

## SUNLEY ENGINEERING &amp; CONSTRUCTION CO., LTD.

Contract No. 15/8009 - Lamma Power Station Extension Foundation Works for Unit L10Master Programme Revision 1

ID	Item	Task Name	Duration	Start	Finish	M15 3月	M16 4月	M17 5月
1		<b>1 Key Date</b>	<b>486 days</b>	<b>2016/1/1</b>	<b>2017/4/30</b>			
2	1.1	Commencement date	0 days	2016/1/1	2016/1/1			
3	1.2	Duration of works	486 days	2016/1/1	2017/4/30			
4	1.3	Possession date	0 days	2016/1/1	2016/1/1			
5	1.4	Completion of the Contract	0 days	2017/4/30	2017/4/30			
6								
7		<b>2 Total Contract Period</b>	<b>486 days</b>	<b>2016/1/1</b>	<b>2017/5/1</b>			
8								
9	2.1	<b>Preliminaries</b>	<b>37 days</b>	<b>2016/1/1</b>	<b>2016/2/6</b>			
10	2.1.1	Coordination with utility companies	14 days	2016/1/1	2016/1/14			
11	2.1.2	Condition survey	20 days	2016/1/1	2016/1/20			
12	2.1.3	Notification of commencement of works to Labour Department	7 days	2016/1/1	2016/1/7			
13	2.1.4	Notification of air pollution control for commencement of works to EPD	7 days	2016/1/1	2016/1/7			
14	2.1.5	Application of water discharge licence from EPD	7 days	2016/1/1	2016/1/7			
15	2.1.6	Application for billing account for disposal of construction waste from EPD	7 days	2016/1/1	2016/1/7			
16	2.1.7	CCTV for existing underground drainage pipe around site boundary	21 days	2016/1/1	2016/1/21			
17	2.1.8	Utility detection for existing underground cables	20 days	2016/1/1	2016/1/20			
18	2.1.9	Site clearance	21 days	2016/1/1	2016/1/21			
19	2.1.10	Erection of contractor's site office	21 days	2016/1/1	2016/1/21			
20	2.1.11	Installation of monitoring checkpoints	20 days	2016/1/18	2016/2/6			
21	2.1.12	Submission of BA10 for ELS & foundation works	0 days	2016/1/1	2016/1/1			
22								
23	2.2	<b>Section A</b>	<b>305 days</b>	<b>2016/1/1</b>	<b>2016/10/31</b>			
24	2.2.1	<b>Hoarding</b>	<b>90 days</b>	<b>2016/1/1</b>	<b>2016/3/30</b>			
25	2.2.1.1	Erection of Hoarding	90 days	2016/1/1	2016/3/30			
26	2.2.2	<b>Foundation Works at Unit L10</b>	<b>295 days</b>	<b>2016/1/11</b>	<b>2016/10/31</b>			
27	2.2.2.1	<b>Bored Pile - Temporary Steel Casing</b>	<b>56 days</b>	<b>2016/1/22</b>	<b>2016/3/17</b>			
28	2.2.2.1.1	Duration for delivery temporary steel casing	56 days	2016/1/22	2016/3/17			
29	2.2.2.2	<b>Bored Pile - Permanent Casing &amp; Double Wall Liner</b>	<b>172 days</b>	<b>2016/2/24</b>	<b>2016/8/13</b>			
30	2.2.2.2.1	Testing for double wall liner	0 days	2016/2/24	2016/2/24			
31	2.2.2.2.2	Duration for delivery permanent casing & double wall liner	160 days	2016/3/7	2016/8/13			
32	2.2.2.3	<b>Bored Pile - Plant Mobilization</b>	<b>56 days</b>	<b>2016/1/15</b>	<b>2016/3/11</b>			
33	2.2.2.3.1	<b>Crawler Crane</b>	<b>53 days</b>	<b>2016/1/15</b>	<b>2016/3/8</b>			
34	2.2.2.3.1.1	1st & 2nd set	0 days	2016/1/15	2016/1/15			
35	2.2.2.3.1.2	3rd set	0 days	2016/2/4	2016/2/4			
36	2.2.2.3.1.3	4th & 5th set	0 days	2016/2/19	2016/2/19			
37	2.2.2.3.1.4	6th set	0 days	2016/3/8	2016/3/8			
38	2.2.2.3.2	<b>Oscillator</b>	<b>35 days</b>	<b>2016/1/29</b>	<b>2016/3/4</b>			
39	2.2.2.3.2.1	1st & 2nd set	0 days	2016/1/29	2016/1/29			
40	2.2.2.3.2.2	3rd & 4th set	0 days	2016/2/24	2016/2/24			
41	2.2.2.3.2.3	5th set	0 days	2016/3/4	2016/3/4			
42	2.2.2.3.3	<b>RCD</b>	<b>7 days</b>	<b>2016/3/4</b>	<b>2016/3/11</b>			
43	2.2.2.3.3.1	1st & 2nd set	0 days	2016/3/4	2016/3/4			
44	2.2.2.3.3.2	3rd, 4th & 5th set	0 days	2016/3/11	2016/3/11			
45	2.2.2.4	<b>Predrilling</b>	<b>60 days</b>	<b>2016/1/11</b>	<b>2016/3/10</b>			
46	2.2.2.4.1	Predrilling works (38 nos.)	60 days	2016/1/11	2016/3/10			
47	2.2.2.5	<b>Bored Pile Construction</b>	<b>263 days</b>	<b>2016/2/12</b>	<b>2016/10/31</b>			
48	2.2.2.5.1	Bored pile construction (38 piles)	215 days	2016/2/12	2016/9/13			
49	2.2.2.5.2	Interface & sonic test	30 days	2016/8/25	2016/9/23			
50	2.2.2.5.3	Prepare & submit as-built record plan	7 days	2016/9/17	2016/9/23			
51	2.2.2.5.4	Submission of BA14	1 day	2016/9/23	2016/9/23			
52	2.2.2.5.5	Allow 14 days for selection of pile for concrete full core test	14 days	2016/9/24	2016/10/7			

