Alpha
Consulting Engineers Pte Ltd

PROJECT QUALITY PLAN

BIDADARI ESTATE C1-C3

For

HOUSING & DEVELOPMENT BOARD

Copy No.	1

Prepared By: Yip Yoke Fun

Authorised By: Loh Fook Yuen

Date: 24 January 2022

TABLE OF CONTENTS

SECTION	DESCRIPTION
-	**TITLE PAGE**
-	**TABLE OF CONTENTS**
1	**QUALITY PLAN CONTROL AND DISTRIBUTION**
1.1	List of Copy Holders
1.2	Revision Record
2	**PROJECT INFORMATION**
2.1	Project Description
2.2	Project Cost
2.3	Scope of Works
3	**ORGANISATION**
3.1	Organisation Chart
3.2	ACEPL's Project Team Member
3.3	Client/Client's Representative
3.4	Other Consultants - Local - Overseas – NOT APPLICABLE
3.5	Contractor/Sub-Contractors
3.6	Authorities
4	**PROGRAMME**
4.1	Overall Programme
4.2	Authority Submission Status for M&E Services – 1st Submission
4.3	Authority Submission Status for M&E Services (Amendment) – 2nd Submission
5	**PROJECT RECORDS**
5.1	List of Internal Files
5.2	Filing of Drawings

TABLE OF CONTENTS

SECTION	DESCRIPTION
6	**INTERFACING**
6.1	Method of Interface
6.2	Internal Design Interface – NOT APPLICABLE
6.3	Circulation of Documents to External Parties
7	**WORK AUTHORISATION**
8	**DESIGN INPUT AND METHODOLOGY**
8.1	List of Client's Standards, Reference Documents or Brief
8.2	List of Applicable Code of Practice and Regulations
8.3	List of Design Guide or Handbook Used
8.4	List of Pre-Consultation and Waiver
8.5	List of Applicable Quality System Procedures
8.6	List of Software Used for Design/Analysis
9	**ENVIRONMENTAL CONSIDERATIONS**
9.1	Sustainable Design Features/Criteria
9.2	Site PPE Requirement
9.3	Site Emergency Preparedness
9.4	Reporting of Environmental Non-conformances – NOT APPLICABLE
9.5	List of Applicable Environmental Management System Procedures
10	**CLIENT'S REQUIREMENTS**
10.1	List of Output Required by Client
10.2	Specific Procedures Required by Client – NOT APPLICABLE
11	**LIST OF SUB-JOB**
11.1	List of Sub-Job Numbers – NOT APPLICABLE

SECTION 1

QUALITY PLAN CONTROL AND DISTRIBUTION

1.1 List of Copy Holders

Copy No.	Copy Holder	Date of Issue
1	6185	24 January 2022

1.2 Revision Record

Revision	Date of Issue	Section Reference	Page(s)	Remarks
0	15 September 2014	1 to 11	29	+ 1 pg (Section 9.1 Sustainable Design Features/Criteria)
1	27 January 2016	1 to 11	29	+ 1 pg (Section 9.1 Sustainable Design Features/Criteria)
2	12 January 2017	1 to 11	29	+ 1 pg (Section 9.1 Sustainable Design Features/Criteria) +31 pgs (Section 4.1 Overall Programme)
3	5 July 2017	1 to 11	29	+31 pgs (Section 4.1 Overall Programme) + 1 pg (Section 9.1 Sustainable Design Features/Criteria)
4	9 October 2017	1 to 11	29	+31 pgs (Section 4.1 Overall Programme) + 1 pg (Section 9.1 Sustainable Design Features/Criteria)

1.2 Revision Record (Cont'd)

Revision	Date of Issue	Section Reference	Page(s)	Remarks
5	26 April 2019	1 to 11	30	+31 pgs (Section 4.1 Overall Programme) + 1 pg (Section 9.1 Sustainable Design Features/Criteria)
6	29 October 2019	1 to 11	30	+ 32 pgs (Section 4.1 Overall Programme) + 1 pg (Section 9.1 Sustainable Design Features/Criteria)
7	16 December 2020	1 to 11	30	+ 17 pgs (Section 4.1 Overall Programme) + 1 pg (Section 9.1 Sustainable Design Features/Criteria)
8	24 January 2022	1 to 11	30	+ 17 pgs (Section 4.1 Overall Programme) + 1 pg (Section 9.1 Sustainable Design Features/Criteria)

SECTION 2

PROJECT INFORMATION

2.1 Project Description

Type of Development	Residential

Statistics of Development	
Site Area, m²	64,458
Nett Floor Area, m²	-
Gross Floor Area, m²	217,338
Covered Carpark, m²	1,259.90
No. of Covered Carpark Lots	1,064
No. of Apartments/Houses	1,789 units
No. of Beds (for Hospitals)	-
No. of Guestroom (for Hotels)	-
No. of Blocks / No. of Storeys	5 Blocks of 17 Storey & 4 Blocks of 16 Storey Residential Building with 2 Blocks of Multi Storey Carpark
Green Mark Category	Gold Plus
No. of Phases	18

2.2 Project Cost

M&E Services Cost Plan (S$ x 1M)										
Services	EI	ACVI	LEI	FFAI	PSI	SPFI				
Estimate	18	-	4.1	6.5	15	-				
Awarded	12.75	0.10	-	1.26	11.04	-				

Total Project Construction Cost (S$ x1M)			
	Site Clearance	Piling Works	Main Contract
Estimate		-	-
Awarded		-	235.668

Site Clearance shall include earth work, soil improvement, service diversion and termination.

2.3 Scope of Works

2.3.1 Scope of Consultancy Services

Conceptual/Schematic Design	√
Detailed Design	√
Tender Documentation	-
Tender Evaluation	-
Contract Supervision	√
M&E Costing	√
Submissions to Authority	√

(✓*where applicable*)

2.3.2 Scope of M&E Services

ELECTRICAL	√	AIR CONDITIONING		SPRINKLER	√	SANITARY	√	SWIMMING POOL	
LIFT	√	MECHANICAL VENTILATION	√	FIRE ALARM	√	COLD WATER	√	STEAM BOILER	
ESCALATOR		MECHANICAL SMOKE EXTRACT		HOSEREEL	√	HOT WATER	√	FUEL STORAGE	
PABX		COMPUTER A/C		WET RISER		TOWN GAS	√		
SECURITY		BST CARPARK EXH		DRY RISER	√	LPG GAS			
TELELIFT		HEATING				MEDICAL GAS			
DATA COMM.									
FLUSHFLOOR TRUNKING									

(✓*where applicable*)

2.3.3 Submission to Relevant Authorities by Others

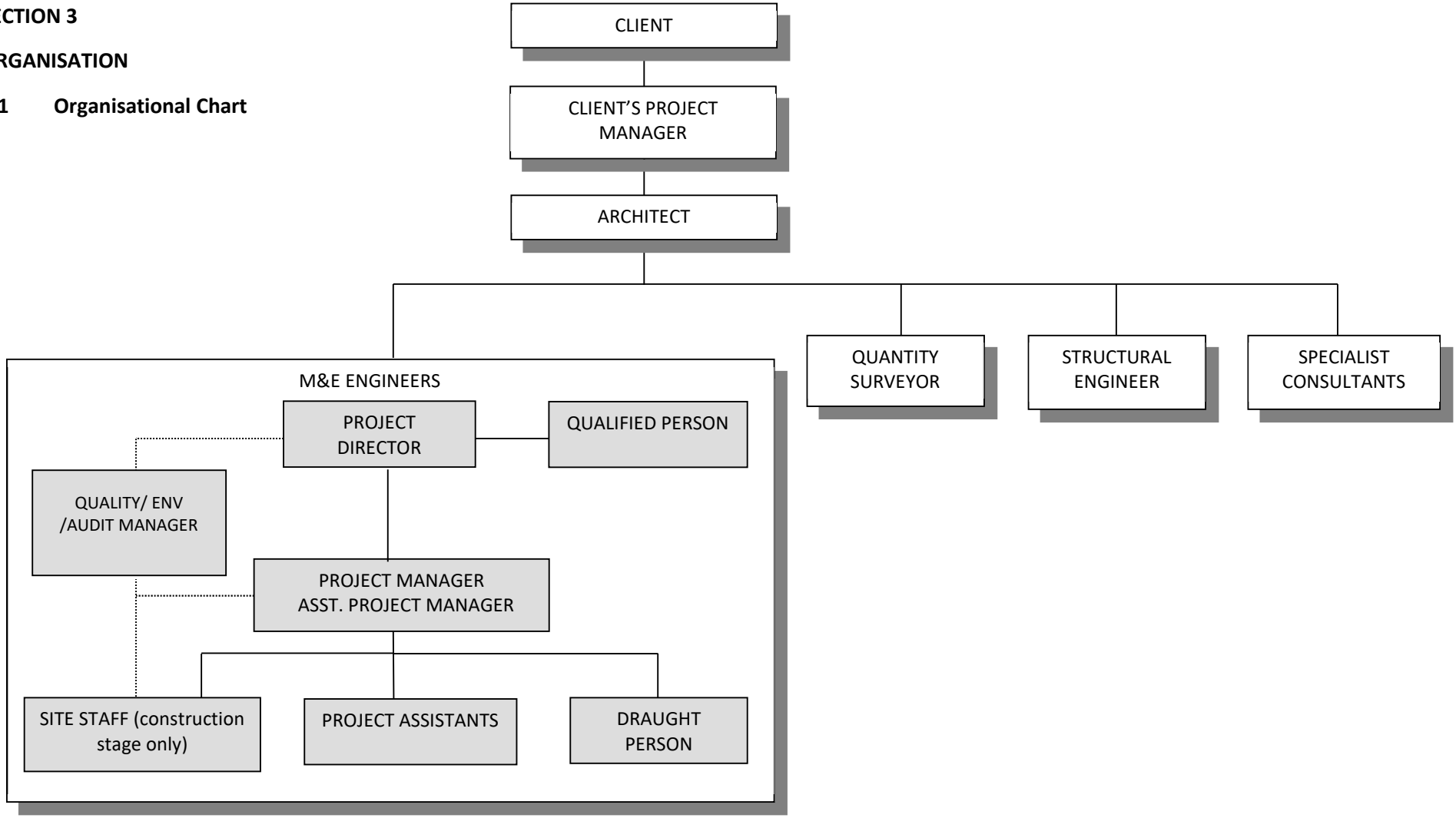
EJECTOR & DIVERTER	√		SUMP PUMP	√	FUEL OIL TANK		LIFT & ESCALATOR		PRESSURE VESSEL	√	HOISTS		FOAM	

(✓*where applicable*)

SECTION 3

ORGANISATION

3.1 Organisational Chart



SECTION 3

ORGANISATION

3.2 ACEPL's Project Team Member

TITLE		NAME
Project Director		Loh Fook Yuen (LFY)
Qualified Person	Mechanical	Choong Choon Guan (CCG)
	Electrical	Loh Fook Yuen (LFY)
Project Manager		Yip Yoke Fun (YYF)
Assistant Project Manager		-
Project Assistant (Mech)		-
Project Assistant (Elect)		Lim Sheng Benedict (LSH)
Draughtsperson		Common Pool
Resident Engineer (M&E)		
Assistant Resident Engineer (M&E)		
Clerk-of-Work (M&E)		

3.3 Client/Client's Representatives

Client: Housing & Development Board

Address: HDB Hub
480 Lorong 6, Toa Payoh
Singapore 310480

Tel: 6490 2043

Fax: 6490 2030

Client's Representatives:

Name of Company	Contact Person	Contact
Housing & Development Board	Name: Ms Ong Cai Yi Position: Executive Architect	Tel: 6490 2156 Fax: 6490 2030 Email: ocy1@hdb.gov.sg
Housing & Development Board	Name: Mr Lim Khim Siang (Parcel C3) Position: Senior Engineer	Tel: 6490 3265 Fax: 6490 2030 Handphone:- Email: Lim_Khim_Siang@hdb.gov.sg
Housing & Development Board	Name: Mr Xie Yunshen (Parcel C1 & C2) Position: Senior Engineer	Tel: 6490 3230 Fax: 6490 2030 Handphone:- Email: XIE_yunshen@hdb.gov.sg
	Name: Position:	Tel: Fax: Handphone: Email:
	Name: Position:	Tel: Fax: Handphone: Email:

3.4 **Other Consultants** (Local)

Function / Name of Company	Contact Person	Contact
Architect MKPL Architects Pte Ltd	Name: Mr Siew Man Kok Position: Chairman	Tel: 6223 4633 Fax: 6223 4233 Handphone: - Email: bidadari1401@mkpl.com.sg
Quantity Surveyor Davis Langdon KPK (S) Pte Ltd	Name: Mr John Ung Position: Snr Associate Director	Tel: 6536 3303 Fax: 6536 2633 Handphone: 9657 4122 Email: 13009BIDADARIDLKPK@davislangdon.com
Structural Engineer KTP Consultants Pte Ltd	Name: Ms Foo Huey Shyan Position: Associate Director	Tel: 6839 7459 Fax: 6273 8454 Handphone: 8139 1115 Email: 12041_bidadari@ktp.com.sg
Interior Designer	Name: Position:	Tel: Fax: Handphone: Email:
Lighting Consultant	Name: Position:	Tel: Fax: Handphone: Email:
Acoustic Consultant	Name: Position:	Tel: Fax: Handphone: Email:
Landscape Consultant ICN Design International Pte Ltd	Name: Mr Tay Kwang Liang Position: Associate	Tel: 6225 3006 Fax: 6225 0924 Handphone:- Email: kltay@icn-design.com.sg
_____	Name: Position:	Tel: Fax: Handphone: Email:

3.4 Other Consultants (Overseas) – **NOT APPLICABLE**

Function / Name of Company	Contact Person	Contact
Architect	Name: Position:	Tel: Fax: Handphone: Email:
M&E Consultant	Name: Position:	Tel: Fax: Handphone: Email:
Quantity Surveyor	Name: Position:	Tel: Fax: Handphone: Email:
Structural Engineer	Name: Position:	Tel: Fax: Handphone: Email:
Interior Designer	Name: Position:	Tel: Fax: Handphone: Email:
Lighting Consultant	Name: Position:	Tel: Fax: Handphone: Email:
Acoustic Consultant	Name: Position:	Tel: Fax: Handphone: Email:
_____	Name: Position:	Tel: Fax: Handphone: Email:

3.5 Contractors/Sub-Contractors

Function / Name of Company	Contract *	Contact Person	Contact
Main Contractor Rich Construction Co Pte Ltd		Name: Mr Philip Zhang Position: Project Manager	Tel: 6343 1372 Fax: 6343 1371 Handphone: 9182 8915 Email: zhangshuwen@chinaconstruction.com.sg
Mechanical Ventilation Installation Sub-Contractor Great Resources M&E Contractor Pte Ltd	DSC	Name: Mr Sun Jia Ji Position: Deputy Project Manager	Tel: 6756 6123 Fax: 6756 6597 Handphone: 9115 7767 Email: sunjiaji@chinaconstruction.com.sg
Plumbing & Sanitary Installation Sub-Contractor Great Resources M&E Contractor Pte Ltd	DSC	Name: Mr Simon Lin Position: Project Manager	Tel: 6756 6123 Fax: 6756 6597 Handphone: 9753 0898 Email: simonlin@chinaconstruction.com.sg
Electrical Installation Sub-Contractor United Engineering Pte Ltd	DSC	Name: Mr Zheng Xin Lin Position: Project Director	Tel: 6659 5055 Fax: 6659 9587 Handphone: 9853 5678 Email: Zheng4040@uepl.com.sg
Lift & Escalator Installation Sub-Contractor Chevalier (S) Holdings Pte Ltd	DSC	Name: Mr Tan Swee Choon Position: Assistant General Manager	Tel: 6273 2266 Fax: 6747 2988 Handphone: - Email: tansc@chevalier.com.sg
Fire Fighting & Alarm Installation Sub-Contractor Kimty Fire Protection Co Pte Ltd	DSC	Name: Mr Matthew Ho Position: Director	Tel: 6255 3533 Fax: 6255 3255 Handphone: 8838 2727 Email: matthew@kimty.sg
Swimming Pool Filtration Plant Installation Sub-Contractor		Name: Position:	Tel: Fax: Handphone: Email:
Carpark System Installation Sub-Contractor		Name: Position:	Tel: Fax: Handphone: Email:
_____		Name: Position:	Tel: Fax: Handphone: Email:

** Type of Contract*
- *NSC (Nominated Sub-Contract)*
- *DSC (Domesticated Sub-Contract)*
- *DC (Direct Contract)*
- *NS (Nominated Supplier)*

3.6 Authorities

Authorities/Department	Contact Person	Tel/Fax Nos./E-mail
SP PowerGrid:		
(a) Sub-Station	Mr Abbas	6378 8564
(b) Diversion	Mr Andrew Chu Jian Tek	6240 9239
SP Services:		
(a) Customer Supply		
(b) Installation		
(c) Meter Section		
(d) Road Lighting		
TFCC:		
(a) SCV	Mr Ricky Tam	9859 0637
(b) SingTel	Mr Ng Kok Yong	6342 5934
(c) IDA	Mr Seah Koon Chye	6211 1751
BCA:		
(a) Building Plan		
(b) Green Mark	Ms Lee Sui Fung/Ms Neo Hwei Fern	6804 4710
FSSD:		
(a) Building Plan	Ms Ang Ai Hua Nancy	6848 1729
(b) M&E Plan	Mr Tan Chiew Sia/ Ms Ang Ai Hua Nancy	6848 1490/6848 1729
PUB (Water Supply) Network Dept:		
(a) Water Conservation		
(b) Plumbing Plan	Ms Marie Chan	6731 3620
(c) Diversion	Mr Kua Cheng Chuan	9783 1461
(d) NEWater		
PUB Water Reclamation (Network) Dept:		
(a) Building Plan/CBPU	Mr Abdul Razak Bin Abdul Majid	6731 9385/6731 3512
(b) M&E Plan		
(c) Diversion		
City Gas Pte Ltd:		
(a) Planning/Submission	Mr Jackson Houng /Mr Liew Khee Boon	6595 5925/6578 7603
(b) Installation/Inspection	Mr Misnal Bin Pagi/Mr Jaffar	9686 4513/9107 4847
PowerGas Pte Ltd		
(a) Diversion	Mr Abdul Rahim	6595 5078
NEA (Pollution Control)		
(a) Planning/Submission		
(b) Inspection		

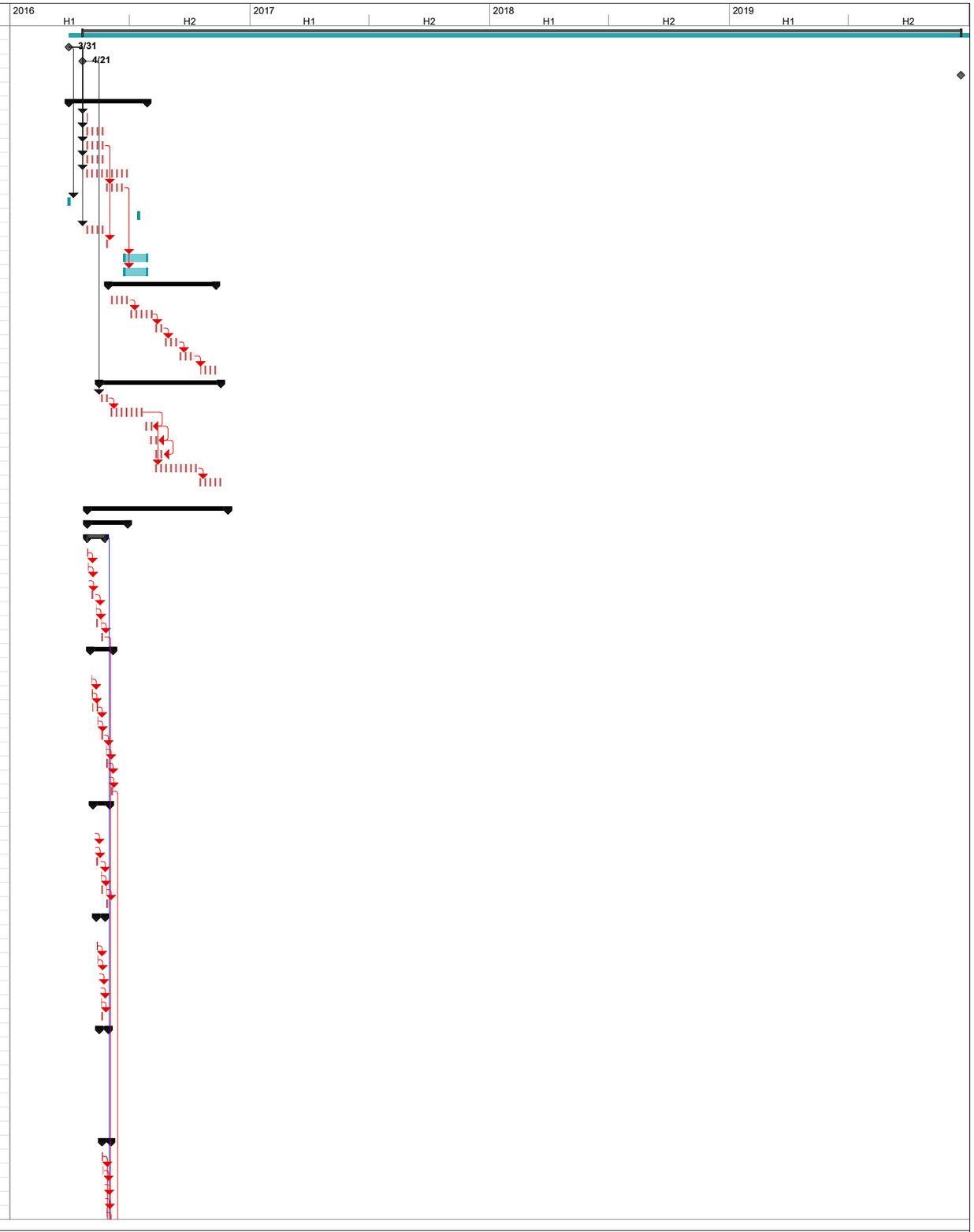
SECTION 4

PROGRAMME

4.1 Overall Programme – Refer to attached Master Programme

ID	TASK NAME	MONTHS	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1.	Preliminary Planning																									
2.	Planning Submission																									
3.	Detail Design																									
4.	BP Submission																									
5.	BP Submission (Amendments)																									
6.	Tender Period for Piling																									
7.	Tender Period for Sub-Structure																									
8.	Tender Period for Super-Structure																									
9.	Piling Period																									
10.	Sub-Structure Construction Period																									
11.	Super-Structure Construction Period																									
12.	TOP																									
13.	CSC																									

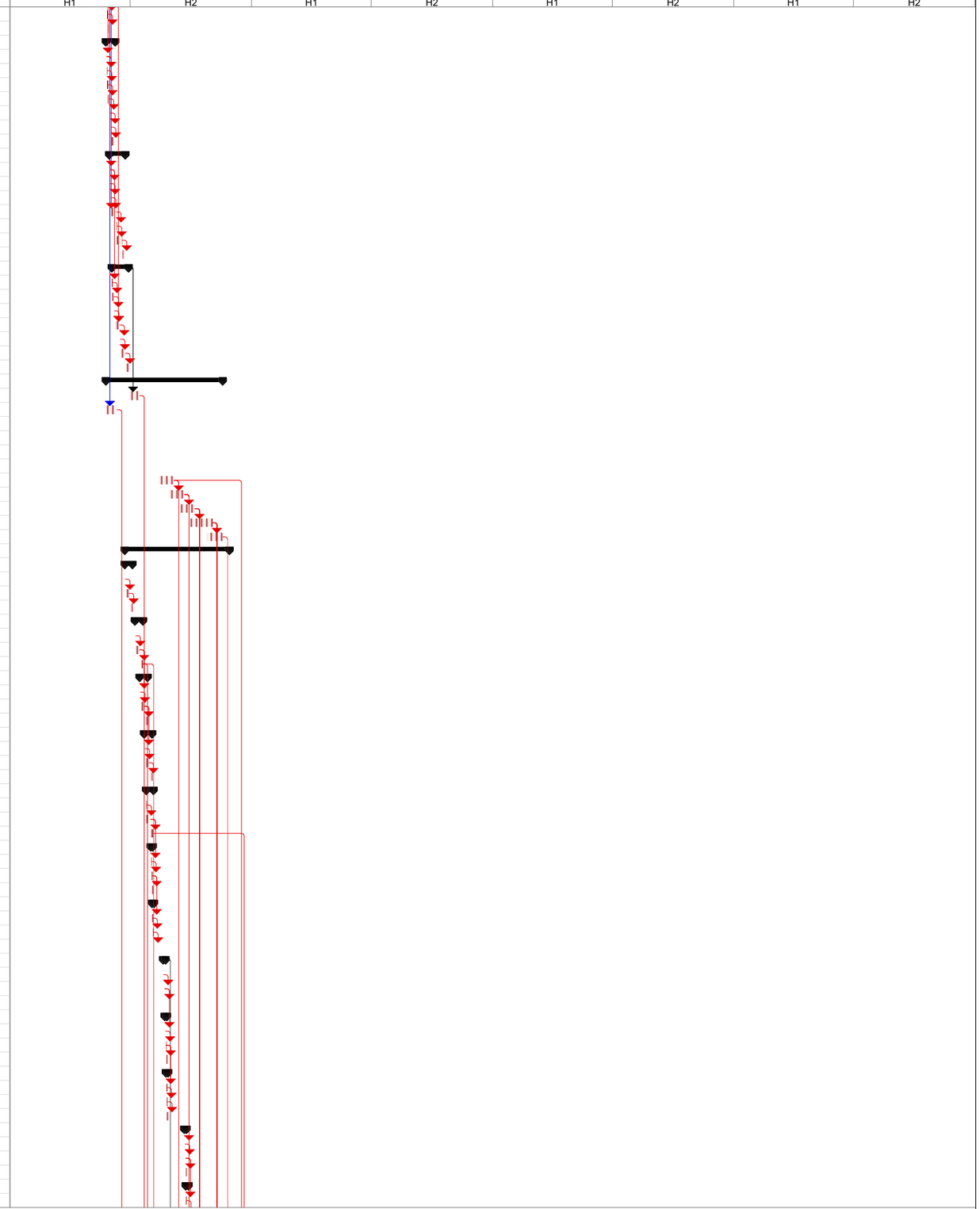
ID	Task Name	Duration	Start	Finish	Predecessors
1	**Bidadari C1C2 Master Programme**	**1171 days**	**Thu 4/21/16**	**Fri 12/20/19**	
2	Contract Award	0 days	Thu 3/31/16	Thu 3/31/16	
3	Contract Commence	0 days	Thu 4/21/16	Thu 4/21/16	
4	Contract Completion	0 days	Fri 12/20/19	Fri 12/20/19	
5					
6	**Site Mobilisation/Preparation**	**104.38 days**	**Thu 3/31/16**	**Thu 7/28/16**	
7	Washing Bay	7 days	Thu 4/21/16	Thu 4/28/16	2
8	ECM	30 days	Thu 4/21/16	Wed 5/25/16	2
9	Site Hoarding	30 days	Thu 4/21/16	Wed 5/25/16	2
10	Temporary Drainage	30 days	Thu 4/21/16	Wed 5/25/16	2
11	Site Office	60 days	Thu 4/21/16	Tue 6/28/16	2
12	Instrumentation	26 days	Wed 5/25/16	Thu 6/23/16	9
13	SMS Submission	1 day	Thu 3/31/16	Thu 3/31/16	2
14	Tower Crane Pre-hoist Briefing To HDB	1 day	Fri 7/15/16	Fri 7/15/16	
15	Temporary Road	30 days	Thu 4/21/16	Wed 5/25/16	2
16	Signage Board	7 days	Wed 5/25/16	Thu 6/2/16	9
17	Open PUB Account	30 days	Thu 6/23/16	Thu 7/28/16	12
18	Temporary Water Application	30 days	Thu 6/23/16	Thu 7/28/16	12
19	**Timber Mock-up**	**144 days**	**Mon 5/30/16**	**Thu 11/10/16**	
20	Submission of timber mock up shop drawing	30 days	Mon 5/30/16	Sat 7/2/16	
21	Erection of timber mock-up	30 days	Sat 7/2/16	Fri 8/5/16	20
22	Installation of M&E pipes and fittings	14 days	Fri 8/5/16	Mon 8/22/16	21
23	Consultant inspection	21 days	Mon 8/22/16	Thu 9/15/16	22
24	QP inspection	21 days	Thu 9/15/16	Sat 10/8/16	23
25	HDB inspection and approval	21 days	Mon 10/17/16	Thu 11/10/16	24FS+7 days
26	**Precast Components Preparation**	**163 days?**	**Mon 5/16/16**	**Thu 11/17/16**	
27	Consultants Issue arch and C&S construction drawing	14 days	Mon 5/16/16	Tue 5/31/16	3FS+21 days
28	Shopdrawings preparation	45 days	Tue 5/31/16	Thu 7/21/16	27
29	Shopdrawings submission/approval	14 days	Thu 7/21/16	Sat 8/6/16	28FF+14 days
30	Review	14 days	Fri 7/29/16	Mon 8/15/16	29FF+7 days
31	Resubmission/approval	14 days	Sat 8/6/16	Tue 8/23/16	30FF+7 days
32	Mould preparation	60 days	Sat 8/6/16	Fri 10/14/16	29
33	Precast samples inspection(trial cast)	30 days	Fri 10/14/16	Thu 11/17/16	32
34					
35	**Piling Work**	**187 days**	**Thu 4/28/16**	**Mon 11/28/16**	
36	**1.0 Ultimate Load Test (9nos)**	**54 days**	**Thu 4/28/16**	**Tue 6/28/16**	
37	**1.1 ULT#4 (700mm dia. MLT)**	**24 days**	**Thu 4/28/16**	**Wed 5/25/16**	
38	Trial Bore	1 day	Thu 4/28/16	Thu 4/28/16	
39	Boring and Casting UTP#4	1 day	Fri 4/29/16	Fri 4/29/16	38
40	Built Up Pile Head	1 day	Sat 4/30/16	Sat 4/30/16	39
41	Kentledge Set Up	7 days	Tue 5/3/16	Tue 5/10/16	40
42	Instrumentation Set Up	1 day	Tue 5/10/16	Wed 5/11/16	41
43	Testing	7 days	Wed 5/11/16	Thu 5/19/16	42
44	Remove setup/Report Submission	4 days	Thu 5/19/16	Tue 5/24/16	43
45	**1.2 ULT#5 (800mm dia. MLT+RLT)**	**30 days**	**Mon 5/2/16**	**Mon 6/6/16**	
46	Trial Bore	1 day	Mon 5/2/16	Tue 5/3/16	38FS+3 days
47	Boring and Casting UTP#5	1 day	Tue 5/3/16	Wed 5/4/16	46
48	Built Up Pile Head	1 day	Wed 5/4/16	Thu 5/5/16	47
49	Kentledge Set Up	7 days	Thu 5/5/16	Fri 5/13/16	48
50	Instrumentation Set Up	1 day	Fri 5/13/16	Sat 5/14/16	49
51	Testing	7 days	Sat 5/14/16	Mon 5/23/16	50
52	Remove setup/Report Submission	4 days	Mon 5/23/16	Fri 5/27/16	51
53	Frame Set Up	2 days	Fri 5/27/16	Mon 5/30/16	52
54	Testing	1 day	Mon 5/30/16	Tue 5/31/16	53
55	Remove setup/Report Submission	5 days	Tue 5/31/16	Mon 6/6/16	54
56	**1.3 ULT#9 (900mm dia. MLT)**	**22 days**	**Fri 5/6/16**	**Wed 6/1/16**	
57	Trial Bore	1 day	Fri 5/6/16	Sat 5/7/16	46FS+3 days
58	Boring and Casting UTP#9	1 day	Sat 5/7/16	Mon 5/9/16	57
59	Built Up Pile Head	1 day	Mon 5/9/16	Tue 5/10/16	58
60	Kentledge Set Up	7 days	Tue 5/10/16	Wed 5/18/16	59
61	Instrumentation Set Up	1 day	Wed 5/18/16	Thu 5/19/16	60
62	Testing	7 days	Thu 5/19/16	Fri 5/27/16	61
63	Remove setup/Report Submission	4 days	Fri 5/27/16	Wed 6/1/16	62
64	**1.4 ULT#3 (900mm dia. RLT)**	**12 days**	**Wed 5/11/16**	**Wed 5/25/16**	
65	Trial Bore	1 day	Wed 5/11/16	Thu 5/12/16	57FS+3 days
66	Boring and Casting UTP#3	1 day	Thu 5/12/16	Fri 5/13/16	65
67	Built Up Pile Head	1 day	Fri 5/13/16	Sat 5/14/16	66
68	Insrumentation Set Up	1 day	Sat 5/14/16	Mon 5/16/16	67
69	Frame Set Up	2 days	Mon 5/16/16	Wed 5/18/16	68
70	Testing	1 day	Wed 5/18/16	Thu 5/19/16	69
71	Remove setup/Report Submission	5 days	Thu 5/19/16	Wed 5/25/16	70
72	**1.5 ULT#1 (700mm dia. RLT)**	**12 days**	**Mon 5/16/16**	**Mon 5/30/16**	
73	Trial Bore	1 day	Mon 5/16/16	Tue 5/17/16	65FS+3 days
74	Boring and Casting UTP#3	1 day	Tue 5/17/16	Wed 5/18/16	73
75	Built Up Pile Head	1 day	Wed 5/18/16	Thu 5/19/16	74
76	Instrumentation Set Up	1 day	Thu 5/19/16	Fri 5/20/16	75
77	Frame Set Up	2 days	Fri 5/20/16	Mon 5/23/16	76
78	Testing	1 day	Mon 5/23/16	Tue 5/24/16	77
79	Remove setup/Report Submission	5 days	Tue 5/24/16	Mon 5/30/16	78
80	**1.6 ULT#2 (800mm dia. RLT)**	**12 days**	**Fri 5/20/16**	**Fri 6/3/16**	
81	Trial Bore	1 day	Fri 5/20/16	Sat 5/21/16	73FS+3 days
82	Boring and Casting UTP#3	1 day	Sat 5/21/16	Mon 5/23/16	81
83	Built Up Pile Head	1 day	Mon 5/23/16	Tue 5/24/16	82
84	Instrumentation Set Up	1 day	Tue 5/24/16	Wed 5/25/16	83
85	Frame Set Up	2 days	Wed 5/25/16	Fri 5/27/16	84



