil Engineering Construction Contract	122
52.	New Site	149
53.	Sketches 171 Nos. (not to scale)	156
54.	Buildings profiles 118 Nos. (not to scale)	349
55.	General Information about Swimming Pools of Jacuzzi	470
	Engineer in Law	650
	Building Practice with Statutory References	