Master Programme  
Revision 1Task  Critical Task  Milestone Summary 

## SUNLEY ENGINEERING &amp; CONSTRUCTION CO., LTD.

Contract No. 15/8009 - Lamma Power Station Extension Foundation Works for Unit L10Master Programme Revision 1

ID	Item	Task Name	Duration	Start	Finish	M15	M16	M17
53	2.2.2.5.6	Concrete full core test	14 days	2016/10/8	2016/10/21			
54	2.2.2.5.7	Compression test for concrete core	7 days	2016/10/22	2016/10/28			
55	2.2.2.5.8	Submission of log report & compression test report	4 days	2016/10/28	2016/10/31			
56	<b>2.2.2.6</b>	<b>Sheet Pile</b>	<b>92 days</b>	<b>2016/7/22</b>	<b>2016/10/21</b>			
57	2.2.2.6.1	Plant mobilization	0 days	2016/7/31	2016/7/31			
58	2.2.2.6.2	Delivery sheet pile material	0 days	2016/7/22	2016/7/22			
59	2.2.2.6.3	Installation of sheet pile - Type A (approx. 212 piles)	50 days	2016/8/1	2016/9/19			
60	2.2.2.6.4	Installation of sheet pile - Type B (approx. 100 piles)	24 days	2016/9/20	2016/10/13			
61	2.2.2.6.5	Prepare & submit as-built record plan	7 days	2016/10/14	2016/10/20			
62	2.2.2.6.6	Submission of BA14	1 day	2016/10/21	2016/10/21			
63	2.2.2.7	Completion of foundation works at Unit L10	0 days	2016/10/31	2016/10/31			
64	<b>2.2.3</b>	<b>New Site Facilities</b>	<b>198 days</b>	<b>2016/1/1</b>	<b>2016/7/16</b>			
65	2.2.3.1	Submission for design of site office A	90 days	2016/1/1	2016/3/30			
66	2.2.3.2	Approval for design of site office A	28 days	2016/3/31	2016/4/27			
67	2.2.3.3	Erection of site office A	50 days	2016/4/28	2016/6/16			
68	2.2.3.4	Erection of wasing facilities with shelter & container shower facilities	20 days	2016/5/28	2016/6/16			
69	2.2.3.5	Installation of earthing	30 days	2016/6/7	2016/7/6			
70	2.2.3.6	Installation of portable water pipes	30 days	2016/6/17	2016/7/16			
71	2.2.3.7	Installation of sewage drain pipes	30 days	2016/6/17	2016/7/16			
72	2.2.3.8	Completion of new site facilities	0 days	2016/7/16	2016/7/16			
73	2.2.4	Completion of section A	0 days	2016/10/31	2016/10/31			
74	2.2.5	Demobilization of plants	0 days	2016/10/21	2016/10/21			
75	2.3	Handover of site works area for Section A	0 days	2016/11/1	2016/11/1			
76								
77	<b>2.4</b>	<b>Section B</b>	<b>121 days</b>	<b>2016/1/1</b>	<b>2016/4/30</b>			
78	<b>2.4.1</b>	<b>Ground Treatment Works</b>	<b>121 days</b>	<b>2016/1/1</b>	<b>2016/4/30</b>			