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task
Critical Task
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Deadline
Progress
Manual Progress

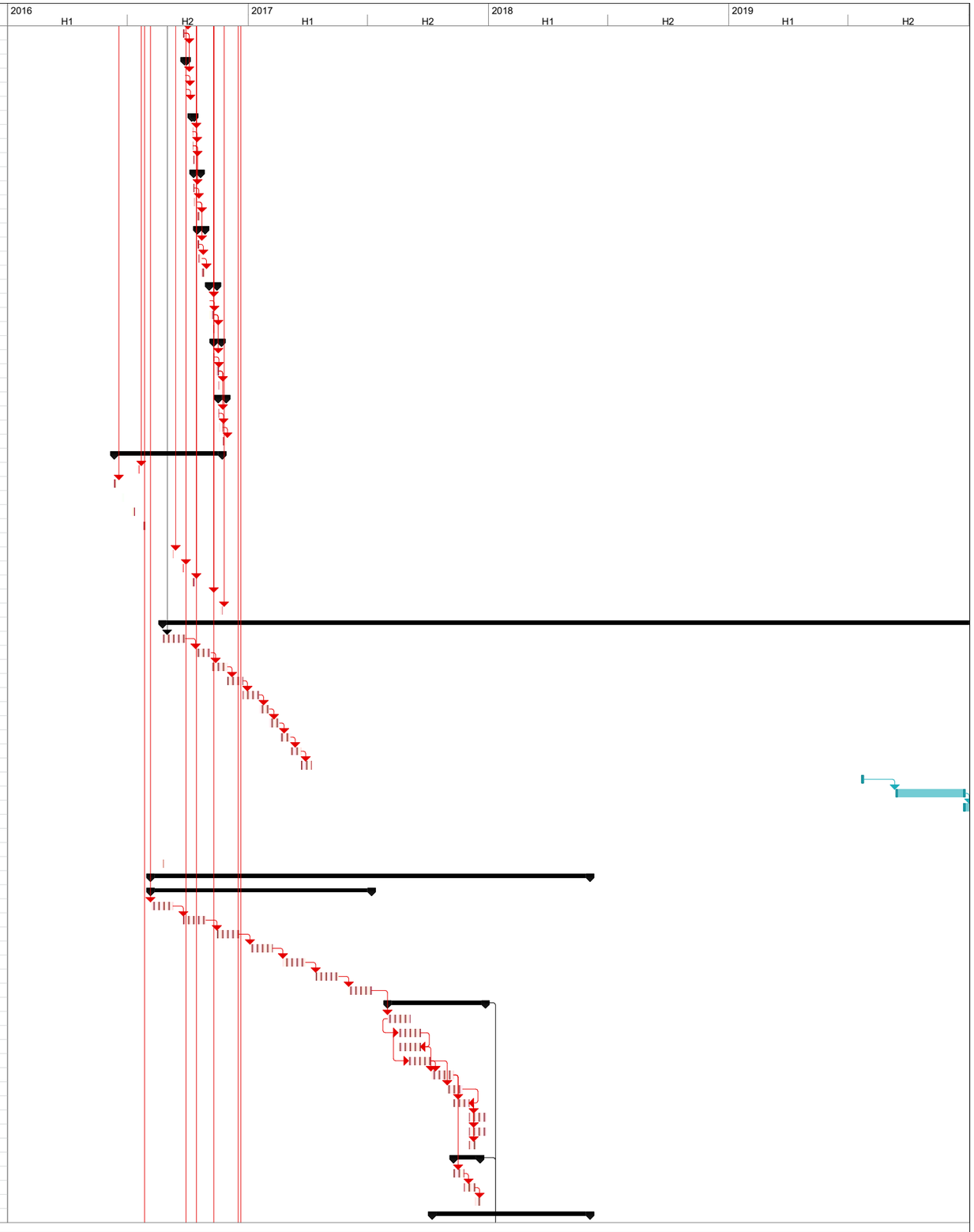
ID	Task Name	Duration	Start	Finish	Predecessors
86	Testing	1 day	Fri 5/27/16	Sat 5/28/16	85
87	Remove setup/Report Submission	5 days	Sat 5/28/16	Fri 6/3/16	86
88	**1.7 ULT#10 (700mm dia. RLT)**	**12 days**	**Wed 5/25/16**	**Wed 6/8/16**	
89	Trial Bore	1 day	Wed 5/25/16	Thu 5/26/16	81FS+3 days
90	Boring and Casting UTP#3	1 day	Thu 5/26/16	Fri 5/27/16	89
91	Built Up Pile Head	1 day	Fri 5/27/16	Sat 5/28/16	90
92	Instrumentation Set Up	1 day	Sat 5/28/16	Mon 5/30/16	91
93	Frame Set Up	2 days	Mon 5/30/16	Wed 6/1/16	92
94	Testing	1 day	Wed 6/1/16	Thu 6/2/16	93
95	Remove setup/Report Submission	5 days	Thu 6/2/16	Wed 6/8/16	94
96	**1.8 ULT#6 (700mm dia. MLT)**	**22 days**	**Mon 5/30/16**	**Thu 6/23/16**	
97	Trial Bore	1 day	Mon 5/30/16	Tue 5/31/16	89FS+3 days
98	Boring and Casting UTP#9	1 day	Tue 5/31/16	Wed 6/1/16	97
99	Built Up Pile Head	1 day	Wed 6/1/16	Thu 6/2/16	98
100	Kentledge Set Up	7 days	Thu 6/2/16	Fri 6/10/16	99,44
101	Instrumentation Set Up	1 day	Fri 6/10/16	Sat 6/11/16	100
102	Testing	7 days	Sat 6/11/16	Sat 6/18/16	101
103	Remove setup/Report Submission	4 days	Mon 6/20/16	Thu 6/23/16	102
104	**1.9 ULT#7 (800mm dia. MLT)**	**22 days**	**Fri 6/3/16**	**Tue 6/28/16**	
105	Trial Bore	1 day	Fri 6/3/16	Sat 6/4/16	97FS+3 days
106	Boring and Casting UTP#9	1 day	Sat 6/4/16	Mon 6/6/16	105
107	Built Up Pile Head	1 day	Mon 6/6/16	Tue 6/7/16	106
108	Kentledge Set Up	7 days	Tue 6/7/16	Wed 6/15/16	107,55
109	Instrumentation Set Up	1 day	Wed 6/15/16	Thu 6/16/16	108
110	Testing	7 days	Thu 6/16/16	Thu 6/23/16	109
111	Remove setup/Report Submission	4 days	Fri 6/24/16	Tue 6/28/16	110
112	**2.0 Bore Piles Installation (2618 nos.)**	**155 days**	**Wed 5/25/16**	**Fri 11/18/16**	
113	2.1 Detention Tank	15 days	Tue 6/28/16	Fri 7/15/16	104
114	2.2 Block 102 & 103 Electrical Sub-Station	15 days	Wed 5/25/16	Sat 6/11/16	37
115	2.3 Block 101 Multi-Storey Carpark (MSCP) C1	21 days	Mon 5/30/16	Wed 6/22/16	72
116	2.4 Block 102B	21 days	Wed 6/15/16	Fri 7/8/16	115FS-7 days
117	2.5 Block 102A	21 days	Thu 6/30/16	Mon 7/25/16	116FS-7 days
118	2.6 Block 101A	30 days	Sat 7/16/16	Fri 8/19/16	117FS-7 days
119	2.7 Block 101 Multi-Storey Carpark (MSCP) C2	21 days	Fri 8/12/16	Mon 9/5/16	118FS-7 days
120	2.8 Block 103A	21 days	Sat 8/27/16	Wed 9/21/16	119FS-7 days
121	2.9 Block 103B	21 days	Tue 9/13/16	Fri 10/7/16	120FS-7 days
122	2.10 Block 104A	30 days	Thu 9/29/16	Wed 11/2/16	121FS-7 days
123	2.11 Verandah & Pedestrian Overhead Bridge	21 days	Tue 10/25/16	Fri 11/18/16	122FS-7 days
124	**3.0 WORKING LOAD TEST (19nos)**	**138 days**	**Thu 6/23/16**	**Mon 11/28/16**	
125	**3.1 WLT#1 (MLT)**	**10 days**	**Thu 6/23/16**	**Mon 7/4/16**	
126	Built Up Pile Head	1 day	Thu 6/23/16	Thu 6/23/16	115
127	Kentledge Set Up	5 days	Fri 6/24/16	Wed 6/29/16	126
128	Testing	4 days	Wed 6/29/16	Mon 7/4/16	127
129	**3.2 WLT#2 (MLT)**	**10 days**	**Fri 7/8/16**	**Wed 7/20/16**	
130	Built Up Pile Head	1 day	Fri 7/8/16	Sat 7/9/16	116
131	Kentledge Set Up	5 days	Sat 7/9/16	Fri 7/15/16	130
132	Testing	4 days	Fri 7/15/16	Wed 7/20/16	131
133	**3.3 WLT#3 (MLT)**	**10 days**	**Fri 7/15/16**	**Wed 7/27/16**	
134	Built Up Pile Head	1 day	Fri 7/15/16	Sat 7/16/16	131
135	Kentledge Set Up	5 days	Sat 7/16/16	Fri 7/22/16	134
136	Testing	4 days	Fri 7/22/16	Wed 7/27/16	135
137	**3.4 WLT#4 (MLT)**	**10 days**	**Fri 7/22/16**	**Wed 8/3/16**	
138	Built Up Pile Head	1 day	Fri 7/22/16	Sat 7/23/16	135
139	Kentledge Set Up	5 days	Sat 7/23/16	Fri 7/29/16	138
140	Testing	4 days	Fri 7/29/16	Wed 8/3/16	139
141	**3.5 WLT#5 (MLT)**	**10 days**	**Mon 7/25/16**	**Fri 8/5/16**	
142	Built Up Pile Head	1 day	Mon 7/25/16	Tue 7/26/16	117
143	Kentledge Set Up	5 days	Tue 7/26/16	Mon 8/1/16	142
144	Testing	4 days	Mon 8/1/16	Fri 8/5/16	143
145	**3.6 WLT#6 (RLT)**	**3 days**	**Mon 8/1/16**	**Thu 8/4/16**	
146	Built Up Pile Head	1 day	Mon 8/1/16	Tue 8/2/16	143
147	Kentledge Set Up	1 day	Tue 8/2/16	Wed 8/3/16	146
148	Testing	1 day	Wed 8/3/16	Thu 8/4/16	147
149	**3.7 WLT#7 (RLT)**	**3 days**	**Wed 8/3/16**	**Sat 8/6/16**	
150	Built Up Pile Head	1 day	Wed 8/3/16	Thu 8/4/16	147
151	Kentledge Set Up	1 day	Thu 8/4/16	Fri 8/5/16	150
152	Testing	1 day	Fri 8/5/16	Sat 8/6/16	151
153	**3.8 WLT#8 (RLT)**	**3 days**	**Sat 8/20/16**	**Tue 8/23/16**	
154	Built Up Pile Head	1 day	Sat 8/20/16	Sat 8/20/16	118
155	Kentledge Set Up	1 day	Sat 8/20/16	Mon 8/22/16	154
156	Testing	1 day	Mon 8/22/16	Tue 8/23/16	155
157	**3.9 WLT#9 (RLT)**	**3 days**	**Mon 8/22/16**	**Thu 8/25/16**	
158	Built Up Pile Head	1 day	Mon 8/22/16	Tue 8/23/16	155
159	Kentledge Set Up	1 day	Tue 8/23/16	Wed 8/24/16	158
160	Testing	1 day	Wed 8/24/16	Thu 8/25/16	159
161	**3.10 WLT#10 (RLT)**	**3 days**	**Wed 8/24/16**	**Sat 8/27/16**	
162	Built Up Pile Head	1 day	Wed 8/24/16	Thu 8/25/16	159
163	Kentledge Set Up	1 day	Thu 8/25/16	Fri 8/26/16	162
164	Testing	1 day	Fri 8/26/16	Sat 8/27/16	163
165	**3.11 WLT#11 (RLT)**	**3 days**	**Wed 9/21/16**	**Sat 9/24/16**	
166	Built Up Pile Head	1 day	Wed 9/21/16	Thu 9/22/16	120
167	Kentledge Set Up	1 day	Thu 9/22/16	Fri 9/23/16	166
168	Testing	1 day	Fri 9/23/16	Sat 9/24/16	167
169	**3.12 WLT#12 (RLT)**	**3 days**	**Fri 9/23/16**	**Tue 9/27/16**	
170	Built Up Pile Head	1 day	Fri 9/23/16	Sat 9/24/16	167



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task
Critical Task
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Deadline
Progress
Manual Progress

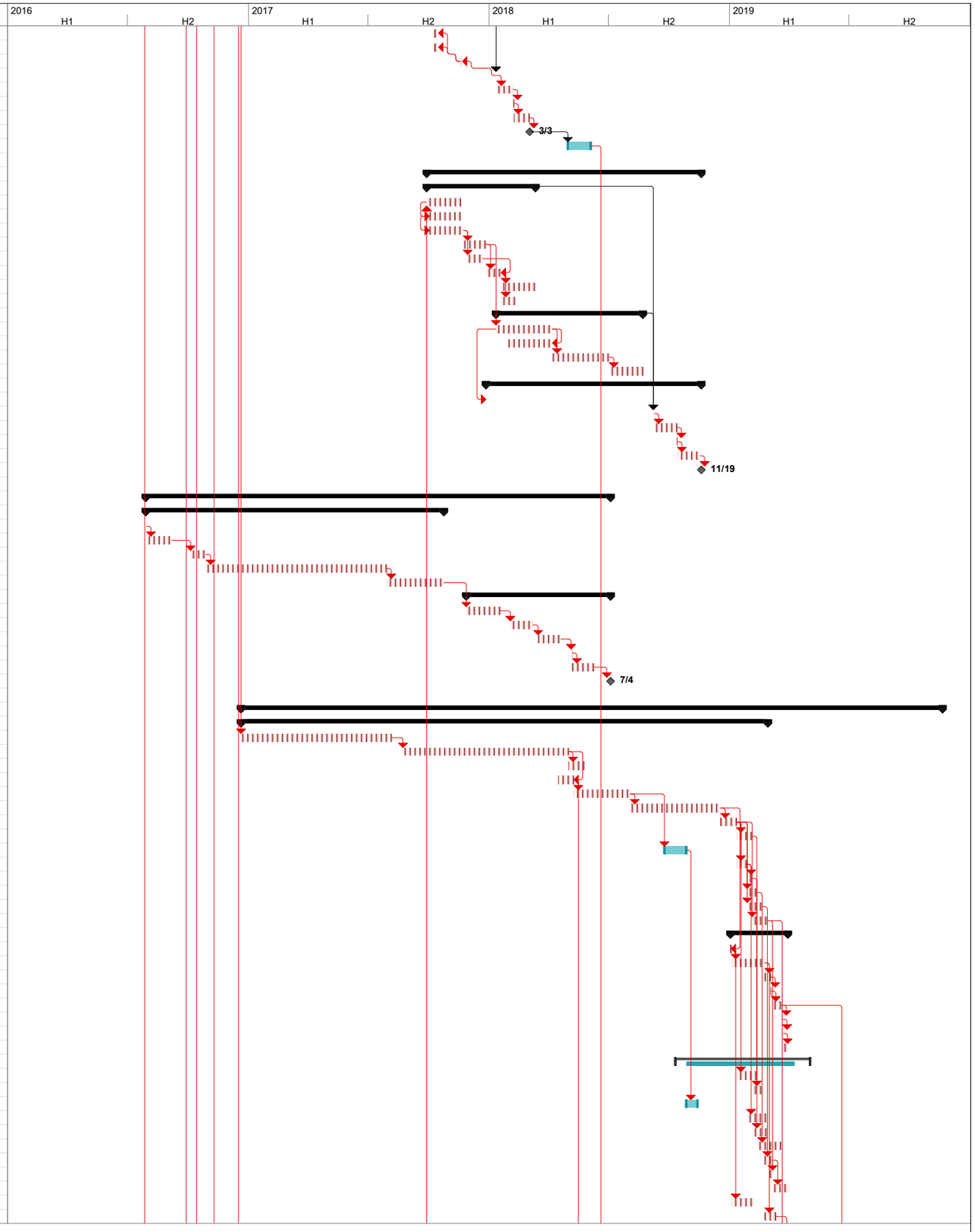
ID	Task Name	Duration	Start	Finish	Predecessors
171	Kentledge Set Up	1 day	Sat 9/24/16	Mon 9/26/16	170
172	Testing	1 day	Mon 9/26/16	Tue 9/27/16	171
173	**3.13 WLT#13 (RLT)**	**3 days**	**Mon 9/26/16**	**Thu 9/29/16**	
174	Built Up Pile Head	1 day	Mon 9/26/16	Tue 9/27/16	171
175	Kentledge Set Up	1 day	Tue 9/27/16	Wed 9/28/16	174
176	Testing	1 day	Wed 9/28/16	Thu 9/29/16	175
177	**3.14 WLT#14 (RLT)**	**3 days**	**Fri 10/7/16**	**Mon 10/10/16**	
178	Built Up Pile Head	1 day	Fri 10/7/16	Sat 10/8/16	121
179	Kentledge Set Up	1 day	Sat 10/8/16	Sat 10/8/16	178
180	Testing	1 day	Mon 10/10/16	Mon 10/10/16	179
181	**3.15 WLT#15 (MLT)**	**10 days**	**Mon 10/10/16**	**Thu 10/20/16**	
182	Built Up Pile Head	1 day	Mon 10/10/16	Mon 10/10/16	179
183	Kentledge Set Up	5 days	Tue 10/11/16	Sat 10/15/16	182
184	Testing	4 days	Sat 10/15/16	Thu 10/20/16	183
185	**3.16 WLT#16 (MLT)**	**10 days**	**Sat 10/15/16**	**Thu 10/27/16**	
186	Built Up Pile Head	1 day	Sat 10/15/16	Mon 10/17/16	183
187	Kentledge Set Up	5 days	Mon 10/17/16	Sat 10/22/16	186
188	Testing	4 days	Sat 10/22/16	Thu 10/27/16	187
189	**3.17 WLT#17 (MLT)**	**10 days**	**Wed 11/2/16**	**Mon 11/14/16**	
190	Built Up Pile Head	1 day	Wed 11/2/16	Thu 11/3/16	122
191	Kentledge Set Up	5 days	Thu 11/3/16	Wed 11/9/16	190
192	Testing	4 days	Wed 11/9/16	Mon 11/14/16	191
193	**3.18 WLT#18 (MLT)**	**10 days**	**Wed 11/9/16**	**Mon 11/21/16**	
194	Built Up Pile Head	1 day	Wed 11/9/16	Thu 11/10/16	191
195	Kentledge Set Up	5 days	Thu 11/10/16	Wed 11/16/16	194
196	Testing	4 days	Wed 11/16/16	Mon 11/21/16	195
197	**3.19 WLT#19 (MLT)**	**10 days**	**Wed 11/16/16**	**Mon 11/28/16**	
198	Built Up Pile Head	1 day	Wed 11/16/16	Thu 11/17/16	195
199	Kentledge Set Up	5 days	Thu 11/17/16	Wed 11/23/16	198
200	Testing	4 days	Wed 11/23/16	Mon 11/28/16	199
201	**4.0 PDA TEST (40 nos)**	**143 days**	**Sat 6/11/16**	**Tue 11/22/16**	
202	4.1 Detention Tank	**3 days**	Fri 7/15/16	Tue 7/19/16	113
203	4.2 Block 102 Electrical Sub-Station	3 days	Sat 6/11/16	Wed 6/15/16	114
204	4.3 Block 101 Multi-Storey Carpark (MSCP) C1	3 days	Thu 6/23/16	Sat 6/25/16	115
205	4.4 Block 102B	3 days	Fri 7/8/16	Tue 7/12/16	116
206	4.5 Block 102A	3 days	Mon 7/25/16	Thu 7/28/16	117
207	4.6 Block 101A	3 days	Sat 8/20/16	Tue 8/23/16	118
208	4.7 Block 101 Multi-Storey Carpark (MSCP) C2	3 days	Mon 9/5/16	Thu 9/8/16	119
209	4.8 Block 103A	3 days	Wed 9/21/16	Sat 9/24/16	120
210	4.9 Block 103B	3 days	Fri 10/7/16	Mon 10/10/16	121
211	4.10 Block 104A	3 days	Wed 11/2/16	Sat 11/5/16	122
212	2411 Verandah & Pedestrian Overhead Bridge	3 days	Fri 11/18/16	Tue 11/22/16	123
213	**Phase 8 Detention Tank (Contract 2) (21 Apr 2016 to 20 Aug 2018)**	**1126.13 days**	**Tue 8/23/16**	**Mon 3/2/20**	
214	Underground M&E Services & PWCS	30 days	Tue 8/23/16	Tue 9/27/16	153
215	Pilecap Excavation	21 days	Thu 10/13/16	Sat 11/5/16	214FS+14 days
216	Pilecap Construction	21 days	Sat 11/5/16	Wed 11/30/16	215
217	Column Stump Construction	21 days	Wed 11/30/16	Fri 12/23/16	216
218	Groundbeam Construction	21 days	Fri 12/23/16	Tue 1/17/17	217
219	Backfilling	14 days	Tue 1/17/17	Wed 2/1/17	218
220	Compaction	14 days	Thu 2/2/17	Fri 2/17/17	219
221	Groundslab Construction	14 days	Fri 2/17/17	Mon 3/6/17	220
222	Wall construction	14 days	Mon 3/6/17	Wed 3/22/17	221
223	Top slab	14 days	Wed 3/22/17	Thu 4/6/17	222
224	Obtain PUB Partial TOP	1 day	Tue 7/23/19	Tue 7/23/19	
225	Construction of interlocking works	90 days	Fri 9/13/19	Wed 12/25/19	224FS+45 days
226	Cleaning and Touching Up	45 days	Wed 12/25/19	Fri 2/14/20	225
227	HDB BIT Inspection	7 days	Fri 2/14/20	Sat 2/22/20	226
228	BIT Defect rectification	7 days	Sat 2/22/20	Sat 2/29/20	227
229	Signing of Costing Form	1 day	Mon 3/2/20	Mon 3/2/20	228
230					
231	**Phase 9 Block 102 & 103 Electrical Sub-station (21 Apr 16 to 05 Oct 18)**	**584 days**	**Fri 8/5/16**	**Mon 6/4/18**	
232	**ESS Structural Works**	**294 days**	**Fri 8/5/16**	**Fri 7/7/17**	
233	Excavation	30 days	Fri 8/5/16	Thu 9/8/16	132FS+14 days
234	Construction of Pilecap	30 days	Sat 9/24/16	Fri 10/28/16	233FS+14 days
235	Construction of Stump	30 days	Mon 11/14/16	Sat 12/17/16	234FS+14 days
236	Construction of Ground Beam	30 days	Tue 1/3/17	Mon 2/6/17	235FS+14 days
237	Construction of Ground Slab	30 days	Wed 2/22/17	Tue 3/28/17	236FS+14 days
238	Construction of Switchroom Floor Slab	30 days	Thu 4/13/17	Thu 5/18/17	237FS+14 days
239	Construction of Roof Slab	30 days	Fri 6/2/17	Fri 7/7/17	238FS+14 days
240	**ESS Architectural Works**	**130 days**	**Mon 7/31/17**	**Wed 12/27/17**	
241	Brick wall/Glass Block laying	30 days	Mon 7/31/17	Mon 9/4/17	239FS+21 days
242	Install door,window & Louvre outer frame	30 days	Wed 8/16/17	Tue 9/19/17	241SS+14 days
243	Install railing, cat ladder, grating support	30 days	Wed 8/16/17	Tue 9/19/17	242FF
244	Skimming & Plastering Work	30 days	Fri 9/1/17	Thu 10/5/17	242SS+14 days
245	Rendering Work	30 days	Thu 10/5/17	Wed 11/8/17	243,244
246	Painting Work	21 days	Mon 10/30/17	Wed 11/22/17	244FS+21 days
247	Install door panel, inner frame	21 days	Thu 11/9/17	Sat 12/2/17	245,246FF
248	Install ironmongery	21 days	Sat 12/2/17	Wed 12/27/17	247
249	Install grating	21 days	Sat 12/2/17	Wed 12/27/17	247
250	Install signage, fire extinguisher	7 days	Sat 12/2/17	Mon 12/11/17	247
251	**ESS Electrical Works**	**35 days**	**Thu 11/9/17**	**Tue 12/19/17**	
252	Unit Wiring and conduit to ESS	14 days	Thu 11/9/17	Fri 11/24/17	245
253	Electrical fittings / Earth protection system installation	14 days	Fri 11/24/17	Mon 12/11/17	252
254	Electrical Testing	7 days	Mon 12/11/17	Tue 12/19/17	253
255	**Hand-over of ESS**	**209 days**	**Sat 10/7/17**	**Mon 6/4/18**	



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task
Critical Task
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Deadline
Progress
Manual Progress