79	2.4.1.1	Verification GI works (approx. 20 nos.)	14 days	2016/2/20	2016/3/4			
80	2.4.1.2	Plant mobilization	55 days	2016/1/1	2016/2/24			
81	2.4.1.3	Trial installation of band drain	5 days	2016/2/25	2016/2/29			
82	2.4.1.4	Installation of band drain (approx. 2477 nos.)	45 days	2016/3/1	2016/4/14			
83	2.4.1.5	Installation of steel plate & geotextile on existing U-channel	20 days	2016/3/28	2016/4/16			
84	2.4.1.6	Filling of surcharge (approx. 21000 m3)	20 days	2016/4/7	2016/4/26			
85	2.4.1.7	Installation of ground settlement markers	10 days	2016/4/21	2016/4/30			
86	2.4.2	Completion of section B	0 days	2016/4/30	2016/4/30			
87								
88	<b>2.5</b>	<b>Section C</b>	<b>229 days</b>	<b>2016/9/14</b>	<b>2017/4/30</b>			
89	<b>2.5.1</b>	<b>Hoarding</b>	<b>45 days</b>	<b>2016/11/1</b>	<b>2016/12/15</b>			
90	2.5.1.1	Erection of Hoarding	45 days	2016/11/1	2016/12/15			
91	<b>2.5.2</b>	<b>Foundation Works at 275kV Substation Building</b>	<b>229 days</b>	<b>2016/9/14</b>	<b>2017/4/30</b>			
92	2.5.2.1	Early start milestone	0 days	2016/10/6	2016/10/6			
93	<b>2.5.2.2</b>	<b>Bored Pile - Temporary Steel Casing</b>	<b>7 days</b>	<b>2016/9/14</b>	<b>2016/9/20</b>			
94	2.5.2.2.1	Duration for delivery temporary steel casing	7 days	2016/9/14	2016/9/20			
95	<b>2.5.2.3</b>	<b>Bored Pile - Permanent Casing &amp; Double Wall Liner</b>	<b>120 days</b>	<b>2016/9/26</b>	<b>2017/1/23</b>			
96	2.5.2.3.1	Duration for delivery permanent casing & double wall liner	120 days	2016/9/26	2017/1/23			
97	<b>2.5.2.4</b>	<b>Bored Pile - Plant Mobilization</b>	<b>14 days</b>	<b>2016/10/1</b>	<b>2016/10/15</b>			
98	2.5.2.4.1	Crawler Crane	0 days	2016/10/1	2016/10/1			
99	2.5.2.4.1.1	1st & 2nd set	0 days	2016/10/1	2016/10/1			
100	<b>2.5.2.4.2</b>	<b>Oscillator</b>	<b>0 days</b>	<b>2016/10/5</b>	<b>2016/10/5</b>			
101	2.5.2.4.2.1	1st & 2nd set	0 days	2016/10/5	2016/10/5			
102	<b>2.5.2.4.3</b>	<b>RCD</b>	<b>0 days</b>	<b>2016/10/15</b>	<b>2016/10/15</b>			
103	2.5.2.4.3.1	1st & 2nd set	0 days	2016/10/15	2016/10/15			
104	<b>2.5.2.5</b>	<b>Predrilling</b>	<b>21 days</b>	<b>2016/11/1</b>	<b>2016/11/21</b>			

Master Programme  
Revision 1

Task



Critical Task



Milestone



Summary



SUNLEY ENGINEERING &amp; CONSTRUCTION CO., LTD.