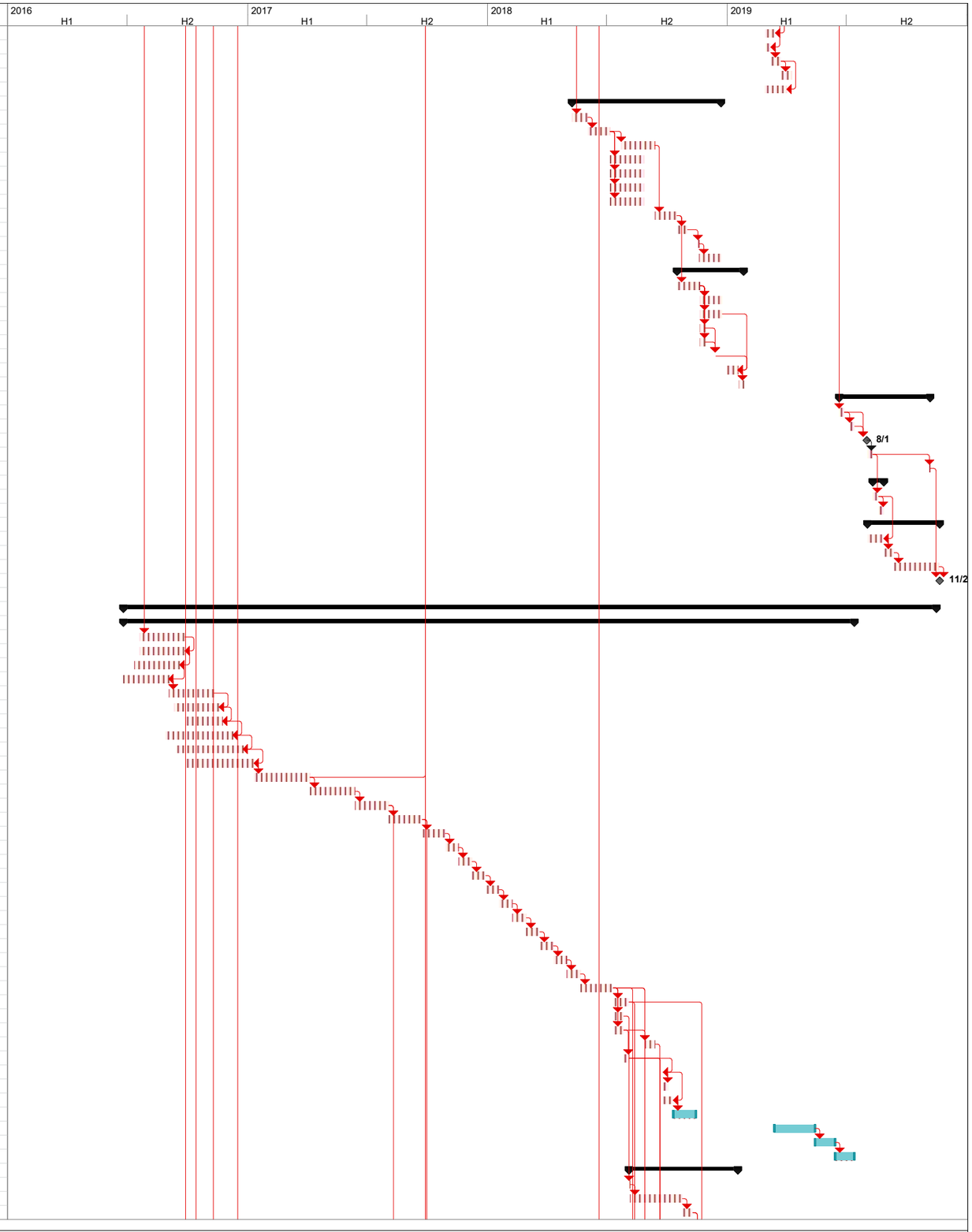
ID	Task Name	Duration	Start	Finish	Predecessors
256	SP Powergrid submit connection fee quotation	7 days	Sat 10/7/17	Mon 10/16/17	258SF-30 days
257	HDB approve quotation	7 days	Sat 10/7/17	Mon 10/16/17	258SF-30 days
258	ESS Handing Over Co-ordination Meeting with SP Powergrid	2 days	Sat 11/18/17	Tue 11/21/17	259SF-45 days
259	SP Powergrid Inspection of ESS	1 day	Thu 1/11/18	Fri 1/12/18	240FS+14 days,251FS+14 days
260	Defect Rectification	21 days	Fri 1/12/18	Tue 2/6/18	259
261	SP PowerGrid Re-Inspection of ESS	1 day	Tue 2/6/18	Wed 2/7/18	260
262	Defect Rectification	21 days	Wed 2/7/18	Fri 3/2/18	261
263	Hand over of ESS	1 day	Sat 3/3/18	Sat 3/3/18	262
264	ESS Power Turn On	30 days	Mon 4/30/18	Mon 6/4/18	263
265					
266	**Phase 10a Main Distribution Frame Room & Telecom Equipmen Room (All Blocks**	**364 days**	**Thu 9/28/17**	**Mon 11/19/18**	
267	**MDF and TER Architectural Works**	**144 days**	**Thu 9/28/17**	**Mon 3/12/18**	
268	Brick wall	45 days	Thu 9/28/17	Sat 11/18/17	394,537,699,956,1090,1224
269	Install door,window & Louvre outer frame	45 days	Mon 10/2/17	Wed 11/22/17	268SS+3 days
270	Skimming & Plastering Work	45 days	Mon 10/2/17	Wed 11/22/17	269SS
271	Rendering Work	30 days	Wed 11/22/17	Wed 12/27/17	270
272	Painting Work	21 days	Tue 11/28/17	Fri 12/22/17	270FS+5 days
273	Install door panel, inner frame	21 days	Wed 12/27/17	Fri 1/19/18	271,272FF
274	Install ironmongery	45 days	Fri 1/19/18	Mon 3/12/18	273
275	Install signage, fire extinguisher	21 days	Fri 1/19/18	Tue 2/13/18	273
276	**MDF and TER Electrical Works**	**195 days**	**Thu 1/11/18**	**Wed 8/22/18**	
277	Wiring and conduit to MDF and TER	75 days	Thu 1/11/18	Sat 4/7/18	271FS+14 days
278	Fire Protection Installation	60 days	Mon 1/29/18	Sat 4/7/18	277FF
279	Electrical fittings / Earth protection system installation	75 days	Sat 4/7/18	Mon 7/2/18	277
280	Electrical Testing	45 days	Mon 7/2/18	Wed 8/22/18	279
281	**Hand-over of MDF and TER**	**286 days**	**Wed 12/27/17**	**Mon 11/19/18**	
282	Co-ordination meeting cum pre-inspection with services providers	1 day	Wed 12/27/17	Thu 12/28/17	277SS-14 days
283	1st handing over inspection	1 day	Fri 9/7/18	Sat 9/8/18	267FS+14 days,276FS+14 days
284	Defect Rectification	30 days	Sat 9/8/18	Fri 10/12/18	283
285	2nd handing over inspection inspection	1 day	Sat 10/13/18	Sat 10/13/18	284
286	Defect Rectification	30 days	Sat 10/13/18	Sat 11/17/18	285
287	Hand over of MDF and TER	1 day	Sat 11/17/18	Mon 11/19/18	286
288					
289	**Phase 10b & 10c Minor Sewer Works (Contract 1 & Contract 2) (21 Apr**	**617.25 days**	**Fri 7/29/16**	**Wed 7/4/18**	
290	**Construction of MH and sewer line**	**395.25 days**	**Fri 7/29/16**	**Tue 10/24/17**	
291	Minor sewer CBPU approval and consultant issue construction drawing	1 day	Fri 7/29/16	Fri 7/29/16	
292	Minor sewer ERSS BCA submission	30 days	Tue 8/2/16	Tue 9/6/16	291FS+3 days
293	Mobilisation and site preparation	21 days	Wed 10/5/16	Fri 10/28/16	292
294	Construction of internal sewer line and MH	240 days	Fri 10/28/16	Sat 7/29/17	293
295	Last MH connection to Outside MH	75 days	Sat 7/29/17	Tue 10/24/17	294
296	**PUB Handing Over Inspection**	**192 days**	**Mon 11/27/17**	**Wed 7/4/18**	
297	Minor sewer handing over preparation(install MH cover, internal cleaning and testin	45 days	Mon 11/27/17	Wed 1/17/18	295FS+30 days
298	Submission of Form C, as built drawing to consultant	30 days	Fri 2/2/18	Thu 3/8/18	297FS+14 days
299	Consultant submit Form C, as built drawing to PUB	30 days	Fri 3/16/18	Thu 4/19/18	298FS+7 days
300	PUB site inspection	1 day	Sat 5/5/18	Mon 5/7/18	299FS+14 days
301	PUB inspection defect rectification	30 days	Mon 5/7/18	Sat 6/9/18	300
302	Clearance from PUB and CBPU	21 days	Mon 6/11/18	Wed 7/4/18	301
303					
304	**Phase 11 Block 101 Multi Storey Car-park (Contract 1) (21 Apr 16**	**932 days**	**Tue 12/20/16**	**Wed 11/20/19**	
305	**Structural Works of MSCP**	**700 days**	**Tue 12/20/16**	**Thu 2/28/19**	
306	Excavate Lower 1st storey	200 days	Tue 12/20/16	Sat 8/5/17	144FS+120 days
307	Construct Pile cap and slab of lower 1st storey	220 days	Wed 8/23/17	Tue 5/1/18	306FS+15 days
308	Underground M&E servicese installation & PWCS	21 days	Tue 5/1/18	Fri 5/25/18	307
309	Construct retaining wall around lower 1st storey	21 days	Mon 4/16/18	Wed 5/9/18	307FF+7 days
310	Construct 1st storey slab	75 days	Wed 5/9/18	Fri 8/3/18	309
311	Construct 2nd storey/Roof slab	120 days	Fri 8/3/18	Tue 12/18/18	310
312	Construct Planter Box	21 days	Tue 12/18/18	Fri 1/11/19	311
313	Construction of Fire Engine Access	21 days	Fri 1/11/19	Mon 2/4/19	312
314	Construction of POB Slab and Column	30 days	Mon 9/24/18	Sat 10/27/18	310FS+45 days
315	Roof garden waterproofing	14 days	Fri 1/11/19	Sat 1/26/19	312
316	Roof garden plastering works	7 days	Mon 1/28/19	Mon 2/4/19	315
317	Roof garden metal works	14 days	Mon 1/28/19	Tue 2/12/19	312FS+14 days
318	Roof garden tiling works	21 days	Mon 1/28/19	Wed 2/20/19	312FS+14 days
319	Roof garden landscape works	21 days	Mon 2/4/19	Thu 2/28/19	312FS+21 days
320	**Lift installation**	**77 days**	**Wed 1/2/19**	**Sat 3/30/19**	
321	Hand over of lift Hoistway	1 day	Wed 1/2/19	Thu 1/3/19	311FF+14 days
322	Lift installation by lift contractor	45 days	Thu 1/3/19	Sat 2/23/19	321
323	Brick up of lift door jamb by builder	7 days	Sat 2/23/19	Mon 3/4/19	322
324	Permanent Supply to lift	1 day	Mon 3/4/19	Tue 3/5/19	323
325	Testing and commissioning	14 days	Tue 3/5/19	Thu 3/21/19	324
326	Lift HDB Testing	1 day	Thu 3/21/19	Fri 3/22/19	325
327	Temporary usage of 1st lift	1 day	Fri 3/22/19	Sat 3/23/19	326
328	Signage Installation work	7 days	Sat 3/23/19	Sat 3/30/19	327
329	**MSCP Architectural Works**	**179 days**	**Thu 10/11/18**	**Fri 5/3/19**	
330	Bricklaying	30 days	Fri 1/11/19	Thu 2/14/19	312
331	Door Frame Installation	14 days	Mon 2/4/19	Wed 2/20/19	313
332	Grouting Works to Door Frame	14 days	Sat 10/27/18	Tue 11/13/18	314
333	Internal Skimming	30 days	Mon 1/28/19	Sat 3/2/19	315
334	Internal Painting	21 days	Mon 2/4/19	Thu 2/28/19	316
335	Railing/metal works	30 days	Tue 2/12/19	Tue 3/19/19	317
336	Traffic / Parking Lot Marking	14 days	Wed 2/20/19	Fri 3/8/19	318
337	Door Panel Installation	7 days	Thu 2/28/19	Fri 3/8/19	319
338	External Plastering	21 days	Fri 3/8/19	Mon 4/1/19	336
339	External Skimming	30 days	Thu 1/3/19	Wed 2/6/19	321
340	External Painting	14 days	Sat 2/23/19	Tue 3/12/19	322



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task	Summary	External Milestone	Inactive Summary	Manual Summary Rollup	Finish-only	Manual Progress
Critical Task	Project Summary	Inactive Task	Manual Task	Manual Summary	Deadline	
Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	Progress	

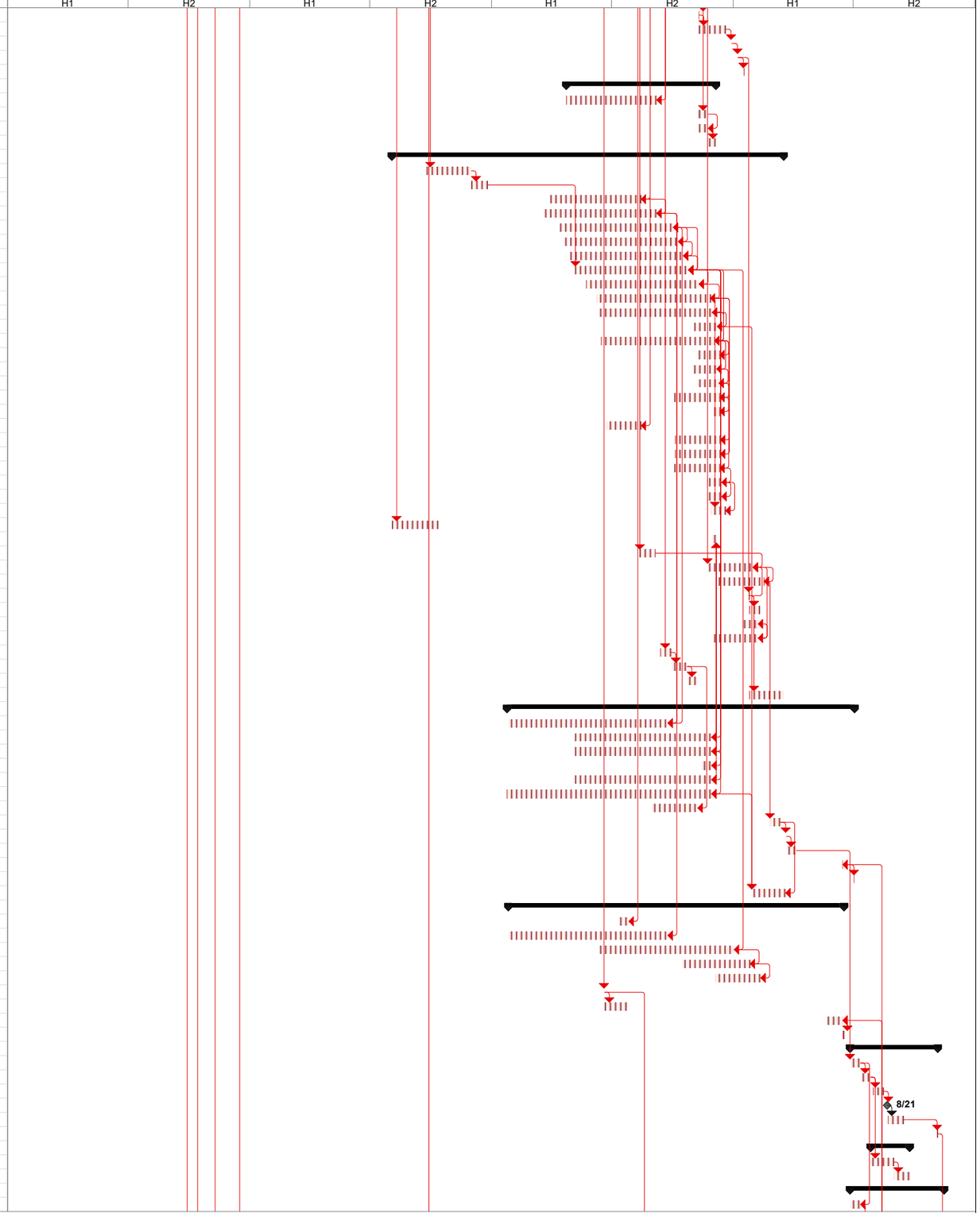
ID	Task Name	Duration	Start	Finish	Predecessors
341	Signage Installation work	14 days	Wed 2/27/19	Fri 3/15/19	340FF+3 days
342	Roof garden plastering works	7 days	Thu 2/28/19	Fri 3/8/19	319FF+7 days
343	Roof garden metal works	14 days	Fri 3/8/19	Sat 3/23/19	342
344	Roof garden tiling works	14 days	Mon 3/25/19	Tue 4/9/19	343
345	Roof garden landscape works	30 days	Tue 2/26/19	Mon 4/1/19	343FF+7 days
346	**Sanitary, Plumbing and HR & DR Works**	**199 days**	**Wed 5/9/18**	**Sat 12/22/18**	
347	Construction of IC	21 days	Wed 5/9/18	Sat 6/2/18	309
348	Fire Fighting Alarm Installation	30 days	Sat 6/2/18	Fri 7/6/18	347
349	Sprinkler Installation	45 days	Mon 7/23/18	Wed 9/12/18	348FS+14 days
350	MV Installation	45 days	Fri 7/6/18	Mon 8/27/18	348
351	Installation of water supply services	45 days	Fri 7/6/18	Mon 8/27/18	348
352	Installation of hosereel pipe and DR pipe	45 days	Fri 7/6/18	Mon 8/27/18	348
353	Installation of waste, soil , & vent pipes	45 days	Fri 7/6/18	Mon 8/27/18	348
354	Installation of hosereel pump set	30 days	Wed 9/12/18	Tue 10/16/18	349
355	Testing and commissioning	14 days	Tue 10/16/18	Thu 11/1/18	354
356	Water Turn On	1 day	Sat 11/17/18	Mon 11/19/18	355FS+14 days
357	Sanitary PUB inspection clearance	30 days	Mon 11/19/18	Sat 12/22/18	356
358	**Electrical And Fire Alarm Works**	**88.88 days**	**Tue 10/16/18**	**Fri 1/25/19**	
359	Exposed conduit and trunking works	30 days	Tue 10/16/18	Tue 11/20/18	354
360	Wiring and cabling works	30 days	Tue 11/20/18	Mon 12/24/18	359
361	Lightning and fire alarm installation	30 days	Tue 11/20/18	Mon 12/24/18	359
362	Complete CSR electrical works and testing	7 days	Tue 11/20/18	Wed 11/28/18	359
363	SP Powergrid complete LT cable to 117	7 days	Tue 11/20/18	Wed 11/28/18	359
364	Power Turn On	1 day	Thu 12/13/18	Fri 12/14/18	362FS+14 days,363FS+14 days
365	Testing and commissioning	14 days	Tue 1/1/19	Thu 1/17/19	361FF+21 days,364FF+15 days
366	HDB Testing	7 days	Fri 1/18/19	Fri 1/25/19	365
367	**TOP Appplication**	**121 days**	**Thu 6/20/19**	**Tue 11/5/19**	
368	Arch RI Inspection	7 days	Thu 6/20/19	Fri 6/28/19	325FS+80 days
369	M&E RI Inspection	7 days	Sat 7/6/19	Sat 7/13/19	368FS+7 days
370	TOP Inspection	2 days	Tue 7/30/19	Thu 8/1/19	368FS+14 days,369FS+14 days
371	TOP inspection defect rectification	7 days	Fri 8/2/19	Sat 8/10/19	370FS+1 day
372	BCA issue TOP certification	1 day	Tue 11/5/19	Tue 11/5/19	371FS+75 days
373	**Defect Checking & Rectification**	**14 days**	**Sat 8/10/19**	**Tue 8/27/19**	
374	Contractors Checking & Cleaning Up	7 days	Sat 8/10/19	Mon 8/19/19	371
375	Functionality Test	7 days	Mon 8/19/19	Tue 8/27/19	374
376	**Hand-over of Block 101 MSCP**	**96 days**	**Fri 8/2/19**	**Wed 11/20/19**	
377	BO & TC 1st Inspection of MSCP	21 days	Fri 8/2/19	Tue 8/27/19	374FF+7 days
378	Defect Rectification	14 days	Tue 8/27/19	Wed 9/11/19	377
379	VO from Due to HDB BO and TC Comments	60 days	Thu 9/12/19	Tue 11/19/19	378
380	Hand Over MSCP	1 day	Tue 11/19/19	Wed 11/20/19	372,379
381					
382	**Phase 12 Block 102B (21 Apr 16 to 04 Jun 19)**	**1083 days**	**Sat 6/25/16**	**Fri 11/15/19**	
383	**Structural Works**	**973.88 days**	**Sat 6/25/16**	**Sat 7/13/19**	
384	Excavation	60 days	Wed 7/20/16	Tue 9/27/16	132
385	Hacking of Pile	60 days	Wed 7/20/16	Tue 9/27/16	384FF
386	Pile cap construction	60 days	Tue 7/12/16	Mon 9/19/16	385FF-7 days
387	Stump construction	60 days	Sat 6/25/16	Fri 9/2/16	386FF-14 days
388	Underground M&E servicese installation & PWCS	60 days	Fri 9/2/16	Thu 11/10/16	387
389	Backfilling and compacting	60 days	Sat 9/10/16	Fri 11/18/16	388FF+7 days
390	Soil Treatment	50 days	Tue 9/27/16	Wed 11/23/16	389FF+4 days
391	Lower 1st Storey Slab	90 days	Sat 8/27/16	Thu 12/8/16	390FF+14 days
392	Retaining Wall	90 days	Tue 9/13/16	Sat 12/24/16	391FF+14 days
393	1st Storey Slab	90 days	Thu 9/29/16	Tue 1/10/17	392FF+14 days
394	2nd Storey R.C.	75 days	Tue 1/10/17	Wed 4/5/17	393
395	3rd Storey R.C.	60 days	Wed 4/5/17	Tue 6/13/17	394
396	4th Storey R.C.	45 days	Tue 6/13/17	Thu 8/3/17	395
397	5th Storey R.C.	45 days	Thu 8/3/17	Sat 9/23/17	396
398	6th Storey R.C.	30 days	Sat 9/23/17	Sat 10/28/17	397
399	7th storey R.C.	18 days	Sat 10/28/17	Fri 11/17/17	398
400	8th storey R.C.	18 days	Fri 11/17/17	Fri 12/8/17	399
401	9th storey R.C.	18 days	Fri 12/8/17	Fri 12/29/17	400
402	10th storey R.C.	18 days	Fri 12/29/17	Thu 1/18/18	401
403	11th storey R.C.	18 days	Thu 1/18/18	Thu 2/8/18	402
404	12th storey R.C.	18 days	Thu 2/8/18	Wed 2/28/18	403
405	13th storey R.C.	18 days	Thu 3/1/18	Wed 3/21/18	404
406	14th storey R.C.	18 days	Wed 3/21/18	Wed 4/11/18	405
407	15th storey R.C.	18 days	Wed 4/11/18	Tue 5/1/18	406
408	16th storey R.C.	18 days	Tue 5/1/18	Tue 5/22/18	407
409	Roof Slab	44 days	Tue 5/22/18	Wed 7/11/18	408
410	Roof Facia	21 days	Wed 7/11/18	Sat 8/4/18	409
411	Lift shaft roof	14 days	Wed 7/11/18	Fri 7/27/18	409
412	Water tank beam and pump room slab	14 days	Wed 7/11/18	Fri 7/27/18	409
413	Precast Water Tank Installation	14 days	Tue 8/28/18	Thu 9/13/18	412FS+28 days
414	Pump room roof	7 days	Fri 7/27/18	Sat 8/4/18	412
415	Dismantle of Tower Crane	2 days	Sat 9/22/18	Tue 9/25/18	414FF+45 days
416	Removal of Tower Crane Foundation	7 days	Tue 9/25/18	Wed 10/3/18	415
417	Casting back of Tower Crane Opening area	14 days	Tue 9/25/18	Wed 10/10/18	415FF+14 days
418	Construction of Fire Engine Access	30 days	Thu 10/11/18	Wed 11/14/18	417
419	Construction of Linkway and CIS POB from 102B to 102A	54.13 days	Thu 3/14/19	Tue 5/14/19	
420	Architectural Works to Linkway and CIS POB	27 days	Wed 5/15/19	Fri 6/14/19	419
421	Construction of Interlocking works to gate 3	26 days	Fri 6/14/19	Sat 7/13/19	420
422	**Lift installation**	**145 days**	**Sat 8/4/18**	**Thu 1/17/19**	
423	Hand over of lift Hoistway	1 day	Sat 8/4/18	Mon 8/6/18	411FS+7 days
424	Lift installation by lift contractor	70 days	Mon 8/6/18	Wed 10/24/18	423
425	Brick up of lift door jamb by builder	14 days	Wed 10/24/18	Fri 11/9/18	424



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task	Summary	External Milestone	Inactive Summary	Manual Summary Rollup	Finish-only	Manual Progress
Critical Task	Project Summary	Inactive Task	Manual Task	Manual Summary	Deadline	
Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	Progress	

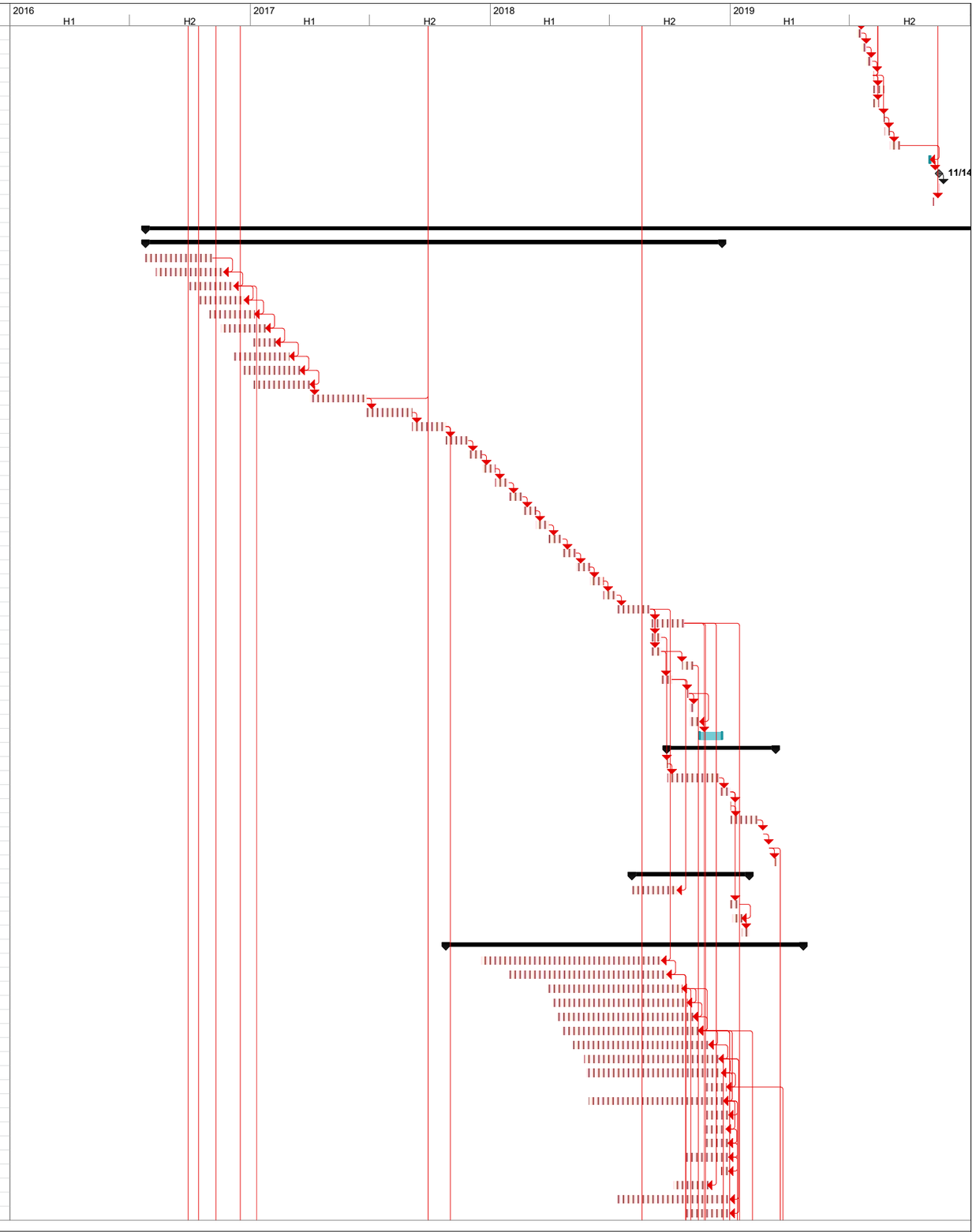
ID	Task Name	Duration	Start	Finish	Predecessors
426	Permanent Supply to lift	1 day	Fri 11/9/18	Sat 11/10/18	425
427	Testing and commissioning	35 days	Sat 11/10/18	Thu 12/20/18	426
428	Lift HDB Testing	1 day	Fri 12/28/18	Sat 12/29/18	427FS+7 days
429	Temporary usage of 1st lift	1 day	Mon 1/7/19	Tue 1/8/19	428FS+7 days
430	Lift readiness for M&E RI	1 day	Wed 1/16/19	Thu 1/17/19	429FS+7 days
431	**Architectural Works At Lift Lobby, Common Corridor And Staricase**	**198 days**	**Tue 4/24/18**	**Wed 12/5/18**	
432	Plastering, skimming, floor screeding and railing/handrails	120 days	Tue 4/24/18	Fri 9/7/18	414FF+30 days
433	Wall tiling for lift lobby and refuse chute area	13 days	Fri 11/9/18	Sat 11/24/18	425
434	Floor tiling to lift lobby and refuse chute area	12 days	Sat 11/10/18	Sat 11/24/18	433FF
435	Install Refuse Hopper	10 days	Sat 11/24/18	Wed 12/5/18	434
436	**Architectural Works**	**517 days**	**Thu 8/3/17**	**Mon 3/18/19**	
437	Construction of Sample Units	60 days	Sat 9/23/17	Fri 12/1/17	397
438	Sample Units Viewing and Approval	21 days	Fri 12/1/17	Tue 12/26/17	437
439	Ceiling Skimming	120 days	Fri 3/30/18	Tue 8/14/18	409FF+30 days
440	Brick/Dry Wall/Light Weight Panel Installation	150 days	Tue 3/20/18	Fri 9/7/18	439FF+21 days
441	Install Door Frames	150 days	Fri 4/13/18	Tue 10/2/18	476FF+7 days
442	Waterproof to wet area	150 days	Sat 4/21/18	Tue 10/9/18	441FF+7 days
443	Install Alum window outer frame	150 days	Sat 4/28/18	Wed 10/17/18	442FF+7 days
444	Internal Wall Skimming / Plastering	150 days	Mon 5/7/18	Thu 10/25/18	441FF+7 days,443FF+7 days,438
445	Wall Tiling	150 days	Wed 5/23/18	Sat 11/10/18	444FF+14 days
446	Floor Tiling	150 days	Fri 6/8/18	Tue 11/27/18	445FF+14 days
447	Box up at Toilet	150 days	Tue 6/12/18	Fri 11/30/18	446FF+3 days
448	Plumbing Fixture installation	30 days	Sat 11/3/18	Fri 12/7/18	447FF+7 days
449	Internal Painting (1st Coat)	150 days	Fri 6/15/18	Mon 12/3/18	444FF+7 days,447FF+3 days
450	Electrical fixtures	30 days	Wed 11/7/18	Tue 12/11/18	449FF+7 days
451	Install HHS door panel	30 days	Fri 11/2/18	Thu 12/6/18	449FF+3 days
452	Internal Painting (2nd Coat)	30 days	Tue 11/6/18	Mon 12/10/18	451FF+3 days
453	Install Skirting	60 days	Thu 10/4/18	Tue 12/11/18	449FF+7 days
454	Cloths rack Installation	10 days	Fri 11/30/18	Tue 12/11/18	452FF+1 day
455	External Water Test for Façade Joint & Gable End Wall	45 days	Sat 6/23/18	Tue 8/14/18	409FF+30 days
456	Install Window inner frame/Glazing	60 days	Fri 10/5/18	Wed 12/12/18	446FF+14 days
457	Install Metal Gate	60 days	Fri 10/5/18	Wed 12/12/18	446FF+14 days
458	Removing Protection to floor tiling	60 days	Thu 10/4/18	Tue 12/11/18	453FF
459	Install Door Panel	21 days	Wed 11/21/18	Fri 12/14/18	458FF+3 days
460	Install Ironmongery	21 days	Wed 11/21/18	Fri 12/14/18	459FF
461	Final pointing to floor tile	21 days	Tue 11/27/18	Thu 12/20/18	446,459FF
462	Plastering and skimming at 1st sty	60 days	Thu 8/3/17	Wed 10/11/17	396
463	Letter Box, Box-up, False Ceiling Installation	7 days	Thu 11/29/18	Thu 12/6/18	477,478,480
464	Rectification Work to External Façade	21 days	Mon 8/13/18	Wed 9/5/18	410FS+7 days
465	External Skimming	60 days	Fri 11/23/18	Wed 1/30/19	410FS+21 days,464FF+14 days,467FF+5 days
466	Installation of Alumimium Fin	60 days	Mon 12/10/18	Sat 2/16/19	465FF+15 days
467	Removal of P/M Hoist	1 day	Thu 1/24/19	Fri 1/25/19	429FS+14 days
468	Reinstatement of external work to PM hoist area	14 days	Fri 1/25/19	Sat 2/9/19	467
469	External Cloth rack installation	21 days	Tue 1/15/19	Thu 2/7/19	470FF
470	External Painting	60 days	Sat 12/1/18	Thu 2/7/19	465FF+7 days
471	Roof Water Tightness Test	14 days	Thu 9/13/18	Sat 9/29/18	413
472	Roof Skimming Works	21 days	Sat 9/29/18	Tue 10/23/18	471
473	Secondary Roofing System	14 days	Tue 10/23/18	Thu 11/8/18	472
474	Landscaping Works Surrounding Block	45 days	Fri 1/25/19	Mon 3/18/19	467
475	**Sanitary, Plumbing, Gas and HR & DR Works**	**459 days**	**Wed 1/24/18**	**Wed 7/3/19**	
476	Unit Copper pipe and sanitary piping	210 days	Fri 1/26/18	Mon 9/24/18	440FF+14 days
477	Installation of water supply services	180 days	Mon 5/7/18	Thu 11/29/18	444FF+30 days
478	Installation of hosereel pipe and DR pipe, Landing Valve and HR Drum	180 days	Mon 5/7/18	Thu 11/29/18	444FF+30 days
479	Install Water Meter & Sub Meter	14 days	Tue 11/13/18	Thu 11/29/18	478FF
480	Installation of gas pipes	180 days	Mon 5/7/18	Thu 11/29/18	444FF+30 days
481	Installation of waste, soil , & vent pipes	270 days	Wed 1/24/18	Thu 11/29/18	444FF+30 days
482	Installation of pump set	60 days	Fri 8/31/18	Thu 11/8/18	472FF+14 days
483	Testing and commissioning	14 days	Mon 2/25/19	Wed 3/13/19	466FS+7 days
484	Water Turn On	1 day	Thu 3/21/19	Fri 3/22/19	483FS+7 days
485	CBPU Inspection	14 days	Fri 3/22/19	Sat 4/6/19	484
486	Gas final pressure test	1 day	Fri 6/14/19	Sat 6/15/19	514FF-45 days
487	Gas charge in	1 day	Tue 7/2/19	Wed 7/3/19	486FS+14 days
488	Sanitary PUB inspection clearance	45 days	Tue 1/29/19	Thu 3/21/19	448,481,483FF+7 days
489	**Electrical Works**	**443 days**	**Fri 1/26/18**	**Mon 6/17/19**	
490	Installation of Lighting Conductor	14 days	Wed 7/11/18	Fri 7/27/18	409FF+14 days
491	Unit conduit and wiring	210 days	Fri 1/26/18	Mon 9/24/18	440FF+14 days
492	Exposed conduit and trunking works	180 days	Mon 6/11/18	Wed 1/2/19	444FF+60 days
493	Common area wiring and cabling works	90 days	Mon 10/15/18	Sat 1/26/19	492FF+21 days
494	Lightning and power point installation	60 days	Wed 12/5/18	Mon 2/11/19	493FF+14 days
495	Power Turn On	1 day	Wed 6/20/18	Wed 6/20/18	264FS+14 days
496	Testing and commissioning	30 days	Thu 6/21/18	Wed 7/25/18	495
497	HDB Testing	21 days	Thu 5/23/19	Sat 6/15/19	514FF-45 days
498	SP Powergrid Pre Turn on	1 day	Sat 6/15/19	Mon 6/17/19	497
499	**TOP Application**	**116 days**	**Wed 6/26/19**	**Tue 11/5/19**	
500	M&E RI Inspection	14 days	Wed 6/26/19	Fri 7/12/19	485FS+70 days
501	Arch RI Inspection	14 days	Fri 7/12/19	Sat 7/27/19	500
502	HHS BCA Inspection	14 days	Wed 7/31/19	Fri 8/16/19	501FS+3 days
503	TOP Inspection	1 day	Tue 8/20/19	Wed 8/21/19	502FS+3 days
504	TOP inspection defect rectification	21 days	Thu 8/22/19	Sat 9/14/19	503FS+1 day
505	BCA issue TOP certification	1 day	Tue 11/5/19	Tue 11/5/19	504FS+44 days
506	**Defect Checking & Rectification**	**51 days**	**Sat 7/27/19**	**Tue 9/24/19**	
507	Contractor checking & Cleaning Up	30 days	Sat 7/27/19	Sat 8/31/19	501
508	Functionality Test	21 days	Sat 8/31/19	Tue 9/24/19	507
509	**Handing Over**	**125 days**	**Wed 6/26/19**	**Fri 11/15/19**	
510	HDB Window Water Tightness Test	14 days	Wed 6/26/19	Fri 7/12/19	500FF