Contract No. 15/8009 - Lamma Power Station Extension Foundation Works for Unit L10Master Programme Revision 1

ID	Item	Task Name	Duration	Start	Finish	M15 3月	M16 4月	M17 5月
105	2.5.2.5.1	Predrilling works (10 nos.)	21 days	2016/11/1	2016/11/21			
106	<b>2.5.2.6</b>	<b>Bored Pile</b>	<b>181 days</b>	<b>2016/11/1</b>	<b>2017/4/30</b>			
107	2.5.2.6.1	Installation of monitoring checkpoints	7 days	2016/11/1	2016/11/7			
108	2.5.2.6.2	Bored pile construction (10 piles)	125 days	2016/11/10	2017/3/14			
109	2.5.2.6.3	Interface & sonic test	20 days	2017/3/9	2017/3/28			
110	2.5.2.6.4	Prepare & submit as-built record plan	7 days	2017/3/22	2017/3/28			
111	2.5.2.6.5	Submission of BA14	1 day	2017/3/28	2017/3/28			
112	2.5.2.6.6	Allow 14 days for selection of pile for concrete full core test	14 days	2017/3/29	2017/4/11			
113	2.5.2.6.7	Concrete full core test	10 days	2017/4/12	2017/4/21			
114	2.5.2.6.8	Compression test for concrete core	7 days	2017/4/21	2017/4/27			
115	2.5.2.6.9	Submission of log report & compression test report	4 days	2017/4/27	2017/4/30			
116	2.5.2.7	Completion of foundation works at 275kV substation building	0 days	2017/4/30	2017/4/30			
117	<b>2.5.3</b>	<b>Trial Pile</b>	<b>212 days</b>	<b>2016/10/1</b>	<b>2017/4/30</b>			
118	2.5.3.1	Early start milestone	0 days	2016/10/1	2016/10/1			
119	2.5.3.2	Submission of BA10 for trial pile	7 days	2016/11/1	2016/11/7			
120	<b>2.5.3.3</b>	<b>Predrilling</b>	<b>28 days</b>	<b>2016/11/8</b>	<b>2016/12/5</b>			
121	2.5.3.3.1	Predrilling works (3 nos.)	28 days	2016/11/8	2016/12/5			
122	<b>2.5.3.4</b>	<b>Ground Instrumentation</b>	<b>24 days</b>	<b>2016/11/22</b>	<b>2016/12/15</b>			
123	2.5.3.4.1	Installation of magnetic extensometer in predrilled hole (3 nos.)	16 days	2016/11/22	2016/12/7			
124	2.5.3.4.2	Installation of settlement plate	10 days	2016/12/6	2016/12/15			
125	<b>2.5.3.5</b>	<b>Construction of Trial Pile</b>	<b>136 days</b>	<b>2016/12/16</b>	<b>2017/4/30</b>			
126	2.5.3.5.1	Installation of trial pile (6 piles)	84 days	2016/12/16	2017/3/9			
127	2.5.3.5.2	Dynamic pile test	72 days	2016/12/29	2017/3/10			
128	2.5.3.5.3	Static load test	42 days	2017/3/11	2017/4/21			
129	2.5.3.5.4	Prepare & submit as-built record plan	7 days	2017/4/17	2017/4/23			
130	2.5.3.5.5	Submission of BA14	1 day	2017/4/23	2017/4/23			
131	2.5.3.5.6	Cut off the piles to level +3.0mPD	7 days	2017/4/24	2017/4/30			
132	2.5.3.6	Completion of trial pile	0 days	2017/4/30	2017/4/30			
133	2.5.4	Completion of section C	0 days	2017/4/30	2017/4/30			
134	2.5.5	Demobilization of plants	0 days	2017/4/30	2017/4/30			
135	2.6	Handover of site works area for Section C	0 days	2017/5/1	2017/5/1			
136								
137	<b>2.7</b>	<b>Section D</b>	<b>383 days</b>	<b>2016/1/15</b>	<b>2017/1/31</b>			
138	<b>2.7.1</b>	<b>General Site Works</b>	<b>36 days</b>	<b>2016/3/1</b>	<b>2016/4/5</b>			
139	2.7.1.1	Cable duct & draw pit	21 days	2016/3/1	2016/3/21			
140	2.7.1.2	Relocation of lamp pole (5 poles)	20 days	2016/3/17	2016/4/5			
141	<b>2.7.2</b>	<b>G.I. Works</b>	<b>99 days</b>	<b>2016/3/4</b>	<b>2016/6/10</b>			
142	2.7.2.1	Submission of BA10 for G.I. works	7 days	2016/3/4	2016/3/10			
143	2.7.2.2	Carry out G.I. works (11 nos.)	85 days	2016/3/11	2016/6/3			
144	2.7.2.3	Prepare & submit as-built record plan	7 days	2016/6/4	2016/6/10			
145	2.7.2.4	Submission of BA14	1 day	2016/6/10	2016/6/10			
146	<b>2.7.3</b>	<b>Ground Treatment Time</b>	<b>276 days</b>	<b>2016/5/1</b>	<b>2017/1/31</b>			
147	2.7.3.1	9 months for monitoring settlement after completion of ground treatment	276 days	2016/5/1	2017/1/31			
148	<b>2.7.4</b>	<b>External Works</b>	<b>227 days</b>	<b>2016/1/15</b>	<b>2016/8/28</b>			
149	2.7.4.1	Repair & make good site office B & existing latrines	90 days	2016/3/1	2016/5/29			
150	2.7.4.2	Removal of the employer's materials stored in E6 area as instructed by the Engineer	90 days	2016/1/15	2016/4/13			
151	2.7.4.3	Installation of bund wall of sandbags	60 days	2016/5/1	2016/6/29			
152	2.7.4.4	Construction of new type 3 road	60 days	2016/6/30	2016/8/28			
153	2.7.5	Completion of section D	0 days	2017/1/31	2017/1/31			
154								
155	2.8	Contract completion	0 days	2017/4/30	2017/4/30			

Master Programme  
Revision 1

Task



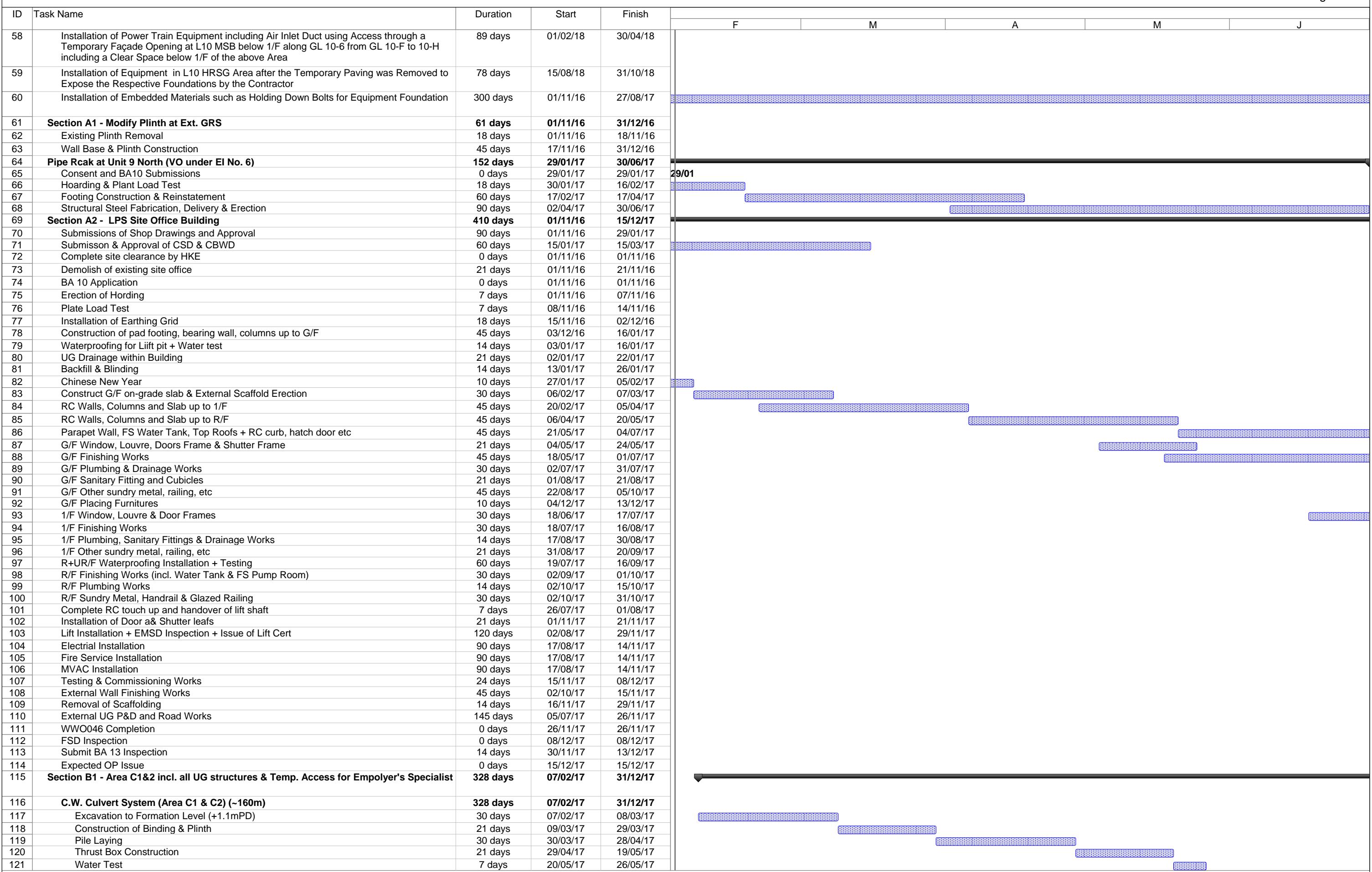
Critical Task

Milestone

Summary

Contract No. 16/8002 Lamma Power Station Extension Civil and Building Unit L10

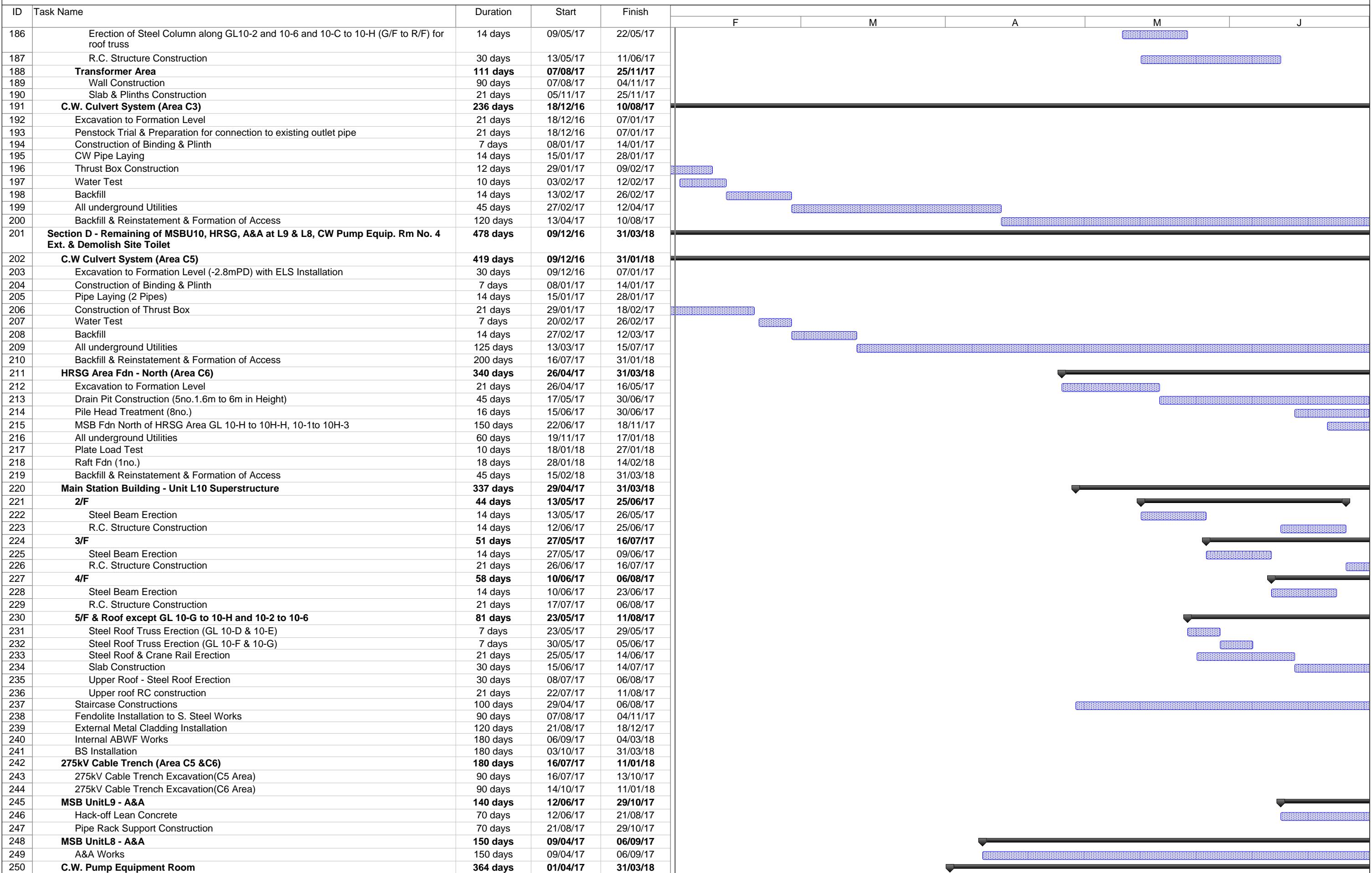
ID	Task Name	Duration	Start	Finish	F	M	A	M	J
1	<b>Contract Key Date</b>	<b>1308 days</b>	<b>01/11/16</b>	<b>31/05/20</b>					
2	<b>Possession Date</b>	<b>1308 days</b>	<b>01/11/16</b>	<b>31/05/20</b>					
3	Contract Commencement Date	0 days	01/11/16	01/11/16					
4	Section A1 - Modify Plinth at Ext. GRS	61 days	01/11/16	31/12/16					
5	Section A2 - LPS Site Office Building	410 days	01/11/16	15/12/17					
6	Section B1 - Area C1&2 incl. all UG structures & Temp. Access for Employer's Specialist	426 days	01/11/16	31/12/17					
7	Section B2 - Surcharge relocation & associated top-up works	122 days	01/09/17	31/12/17					
8	Section C - Area C3, HRSG & MSBU10 for Employer's Specialist	457 days	01/11/16	31/01/18					
9	Section D - Remaining of MSBU10, HRSG, A&A at L9 & L8, Ext. & Demolish Site Toilet	516 days	01/11/16	31/03/18					
10	Section D - CW Pump Equip. Rm No. 4	365 days	01/04/17	31/03/18					
11	Section E - Middle Rd & South of L10. Excavate & Construction New 275kV Trench at LMX	577 days	01/11/16	31/05/18					
12	Section F - Urea Storage & Handling Facilities	488 days	01/05/17	31/08/18					