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task | Summary | External Milestone | Inactive Summary | Manual Summary Rollup | Finish-only | Manual Progress
Critical Task | Project Summary | Inactive Task | Manual Task | Manual Summary | Deadline
Milestone | External Tasks | Inactive Milestone | Duration-only | Start-only | Progress

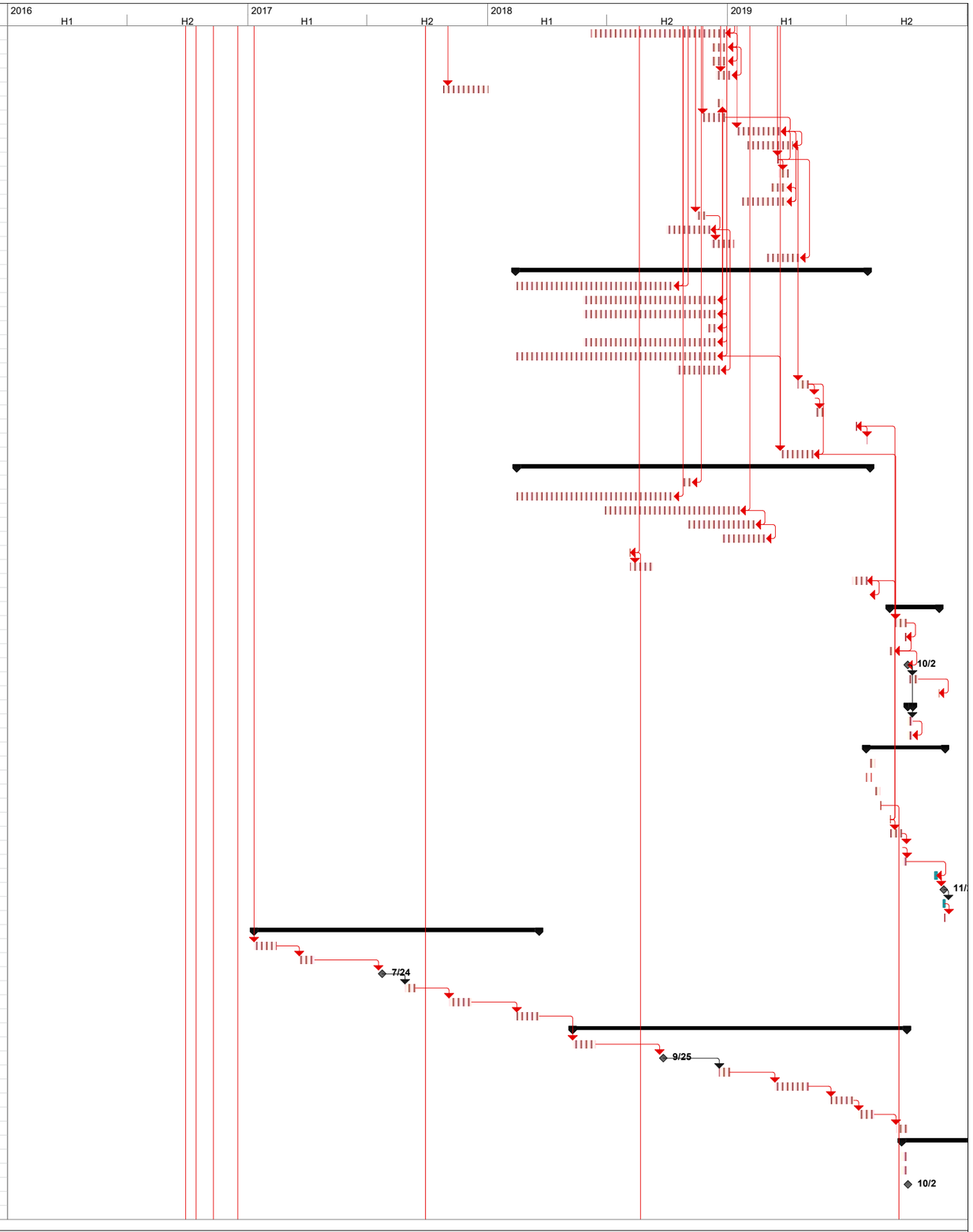
ID	Task Name	Duration	Start	Finish	Predecessors
511	HDB Critical Functional Test	7 days	Fri 7/12/19	Fri 7/19/19	510
512	RTO Inspection prior to HDB BIT inspection	7 days	Sat 7/20/19	Sat 7/27/19	511
513	HDB PD Pre BIT	7 days	Sat 7/27/19	Mon 8/5/19	512
514	HDB 1st BIT Inspection	1 day	Mon 8/5/19	Tue 8/6/19	513
515	Defect Rectification	14 days	Tue 8/6/19	Thu 8/22/19	514
516	Conquas Inspection	7 days	Tue 8/6/19	Wed 8/14/19	514
517	HDB 2nd BIT inspection	1 day	Thu 8/22/19	Fri 8/23/19	514FS+14 days
518	HDB Defect Verification	7 days	Fri 8/23/19	Sat 8/31/19	517
519	Defect Rectification	14 days	Sat 8/31/19	Mon 9/16/19	518
520	Sanitary Pipe Audit	1 day	Thu 10/31/19	Fri 11/1/19	519FF+40 days
521	Consultant Lock Up Inspection	12 days	Fri 11/1/19	Thu 11/14/19	520
522	HDB Lock Up Inspection	1 day	Thu 11/14/19	Fri 11/15/19	521
523	Signing of Costing Form	1 day	Wed 11/6/19	Wed 11/6/19	505
524					
525	**Phase 13 Block 102A & Precinct Pavillion (Contract 1)** (21 Apr 16	**1130.38 days**	**Mon 7/25/16**	**Thu 2/6/20**	
526	**Structural Works**	**768 days**	**Mon 7/25/16**	**Wed 12/19/18**	
527	Excavation	90 days	Mon 7/25/16	Fri 11/4/16	117
528	Hacking of Pile	90 days	Wed 8/10/16	Mon 11/21/16	527FF+14 days
529	Pile cap construction	60 days	Thu 9/29/16	Tue 12/6/16	528FF+14 days
530	Stump construction	60 days	Sat 10/15/16	Thu 12/22/16	529FF+14 days
531	Underground M&E servicese installation & PWCS	60 days	Mon 10/31/16	Sat 1/7/17	530FF+14 days
532	Backfilling and compacting	60 days	Wed 11/16/16	Tue 1/24/17	531FF+14 days
533	Soil Treatment	30 days	Thu 1/5/17	Wed 2/8/17	532FF+14 days
534	Lower 1st Storey Slab	75 days	Tue 12/6/16	Wed 3/1/17	533FF+18 days
535	Retaining Wall	75 days	Wed 12/21/16	Fri 3/17/17	534FF+14 days
536	1st Storey Slab	75 days	Fri 1/6/17	Sat 4/1/17	535FF+14 days
537	2nd Storey R.C.	75 days	Sat 4/1/17	Tue 6/27/17	536
538	3rd Storey R.C.	60 days	Tue 6/27/17	Mon 9/4/17	537
539	4th Storey R.C.	45 days	Mon 9/4/17	Wed 10/25/17	538
540	5th Storey R.C.	30 days	Wed 10/25/17	Tue 11/28/17	539
541	6th Storey R.C.	18 days	Tue 11/28/17	Tue 12/19/17	540
542	7th storey R.C.	18 days	Tue 12/19/17	Mon 1/8/18	541
543	8th storey R.C.	18 days	Mon 1/8/18	Mon 1/29/18	542
544	9th storey R.C.	18 days	Mon 1/29/18	Mon 2/19/18	543
545	10th storey R.C.	18 days	Mon 2/19/18	Sat 3/10/18	544
546	11th storey R.C.	18 days	Sat 3/10/18	Sat 3/31/18	545
547	12th storey R.C.	18 days	Sat 3/31/18	Sat 4/21/18	546
548	13th storey R.C.	18 days	Sat 4/21/18	Fri 5/11/18	547
549	14th storey R.C.	18 days	Fri 5/11/18	Fri 6/1/18	548
550	15th storey R.C.	18 days	Fri 6/1/18	Thu 6/21/18	549
551	16th storey R.C.	18 days	Fri 6/22/18	Thu 7/12/18	550
552	Roof Slab	45 days	Thu 7/12/18	Sat 9/1/18	551
553	Roof Facia	45 days	Sat 9/1/18	Tue 10/23/18	552
554	Lift shaft roof	14 days	Sat 9/1/18	Tue 9/18/18	552
555	Water tank beam and pump room slab	14 days	Sat 9/1/18	Tue 9/18/18	552
556	Precast Water Tank Installation	14 days	Fri 10/19/18	Mon 11/5/18	555FS+28 days
557	Pump room roof	14 days	Tue 9/18/18	Thu 10/4/18	555
558	Dismantle of Tower Crane	2 days	Sat 10/27/18	Tue 10/30/18	557FS+21 days
559	Removal of Tower Crane Foundation	7 days	Tue 10/30/18	Wed 11/7/18	558
560	Casting back of Tower Crane Opening area	14 days	Tue 10/30/18	Thu 11/15/18	558FF+14 days
561	Construction of Fire Engine Access	30 days	Thu 11/15/18	Wed 12/19/18	560
562	**Lift installation**	**145 days**	**Wed 9/26/18**	**Mon 3/11/19**	
563	Hand over of lift Hoistway	1 day	Wed 9/26/18	Thu 9/27/18	554FS+7 days
564	Lift installation by lift contractor	70 days	Thu 9/27/18	Sat 12/15/18	563
565	Brick up of lift door jamb by builder	14 days	Sat 12/15/18	Tue 1/1/19	564
566	Permanent Suppy to lift	1 day	Tue 1/1/19	Wed 1/2/19	565
567	Testing and commissioning	35 days	Wed 1/2/19	Mon 2/11/19	566
568	Lift HDB Testing	1 day	Tue 2/19/19	Wed 2/20/19	567FS+7 days
569	Temporary usage of 1st lift	1 day	Thu 2/28/19	Fri 3/1/19	568FS+7 days
570	Lift readiness for M&E RI	1 day	Sat 3/9/19	Mon 3/11/19	569FS+7 days
571	**Architectural Works At Lift Lobby, Common Corridor And Staricase**	**156 days**	**Sat 8/4/18**	**Tue 1/29/19**	
572	Plastering, skimming, floor screeding and railing/handrails	60 days	Sat 8/4/18	Thu 10/11/18	557FF+7 days
573	Wall tiling for lift lobby and refuse chute area	12 days	Tue 1/1/19	Tue 1/15/19	565
574	Floor tiling to lift lobby and refuse chute area	13 days	Thu 1/3/19	Fri 1/18/19	573FF+3 days
575	Install Refuse Hopper	10 days	Fri 1/18/19	Tue 1/29/19	574
576	**Architectural Works**	**476 days**	**Wed 10/25/17**	**Mon 4/22/19**	
577	Ceiling Skimming	240 days	Mon 12/18/17	Tue 9/18/18	552FF+14 days
578	Brick/Dry Wall/Light Weight Panel Installation	210 days	Mon 1/29/18	Wed 9/26/18	577FF+7 days
579	Install Door Frames	180 days	Wed 3/28/18	Fri 10/19/18	614FF+7 days
580	Water proof to wet area	180 days	Thu 4/5/18	Sat 10/27/18	579FF+7 days
581	Install Alum window outer frame	180 days	Fri 4/13/18	Mon 11/5/18	580FF+7 days
582	Internal Wall Skimming / Plastering	180 days	Sat 4/21/18	Tue 11/13/18	579FF+7 days,581FF+7 days
583	Wall Tiling	180 days	Mon 5/7/18	Thu 11/29/18	582FF+14 days
584	Floor Tiling	180 days	Wed 5/23/18	Fri 12/14/18	583FF+14 days
585	Box up at Toilet	180 days	Sat 5/26/18	Tue 12/18/18	584FF+3 days
586	Plumbing Fixture installation	30 days	Thu 11/22/18	Wed 12/26/18	585FF+7 days
587	Internal Painting (1st Coat)	180 days	Wed 5/30/18	Fri 12/21/18	582FF+7 days,585FF+3 days
588	Electrical fixtures	30 days	Mon 11/26/18	Sat 12/29/18	587FF+7 days
589	Install HHS door panel	30 days	Wed 11/21/18	Tue 12/25/18	587FF+3 days
590	Internal Painting (2nd Coat)	30 days	Sat 11/24/18	Fri 12/28/18	589FF+3 days
591	Install Skirting	60 days	Mon 10/22/18	Sat 12/29/18	587FF+7 days
592	Cloths rack Installation	10 days	Tue 12/18/18	Sat 12/29/18	590FF+1 day
593	External Water Test for Façade Joint & Gable End Wall	45 days	Sat 10/6/18	Tue 11/27/18	553FF+30 days
594	Install Window inner frame/Glazing	150 days	Thu 7/12/18	Mon 12/31/18	584FF+14 days
595	Install Metal Gate	60 days	Tue 10/23/18	Mon 12/31/18	584FF+14 days



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task
Critical Task
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Deadline
Progress
Manual Progress

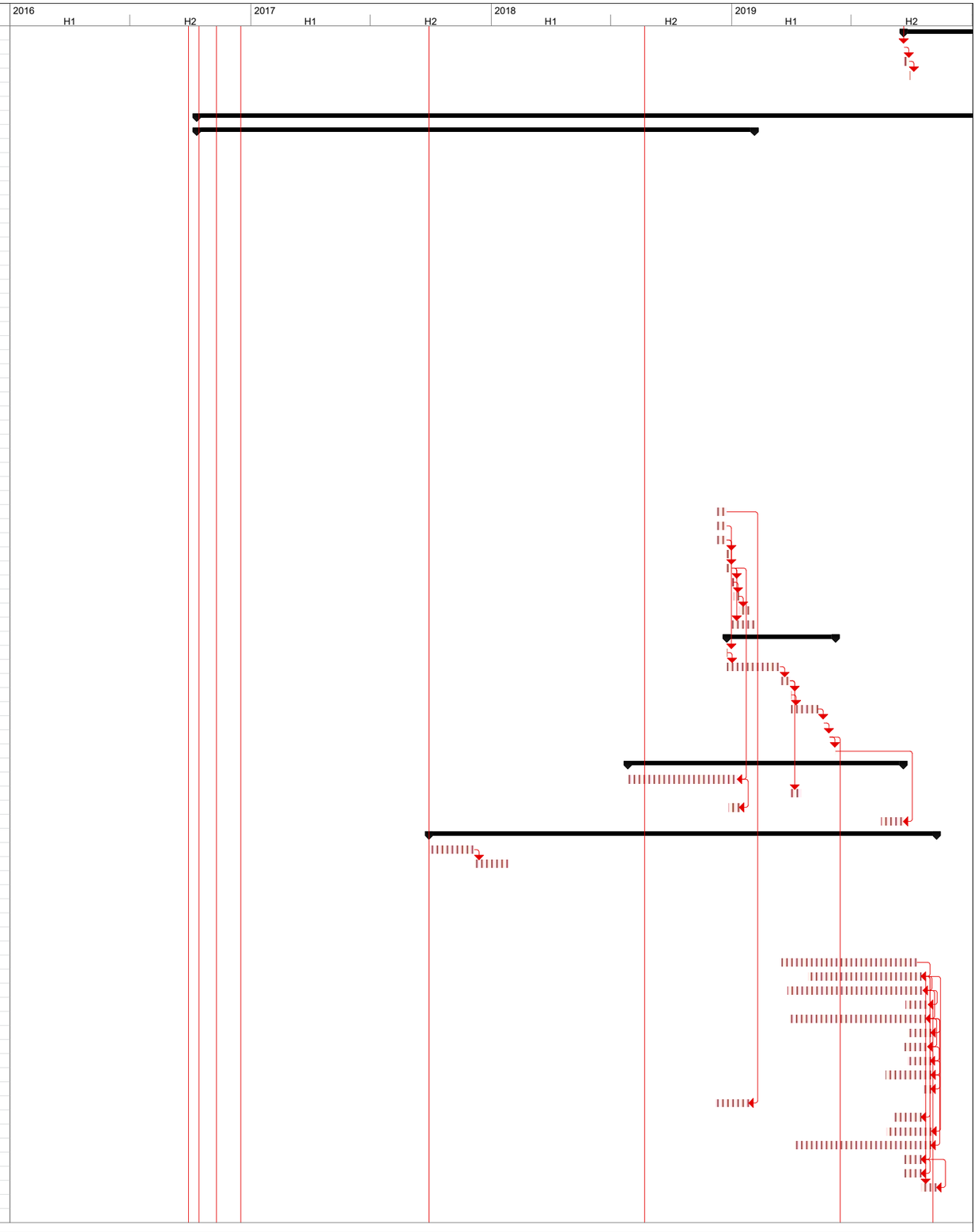
ID	Task Name	Duration	Start	Finish	Predecessors
596	Removing Protection to floor tiling	180 days	Thu 6/7/18	Sat 12/29/18	591FF
597	Install Door Panel	21 days	Sat 12/8/18	Wed 1/2/19	596FF+3 days
598	Install Ironmongery	21 days	Sat 12/8/18	Wed 1/2/19	597FF
599	Final pointing to floor tile	21 days	Fri 12/14/18	Tue 1/8/19	584,597FF
600	Plastering and skimming at 1st sty	60 days	Wed 10/25/17	Mon 1/1/18	539
601	Letter Box, Box-up, False Ceiling Installation	7 days	Mon 12/17/18	Tue 12/25/18	615,616,618
602	Rectification Work to External Façade	30 days	Sat 11/24/18	Fri 12/28/18	553FS+28 days
603	External Skimming	60 days	Tue 1/15/19	Sat 3/23/19	553FS+30 days,602FF+14 days,605FF+5 days
604	Installation of Alumimium Fin	60 days	Fri 2/1/19	Wed 4/10/19	603FF+15 days
605	Removal of P/M Hoist	1 day	Mon 3/18/19	Tue 3/19/19	569FS+14 days
606	Reinstatement of external work to PM hoist area	14 days	Tue 3/19/19	Wed 4/3/19	605
607	External Cloth rack installation	21 days	Fri 3/8/19	Mon 4/1/19	608FF
608	External Painting	60 days	Wed 1/23/19	Mon 4/1/19	603FF+7 days
609	Roof Water Tightness Test	14 days	Tue 11/13/18	Thu 11/29/18	556FS+7 days
610	Roof Skimming Works	60 days	Sat 9/29/18	Thu 12/6/18	609FF+7 days
611	Secondary Roofing System	30 days	Fri 12/7/18	Thu 1/10/19	610
612	Landscaping Works Surrounding Block	45 days	Fri 3/1/19	Mon 4/22/19	605FF+30 days
613	**Sanitary, Plumbing, Gas and HR & DR Works**	**469.88 days**	**Mon 2/12/18**	**Fri 8/2/19**	
614	Unit Copper pipe and sanitary piping	210 days	Wed 2/14/18	Thu 10/11/18	578FF+14 days
615	Installation of water supply services	180 days	Fri 5/25/18	Mon 12/17/18	582FF+30 days
616	Installation of hosereel pipe,DR pipe, Landing Valve and HR Drum	180 days	Fri 5/25/18	Mon 12/17/18	582FF+30 days
617	Install Water Meter & Sub Meter	14 days	Sat 12/1/18	Mon 12/17/18	616FF
618	Installation of gas pipes	180 days	Fri 5/25/18	Mon 12/17/18	582FF+30 days
619	Installation of waste, soil , & vent pipes	270 days	Mon 2/12/18	Mon 12/17/18	582FF+30 days
620	Installation of pump set	60 days	Mon 10/15/18	Sat 12/22/18	610FF+14 days
621	Testing and commissioning	14 days	Thu 4/18/19	Sat 5/4/19	604FS+7 days
622	Water Turn On	1 day	Mon 5/13/19	Tue 5/14/19	621FS+7 days
623	CBPU Inspection	14 days	Tue 5/14/19	Wed 5/29/19	622
624	Gas final pressure test	1 day	Mon 7/15/19	Tue 7/16/19	652FF-45 days
625	Gas charge in	1 day	Thu 8/1/19	Fri 8/2/19	624FS+14 days
626	Sanitary PUB inspection clearance	45 days	Fri 3/22/19	Mon 5/13/19	586,619,621FF+7 days
627	**Electrical Works**	**470.88 days**	**Wed 2/14/18**	**Tue 8/6/19**	
628	Installation of Lighting Conductor	14 days	Tue 10/23/18	Thu 11/8/18	553FF+14 days
629	Unit conduit and wiring	210 days	Wed 2/14/18	Thu 10/11/18	578FF+14 days
630	Exposed conduit and trunking works	180 days	Thu 6/28/18	Mon 1/21/19	582FF+60 days
631	Common area wiring and cabling works	90 days	Fri 11/2/18	Wed 2/13/19	630FF+21 days
632	Lightning and power point installation	60 days	Sat 12/22/18	Fri 3/1/19	631FF+14 days
633	Power Turn On	1 day	Sat 8/4/18	Mon 8/6/18	495FF+40 days
634	Testing and commissioning	30 days	Mon 8/6/18	Sat 9/8/18	633
635	HDB Testing	21 days	Wed 7/10/19	Fri 8/2/19	652FF-30 days
636	SP Powergrid Pre Turn on	1 day	Mon 8/5/19	Tue 8/6/19	635FF+3 days
637	**TOP Application**	**66 days**	**Thu 9/5/19**	**Tue 11/19/19**	
638	M&E RI Inspection	14 days	Sat 9/14/19	Mon 9/30/19	626FS+109 days
639	Arch RI Inspection	1 day	Sat 9/28/19	Mon 9/30/19	638FF
640	HHS BCA Inspection	7 days	Thu 9/5/19	Thu 9/12/19	639FF-15 days
641	TOP Inspection	1 day	Tue 10/1/19	Wed 10/2/19	640FF+17 days
642	TOP inspection defect rectification	14 days	Wed 10/2/19	Fri 10/18/19	641
643	BCA issue TOP certification	1 day	Mon 11/18/19	Tue 11/19/19	642FF+28 days
644	**Defect Checking & Rectification**	**7 days**	**Wed 10/2/19**	**Thu 10/10/19**	
645	Contractor checking & Cleaning Up	7 days	Wed 10/2/19	Thu 10/10/19	641
646	Functionality Test	7 days	Wed 10/2/19	Thu 10/10/19	645FF
647	**Handing Over**	**105.5 days**	**Wed 7/31/19**	**Thu 11/28/19**	
648	HDB Window Water Tightness Test	7 days	Tue 8/6/19	Tue 8/13/19	
649	HDB Critical Functional Test	7 days	Wed 7/31/19	Wed 8/7/19	
650	RTO Inspection Prior to HDB BIT inspection	7 days	Wed 8/14/19	Wed 8/21/19	
651	HDB PD Pre BIT	1 day	Thu 8/22/19	Thu 8/22/19	
652	HDB 1st BIT Inspection	1 day	Thu 9/5/19	Thu 9/5/19	
653	Defect Rectification	15 days	Fri 9/6/19	Mon 9/23/19	652
654	HDB 2nd BIT inspection	1 day	Mon 9/23/19	Tue 9/24/19	653
655	HDB Defect Verification	5 days	Tue 9/24/19	Mon 9/30/19	654
656	Sanitary Pipe Audit	2 days	Wed 11/13/19	Fri 11/15/19	655FF+40 days
657	Consultant Lock Up Inspection	9 days	Fri 11/15/19	Tue 11/26/19	656
658	HDB Lock Up Inspection	1 day	Tue 11/26/19	Wed 11/27/19	657
659	Singing of costing form	1 day	Wed 11/27/19	Thu 11/28/19	658
660	**Structural Work (Block 102 Precinct Pavilion)**	**380 days**	**Tue 1/10/17**	**Tue 3/20/18**	
661	Excavation	30 days	Tue 1/10/17	Mon 2/13/17	529FS+30 days
662	Hacking of Pile	21 days	Mon 3/20/17	Wed 4/12/17	661FS+30 days
663	Pile cap construction	30 days	Tue 6/20/17	Mon 7/24/17	662FS+60 days
664	Stump construction	14 days	Mon 8/28/17	Tue 9/12/17	663FS+30 days
665	1st Storey RC	30 days	Fri 11/3/17	Thu 12/7/17	664FS+45 days
666	Roof RC	30 days	Wed 2/14/18	Tue 3/20/18	665FS+60 days
667	**Arch and M&E Works (Block 102 Precinct Pavilion)**	**445 days**	**Thu 5/10/18**	**Tue 10/1/19**	
668	Metal Works	30 days	Thu 5/10/18	Thu 6/14/18	666FS+45 days
669	Skimming Works	30 days	Tue 8/21/18	Tue 9/25/18	668FS+60 days
670	Painting Works	14 days	Wed 12/19/18	Fri 1/4/19	669FS+75 days
671	Aluminium Works	45 days	Thu 3/14/19	Sat 5/4/19	670FS+60 days
672	Tiling Works	30 days	Fri 6/7/19	Fri 7/12/19	671FS+30 days
673	M&E Installation Works and Testing	20 days	Sat 7/20/19	Mon 8/12/19	672FS+7 days
674	Sanitary PUB Inspection Clearance	14 days	Sat 9/14/19	Tue 10/1/19	673FS+30 days
675	**TOP application (Block 102 Precinct Pavilion)**	**119 days**	**Mon 9/23/19**	**Wed 2/5/20**	
676	M&E RI Inspection	7 days	Mon 9/23/19	Mon 9/30/19	
677	Arch RI Inspection	7 days	Mon 9/23/19	Mon 9/30/19	
678	TOP Inspection	1 day	Wed 10/2/19	Wed 10/2/19	
679	TOP inspection defect rectification	21 days	Thu 10/3/19	Sat 10/26/19	678
680	BCA issue TOP certification	1 day	Tue 2/4/20	Wed 2/5/20	679FS+88 days,643



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task	Summary	External Milestone	Inactive Summary	Manual Summary Rollup	Finish-only	Manual Progress
Critical Task	Project Summary	Inactive Task	Manual Task	Manual Summary	Deadline	
Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	Progress	

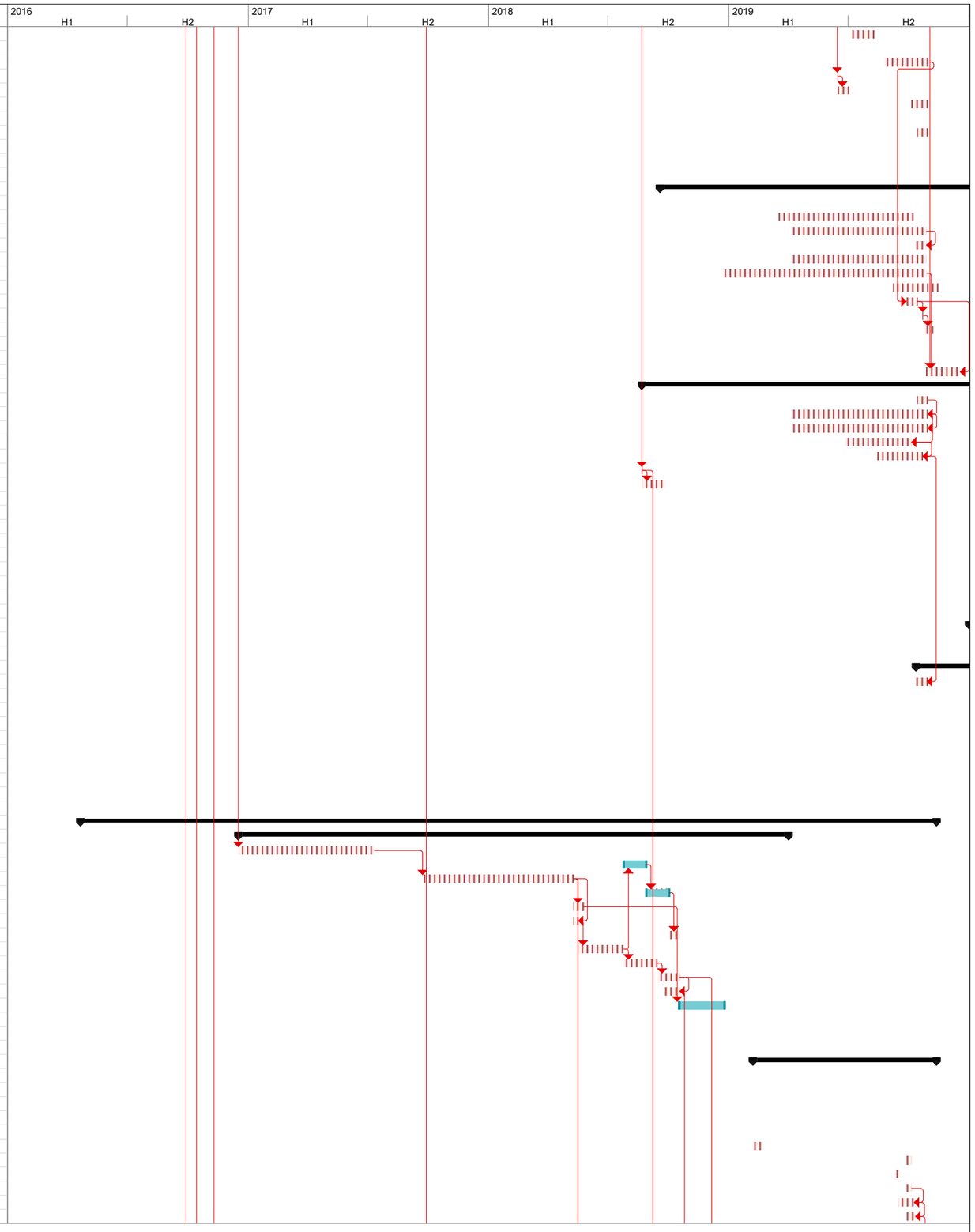
ID	Task Name	Duration	Start	Finish	Predecessors
681	**Handing Over (Block 102 Precinct Pavilion)**	**123.25 days**	**Thu 9/19/19**	**Thu 2/6/20**	
682	HDB 1st BIT Inspection	1 day	Thu 9/19/19	Thu 9/19/19	651
683	Defect Rectification	7 days	Fri 9/20/19	Fri 9/27/19	682
684	HDB 2nd BIT Inspection	1 day	Fri 9/27/19	Sat 9/28/19	683
685	Signing of Costing form	1 day	Wed 2/5/20	Thu 2/6/20	643,659,680
686					
687	**Phase 14 Block 101A (21 Apr 16 to 04 Aug 19)**	**1108 days**	**Tue 10/11/16**	**Mon 3/30/20**	
688	**Structural Works**	**741 days**	**Tue 10/11/16**	**Mon 2/4/19**	
689	Excavation	90 days	Tue 10/11/16	Sat 1/21/17	118FS+45 days
690	Hacking of Pile	90 days	Wed 10/26/16	Mon 2/6/17	689FF+14 days
691	Pile cap construction	90 days	Fri 11/11/16	Wed 2/22/17	690FF+14 days
692	Stump construction	75 days	Wed 12/14/16	Fri 3/10/17	691FF+14 days
693	Underground M&E servicese installation & PWCS	75 days	Thu 12/22/16	Sat 3/18/17	692FF+7 days
694	Backfilling and compacting	75 days	Fri 12/30/16	Sat 3/25/17	693FF+7 days
695	Soil Treatment	75 days	Sat 1/7/17	Mon 4/3/17	694FF+7 days
696	Lower 1st Storey Slab	75 days	Tue 1/24/17	Wed 4/19/17	695FF+14 days
697	Retaining Wall	75 days	Mon 2/27/17	Tue 5/23/17	696FF+30 days
698	1st Storey Slab	75 days	Sat 4/1/17	Tue 6/27/17	697FF+30 days
699	2nd Storey R.C.	75 days	Wed 7/5/17	Thu 9/28/17	698FS+7 days
700	3rd Storey R.C.	30 days	Thu 9/28/17	Thu 11/2/17	699
701	4th Storey R.C.	30 days	Thu 11/2/17	Wed 12/6/17	700
702	5th Storey R.C.	25 days	Wed 12/6/17	Wed 1/3/18	701
703	6th Storey R.C.	21 days	Thu 1/4/18	Sat 1/27/18	702
704	7th storey R.C.	21 days	Sat 1/27/18	Wed 2/21/18	703
705	8th storey R.C.	21 days	Wed 2/21/18	Fri 3/16/18	704
706	9th storey R.C.	21 days	Fri 3/16/18	Tue 4/10/18	705
707	10th storey R.C.	21 days	Tue 4/10/18	Thu 5/3/18	706
708	11th storey R.C.	21 days	Thu 5/3/18	Mon 5/28/18	707
709	12th storey R.C.	21 days	Mon 5/28/18	Wed 6/20/18	708
710	13th storey R.C.	21 days	Thu 6/21/18	Sat 7/14/18	709
711	14th storey R.C.	21 days	Sat 7/14/18	Wed 8/8/18	710
712	15th storey R.C.	21 days	Wed 8/8/18	Fri 8/31/18	711
713	16th storey R.C.	21 days	Fri 8/31/18	Tue 9/25/18	712
714	Roof Slab	65 days	Tue 9/25/18	Fri 12/7/18	713
715	Roof Facia	14 days	Sat 12/8/18	Mon 12/24/18	714
716	Lift shaft roof	14 days	Sat 12/8/18	Mon 12/24/18	714
717	Water tank beam and pump room slab	14 days	Sat 12/8/18	Mon 12/24/18	714
718	Precast Water Tank Installation	7 days	Mon 12/24/18	Tue 1/1/19	717
719	Pump room roof	7 days	Mon 12/24/18	Tue 1/1/19	717
720	Dismantle of Tower Crane	2 days	Tue 1/1/19	Thu 1/3/19	719
721	Removal of Tower Crane Foundation	7 days	Thu 1/3/19	Fri 1/11/19	720
722	Casting back of Tower Crane Opening area	14 days	Fri 1/11/19	Sat 1/26/19	721
723	Construction of Fire Engine Access	30 days	Tue 1/1/19	Mon 2/4/19	719
724	**Lift installation**	**145 days**	**Mon 12/24/18**	**Fri 6/7/19**	
725	Hand over of lift Hoistway	1 day	Mon 12/24/18	Tue 12/25/18	716
726	Lift installation by lift contractor	70 days	Tue 12/25/18	Fri 3/15/19	725
727	Brick up of lift door jamb by builder	14 days	Fri 3/15/19	Sat 3/30/19	726
728	Permanent Supply to lift	1 day	Sat 3/30/19	Mon 4/1/19	727
729	Testing and commissioning	35 days	Mon 4/1/19	Sat 5/11/19	728
730	Lift HDB Testing	1 day	Mon 5/20/19	Mon 5/20/19	729FS+7 days
731	Temporary usage of 1st lift	1 day	Tue 5/28/19	Wed 5/29/19	730FS+7 days
732	Lift readiness for M&E RI	1 day	Thu 6/6/19	Fri 6/7/19	731FS+7 days
733	**Architectural Works At Lift Lobby, Common Corridor And Staricase**	**366 days**	**Fri 7/27/18**	**Wed 9/18/19**	
734	Plastering, skimming, floor screeding and railing/handrails	145 days	Fri 7/27/18	Wed 1/9/19	719FF+7 days
735	Wall tiling for lift lobby and refuse chute area	14 days	Sat 3/30/19	Tue 4/16/19	727
736	Floor tiling to lift lobby and refuse chute area	14 days	Thu 12/27/18	Sat 1/12/19	734FF+3 days
737	Install Refuse Hopper	30 days	Thu 8/15/19	Wed 9/18/19	732FF+90 days
738	**Architectural Works**	**674 days**	**Thu 9/28/17**	**Thu 11/7/19**	
739	Construction of Sample Units	60 days	Thu 9/28/17	Wed 12/6/17	700FS-30 days
740	Sample Units Viewing and Approval	45 days	Wed 12/6/17	Fri 1/26/18	739
741	Ceiling Skimming	180 days	Mon 7/30/18	Wed 2/20/19	714FF+65 days
742	Brick/Dry Wall/Light Weight Panel Installation	210 days	Sat 9/1/18	Tue 4/30/19	741FF+60 days
743	Install Door Frames	210 days	Wed 12/12/18	Fri 8/9/19	778FF+75 days
744	Water proof to wet area	180 days	Wed 2/13/19	Sat 9/7/19	743FF+25 days
745	Install Alum window outer frame	180 days	Thu 2/21/19	Sat 9/14/19	744FF+7 days
746	Internal Wall Skimming / Plastering	180 days	Fri 3/1/19	Mon 9/23/19	743FF+7 days,745FF+7 days
747	Wall Tiling	180 days	Mon 3/18/19	Wed 10/9/19	746FF+14 days
748	Floor Tiling	150 days	Fri 4/26/19	Tue 10/15/19	747FF+5 days
749	Box up at Toilet	180 days	Wed 3/27/19	Fri 10/18/19	748FF+3 days
750	Plumbing Fixture installation	30 days	Sat 9/21/19	Sat 10/26/19	749FF+7 days
751	Internal Painting (1st Coat)	180 days	Sat 3/30/19	Tue 10/22/19	746FF+7 days,749FF+3 days
752	Electrical fixtures	30 days	Wed 9/25/19	Wed 10/30/19	751FF+7 days
753	Install HHS door panel	30 days	Fri 9/20/19	Fri 10/25/19	751FF+3 days
754	Internal Painting (2nd Coat)	30 days	Tue 9/24/19	Tue 10/29/19	753FF+3 days
755	Install Skirting	60 days	Thu 8/22/19	Wed 10/30/19	751FF+7 days
756	Cloths rack Installation	10 days	Fri 10/18/19	Wed 10/30/19	754FF+1 day
757	External Water Test for Façade Joint & Gable End Wall	45 days	Fri 12/7/18	Sat 1/26/19	715FF+30 days
758	Install Window inner frame/Glazing	35 days	Thu 9/5/19	Tue 10/15/19	748FF
759	Install Metal Gate	60 days	Fri 8/23/19	Thu 10/31/19	748FF+14 days
760	Removing Protection to floor tiling	180 days	Sat 4/6/19	Wed 10/30/19	755FF
761	Install Door Panel	21 days	Fri 9/20/19	Tue 10/15/19	748FF
762	Install Ironmongery	21 days	Fri 9/20/19	Tue 10/15/19	761FF
763	Final pointing to floor tile	21 days	Tue 10/15/19	Thu 11/7/19	748,761FF
764	Plastering and skimming at 1st sty	20 days	Mon 9/23/19	Wed 10/16/19	746
765	Letter Box, Box-up, False Ceiling Installation	7 days	Wed 10/16/19	Thu 10/24/19	764



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task	Summary	External Milestone	Inactive Summary	Manual Summary Rollup	Finish-only	Manual Progress
Critical Task	Project Summary	Inactive Task	Manual Task	Manual Summary	Deadline	
Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	Progress	

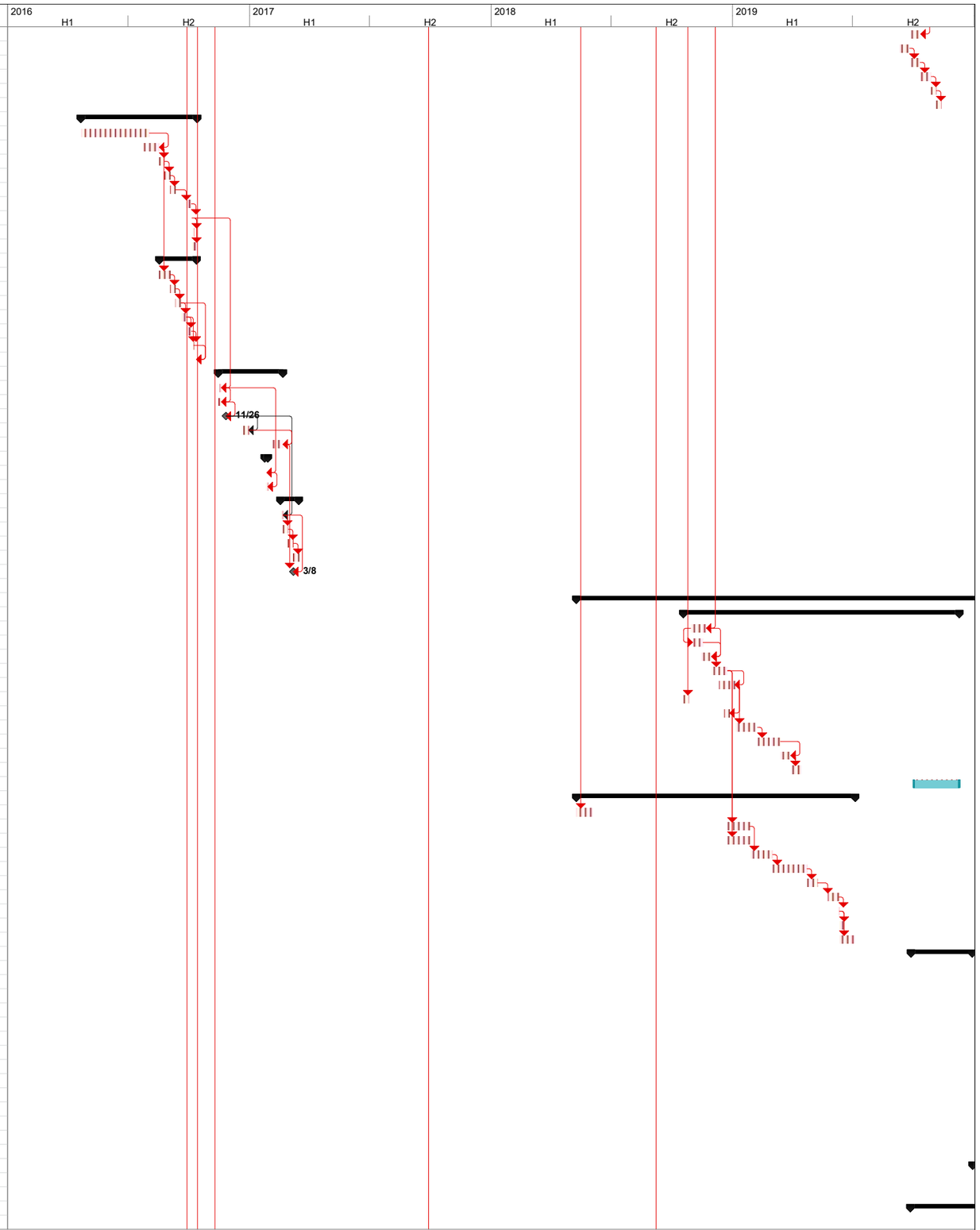
ID	Task Name	Duration	Start	Finish	Predecessors
766	Rectification Work to External Façade	30 days	Sat 7/6/19	Fri 8/9/19	743FF
767	External Skimming	30 days	Thu 9/19/19	Thu 10/24/19	765FF
768	Installation of Alumimium Fin	60 days	Sat 8/24/19	Fri 11/1/19	767FF+7 days
769	Removal of P/M Hoist	1 day	Fri 6/14/19	Sat 6/15/19	731FS+14 days
770	Reinstatement of external work to PM hoist area	14 days	Sat 6/15/19	Tue 7/2/19	769
771	External Cloth rack installation	21 days	Sat 10/5/19	Wed 10/30/19	772FF
772	External Painting	60 days	Thu 8/22/19	Wed 10/30/19	767FF+5 days
773	Roof Water Tightness Test	14 days	Mon 10/14/19	Wed 10/30/19	772FF
774	Roof Skimming Works	14 days	Mon 10/14/19	Wed 10/30/19	772FF
775	Secondary Roofing System	5 days	Wed 10/30/19	Mon 11/4/19	774
776	Landscaping Works Surrounding Block	45 days	Sat 9/14/19	Mon 11/4/19	775FF
777	**Sanitary, Plumbing, Gas and HR & DR Works**	**471 days**	**Tue 9/18/18**	**Mon 3/9/20**	
778	Unit Copper pipe and sanitary piping	210 days	Tue 9/18/18	Thu 5/16/19	742FF+14 days
779	Installation of water supply services	180 days	Mon 3/18/19	Wed 10/9/19	746FF+14 days
780	Installation of hosereel pipe, DR pipe, Landing Valve & HR Drum	180 days	Thu 4/4/19	Mon 10/28/19	746FF+30 days
781	Installation of Water Meter & Sub Meter	14 days	Fri 10/11/19	Mon 10/28/19	780FF
782	Installation of gas pipes	180 days	Thu 4/4/19	Mon 10/28/19	746FF+30 days
783	Installation of waste, soil , & vent pipes	270 days	Sat 12/22/18	Mon 10/28/19	746FF+30 days
784	Installation of pump set	60 days	Sat 9/7/19	Thu 11/14/19	774FF+14 days
785	Testing and commissioning	14 days	Fri 9/27/19	Mon 10/14/19	768FS-30 days
786	Water Turn On	1 day	Tue 10/22/19	Wed 10/23/19	785FS+7 days
787	CBPU Inspection	14 days	Wed 10/23/19	Thu 11/7/19	786
788	Gas final pressure test	1 day	Thu 2/20/20	Fri 2/21/20	816FF+3 days
789	Gas charge in	1 day	Sat 3/7/20	Mon 3/9/20	788FS+14 days
790	Sanitary PUB inspection clearance	45 days	Mon 10/28/19	Wed 12/18/19	750,783,785FF+7 days
791	**Electrical Works**	**490 days**	**Tue 8/21/18**	**Tue 3/3/20**	
792	Installation of Lighting Conductor	14 days	Mon 10/14/19	Wed 10/30/19	774FF
793	Unit conduit and wiring	180 days	Sat 4/6/19	Wed 10/30/19	792FF
794	Exposed conduit and trunking works	180 days	Sat 4/6/19	Wed 10/30/19	793FF
795	Common area wiring and cabling works	90 days	Tue 6/25/19	Sat 10/5/19	793FF-21 days
796	Lightning and power point installation	60 days	Wed 8/14/19	Tue 10/22/19	795FF+14 days
797	Power Turn On	1 day	Tue 8/21/18	Wed 8/22/18	633FS+14 days
798	Testing and commissioning	30 days	Wed 8/22/18	Wed 9/26/18	797
799	HDB Testing	21 days	Wed 2/5/20	Fri 2/28/20	816FF+10 days
800	SP Powergrid Pre Turn on	1 day	Mon 3/2/20	Tue 3/3/20	799FF+3 days
801	**TOP Application**	**44 days**	**Thu 2/6/20**	**Fri 3/27/20**	
802	M&E RI Inspection	1 day	Fri 2/14/20	Sat 2/15/20	776FF+90 days
803	Arch RI Inspection	1 day	Fri 2/14/20	Sat 2/15/20	802FF
804	HHS BCA Inspection	7 days	Thu 2/6/20	Fri 2/14/20	803FF-1 day
805	TOP Inspection	1 day	Mon 2/24/20	Mon 2/24/20	802FF+8 days
806	TOP inspection defect rectification	14 days	Tue 2/25/20	Wed 3/11/20	805
807	BCA issue TOP certification	1 day	Thu 3/26/20	Fri 3/27/20	806FF+14 days
808	**Defect Checking & Rectification**	**19 days**	**Wed 1/1/20**	**Wed 1/22/20**	
809	Contractor checking & Cleaning Up	10 days	Wed 1/1/20	Sat 1/11/20	776FF+60 days
810	Functionality Test	1 day	Tue 1/21/20	Wed 1/22/20	809FF+9 days
811	**Handing Over**	**148 days**	**Sat 10/12/19**	**Mon 3/30/20**	
812	HDB Window Water Tightness Test	14 days	Sat 10/12/19	Tue 10/29/19	796FF+6 days
813	HDB Critical Functional Test	7 days	Tue 1/14/20	Wed 1/22/20	809FF+9 days
814	RTO Inspection prior to HDB BIT inspection	7 days	Thu 1/30/20	Fri 2/7/20	813FF+14 days
815	HDB PD Pre BIT	1 day	Fri 2/7/20	Sat 2/8/20	814
816	HDB 1st BIT Inspection	1 day	Mon 2/17/20	Tue 2/18/20	815FF+8 days
817	HDB 2nd BIT inspection	1 day	Sat 2/29/20	Mon 3/2/20	816FF+12 days
818	Sanitary Pipe Audit	1 day	Wed 3/18/20	Thu 3/19/20	817FF+15 days
819	HDB Lock Up Inspection	7 days	Fri 3/20/20	Sat 3/28/20	818FF+8 days
820	Signing of Costing Form	1 day	Sat 3/28/20	Mon 3/30/20	819,807
821					
822	**Phase 15a Block 101 Multi Storey Car-park (Contract 2)** (21 Apr	**1138.13 days**	**Thu 4/21/16**	**Tue 11/12/19**	
823	**Structural Works of MSCP**	**731 days**	**Fri 12/16/16**	**Mon 4/1/19**	
824	Excavate Lower 1st storey (Part 1)	180 days	Fri 12/16/16	Tue 7/11/17	119FS+90 days
825	Excavate Lower 1st storey (Part 2)	30 days	Wed 7/25/18	Tue 8/28/18	831
826	Construct Pile cap and slab of lower 1st storey (Part 1)	200 days	Fri 9/22/17	Wed 5/9/18	824FS+65 days
827	Construct Pile cap and slab of lower 1st storey (Part 2)	30 days	Tue 8/28/18	Tue 10/2/18	825
828	Underground M&E services installation & PWCS	14 days	Wed 5/9/18	Fri 5/25/18	826
829	Construct retaining wall around lower 1st storey (Part 1)	7 days	Wed 5/9/18	Thu 5/17/18	826FF+7 days
830	Construct retaining wall around lower 1st storey (Part 2)	14 days	Tue 10/2/18	Wed 10/17/18	827
831	Construct 1st storey slab (Part 1)	60 days	Thu 5/17/18	Wed 7/25/18	829
832	Construct 2nd storey slab (Part 1)	45 days	Wed 7/25/18	Fri 9/14/18	831
833	Construct 3rd storey/Roof slab (Part 1)	30 days	Fri 9/14/18	Thu 10/18/18	832
834	Construct Planter Box (Part 1)	21 days	Tue 9/25/18	Thu 10/18/18	833FF
835	Construct 1st storey slab (Part 2)	60 days	Wed 10/17/18	Tue 12/25/18	828
836	Construct 2nd storey slab (Part 2)	45 days	Tue 12/25/18	Thu 2/14/19	835
837	Construct 3rd storey/Roof slab (Part 2)	40 days	Thu 2/14/19	Mon 4/1/19	836
838	Construct Planter Box (Part 2)	40 days	Thu 2/14/19	Mon 4/1/19	837FF
839	**MSCP Architectural Works**	**244 days**	**Wed 2/6/19**	**Tue 11/12/19**	
840	Bricklaying	120 days	Mon 4/1/19	Fri 8/16/19	838FF+120 days
841	Door Frame Installation	14 days	Thu 8/29/19	Fri 9/13/19	840FF+25 days
842	Grouting Works to Door Frame	14 days	Thu 8/29/19	Fri 9/13/19	841FF
843	Internal Skimming	14 days	Tue 9/10/19	Wed 9/25/19	842FF+10 days
844	Internal Painting	14 days	Thu 9/12/19	Fri 9/27/19	843FF+2 days
845	Railing/metal works	14 days	Wed 2/6/19	Fri 2/22/19	836FF+7 days
846	Traffic / Parking Lot Marking	7 days	Fri 9/27/19	Sat 10/5/19	844
847	Door Panel Installation	7 days	Thu 9/12/19	Thu 9/19/19	844FF-7 days
848	External Plastering	7 days	Fri 9/27/19	Sat 10/5/19	844
849	External Skimming	21 days	Sat 9/14/19	Wed 10/9/19	848FF+3 days
850	External Painting	14 days	Wed 9/25/19	Fri 10/11/19	849FF+2 days



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task | Critical Task | Milestone | Summary | Project Summary | External Tasks | External Milestone | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Deadline | Progress | Manual Progress

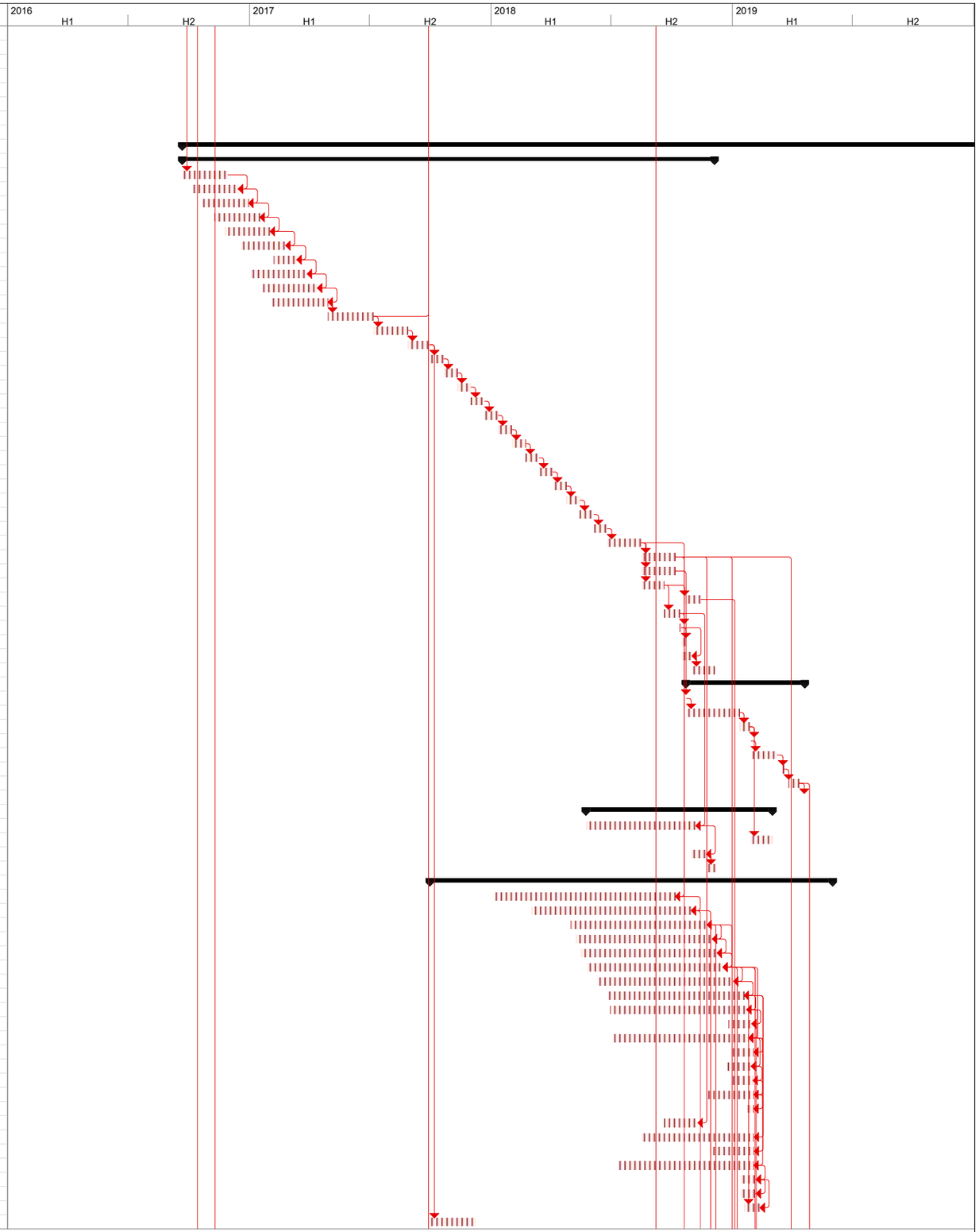
ID	Task Name	Duration	Start	Finish	Predecessors
851	Signage Installation work	14 days	Thu 9/26/19	Sat 10/12/19	850FF+1 day
852	Roof garden waterproofing	14 days	Tue 9/10/19	Wed 9/25/19	843FF
853	Roof garden plastering works	14 days	Wed 9/25/19	Fri 10/11/19	852
854	Roof garden metal works	14 days	Fri 10/11/19	Mon 10/28/19	853
855	Roof garden tiling works	7 days	Mon 10/28/19	Mon 11/4/19	854
856	Roof garden landscape works	7 days	Tue 11/5/19	Tue 11/12/19	855
857	**Sanitary, Plumbing and HR & DR Works**	**154 days**	**Thu 4/21/16**	**Thu 10/13/16**	
858	Construction of IC	90 days	Thu 4/21/16	Tue 8/2/16	
859	Installation of water supply services	21 days	Mon 7/25/16	Wed 8/17/16	858FF+14 days
860	Installation of hosereel pipe and DR pipe	7 days	Wed 8/17/16	Thu 8/25/16	859
861	Installation of waste, soil , & vent pipes	7 days	Thu 8/25/16	Fri 9/2/16	860
862	Installation of hosereel pump set	7 days	Fri 9/2/16	Sat 9/10/16	861
863	Testing and commissioning	7 days	Tue 9/27/16	Tue 10/4/16	862FS+14 days
864	Water Turn On	1 day	Wed 10/5/16	Wed 10/5/16	863
865	CBPU Inspection	3 days	Thu 10/6/16	Sat 10/8/16	864
866	Sanitary PUB inspection clearance	7 days	Thu 10/6/16	Thu 10/13/16	864
867	**Electrical And Fire Alarm Works**	**49 days**	**Wed 8/17/16**	**Wed 10/12/16**	
868	Exposed conduit and trunking works	14 days	Wed 8/17/16	Fri 9/2/16	859
869	Wiring and cabling works	7 days	Fri 9/2/16	Sat 9/10/16	868
870	Lightning and fire alarm installation	7 days	Sat 9/10/16	Mon 9/19/16	869
871	Complete CSR electrical works and testing	7 days	Mon 9/19/16	Tue 9/27/16	870
872	SP Powergrid complete LT cable	7 days	Tue 9/27/16	Tue 10/4/16	871
873	Power Turn On	1 day	Sat 10/8/16	Sat 10/8/16	871FS+3 days,872FS+3 days
874	Testing and commissioning	1 day	Tue 10/11/16	Wed 10/12/16	870FF+3 days,873FF+3 days
875	**TOP Appplication**	**86 days**	**Mon 11/14/16**	**Mon 2/20/17**	
876	Arch RI Inspection	3 days	Wed 11/16/16	Sat 11/19/16	864FF+39 days
877	M&E RI Inspection	5 days	Mon 11/14/16	Sat 11/19/16	876FF
878	TOP Inspection	1 day	Fri 11/25/16	Sat 11/26/16	877FF+6 days
879	TOP inspection defect rectification	7 days	Thu 12/22/16	Fri 12/30/16	878FF+30 days
880	BCA issue TOP certification	14 days	Fri 2/3/17	Mon 2/20/17	879FF+45 days
881	**Defect Checking & Rectification**	**5 days**	**Tue 1/24/17**	**Sat 1/28/17**	
882	Contractors Checking & Cleaning Up	3 days	Tue 1/24/17	Thu 1/26/17	876FF+60 days
883	Functionality Test	4 days	Wed 1/25/17	Sat 1/28/17	882FF+2 days
884	**Hand-Over of Block 101 MSCP**	**24 days**	**Thu 2/16/17**	**Thu 3/16/17**	
885	BO & TC 1st Inspection of MSCP	3 days	Thu 2/16/17	Mon 2/20/17	878FF+75 days
886	Defect Rectification	7 days	Mon 2/20/17	Tue 2/28/17	885
887	BO & TC 2nd Inspection of MSCP	7 days	Tue 2/28/17	Wed 3/8/17	886
888	Defect Rectification	7 days	Wed 3/8/17	Thu 3/16/17	887
889	Hand Over MSCP	1 day	Tue 3/7/17	Wed 3/8/17	880,885FF+14 days
890					
891	**Phase 15b Block 101 SCF (21 Apr 16 to 04 Sep 19)**	**596 days**	**Wed 5/9/18**	**Fri 3/20/20**	
892	**SCF Architectural Works**	**364.38 days**	**Thu 10/18/18**	**Mon 12/9/19**	
893	Bricklaying	21 days	Mon 10/29/18	Thu 11/22/18	833FF+30 days
894	Door Frame Installation	14 days	Thu 11/1/18	Sat 11/17/18	893SS+3 days
895	Grouting Works to Door Frame	14 days	Wed 11/14/18	Fri 11/30/18	893FF+7 days,894FF+7 days
896	Internal Skimming	21 days	Fri 11/30/18	Mon 12/24/18	895
897	Internal Painting	21 days	Tue 12/11/18	Fri 1/4/19	896FF+10 days
898	Railing/metal works	7 days	Thu 10/18/18	Fri 10/26/18	834
899	Door Panel Installation	7 days	Wed 12/19/18	Thu 12/27/18	897FF-7 days
900	External Plastering	30 days	Fri 1/4/19	Thu 2/7/19	897
901	External Skimming	30 days	Thu 2/7/19	Thu 3/14/19	900
902	External Painting	14 days	Thu 3/14/19	Fri 3/29/19	901FF+14 days
903	Signage Installation work	14 days	Sat 3/30/19	Mon 4/15/19	902
904	Construction of VO works	60 days	Wed 10/2/19	Mon 12/9/19	
905	**Sanitary, Plumbing and HR & DR Works**	**369 days**	**Wed 5/9/18**	**Fri 7/5/19**	
906	Construction of IC	21 days	Wed 5/9/18	Sat 6/2/18	826
907	Installation of water supply services	30 days	Mon 12/24/18	Sat 1/26/19	896
908	Installation of Fire Sprinkler	30 days	Mon 12/24/18	Sat 1/26/19	896
909	Installation of Hosereel Pipe, DR Pipe, Landing Valve & HR Drum	30 days	Mon 1/28/19	Sat 3/2/19	907
910	Installation of waste, soil , & vent pipes	45 days	Sat 3/2/19	Tue 4/23/19	909
911	Installation of hosereel pump set	14 days	Tue 4/23/19	Thu 5/9/19	910
912	Testing and commissioning	14 days	Sat 5/25/19	Mon 6/10/19	911FS+14 days
913	Water Turn On	1 day	Mon 6/10/19	Tue 6/11/19	912
914	CBPU Inspection	7 days	Tue 6/11/19	Wed 6/19/19	913
915	Sanitary PUB inspection clearance	21 days	Tue 6/11/19	Fri 7/5/19	913
916	**Electrical And Fire Alarm Works**	**81 days**	**Fri 9/27/19**	**Sat 12/28/19**	
917	Exposed conduit and trunking works	30 days	Fri 9/27/19	Fri 11/1/19	844,897
918	Wiring and cabling works	21 days	Tue 10/22/19	Thu 11/14/19	917SS+21 days
919	Lightning and fire alarm installation	21 days	Fri 10/25/19	Mon 11/18/19	918FF+3 days,844FF+3 days,897FF+3 days
920	Complete CSR electrical works and testing	7 days	Mon 11/18/19	Tue 11/26/19	919
921	SP Powergrid complete LT cable to 117	7 days	Tue 11/26/19	Wed 12/4/19	920
922	Power Turn On	1 day	Thu 12/12/19	Fri 12/13/19	920FS+7 days,921FS+7 days
923	Testing and commissioning	7 days	Fri 12/13/19	Sat 12/21/19	919FF+7 days,922FF+7 days
924	HDB Testing	7 days	Sat 12/21/19	Sat 12/28/19	923
925	**TOP Appplication**	**40 days**	**Tue 2/4/20**	**Fri 3/20/20**	
926	Arch RI Inspection	3 days	Tue 2/4/20	Fri 2/7/20	924FF+35 days
927	M&E RI Inspection	3 days	Fri 2/7/20	Tue 2/11/20	926
928	TOP Inspection	1 day	Mon 2/24/20	Mon 2/24/20	927FF+12 days
929	TOP inspection defect rectification	7 days	Tue 3/3/20	Wed 3/11/20	928FS+7 days
930	BCA issue TOP certification	1 day	Thu 3/19/20	Fri 3/20/20	929FS+7 days
931	**Defect Checking & Rectification**	**7 days**	**Mon 12/30/19**	**Mon 1/6/20**	
932	Contractors Checking & Cleaning Up	7 days	Mon 12/30/19	Mon 1/6/20	839,864,867,892,913,916
933	Functionality Test	3 days	Fri 1/3/20	Mon 1/6/20	932FF,858FF,906FF
934	**Handing Over**	**149 days**	**Thu 9/26/19**	**Sat 3/14/20**	
935	HDB PLG 1st inspection	1 day	Thu 9/26/19	Fri 9/27/19	917FF-30 days