13	Section G - Demin. Plant Road & No.3 Outfall	273 days	01/01/18	30/09/18					
14	Section G - Modification at No. 4 CW Intake	122 days	01/03/18	30/06/18					
15	Section H1 - Gas Support foundation & trench at Area C11	745 days	01/11/16	15/11/18					
16	Section H2 - GRS Improvement work at Area C10	441 days	01/09/17	15/11/18					
17	Section H3 - L10 Chimney Flue and A&A L9 & pipe rack formation	319 days	01/01/18	15/11/18					
18	Section I1 - Link Bridge & associated A&A	455 days	01/01/18	31/03/19					
19	Section I2 - Shunt Reactor SR4 Foundation	90 days	01/01/19	31/03/19					
20	Section I3 - All remaining work except deferred works	417 days	08/02/18	31/03/19					
21	Section J - Cable Route CPX1&2 cable diversion & whole of work except deferred works to be carried out in DLP	790 days	02/05/17	30/06/19					
22	Deferred works during DLP	336 days	01/07/19	31/05/20					
23	<b>General &amp; Preliminary</b>	<b>461 days</b>	<b>01/11/16</b>	<b>04/02/18</b>					
24	Set up Temporary Site Office and Utilities	30 days	01/11/16	30/11/16					
25	Full Mobilization	14 days	01/11/16	14/11/16					
26	Permit Applications & Statuary Submissions	45 days	08/11/16	22/12/16					
27	Existing Utilities scanning & Excavation Permit	45 days	01/11/16	15/12/16					
28	Foundation of Tower Crane Construction	7 days	15/12/16	21/12/16					
29	Tower Crane Erection	7 days	01/01/17	07/01/17					