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task | Summary | External Milestone | Inactive Summary | Manual Summary Rollup | Finish-only | Manual Progress
Critical Task | Project Summary | Inactive Task | Manual Task | Manual Summary | Deadline
Milestone | External Tasks | Inactive Milestone | Duration-only | Start-only | Progress

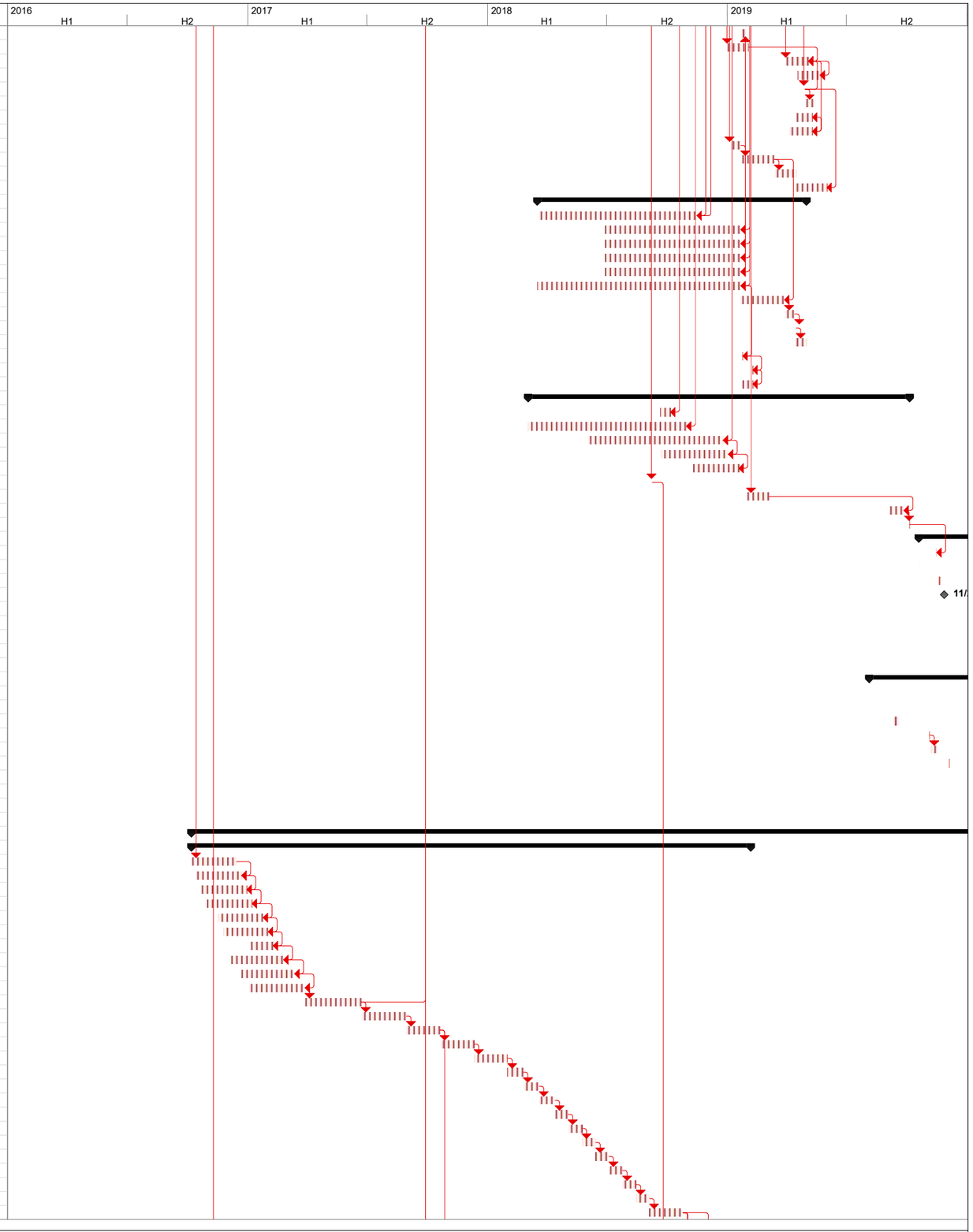
ID	Task Name	Duration	Start	Finish	Predecessors
936	HDB 1st BIT Inspection	1 day	Sat 2/22/20	Sat 2/22/20	926FF+14 days
937	Defect Rectification	7 days	Mon 2/24/20	Mon 3/2/20	936
938	HDB PLG 2nd inspection	1 day	Mon 3/2/20	Tue 3/3/20	937
939	HDB 2nd BIT Inspection	1 day	Tue 3/3/20	Wed 3/4/20	938
940	Defect Rectification	7 days	Wed 3/4/20	Thu 3/12/20	939
941	Verification of Defect Rectification	1 day	Thu 3/12/20	Fri 3/13/20	940
942	Hand Over	1 day	Fri 3/13/20	Sat 3/14/20	941
943					
944	**Phase 16 Block 103A (21 Apr 16 to 20 Sep 19)**	**1130.63 days**	**Wed 9/21/16**	**Sat 4/4/20**	
945	**Structural Works**	**704 days**	**Wed 9/21/16**	**Tue 12/4/18**	
946	Excavation	60 days	Wed 9/21/16	Tue 11/29/16	120
947	Hacking of Pile	60 days	Fri 10/7/16	Wed 12/14/16	946FF+14 days
948	Pile cap construction	60 days	Sat 10/22/16	Fri 12/30/16	947FF+14 days
949	Stump construction	60 days	Tue 11/8/16	Mon 1/16/17	948FF+14 days
950	Underground M&E servicese & PWCS installation	60 days	Thu 11/24/16	Tue 1/31/17	949FF+14 days
951	Backfilling and compacting	60 days	Sat 12/17/16	Fri 2/24/17	950FF+21 days
952	Soil Treatment	30 days	Mon 2/6/17	Mon 3/13/17	951FF+14 days
953	Lower 1st Storey Slab	75 days	Mon 1/2/17	Tue 3/28/17	952FF+14 days
954	Retaining Wall	75 days	Wed 1/18/17	Thu 4/13/17	953FF+14 days
955	1st Storey Slab	75 days	Fri 2/3/17	Sat 4/29/17	954FF+14 days
956	2nd Storey R.C.	60 days	Sat 4/29/17	Fri 7/7/17	955
957	3rd Storey R.C.	45 days	Fri 7/7/17	Mon 8/28/17	956
958	4th Storey R.C.	30 days	Mon 8/28/17	Sat 9/30/17	957
959	5th Storey R.C.	18 days	Sat 9/30/17	Sat 10/21/17	958
960	6th Storey R.C.	18 days	Sat 10/21/17	Fri 11/10/17	959
961	7th storey R.C.	18 days	Sat 11/11/17	Fri 12/1/17	960
962	8th storey R.C.	18 days	Fri 12/1/17	Fri 12/22/17	961
963	9th storey R.C.	18 days	Fri 12/22/17	Thu 1/11/18	962
964	10th storey R.C.	18 days	Thu 1/11/18	Thu 2/1/18	963
965	11th storey R.C.	18 days	Thu 2/1/18	Thu 2/22/18	964
966	12th storey R.C.	18 days	Thu 2/22/18	Wed 3/14/18	965
967	13th storey R.C.	18 days	Wed 3/14/18	Wed 4/4/18	966
968	14th storey R.C.	18 days	Wed 4/4/18	Tue 4/24/18	967
969	15th storey R.C.	18 days	Wed 4/25/18	Tue 5/15/18	968
970	16th storey R.C.	18 days	Tue 5/15/18	Tue 6/5/18	969
971	17th storey R.C	18 days	Tue 6/5/18	Mon 6/25/18	970
972	Roof Slab	45 days	Mon 6/25/18	Wed 8/15/18	971
973	Roof Facia	45 days	Thu 8/16/18	Sat 10/6/18	972
974	Lift shaft roof	45 days	Thu 8/16/18	Sat 10/6/18	972
975	Water tank beam and pump room slab	30 days	Thu 8/16/18	Wed 9/19/18	972
976	Precast Water Tank Installation	21 days	Sat 10/20/18	Wed 11/14/18	975FS+28 days
977	Pump room roof	21 days	Wed 9/19/18	Fri 10/12/18	975
978	Dismantle of Tower Crane	2 days	Sat 10/13/18	Mon 10/15/18	977
979	Removal of Tower Crane Foundation	7 days	Mon 10/15/18	Tue 10/23/18	978
980	Casting back of Tower Crane Opening area	14 days	Mon 10/15/18	Wed 10/31/18	978FF+14 days
981	Construction of Fire Engine Access	30 days	Wed 10/31/18	Tue 12/4/18	980
982	**Lift installation**	**158 days**	**Mon 10/22/18**	**Sat 4/20/19**	
983	Hand over of lift Hoistway	1 day	Mon 10/22/18	Tue 10/23/18	974FS+14 days
984	Lift installation by lift contractor	70 days	Tue 10/23/18	Fri 1/11/19	983
985	Brick up of lift door jamb by builder	14 days	Fri 1/11/19	Sat 1/26/19	984
986	Permanent Supply to lift	1 day	Mon 1/28/19	Mon 1/28/19	985
987	Testing and commissioning	35 days	Tue 1/29/19	Sat 3/9/19	986
988	Lift HDB Testing	1 day	Mon 3/18/19	Tue 3/19/19	987FS+7 days
989	Temporary usage of 1st lift	14 days	Wed 3/27/19	Thu 4/11/19	988FS+7 days
990	Lift readiness for M&E RI	1 day	Fri 4/19/19	Sat 4/20/19	989FS+7 days
991	**Architectural Works At Lift Lobby, Common Corridor And Staricase**	**247 days**	**Thu 5/24/18**	**Sat 3/2/19**	
992	Plastering, skimming, floor screeding and railing/handrails	145 days	Thu 5/24/18	Tue 11/6/18	977FF+21 days
993	Wall tiling for lift lobby and refuse chute area	30 days	Mon 1/28/19	Sat 3/2/19	985
994	Floor tiling to lift lobby and refuse chute area	21 days	Mon 10/29/18	Thu 11/22/18	992FF+14 days
995	Install Refuse Hopper	14 days	Thu 11/22/18	Fri 12/7/18	994
996	**Architectural Works**	**533 days**	**Sat 9/30/17**	**Sat 6/1/19**	
997	Ceiling Skimming	240 days	Fri 1/5/18	Sat 10/6/18	972FF+45 days
998	Brick/Dry Wall/Light Weight Panel Installation	210 days	Sat 3/3/18	Tue 10/30/18	997FF+21 days
999	Install Door Frames	180 days	Tue 5/1/18	Fri 11/23/18	1034FF+7 days
1000	Water proof to wet area	180 days	Wed 5/9/18	Sat 12/1/18	999FF+7 days
1001	Install Alum window outer frame	180 days	Thu 5/17/18	Sat 12/8/18	1000FF+7 days
1002	Internal Wall Skimming / Plastering	180 days	Fri 5/25/18	Mon 12/17/18	999FF+7 days,1001FF+7 days
1003	Wall Tiling	180 days	Mon 6/11/18	Wed 1/2/19	1002FF+14 days
1004	Floor Tiling	180 days	Tue 6/26/18	Fri 1/18/19	1003FF+14 days
1005	Box up at Toilet	180 days	Fri 6/29/18	Tue 1/22/19	1004FF+3 days
1006	Plumbing Fixture installation	30 days	Wed 12/26/18	Tue 1/29/19	1005FF+7 days
1007	Internal Painting (1st Coat)	180 days	Tue 7/3/18	Fri 1/25/19	1002FF+7 days,1005FF+3 days
1008	Electrical fixtures	30 days	Sat 12/29/18	Fri 2/1/19	1007FF+7 days
1009	Install HHS door panel	30 days	Tue 12/25/18	Mon 1/28/19	1007FF+3 days
1010	Internal Painting (2nd Coat)	30 days	Fri 12/28/18	Thu 1/31/19	1009FF+3 days
1011	Install Skirting	60 days	Mon 11/26/18	Fri 2/1/19	1007FF+7 days
1012	Cloths rack Installation	10 days	Tue 1/22/19	Fri 2/1/19	1010FF+1 day
1013	External Water Test for Façade Joint & Gable End Wall	45 days	Wed 9/19/18	Fri 11/9/18	973FF+30 days
1014	Install Window inner frame/Glazing	150 days	Thu 8/16/18	Sat 2/2/19	1004FF+14 days
1015	Install Metal Gate	60 days	Tue 11/27/18	Sat 2/2/19	1004FF+14 days
1016	Removing Protection to floor tiling	180 days	Wed 7/11/18	Fri 2/1/19	1011FF
1017	Install Door Panel	21 days	Sat 1/12/19	Tue 2/5/19	1016FF+3 days
1018	Install Ironmongery	21 days	Sat 1/12/19	Tue 2/5/19	1017FF
1019	Final pointing to floor tile	21 days	Fri 1/18/19	Mon 2/11/19	1004,1017FF
1020	Plastering and skimming at 1st sty	60 days	Sat 9/30/17	Fri 12/8/17	958



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task
Critical Task
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Deadline
Progress
Manual Progress

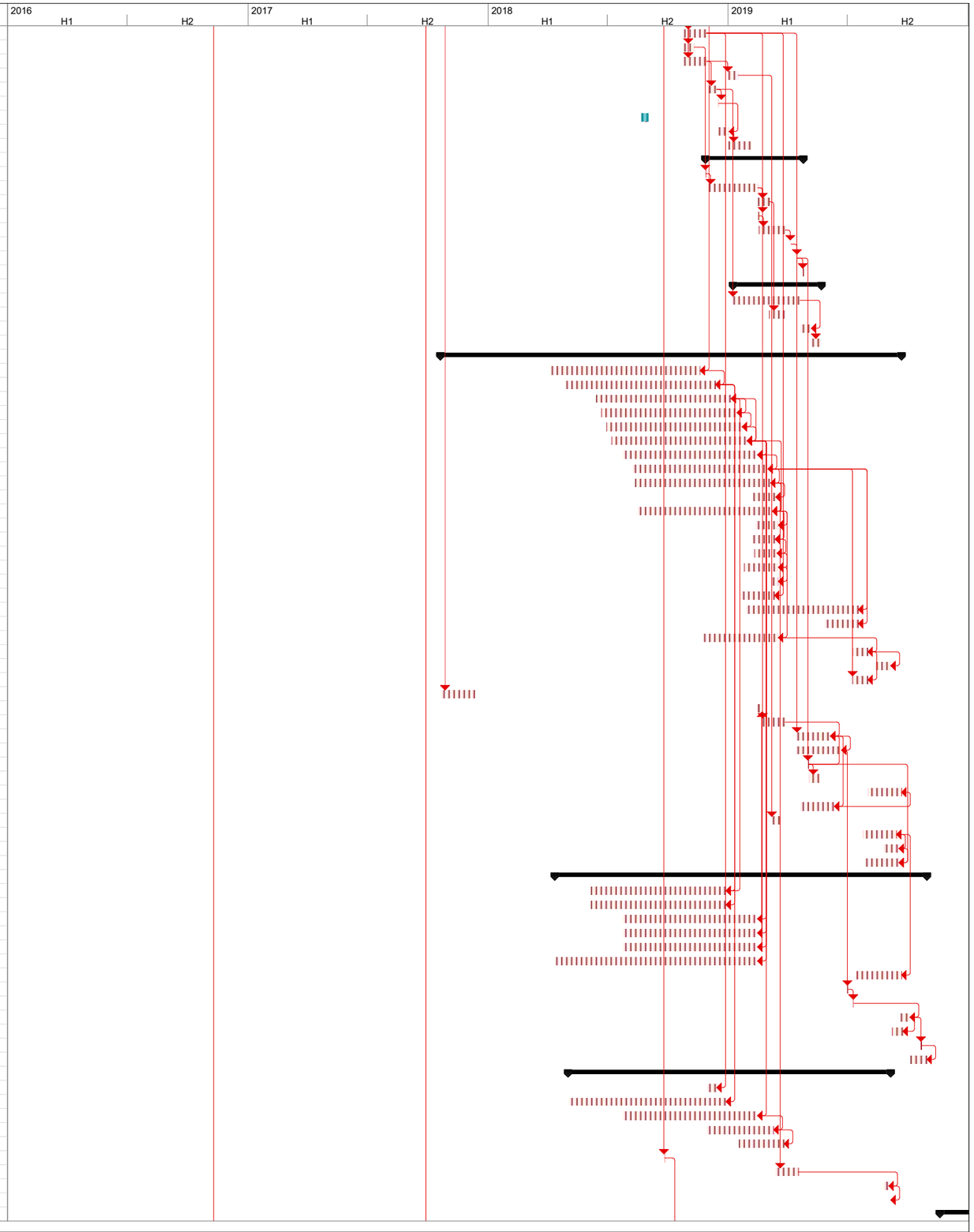
ID	Task Name	Duration	Start	Finish	Predecessors
1021	Letter Box, Box-up, False Ceiling Installation	7 days	Mon 1/21/19	Mon 1/28/19	1035,1037,1038
1022	Rectification Work to External Façade	30 days	Mon 12/31/18	Sat 2/2/19	973FS+75 days
1023	External Skimming	30 days	Sat 3/30/19	Sat 5/4/19	973FS+30 days,1022FF+5 days,1025FF+5 days
1024	Installation of Alumimium Fin	30 days	Wed 4/17/19	Tue 5/21/19	1023FF+15 days
1025	Removal of P/M Hoist	1 day	Sat 4/27/19	Mon 4/29/19	989FS+14 days
1026	Reinstatement of external work to PM hoist area	14 days	Mon 4/29/19	Wed 5/15/19	1025
1027	External Cloth rack installation	21 days	Tue 4/16/19	Fri 5/10/19	1028FF
1028	External Painting	30 days	Fri 4/5/19	Fri 5/10/19	1023FF+5 days
1029	Roof Water Tightness Test	14 days	Fri 1/4/19	Mon 1/21/19	976FS+45 days
1030	Roof Skimming Works	45 days	Mon 1/21/19	Wed 3/13/19	1029
1031	Secondary Roofing System	30 days	Wed 3/13/19	Tue 4/16/19	1030
1032	Landscaping Works Surrounding Block	45 days	Thu 4/11/19	Sat 6/1/19	1025FF+30 days
1033	**Sanitary, Plumbing, Gas and HR & DR Works**	**358 days**	**Sat 3/17/18**	**Wed 5/1/19**	
1034	Unit Copper pipe and sanitary piping	210 days	Tue 3/20/18	Thu 11/15/18	998FF+14 days
1035	Installation of water supply services	180 days	Thu 6/28/18	Mon 1/21/19	1002FF+30 days
1036	Install Water Sub Meter & Bulk Meter	180 days	Thu 6/28/18	Mon 1/21/19	1002FF+30 days
1037	Installation of Hosereel Pipe, DR pipe, Landing Valve and HR Drum	180 days	Thu 6/28/18	Mon 1/21/19	1002FF+30 days
1038	Installation of gas pipes	180 days	Thu 6/28/18	Mon 1/21/19	1002FF+30 days
1039	Installation of waste, soil , & vent pipes	270 days	Sat 3/17/18	Mon 1/21/19	1002FF+30 days
1040	Installation of pump set	60 days	Sat 1/19/19	Thu 3/28/19	1030FF+14 days
1041	Testing and commissioning	14 days	Fri 3/29/19	Sat 4/13/19	1040
1042	Water Turn On	1 day	Sat 4/13/19	Mon 4/15/19	1041
1043	CBPU Inspection	14 days	Mon 4/15/19	Wed 5/1/19	1042
1044	Gas final pressure test	1 day	Wed 1/23/19	Thu 1/24/19	1039FF+3 days
1045	Gas charge in	1 day	Thu 2/7/19	Fri 2/8/19	1044FF+14 days
1046	Sanitary PUB inspection clearance	14 days	Thu 1/24/19	Fri 2/8/19	1045FF
1047	**Electrical Works**	**508 days**	**Sat 3/3/18**	**Sat 10/5/19**	
1048	Installation of lighting Conductor	14 days	Thu 9/20/18	Sat 10/6/18	973FF
1049	Unit conduit and wiring	210 days	Sat 3/3/18	Tue 10/30/18	998FF
1050	Exposed conduit and trunking works	180 days	Sat 6/2/18	Tue 12/25/18	1002FF+7 days
1051	Common area wiring and cabling works	90 days	Fri 9/21/18	Wed 1/2/19	1050FF+7 days
1052	Lightning and power point installation	60 days	Sat 11/10/18	Fri 1/18/19	1051FF+14 days
1053	Power Turn On	1 day	Fri 9/7/18	Sat 9/8/18	797FS+14 days
1054	Testing and commissioning	30 days	Wed 1/30/19	Tue 3/5/19	1006
1055	HDB Testing	21 days	Tue 9/3/19	Thu 9/26/19	1054FF+180 days
1056	SP Powergrid Pre Turn on	1 day	Fri 10/4/19	Sat 10/5/19	1055FS+7 days
1057	**TOP Application**	**113.63 days**	**Sat 10/19/19**	**Wed 2/26/20**	
1058	M&E RI Inspection	1 day	Thu 11/14/19	Fri 11/15/19	1056FF+36 days
1059	Arch RI Inspection	1 day	Sat 10/19/19	Sat 10/19/19	
1060	HHS BCA Inspection	1 day	Tue 11/19/19	Tue 11/19/19	
1061	TOP Inspection	1 day	Tue 11/26/19	Tue 11/26/19	
1062	TOP inspection defect rectification	14 days	Wed 1/1/20	Fri 1/17/20	1061FF+45 days
1063	BCA issue TOP certification	1 day	Tue 2/25/20	Wed 2/26/20	1062FF+35 days
1064	**Defect Checking & Rectification**	**21 days**	**Fri 1/17/20**	**Mon 2/10/20**	
1065	Contractor checking & Cleaning Up	14 days	Fri 1/17/20	Sat 2/1/20	1062FF+14 days
1066	Functionality Test	7 days	Sat 2/1/20	Mon 2/10/20	1065
1067	**Handing Over**	**214.25 days**	**Mon 8/5/19**	**Sat 4/4/20**	
1068	HDB Window Water Tightness Test	1 day	Mon 8/5/19	Mon 8/5/19	
1069	HDB Critical Functional Test	1 day	Mon 9/2/19	Mon 9/2/19	
1070	HDB PD Pre BIT	7 days	Wed 9/11/19	Wed 9/18/19	
1071	HDB 1st BIT Inspection	1 day	Mon 11/4/19	Mon 11/4/19	
1072	Defect Rectification	10 days	Wed 11/6/19	Sat 11/16/19	1071
1073	HDB 2nd BIT inspection	1 day	Wed 12/4/19	Wed 12/4/19	
1074	Sanitarry Pipe Audit	1 day	Mon 2/17/20	Mon 2/17/20	
1075	HDB Lock Up Inspection	1 day	Fri 4/3/20	Fri 4/3/20	
1076	Signing of Costing Form	1 day	Sat 4/4/20	Sat 4/4/20	1075,1063
1077					
1078	**Phase 17 Block 103B (21 Apr 16 to 20 Oct 19)**	**1122.75 days**	**Fri 10/7/16**	**Sat 4/11/20**	
1079	**Structural Works**	**745 days**	**Fri 10/7/16**	**Tue 2/5/19**	
1080	Excavation	60 days	Fri 10/7/16	Wed 12/14/16	121
1081	Hacking of Pile	60 days	Sat 10/15/16	Thu 12/22/16	1080FF+7 days
1082	Pile cap construction	60 days	Sat 10/22/16	Fri 12/30/16	1081FF+7 days
1083	Stump construction	60 days	Mon 10/31/16	Sat 1/7/17	1082FF+7 days
1084	Underground M&E servicese PWCS installation	60 days	Wed 11/16/16	Tue 1/24/17	1083FF+14 days
1085	Backfilling and compacting	60 days	Thu 11/24/16	Tue 1/31/17	1084FF+7 days
1086	Soil Treatment	30 days	Thu 1/5/17	Wed 2/8/17	1085FF+7 days
1087	Lower 1st Storey Slab	70 days	Wed 12/7/16	Fri 2/24/17	1086FF+14 days
1088	Retaining Wall	70 days	Thu 12/22/16	Mon 3/13/17	1087FF+14 days
1089	1st Storey Slab	75 days	Mon 1/2/17	Tue 3/28/17	1088FF+14 days
1090	2nd Storey R.C.	75 days	Wed 3/29/17	Thu 6/22/17	1089
1091	3rd Storey R.C.	60 days	Thu 6/22/17	Wed 8/30/17	1090
1092	4th Storey R.C.	45 days	Wed 8/30/17	Fri 10/20/17	1091
1093	5th Storey R.C.	45 days	Fri 10/20/17	Mon 12/11/17	1092
1094	6th Storey R.C.	45 days	Mon 12/11/17	Wed 1/31/18	1093
1095	7th storey R.C.	21 days	Wed 1/31/18	Sat 2/24/18	1094
1096	8th storey R.C.	21 days	Sat 2/24/18	Tue 3/20/18	1095
1097	9th storey R.C.	21 days	Tue 3/20/18	Fri 4/13/18	1096
1098	10th storey R.C.	18 days	Fri 4/13/18	Thu 5/3/18	1097
1099	11th storey R.C.	18 days	Thu 5/3/18	Thu 5/24/18	1098
1100	12th storey R.C.	18 days	Thu 5/24/18	Thu 6/14/18	1099
1101	13th storey R.C.	18 days	Thu 6/14/18	Wed 7/4/18	1100
1102	14th storey R.C.	18 days	Wed 7/4/18	Wed 7/25/18	1101
1103	15th storey R.C.	18 days	Wed 7/25/18	Tue 8/14/18	1102
1104	16th storey R.C.	18 days	Wed 8/15/18	Tue 9/4/18	1103
1105	Roof Slab	45 days	Tue 9/4/18	Thu 10/25/18	1104