30	Removal of Tower Crane (Including Foundation)	18 days	18/01/18	04/02/18					
31	L10 MSB External Scaffolding erection	145 days	29/04/17	20/09/17					
32	L10 MSB External Scaffolding Removal	30 days	19/12/17	17/01/18					
33	<b>Submission and Approval</b>	<b>450 days</b>	<b>01/11/16</b>	<b>24/01/18</b>					
34	Method Statement / Temp Work Submission & Approval from HEC for General Works	240 days	01/11/16	28/06/17					
35	BD Approval & Consent (If required)	90 days	01/12/16	28/02/17					
36	BIM Model, CSD & CBWD Submission & Approval from HEC	200 days	01/12/16	18/06/17					
37	Structure Steelwork Connection Design Submission & BD Approval	30 days	15/11/16	14/12/16					
38	Structure Steelwork Shop Drawing & Approval	30 days	15/11/16	14/12/16					
39	Metal Cladding, louvre & windows submission & BD Approval	60 days	15/11/16	13/01/17					
40	Metal Cladding, louvre & windows shop drawing submission	45 days	29/11/16	12/01/17					
41	Order, Off Site Fabrication and Delivery (S. Steel & Cladding & louvres)	180 days	13/01/17	11/07/17					
42	CW Culvert (Inlet) ELS BD approval & consent	90 days	01/12/16	28/02/17					
43	Submission & Approval of Steel Flue Assessment Report and Design Drawings	210 days	01/12/16	28/06/17					
44	Submission and Approval of Steel Flue Design from BD	60 days	29/06/17	27/08/17					