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task
Critical Task
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Deadline
Progress
Manual Progress

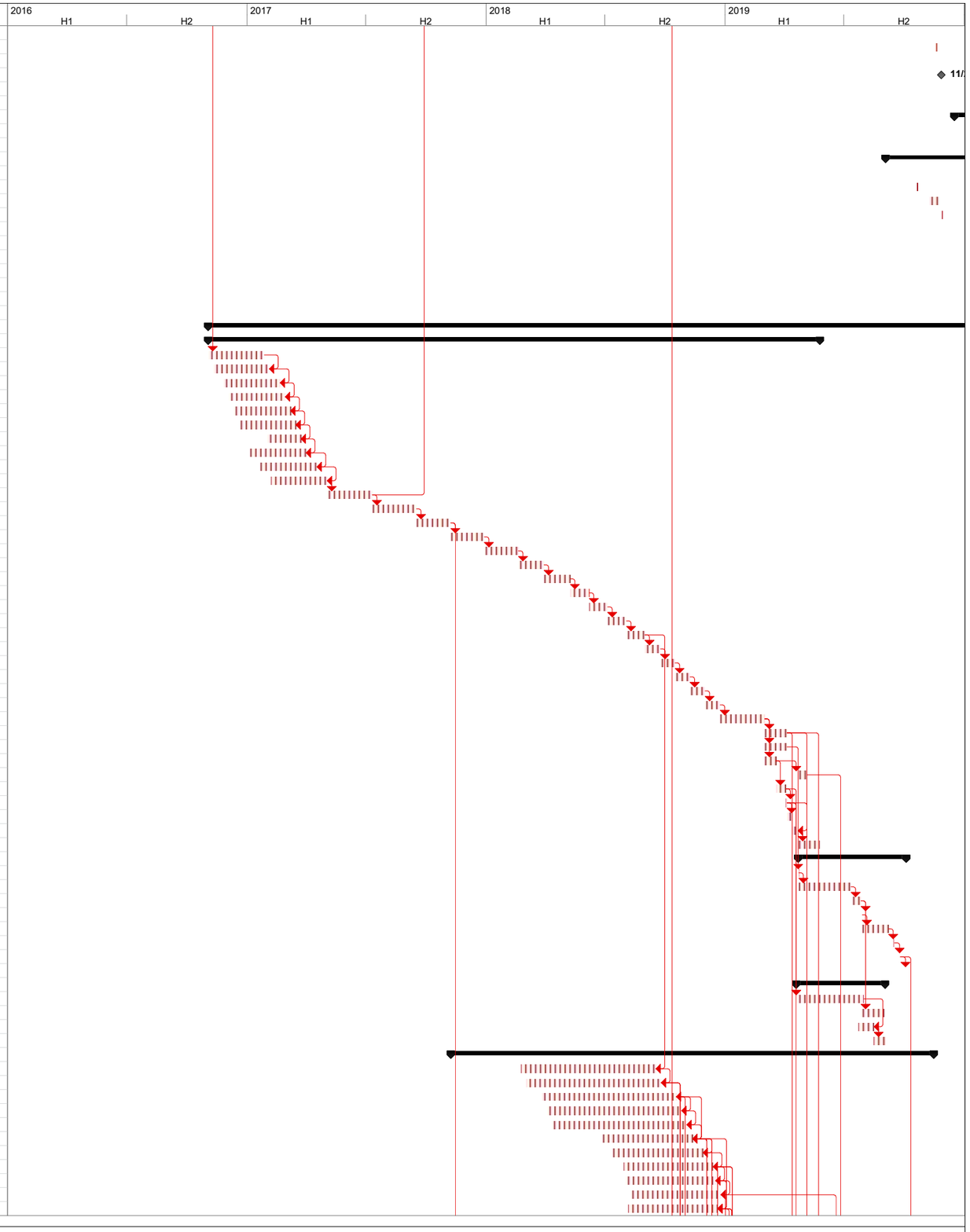
ID	Task Name	Duration	Start	Finish	Predecessors
1106	Roof Facia	30 days	Thu 10/25/18	Thu 11/29/18	1105
1107	Lift shaft roof	14 days	Thu 10/25/18	Sat 11/10/18	1105
1108	Water tank beam and pump room slab	30 days	Thu 10/25/18	Thu 11/29/18	1105
1109	Precast Water Tank Installation	14 days	Mon 12/31/18	Wed 1/16/19	1108FS+28 days
1110	Pump room roof	14 days	Thu 11/29/18	Fri 12/14/18	1108
1111	Dismantle of Tower Crane	2 days	Fri 12/14/18	Mon 12/17/18	1110
1112	Removal of Tower Crane Foundation	7 days	Thu 8/23/18	Fri 8/31/18	
1113	Casting back of Tower Crane Opening area	14 days	Mon 12/17/18	Wed 1/2/19	1111FF+14 days
1114	Construction of Fire Engine Access	30 days	Wed 1/2/19	Tue 2/5/19	1113
1115	**Lift installation**	**131 days**	**Tue 11/27/18**	**Thu 4/25/19**	
1116	Hand over of lift Hoistway	1 day	Tue 11/27/18	Wed 11/28/18	1107FS+14 days
1117	Lift installation by lift contractor	70 days	Wed 11/28/18	Fri 2/15/19	1116
1118	Brick up of lift door jamb by builder	14 days	Fri 2/15/19	Mon 3/4/19	1117
1119	Permanent Supply to lift	1 day	Fri 2/15/19	Sat 2/16/19	1117
1120	Testing and commissioning	35 days	Sat 2/16/19	Thu 3/28/19	1119
1121	Lift HDB Testing	1 day	Fri 4/5/19	Sat 4/6/19	1120FS+7 days
1122	Temporary usage of 1st lift	1 day	Mon 4/15/19	Tue 4/16/19	1121FS+7 days
1123	Lift readiness for M&E RI	1 day	Wed 4/24/19	Thu 4/25/19	1122FS+7 days
1124	**Architectural Works At Lift Lobby, Common Corridor And Staricase**	**118 days**	**Tue 1/8/19**	**Wed 5/22/19**	
1125	Plastering, skimming, floor screeding and railing/handrails	90 days	Tue 1/8/19	Sat 4/20/19	1110FS+21 days
1126	Wall tiling for lift lobby and refuse chute area	21 days	Mon 3/4/19	Wed 3/27/19	1118
1127	Floor tiling to lift lobby and refuse chute area	14 days	Sat 4/20/19	Tue 5/7/19	1125FF+14 days
1128	Install Refuse Hopper	14 days	Tue 5/7/19	Wed 5/22/19	1127
1129	**Architectural Works**	**614 days**	**Fri 10/20/17**	**Sat 9/21/19**	
1130	Ceiling Skimming	200 days	Wed 4/4/18	Mon 11/19/18	1105FF+21 days
1131	Brick/Dry Wall/Light Weight Panel Installation	200 days	Sat 4/28/18	Wed 12/12/18	1130FF+21 days
1132	Install Door Frames	180 days	Thu 6/14/18	Sat 1/5/19	1167FF+7 days
1133	Water proof to wet area	180 days	Fri 6/22/18	Mon 1/14/19	1132FF+7 days
1134	Install Alum window outer frame	180 days	Fri 6/29/18	Tue 1/22/19	1133FF+7 days
1135	Internal Wall Skimming / Plastering	180 days	Sat 7/7/18	Tue 1/29/19	1132FF+7 days,1134FF+7 days
1136	Wall Tiling	180 days	Tue 7/24/18	Thu 2/14/19	1135FF+14 days
1137	Floor Tiling	180 days	Thu 8/9/18	Sat 3/2/19	1136FF+14 days
1138	Box up at Toilet	180 days	Mon 8/13/18	Wed 3/6/19	1137FF+3 days
1139	Plumbing Fixtures installation	30 days	Thu 2/7/19	Thu 3/14/19	1138FF+7 days
1140	Internal Painting (1st Coat)	180 days	Thu 8/16/18	Sat 3/9/19	1135FF+7 days,1138FF+3 days
1141	Electrical fixtures	30 days	Mon 2/11/19	Mon 3/18/19	1140FF+7 days
1142	Install HHS door panel	30 days	Wed 2/6/19	Wed 3/13/19	1140FF+3 days
1143	Internal Painting (2nd Coat)	30 days	Sat 2/9/19	Sat 3/16/19	1142FF+3 days
1144	Install Skirting	45 days	Fri 1/25/19	Mon 3/18/19	1140FF+7 days
1145	Cloths rack Installation	10 days	Wed 3/6/19	Mon 3/18/19	1143FF+1 day
1146	External Water Test for Façade Joint & Gable End Wall	45 days	Sat 1/19/19	Tue 3/12/19	1106FF+90 days
1147	Install Window inner frame/Glazing	150 days	Mon 1/28/19	Wed 7/17/19	1137FF+120 days
1148	Install Metal Gate	45 days	Mon 5/27/19	Wed 7/17/19	1137FF+120 days
1149	Removing Protection to floor tiling	100 days	Fri 11/23/18	Mon 3/18/19	1144FF
1150	Install Door Panel	21 days	Tue 7/9/19	Thu 8/1/19	1149FF+120 days
1151	Install Ironmongery	21 days	Mon 8/12/19	Thu 9/5/19	1150FF+30 days
1152	Final pointing to floor tile	21 days	Tue 7/9/19	Thu 8/1/19	1137,1150FF
1153	Plastering and skimming at 1st sty	45 days	Fri 10/20/17	Mon 12/11/17	1092
1154	Letter Box, Box-up, False Ceiling Installation	7 days	Thu 2/14/19	Fri 2/22/19	1169,1170,1171
1155	Rectification Work to External Façade	30 days	Fri 2/22/19	Thu 3/28/19	1106FS+75 days
1156	External Skimming	45 days	Mon 4/15/19	Wed 6/5/19	1106FS+120 days,1155FF+14 days,1158FF+5 days
1157	Installation of Alumimium Fin	60 days	Mon 4/15/19	Sat 6/22/19	1156FF+15 days
1158	Removal of P/M Hoist	1 day	Thu 5/2/19	Fri 5/3/19	1122FS+14 days
1159	Reinstatement of external work to PM hoist area	14 days	Fri 5/3/19	Sat 5/18/19	1158
1160	External Cloth rack installation	45 days	Thu 8/1/19	Sat 9/21/19	1161FF+90 days
1161	External Painting	45 days	Sat 4/20/19	Tue 6/11/19	1156FF+5 days
1162	Roof Water Tightness Test	14 days	Fri 3/8/19	Sat 3/23/19	1109FS+45 days
1163	Roof Skimming Works	45 days	Wed 7/24/19	Fri 9/13/19	1164FF-3 days
1164	Secondary Roofing System	21 days	Sat 8/24/19	Tue 9/17/19	1165FF
1165	Landscaping Works Surrounding Block	45 days	Sat 7/27/19	Tue 9/17/19	1158FF+120 days
1166	**Sanitary, Plumbing, Gas and HR & DR Works**	**495 days**	**Thu 4/12/18**	**Wed 10/30/19**	
1167	Unit Copper pipe and sanitary piping	180 days	Wed 6/6/18	Fri 12/28/18	1131FF+14 days
1168	Install Water Sub Meter & Bulk Meter	180 days	Wed 6/6/18	Fri 12/28/18	1131FF+14 days
1169	Installation of water supply services	180 days	Tue 7/24/18	Thu 2/14/19	1135FF+14 days
1170	Installation of Hosereel Pipe, DR pipe, Landing Valve & HR Drum	180 days	Tue 7/24/18	Thu 2/14/19	1135FF+14 days
1171	Installation of gas pipes	180 days	Tue 7/24/18	Thu 2/14/19	1135FF+14 days
1172	Installation of waste, soil , & vent pipes	270 days	Thu 4/12/18	Thu 2/14/19	1135FF+14 days
1173	Installation of pump set	60 days	Tue 7/16/19	Sat 9/21/19	1163FF+7 days
1174	Testing and commissioning	1 day	Mon 7/1/19	Tue 7/2/19	1157FS+7 days
1175	Water Turn On	1 day	Wed 7/10/19	Thu 7/11/19	1174FS+7 days
1176	Gas final pressure test	14 days	Wed 9/18/19	Fri 10/4/19	1175FF+75 days
1177	CBPU inspection	14 days	Sat 9/7/19	Mon 9/23/19	1176FF-10 days
1178	Gas charge in	1 day	Mon 10/21/19	Tue 10/22/19	1176FS+14 days
1179	Sanitary PUB inspection clearance	21 days	Sat 10/5/19	Wed 10/30/19	1178FF+7 days
1180	**Electrical Works**	**429 days**	**Wed 5/2/18**	**Thu 9/5/19**	
1181	Installation of Lighting Conductor	14 days	Thu 11/29/18	Fri 12/14/18	1106FF+14 days
1182	Unit conduit and wiring	210 days	Wed 5/2/18	Fri 12/28/18	1131FF+14 days
1183	Exposed conduit and trunking works	180 days	Tue 7/24/18	Thu 2/14/19	1135FF+14 days
1184	Common area wiring and cabling works	90 days	Wed 11/28/18	Mon 3/11/19	1183FF+21 days
1185	Lightning and power point installation	60 days	Thu 1/17/19	Tue 3/26/19	1184FF+14 days
1186	Power Turn On	1 day	Tue 9/25/18	Wed 9/26/18	1053FS+14 days
1187	Testing and commissioning	30 days	Thu 3/14/19	Wed 4/17/19	1139
1188	HDB Testing	7 days	Sat 8/24/19	Mon 9/2/19	1187FF+120 days
1189	SP Powergrid Pre Turn on	1 day	Wed 9/4/19	Thu 9/5/19	1188FF+3 days
1190	**TOP Application**	**88.13 days**	**Tue 11/19/19**	**Thu 2/27/20**	



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task
Critical Task
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Deadline
Progress
Manual Progress

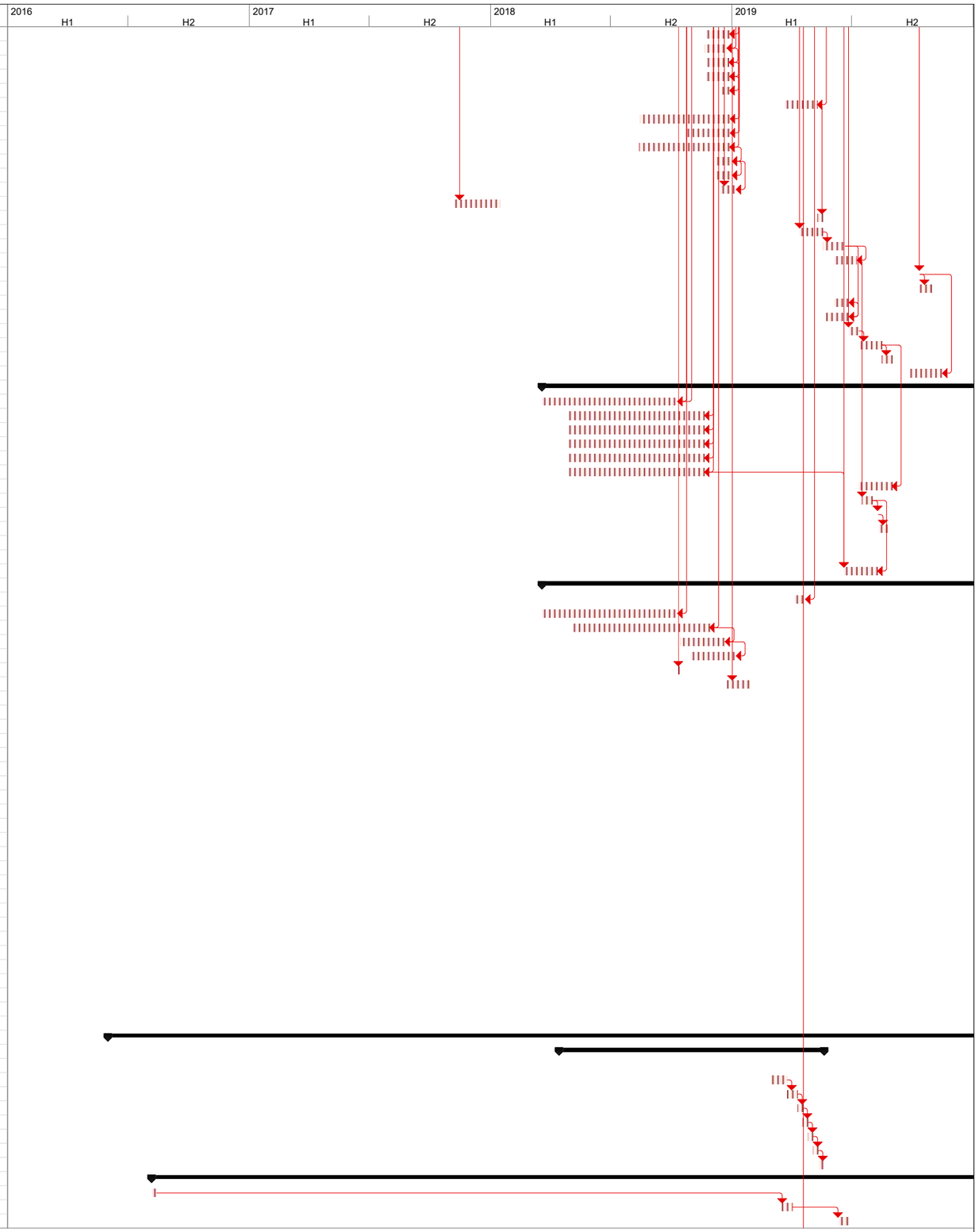
ID	Task Name	Duration	Start	Finish	Predecessors
1191	M&E RI Inspection	1 day	Mon 12/16/19	Mon 12/16/19	
1192	Arch RI Inspection	1 day	Tue 11/19/19	Tue 11/19/19	
1193	HHS BCA Inspection	1 day	Thu 2/13/20	Thu 2/13/20	
1194	TOP Inspection	1 day	Tue 11/26/19	Tue 11/26/19	
1195	TOP inspection defect rectification	14 days	Sat 1/18/20	Mon 2/3/20	1194FF+60 days
1196	BCA issue TOP certification	1 day	Wed 2/26/20	Thu 2/27/20	1195FF+21 days
1197	**Defect Checking & Rectification**	**28 days**	**Tue 12/17/19**	**Fri 1/17/20**	
1198	Contractor checking & Cleaning Up	21 days	Tue 12/17/19	Thu 1/9/20	1191
1199	Functionality Test	14 days	Wed 1/1/20	Fri 1/17/20	1198FF+7 days
1200	**Handing Over**	**194.88 days**	**Tue 9/3/19**	**Sat 4/11/20**	
1201	HDB Window Water Tightness Test	1 day	Tue 9/3/19	Tue 9/3/19	
1202	HDB Critical Functional Test	1 day	Mon 10/21/19	Mon 10/21/19	
1203	RTO Inspection prior to HDB BIT inspection	14 days	Fri 11/8/19	Sat 11/23/19	
1204	HDB PD Pre BIT	1 day	Thu 11/28/19	Thu 11/28/19	
1205	HDB 1st BIT Inspection	1 day	Thu 12/19/19	Thu 12/19/19	
1206	Defect Rectification	45 days	Fri 12/20/19	Sat 2/8/20	1205
1207	HDB 2nd BIT inspection	1 day	Fri 2/14/20	Fri 2/14/20	
1208	Sanitary Pipe Audit	1 day	Mon 3/2/20	Mon 3/2/20	
1209	HDB Lock Up Inspection	1 day	Fri 4/10/20	Fri 4/10/20	
1210	Signing of Costing Form	1 day	Sat 4/11/20	Sat 4/11/20	1209,1196
1211					
1212	**Phase 18a Block 104A (21 Apr 16 to 20 Dec 19)**	**1120.25 days?**	**Wed 11/2/16**	**Tue 5/5/20**	
1213	**Structural Works**	**818 days**	**Wed 11/2/16**	**Sat 5/25/19**	
1214	Excavation	75 days	Wed 11/2/16	Fri 1/27/17	122
1215	Hacking of Pile	75 days	Thu 11/10/16	Fri 2/3/17	1214FF+7 days
1216	Pile cap construction	75 days	Sat 11/26/16	Mon 2/20/17	1215FF+14 days
1217	Stump construction	75 days	Mon 12/5/16	Tue 2/28/17	1216FF+7 days
1218	Underground M&E services & PWCS installation	75 days	Mon 12/12/16	Wed 3/8/17	1217FF+7 days
1219	Backfilling and compacting	75 days	Tue 12/20/16	Thu 3/16/17	1218FF+7 days
1220	Soil Treatment	45 days	Wed 2/1/17	Fri 3/24/17	1219FF+7 days
1221	Lower 1st Storey Slab	75 days	Thu 1/5/17	Fri 3/31/17	1220FF+7 days
1222	Retaining Wall	75 days	Sat 1/21/17	Mon 4/17/17	1221FF+14 days
1223	1st Storey Slab	75 days	Mon 2/6/17	Wed 5/3/17	1222FF+14 days
1224	2nd Storey R.C.	60 days	Wed 5/3/17	Tue 7/11/17	1223
1225	3rd Storey R.C.	60 days	Tue 7/11/17	Sat 9/16/17	1224
1226	4th Storey R.C.	45 days	Sat 9/16/17	Tue 11/7/17	1225
1227	5th Storey R.C.	45 days	Wed 11/8/17	Fri 12/29/17	1226
1228	6th Storey R.C.	45 days	Fri 12/29/17	Mon 2/19/18	1227
1229	7th storey R.C.	35 days	Mon 2/19/18	Fri 3/30/18	1228
1230	8th storey R.C.	35 days	Fri 3/30/18	Wed 5/9/18	1229
1231	9th storey R.C.	25 days	Wed 5/9/18	Thu 6/7/18	1230
1232	10th storey R.C.	25 days	Thu 6/7/18	Thu 7/5/18	1231
1233	11th storey R.C.	25 days	Thu 7/5/18	Fri 8/3/18	1232
1234	12th storey R.C.	25 days	Fri 8/3/18	Fri 8/31/18	1233
1235	13th storey R.C.	20 days	Fri 8/31/18	Mon 9/24/18	1234
1236	14th storey R.C.	20 days	Mon 9/24/18	Tue 10/16/18	1235
1237	15th storey R.C.	20 days	Tue 10/16/18	Thu 11/8/18	1236
1238	16th storey R.C.	20 days	Thu 11/8/18	Sat 12/1/18	1237
1239	17th storey R.C	20 days	Sat 12/1/18	Mon 12/24/18	1238
1240	Roof Slab	60 days	Mon 12/24/18	Sat 3/2/19	1239
1241	Roof Facia	30 days	Sat 3/2/19	Fri 4/5/19	1240
1242	Lift shaft roof	30 days	Sat 3/2/19	Fri 4/5/19	1240
1243	Water tank beam and pump room slab	14 days	Sat 3/2/19	Tue 3/19/19	1240
1244	Precast Water Tank Installation	14 days	Fri 4/19/19	Mon 5/6/19	1243FS+28 days
1245	Pump room roof	14 days	Tue 3/19/19	Wed 4/3/19	1243
1246	Dismantle of Tower Crane	2 days	Wed 4/3/19	Fri 4/5/19	1245
1247	Removal of Tower Crane Foundation	7 days	Fri 4/5/19	Sat 4/13/19	1246
1248	Casting back of Tower Crane Opening area	7 days	Sat 4/13/19	Mon 4/22/19	1246FF+14 days
1249	Construction of Fire Engine Access	30 days	Mon 4/22/19	Sat 5/25/19	1248
1250	**Lift installation**	**145 days**	**Mon 4/22/19**	**Fri 10/4/19**	
1251	Hand over of lift Hoistway	1 day	Mon 4/22/19	Tue 4/23/19	1242FS+14 days
1252	Lift installation by lift contractor	70 days	Tue 4/23/19	Fri 7/12/19	1251
1253	Brick up of lift door jamb by builder	14 days	Fri 7/12/19	Sat 7/27/19	1252
1254	Permanent Supply to lift	1 day	Sat 7/27/19	Mon 7/29/19	1253
1255	Testing and commissioning	35 days	Mon 7/29/19	Sat 9/7/19	1254
1256	Lift HDB Testing	1 day	Sat 9/14/19	Mon 9/16/19	1255FS+7 days
1257	Temporary usage of 1st lift	1 day	Tue 9/24/19	Wed 9/25/19	1256FS+7 days
1258	Lift readiness for M&E RI	1 day	Thu 10/3/19	Fri 10/4/19	1257FS+7 days
1259	**Architectural Works At Lift Lobby, Common Corridor And Staricase**	**118 days**	**Fri 4/19/19**	**Mon 9/2/19**	
1260	Plastering, skimming, floor screeding and railing/handrails	90 days	Fri 4/19/19	Wed 7/31/19	1245FS+14 days
1261	Wall tiling for lift lobby and refuse chute area	30 days	Sat 7/27/19	Sat 8/31/19	1253
1262	Floor tiling to lift lobby and refuse chute area	21 days	Tue 7/23/19	Fri 8/16/19	1260FF+14 days
1263	Install Refuse Hopper	14 days	Fri 8/16/19	Mon 9/2/19	1262
1264	**Architectural Works**	**646 days**	**Wed 11/8/17**	**Fri 11/15/19**	
1265	Ceiling Skimming	180 days	Fri 2/23/18	Mon 9/17/18	1234FF+14 days
1266	Brick/Dry Wall/Light Weight Panel Installation	180 days	Sat 3/3/18	Tue 9/25/18	1265FF+7 days
1267	Install Door Frames	180 days	Tue 3/27/18	Thu 10/18/18	1302FF+7 days
1268	Water proof to wet area	180 days	Wed 4/4/18	Fri 10/26/18	1267FF+7 days
1269	Install Alum window outer frame	180 days	Thu 4/12/18	Sat 11/3/18	1268FF+7 days
1270	Internal Wall Skimming / Plastering	120 days	Wed 6/27/18	Mon 11/12/18	1267FF+7 days,1269FF+7 days
1271	Wall Tiling	120 days	Fri 7/13/18	Wed 11/28/18	1270FF+14 days
1272	Floor Tiling	120 days	Mon 7/30/18	Thu 12/13/18	1271FF+14 days
1273	Box up at Toilet	120 days	Thu 8/2/18	Mon 12/17/18	1272FF+3 days
1274	Plumbing Fixture installation	120 days	Fri 8/10/18	Tue 12/25/18	1273FF+7 days
1275	Internal Painting (1st Coat)	120 days	Mon 8/6/18	Thu 12/20/18	1270FF+7 days,1273FF+3 days



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task | Summary | External Milestone | Inactive Summary | Manual Summary Rollup | Finish-only | Manual Progress
Critical Task | Project Summary | Inactive Task | Manual Task | Manual Summary | Deadline
Milestone | External Tasks | Inactive Milestone | Duration-only | Start-only | Progress

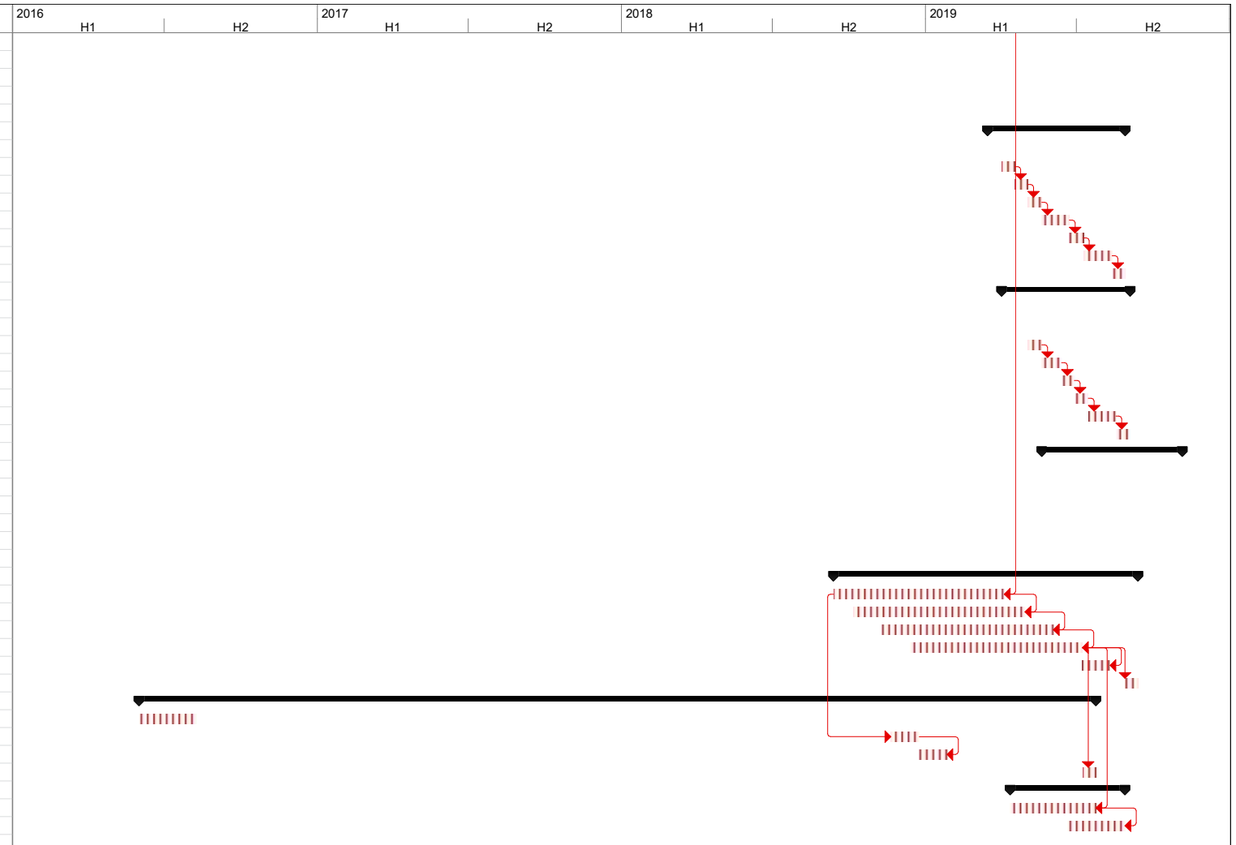
ID	Task Name	Duration	Start	Finish	Predecessors
1276	Electrical fixtures	30 days	Sat 11/24/18	Fri 12/28/18	1275FF+7 days
1277	Install HHS door panel	30 days	Tue 11/20/18	Mon 12/24/18	1275FF+3 days
1278	Internal Painting (2nd Coat)	30 days	Fri 11/23/18	Thu 12/27/18	1277FF+3 days
1279	Install Skirting	30 days	Sat 11/24/18	Fri 12/28/18	1275FF+7 days
1280	Cloths rack Installation	10 days	Mon 12/17/18	Fri 12/28/18	1278FF+1 day
1281	External water Test for Façade Joint & Gable End Wall	45 days	Wed 3/20/19	Fri 5/10/19	1241FF+30 days
1282	Install Window inner frame/Glazing	120 days	Wed 8/15/18	Sat 12/29/18	1272FF+14 days
1283	Install Metal Gate	60 days	Mon 10/22/18	Sat 12/29/18	1272FF+14 days
1284	Removing Protection to floor tiling	120 days	Tue 8/14/18	Fri 12/28/18	1279FF
1285	Install Door Panel	21 days	Sat 12/8/18	Tue 1/1/19	1284FF+3 days
1286	Install Ironmongery	21 days	Sat 12/8/18	Tue 1/1/19	1285FF
1287	Final pointing to floor tile	21 days	Thu 12/13/18	Mon 1/7/19	1272,1285FF
1288	Plastering and skimming at 1st sty	60 days	Wed 11/8/17	Mon 1/15/18	1226
1289	Letter Box, Box-up, False Ceiling Installation	7 days	Fri 5/10/19	Sat 5/18/19	1281
1290	Rectification Work to External Façade	30 days	Sat 4/13/19	Sat 5/18/19	1241FS+7 days
1291	External Skimming	30 days	Sat 5/18/19	Fri 6/21/19	1290
1292	Installation of Alumimium Fin	30 days	Tue 6/4/19	Tue 7/9/19	1291FF+15 days
1293	Removal of P/M Hoist	1 day	Fri 10/11/19	Sat 10/12/19	1257FS+14 days
1294	Reinstatement of external work to PM hoist area	14 days	Sat 10/12/19	Tue 10/29/19	1293
1295	External Cloth rack installation	21 days	Mon 6/3/19	Thu 6/27/19	1296FF
1296	External Painting	30 days	Fri 5/24/19	Thu 6/27/19	1291FF+5 days
1297	Roof Water Tightness Test	14 days	Wed 6/26/19	Fri 7/12/19	1244FS+45 days
1298	Roof Skimming Works	30 days	Fri 7/12/19	Thu 8/15/19	1297
1299	Secondary Roofing System	14 days	Thu 8/15/19	Sat 8/31/19	1298
1300	Landscaping Works Surrounding Block	45 days	Wed 9/25/19	Fri 11/15/19	1293FF+30 days
1301	**Sanitary, Plumbing, Gas and HR & DR Works**	**661.5 days**	**Mon 3/19/18**	**Mon 4/13/20**	
1302	Unit Copper pipe and sanitary piping	180 days	Mon 3/19/18	Wed 10/10/18	1266FF+14 days
1303	Installation of water supply services	180 days	Sat 4/28/18	Tue 11/20/18	1270FF+7 days
1304	Install Water Sub Meter & Bulk Meter	180 days	Sat 4/28/18	Tue 11/20/18	1270FF+7 days
1305	Installation of Hosereel Pipe, DR pipe, Landing Valve & HR Drum	180 days	Sat 4/28/18	Tue 11/20/18	1270FF+7 days
1306	Installation of gas pipes	180 days	Sat 4/28/18	Tue 11/20/18	1270FF+7 days
1307	Installation of waste, soil , & vent pipes	180 days	Sat 4/28/18	Tue 11/20/18	1270FF+7 days
1308	Installation of pump set	45 days	Thu 7/11/19	Sat 8/31/19	1298FF+14 days
1309	Testing and commissioning	14 days	Wed 7/17/19	Thu 8/1/19	1292FS+7 days
1310	Water Turn On	1 day	Fri 8/9/19	Sat 8/10/19	1309FS+7 days
1311	CBPU Inspection	14 days	Sat 8/10/19	Tue 8/27/19	1310
1312	Gas final pressure test	1 day	Thu 3/26/20	Thu 3/26/20	1340FF+3 days
1313	Gas charge in	1 day	Sat 4/11/20	Mon 4/13/20	1312FS+14 days
1314	Sanitary PUB inspection clearance	45 days	Wed 6/19/19	Fri 8/9/19	1274,1307,1309FF+7 days
1315	**Electrical Works**	**630.5 days**	**Mon 3/19/18**	**Mon 3/9/20**	
1316	Installation of lighting Conductor	14 days	Fri 4/5/19	Mon 4/22/19	1241FF+14 days
1317	Unit conduit and wiring	180 days	Mon 3/19/18	Wed 10/10/18	1266FF+14 days
1318	Exposed conduit and trunking works	180 days	Sat 5/5/18	Wed 11/28/18	1270FF+14 days
1319	Common area wiring and cabling works	60 days	Sat 10/13/18	Fri 12/21/18	1318FF+21 days
1320	Lightning and power point installation	60 days	Tue 10/30/18	Mon 1/7/19	1319FF+14 days
1321	Power Turn On	1 day	Fri 10/12/18	Fri 10/12/18	1186FS+14 days
1322	Testing and commissioning	30 days	Tue 12/25/18	Mon 1/28/19	1274
1323	HDB Testing	21 days	Tue 2/4/20	Fri 2/28/20	1340FF-21 days
1324	SP Powergrid Pre Turn on	1 day	Sat 3/7/20	Mon 3/9/20	1323FS+7 days
1325	**TOP Application**	**57.63 days**	**Thu 2/20/20**	**Sat 4/25/20**	
1326	M&E RI Inspection	1 day	Thu 2/20/20	Thu 2/20/20	
1327	Arch RI Inspection	1 day	Thu 2/20/20	Thu 2/20/20	
1328	HHS BCA Inspection	1 day	Tue 3/10/20	Tue 3/10/20	
1329	TOP Inspection	1 day	Tue 3/24/20	Tue 3/24/20	
1330	TOP inspection defect rectification	7 days	Thu 4/9/20	Fri 4/17/20	1329FF+21 days
1331	BCA issue TOP certification	1 day	Fri 4/24/20	Sat 4/25/20	1330FF+7 days
1332	**Defect Checking & Rectification**	**14 days**	**Fri 2/21/20**	**Sat 3/7/20**	
1333	Contractor checking & Cleaning Up	14 days	Fri 2/21/20	Sat 3/7/20	1326
1334	Functionality Test	14 days	Fri 2/21/20	Sat 3/7/20	1327
1335	**Handing Over**	**61 days?**	**Wed 2/26/20**	**Tue 5/5/20**	
1336	HDB Window Water Tightness Test	1 day	Fri 3/13/20	Fri 3/13/20	1338
1337	HDB Critical Functional Test	1 day	Mon 3/2/20	Mon 3/2/20	
1338	RTO Inspection prior to HDB BIT inspection	14 days	Wed 2/26/20	Thu 3/12/20	
1339	HDB PD Pre BIT	1 day	Fri 3/13/20	Fri 3/13/20	
1340	HDB 1st BIT Inspection	1 day	Mon 3/23/20	Mon 3/23/20	
1341	Defect Rectification	11 days	Tue 3/24/20	Sat 4/4/20	1340
1342	HDB 2nd BIT inspection	1 day	Mon 4/6/20	Mon 4/6/20	
1343	Sanitary Pipe Audit	1 day	Mon 4/20/20	Mon 4/20/20	
1344	HDB Lock Up Inspection	1 day	Mon 5/4/20	Mon 5/4/20	
1345	Signing of Costing form	1 day	Tue 5/5/20	Tue 5/5/20	1344,1331
1346					
1347	**Phase 18b & 18c Common Green, Bus Bay and Shelter, Shelter to Existing**	**1277.13 days**	**Wed 6/1/16**	**Sat 5/30/20**	
1348	**Verandah & Bus Shelter**	**350 days**	**Sat 4/14/18**	**Mon 5/20/19**	
1349	Excavation	280 days	Sat 4/14/18	Thu 2/28/19	
1350	Footing & Ground Beam	21 days	Fri 3/1/19	Mon 3/25/19	1349
1351	Construction of ground slab	14 days	Mon 3/25/19	Wed 4/10/19	1350
1352	Steel Structure Work	7 days	Wed 4/10/19	Thu 4/18/19	1351
1353	Roof Panel	7 days	Thu 4/18/19	Thu 4/25/19	1352
1354	House Drain Construction	7 days	Fri 4/26/19	Fri 5/3/19	1353
1355	Architectural Finishing	7 days	Fri 5/3/19	Sat 5/11/19	1354
1356	M&E Works	7 days	Sat 5/11/19	Mon 5/20/19	1355
1357	**Pedestrian Overhead Shelter**	**1164 days**	**Sat 8/6/16**	**Sat 3/28/20**	
1358	Piling	7 days	Sat 8/6/16	Sat 8/13/16	
1359	Footing & Ground Beam	14 days	Mon 3/18/19	Tue 4/2/19	1358FS+60 days
1360	Construction of Column	14 days	Mon 6/10/19	Wed 6/26/19	1359FS+60 days



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task | Summary | External Milestone | Inactive Summary | Manual Summary Rollup | Finish-only | Manual Progress
Critical Task | Project Summary | Inactive Task | Manual Task | Manual Summary | Deadline
Milestone | External Tasks | Inactive Milestone | Duration-only | Start-only | Progress

ID	Task Name	Duration	Start	Finish	Predecessors
1361	Hoisting of Precast Span	21 days	Thu 1/16/20	Sat 2/8/20	
1362	Steel Member	14 days	Mon 2/10/20	Tue 2/25/20	1361
1363	Roof Panel	7 days	Tue 2/25/20	Wed 3/4/20	1362
1364	Architectural Finishing	14 days	Wed 3/4/20	Fri 3/20/20	1363
1365	M&E Works	7 days	Fri 3/20/20	Sat 3/28/20	1364
1366	**Linkway**	**144 days**	**Sat 3/16/19**	**Wed 8/28/19**	
1367	Excavation	14 days	Sat 3/16/19	Tue 4/2/19	1349FS+14 days
1368	Footing & Ground Beam	14 days	Tue 4/2/19	Thu 4/18/19	1367
1369	Construction of ground slab	14 days	Thu 4/18/19	Fri 5/3/19	1368
1370	Steel Structure Work	14 days	Fri 5/3/19	Mon 5/20/19	1369
1371	Roof Panel	30 days	Mon 5/20/19	Sat 6/22/19	1370
1372	House Drain Construction	14 days	Sat 6/22/19	Tue 7/9/19	1371
1373	Architectural Finishing	30 days	Tue 7/9/19	Mon 8/12/19	1372
1374	M&E Works	14 days	Tue 8/13/19	Wed 8/28/19	1373
1375	**Covered Pavilion**	**135 days**	**Tue 4/2/19**	**Tue 9/3/19**	
1376	Excavation	14 days	Tue 4/2/19	Thu 4/18/19	1367,1358
1377	Footing & Ground Beam	14 days	Thu 4/18/19	Fri 5/3/19	1376
1378	Construction of ground slab	14 days	Fri 5/3/19	Mon 5/20/19	1377
1379	Steel Structure Work	21 days	Mon 5/20/19	Thu 6/13/19	1378
1380	Roof Panel	14 days	Thu 6/13/19	Fri 6/28/19	1379
1381	House Drain Construction	14 days	Fri 6/28/19	Mon 7/15/19	1380
1382	Architectural Finishing	30 days	Mon 7/15/19	Sat 8/17/19	1381
1383	M&E Works	14 days	Sat 8/17/19	Tue 9/3/19	1382
1384	**Playground**	**148 days**	**Mon 5/20/19**	**Tue 11/5/19**	
1385	Excavation	14 days	Mon 5/20/19	Wed 6/5/19	1377FS+14 days
1386	Earth Compaction	14 days	Wed 6/5/19	Thu 6/20/19	1385
1387	Casting of Ground Slab	30 days	Fri 6/21/19	Thu 7/25/19	1386
1388	Installation of Equipment	30 days	Thu 7/25/19	Wed 8/28/19	1387
1389	House Drain Construction	30 days	Wed 8/28/19	Wed 10/2/19	1388
1390	Architectural Finishing	30 days	Wed 10/2/19	Tue 11/5/19	1389
1391	**CE Drain and Service Road**	**320 days**	**Wed 9/12/18**	**Thu 9/12/19**	
1392	Construction of CE Drain	180 days	Wed 9/12/18	Fri 4/5/19	1246FF
1393	Construction of Road Kerb	180 days	Sat 10/6/18	Tue 4/30/19	1392FF+21 days
1394	Construction of Road Base	180 days	Fri 11/9/18	Mon 6/3/19	1393FF+30 days
1395	Construction of Paving Block	180 days	Thu 12/13/18	Mon 7/8/19	1394FF+30 days
1396	Installation of Public Lighting	30 days	Mon 7/8/19	Sat 8/10/19	1395FF+30 days
1397	Road Marking	14 days	Wed 8/28/19	Thu 9/12/19	1395FS+45 days
1398	**Construction of UPS & UTS**	**1005.38 days**	**Wed 6/1/16**	**Wed 7/24/19**	
1399	Laying of HT Cables to ESS and LT Cable to CSR(Powergrid)	60 days	Wed 6/1/16	Mon 8/8/16	
1400	Laying of Water Main(PUB)	30 days	Tue 11/20/18	Mon 12/24/18	1392SS+60 days
1401	Laying of Gas Main (PowerGas)	30 days	Mon 12/24/18	Sat 1/26/19	1400FF+30 days
1402	Laying of Singtel/Starhub/OpenNet Cable(Service Provider)	14 days	Tue 7/9/19	Wed 7/24/19	1395FS+1 day
1403	**Landscaping Works**	**120 days**	**Fri 4/12/19**	**Wed 8/28/19**	
1404	Earth Formation	90 days	Fri 4/12/19	Wed 7/24/19	1395FF+15 days
1405	Turfing and Tree Planting	60 days	Thu 6/20/19	Wed 8/28/19	1404FF+30 days
1406	**Hand over of Common Green & 1st Storey Landscaping and Site**	**54 days**	**Mon 3/30/20**	**Sat 5/30/20**	
1407	M&E RI Inspection	10 days	Mon 3/30/20	Thu 4/9/20	1348FS+1 day,1366FS+1 day,1375FS+1 day,1384FS+1 day,1391FS+
1408	Arch RI Inspection	10 days	Fri 4/10/20	Tue 4/21/20	1407
1409	TOP Inspection	1 day	Wed 4/29/20	Thu 4/30/20	1408FS+7 days
1410	Defect Rectification	14 days	Thu 4/30/20	Sat 5/16/20	1409
1411	BCA issue TOP certification	1 day	Mon 5/25/20	Tue 5/26/20	1410FS+7 days
1412	1st HDB Inspection	1 day	Fri 4/17/20	Sat 4/18/20	1407FS+7 days
1413	Defect Rectification	7 days	Sat 4/18/20	Mon 4/27/20	1412FF+7 days
1414	2nd HDB Inspection	1 day	Tue 5/5/20	Wed 5/6/20	1413FS+7 days
1415	Verification of Defect Rectification	1 day	Thu 5/14/20	Fri 5/15/20	1414FS+7 days
1416	Signing of Costing Form	1 day	Fri 5/29/20	Sat 5/30/20	1411FS+3 days,1415FS+3 days



Project: Bidadari C1C2 Revised Co
Date: Mon 2/3/20

Task | Summary | External Milestone | Inactive Summary | Manual Summary Rollup | Finish-only | Manual Progress
Critical Task | Project Summary | Inactive Task | Manual Task | Manual Summary | Deadline
Milestone | External Tasks | Inactive Milestone | Duration-only | Start-only | Progress

SECTION 4

PROGRAMME

4.2 Authority Submission Status for M&E Services

Service	Authority	Original Submission		Comments/Resubmission								Approval/
		Scheduled	Actual	Comment	Resubmit	Comment	Resubmit	Comment	Resubmit	Comment	Resubmit	Clearance
Application for Electricity Supply	SP Services Ltd	14/5/15	14/5/15									19/6/15
Power Supply Substation	SP PowerGrid Ltd											
Parcel C1			12/11/15	30/11/15	23/6/16	11/7/16	29/7/16					13/9/16
Parcel C2			12/11/15	30/11/15	23/6/16							11/7/16
Parcel C3			12/11/15	30/11/15	26/6/16							11/7/16
LT Cable Reticulation	SP PowerGrid Ltd											
Parcel C1		26/8/16	14/9/16			24/10/16	8/11/16	22/11/16				15/12/16
Parcel C2		9/8/16	18/8/16	26/8/16	21/8/16	24/10/16	8/11/16	22/11/16	14/12/16	23/12/16	12/1/17	20/1/17
Parcel C3		2/8/16	8/8/16	26/8/16	12/10/16	25/10/16	15/11/16	28/11/16				23/2/17
Metering Layout	SP Services Ltd											
Sanitary Installation	PUB Water Reclamation (Network) Dept	1/4/17	27/3/17									29/3/17
Overall Plumbing Installation	PUB (Water Supply) Network Dept	30/3/16	30/3/16	6/4/16	18/4/16	21/6/16	27/6/16	1/8/16	2/8/16			11/8/16
Domestic Water Supply		31/7/17	11/9/17	18/12/17	31/1/18							19/3/18
Overall Gas Installation	City Gas Pte Ltd	15/3/17	21/2/17	23/2/17	24/2/17							20/3/17
Gas Supply Installation	City Gas Pte Ltd	30/11/17	23/1/18	30/1/18	30/1/18	18/4/18	30/4/18	7/6/18				
Air Conditioning & Ventilation Inst.	FSSD	20/12/18	20/12/18									25/1/19
Fire Fighting & Alarm Installation	FSSD	31/1/19	15/01/19									22/1/19
Telephone Installation	TFCC											
Parcel C1			22/6/16									4/7/16
Parcel C2			22/6/16		28/7/16							5/8/16
Parcel C3			22/6/16									4/7/16
Broadband Co-axial Cable System (BCS)	Starhub Cable Vision	-										
Fuel Storage	FSSD	-										
	NEA (Pollution Control)											

SECTION 4

PROGRAMME

4.3 Authority Submission Status for M&E Services (Amendments) - 2nd Submission

Service	Authority	Original Submission		Comments/Resubmission						Approval/
		Scheduled	Actual	Comment	Resubmit	Comment	Resubmit	Comment	Resubmit	Clearance
Application for Electricity Supply	SP Services Ltd	-								
Power Supply Substation	SP PowerGrid Ltd	-								
Metering Layout	SP Services Ltd	-								
Sanitary Installation	PUB Water Reclamation (Network) Dept	-								
Domestic Water Supply	PUB (Water Supply) Network Dept	-								
Gas Supply Installation	City Gas Pte Ltd	3/9/18	3/9/18							18/9/18
Air Conditioning & Ventilation Inst.	FSSD	-								
Fire Fighting & Alarm Installation	FSSD	30/4/21	11/9/21							16/9/21
Telephone Installation	TFCC	-								
Broadband Co-axial Cable System (BCS)	Starhub Cable Vision	-								
Fuel Storage	FSSD	-								
	NEA (Pollution Control)	-								

SECTION 5

PROJECT RECORDS

5.1 List of Internal Files

Standard Files

File Ref:		File Ref:	
- Owner	√	- Architect	√
- Authorities	√	- Other Consultants	√
- Contractors	√	- CC	√
- CF	√	- PQP/QSP	√

Project Files to be initiated by PM as and when required

File Ref:		File Ref:		File Ref:	
MC/EC	√				

(✓ *where applicable*)

SECTION 5

PROJECT RECORDS

5.2 Filing of Drawings

The following team members shall take charge of filing of drawings, stamping "SUPERSEDED" drawings, etc.

Description	Team Member
Incoming Architectural Floor Plans	Softcopy saved in the server
Incoming Architectural Sketches/Details	
Incoming Structural Drawings	
M&E Drawings - Electrical Installation - Lift & Escalator Installation - Air Conditioning & Ventilation Installation - Fire Fighting & Alarm Installation - Plumbing & Sanitary Installation - Swimming Pool & Filtration Installation	
Other Drawings	

SECTION 6

INTERFACING

6.1 Method of Interface

Description	Method of Interface	
Client's Review & Approval	M&E Design Report	√
	Pre-planned meeting at fixed intervals	√
	Telefax, letter and telephone	√
	Email	√
Interface With External Design Teams	M&E Design Report	√
	Pre-planned meeting at fixed intervals	√
	Telefax, letter and telephone	√
	Email	√
Interface Between Internal Design Teams	Telephone	√
	Email	√
	Internal Project Team Meeting	√
	Circulation of Information	√

(✓ *where applicable*)

SECTION 6

INTERFACING

6.2 Internal Design Interface – NOT APPLICABLE

Item No.	Description*	Required From	Required By	Date Required	Remarks

** Information required by INTERNAL DESIGN TEAM MEMBERS*

SECTION 6

INTERFACING

6.3 Circulation of Documents to External Parties

	Code: A - Approval Required C - For Comments I - For Information Only	Client/ Client Rep.	* Client's Project Manager	Architect	Structural Engineer	Quantity Surveyor	
1.	**Letters/Fax:**						
a.	Project Design	A	I	I	-	-	
b.	Project Administration						
c.	Project Cost Estimate/Contract Cost	A	I	I	-	I	
2.	**Drawings**						
a.	Outline Design Drgs.	A	I	C	I	I	
b.	Sketch Design Drgs.	A	I	C	I	I	
c.	Final Design Drgs.	A	I	C	I	I	
d.	Shop Drawings	I	I	A	-	-	
e.	As Built Drgs.	I	I	I	-	-	
3.	**Other Document**						
a.	Specification	A	I	I	I	I	
b.	Tender Document	A	I	I	I	I	
c.	Tender Evaluation Report	A	I	I	I	I	
d.	Design Report	A	I	I	-	-	
e.	Progress Report	-	-	-	-	-	
f.	Financial Report	-	-	-	-	-	
g.	Minutes of Meeting	A	I	I	-	-	
h.	Inspection Report	I	I	I	-	-	
i.	Testing & Comm. Report	I	I	I	-	-	
j.	O & M Manual	I	I	I	-	-	

*Note: Applicable only, if the client engaged a Project Manager.

SECTION 7

WORK AUTHORISATION

Activity \ Authorised Signatories	PD	QP	PM	AE	SS
General Correspondences with Client			√	√	
General Correspondences with Other Consultants			√	√	
M&E Cost Estimate Report	√	√	√		
M&E Design Report	√	√	√		
Check Prints		√			
Tender Drawing Approval	√	√	√		
Tender Specification Approval	√	√	√		
List of Tenderers	√	√	√		
Tender Questionnaires	√	√	√		
Tender Reports	√	√	√		
Draft Letter of Award	√	√	√		
Review of Contractor's Shop Drawing			√	√	
Review of Contractor's Technical Submittal			√	√	
Review of Contractor's Sample Submittal			√	√	
Contractor's Request for Deviation		√	√		
Progress Payment Valuation Form	√		√		
Final Account Valuation	√		√		
Draft Variation Order	√		√		
Engineer/Architect's Instruction/Direction	√		√		
Site Instruction/Direction			√		
Correspondence/Submission to Authorities	√	√			

(✓*where authorised*)

Key to abbreviations:-

PD : Project Director
QP : Qualified Person
PM : Project Manager/Assistant Project Manager
AE : Assistant Engineer
SS : ACEPL Site Staff

SECTION 8

DESIGN INPUT & METHODOLOGY

8.1 List of Client's Standards, Reference Documents or Brief

ITEM	KEPT BY
HDB Guide Drawings	Softcopy saved in the server
M&E Design Brief	Softcopy saved in the server
Commercial & Social Communal Facilities Design Brief	Softcopy saved in the server

8.2 List of Applicable Code of Practice and Regulations

Services	Title of Code of Practice/Standard
Electrical Wiring	SS CP 5 : 1998
Lightning Protection System	SS 555 : 2010
Emergency Voice Communication System	NA
Air Conditioning & Ventilation Installation	NA
Lift & Escalator Installation	SS 550 : 2009
Sprinkler System	SS CP 52 : 2004
Dry Riser System	SS 575 : 2012
Automatic Fire Alarm System	SS CP 10 : 2005
Sanitary System	Code of Practice on Sewerage & Sanitary Works
Plumbing System	SS CP 48 : 2005
Town Gas/LPG Supply System	SS 608 : 2015
Boiler and Steam Supply System	NA
Mechanical Smoke Control System	NA

SECTION 8

DESIGN INPUT & METHODOLOGY

8.3 List of Design Guide or Handbook Used

Carrier's Handbook of Air Conditioning System Design

ASHRAE Handbooks

Institute of Plumbing's Plumbing Services Design Guide

8.4 List of Pre-Consultation and Waiver

S/N	Description	Date of Application	Date of Approval	Remarks
1	*Clause 2.2.13(b)(i) in Fire Code which require SCDF waiver. Consultation Ref No. - Waiver Ref. No. WVR/01408/15	19/5/15	9/7/15	
2	*Clause 2.2.12(b)(iii), 2.4.13 & 2.3.3(f) in Fire Code which require SCDF waiver. Consultation Ref No. Waiver Ref. No. WVR/02995/15	14/10/15	27/11/15	
3	*Clause 2.3.3(f) in Fire Code which require SCDF waiver. Consultation Ref No. Waiver Ref. No. WVR/03820/15	16/12/15	3/5/16	
4	*Clause 2.3.3(f) in Fire Code which require SCDF waiver. Consultation Ref No. Waiver Ref. No. WVR/00189/16	20/1/16	3/5/16	
5	*Clause 2.3.3(f) in Fire Code which require SCDF waiver. Consultation Ref No. Waiver Ref. No. WVR/03643/15	2/12/15	3/5/16	

8.4 List of Pre-Consultation and Waiver (Cont'd)

S/N	Description	Date of Application	Date of Approval	Remarks
6	*Clause 6.4.3(b) in Fire Code which require SCDF waiver. Consultation Ref No. - Waiver Ref. No. WVR/02194/17	22/8/17	6/9/17	
7	*Clause 3.8.9(b), 3.9.6(b), 2.3.4(d)(i) &4.2.3(e) in Fire Code which require SCDF waiver. Consultation Ref No. - Waiver Ref. No. WVR/02899/17	30/10/17	6/11/17	
8	*Clause 6.3.3(b) in Fire Code which require SCDF waiver. Consultation Ref No. - Waiver Ref. No. WVR/03042/17	14/11/17	16/11/17	
9	*Clause 6.1.1a & 6.3.3 in Fire Code which require SCDF waiver. Consultation Ref No. - Waiver Ref. No. WVR/01299/18	4/6/18	5/7/18	
10	*Clause 6.1.1a & 6.3.3 in Fire Code which require SCDF waiver. Consultation Ref No. - Waiver Ref. No. WVR/00833/18	10/4/18	19/6/18	
11	*Clause 1.4.4.1(a) & (b) of CP10 which require SCDF waiver. Consultation Ref No. - Waiver Ref. No. WVR/03086/18	30/11/18	20/12/18	

*To fill in actual information

8.5 List of Applicable Quality System Procedures

Alpha Consulting Engineers Pte Ltd's Quality Management System Procedures

Section	Title	✓ where applicable
M1	Preparation of Consultancy Offer	√
M2	Project Commissioning and Service Agreement	√
M3	Design Control	√
M4	Design Change Control	√
M5	Tender Process and Evaluation	
M6	Authority Submission	√
M7	Construction Process Control	√
M8	Testing and Commissioning	√
S1	Document Control	√
S2	Documentation of Quality & Environmental Management System Procedure	√
S3	Documentation of Project Quality Plan	√
S4	Specification Control	
S5	Library Control	
S6	Archive Control	√
S7	Filing Control	√
S8	Drawing Control	√
S9	Administration Control	√
S10	Purchasing Control	
S11	Training Control	
S12	Computer Control	
S13	Non-Conformity & Corrective Action Procedures	√
S14	Quality & Environmental Management System Audit	√
S15	Feedback Reporting	√
S16	Client's Feedback	√
S17	Management Review	√
S18	Risk Identification, Assessment & Control	√

8.6 List of Software Used For Design/Analysis

DESCRIPTION/ PACKAGE NAME	VERSION	SUPPLIER/ SOURCE	PURPOSE	
Calculux	2.30	Philips	Lighting design	
Cophos	3.31	Zumtobel	Lighting design	
Carrier E20-II	3.21	Carrier	Programme for determination of heat load, duct size and its losses, etc.	
Gensize 2	2.1	Onan	Generator sizing	
Econdial	2.5	Merlin Gerlin	Design for low voltage network	
Hyena	4.00.1	ACADS-BSG	Fire Sprinkler & Hydrant Analysis	
Dialux	4.11	Freeware	Lighting design	✓
Lift Traffic	7.18	Elevate	Lift traffic calculation	✓
Fault Level Calculation	11.1.1	ETAP	Calculation of fault level and voltage drop	

(✓*where applicable*)

SECTION 9

ENVIRONMENTAL CONSIDERATIONS

9.1 Sustainable Design Features/Criteria

Item	Remarks
Green Mark criteria	Gold Plus
Green Design Features	Refer to attached list

9.2 Site PPE Requirement

The necessary Personal Protective Equipment (detailed below) shall be provided by the main contractor / Company in accordance to the site EHS requirements prior to the site monitoring.

PPE	✓ where applicable
Safety Helmet	✓
Safety Shoes	✓
Eye Protection	-
Ear Protection	-
Safety Harness / Belt	-
Others:	-

9.3 Site Emergency Preparedness

Site staff shall comply with the site emergency preparedness and response procedure, established by the main contractor / owner, which shall include the following details.

Items	✓ where applicable
Evacuation Route	✓
Emergency Exit	✓
Assembly Point	✓
Emergency Contact List / Person	✓
Alarm system / methods	✓

List of green features

- LED Light at common areas
- Motion Sensor at staircase mid landing, refuse chute area & linkbridge to MSCP
- Cool paint on east & west walls
- 2 ticks shower mixer tap, basin mixer tap & bib tap and 3 ticks dual flush water closet
- Ferro-lite wall for internal partitions
- Low VOC paint on internal walls
- Utilize Pneumatic Waste Collection System (PWCS)
- Regenerative Lift
- Photo cell devices for 24 hours lighting circuit
- Ductless fan for basement ventilation
- Private meters to monitor water & electricity usage in common areas

SECTION 9

ENVIRONMENTAL CONSIDERATIONS

9.4 Reporting of Environmental Non-conformances - NOT APPLICABLE

When encountering environmental non-conformances, Site Staff shall be responsible to feedback to the main contractor.

9.5 List of Applicable Environmental Management System Procedures

Alpha Consulting Engineers Pte Ltd's Environmental Management System Procedures

Section	Title	✓ where applicable
E1	Aspect / Impact Identification, Risk Assessment & Risk Control	✓
E2	Identifying Legal & Other Requirements	✓
E3	Objectives, Targets & Programmes	✓
E4	Communication	✓
E5	Emergency Preparedness & Response	✓
E6	Monitoring & Measurement	✓
E7	Control of Air & Noise Pollution	✓
E8	Management of Wastes	✓

SECTION 10

CLIENT'S REQUIREMENTS

10.1 List of Output Required by Client:

Item	* Remarks
M&E Design Report	A
M&E Cost Estimate Report	A
Pre-Qualification of Tenderers	-
Tender Documents	-
Tender Report	-
Payment Valuation for QS	A
Certificates of Supervision for TOP/CSC	RE

* *Remarks*

A: for approval *C: for comment* *I: for Information* *Re: for record*

Other purposes and for action: please specify.

10.2 Specific Procedures Required By Client *(If applicable)* – NOT APPLICABLE

SECTION 11

LIST OF SUB-JOB

11.1 List of Sub-Job Numbers – NOT APPLICABLE

Sub Job No	Description	Allocation Details