45	Material Fabrication & Delivery for L10 Flue	150 days	28/08/17	24/01/18					
46	Folding Shutters Shop Drawing Submission & Approval	45 days	01/12/16	14/01/17					
47	Fabrication & Delivery of Foldering Shutters	180 days	15/01/17	13/07/17					
48	Sewage Pump System Design submission & Approval	60 days	15/01/17	15/03/17					
49	Fabrication & Delivery of Sewage Pump	150 days	16/03/17	12/08/17					
50	Other Material Submission & Approval & Deliveries	240 days	15/01/17	11/09/17					
51	<b>Coordination with the Employer's Specialist Contractors</b>	<b>730 days</b>	<b>01/11/16</b>	<b>31/10/18</b>					
52	Puddle Pipes at C.W. Inlet and Outlet Culvert	0 days	07/01/17	07/01/17					
53	Template setting in at L10 Turbo Block Foundation	45 days	01/10/17	14/11/17					
54	Template setting of holding down bolts at HRSG Column Base	45 days	01/10/17	14/11/17					
55	I-beam/ Channel Base Installation on top of Transformer Foundations at Transformer Area	32 days	27/12/17	27/01/18					
56	Overhead Crane Erection at Turbine Hall using Access through a Temporary Opening at L10 MSB Roof between GL 10-G to 10-H and 10-2 and 10-6	38 days	12/12/17	18/01/18					
57	Condenser Assembly and Erection using Access through a Temporary Opening at L10 MSE below 1/F along GL 10-6 from GL 10-B to 10-C including a Clear Space below 1/F between GL 10-B to 10-C	89 days	01/02/18	30/04/18					



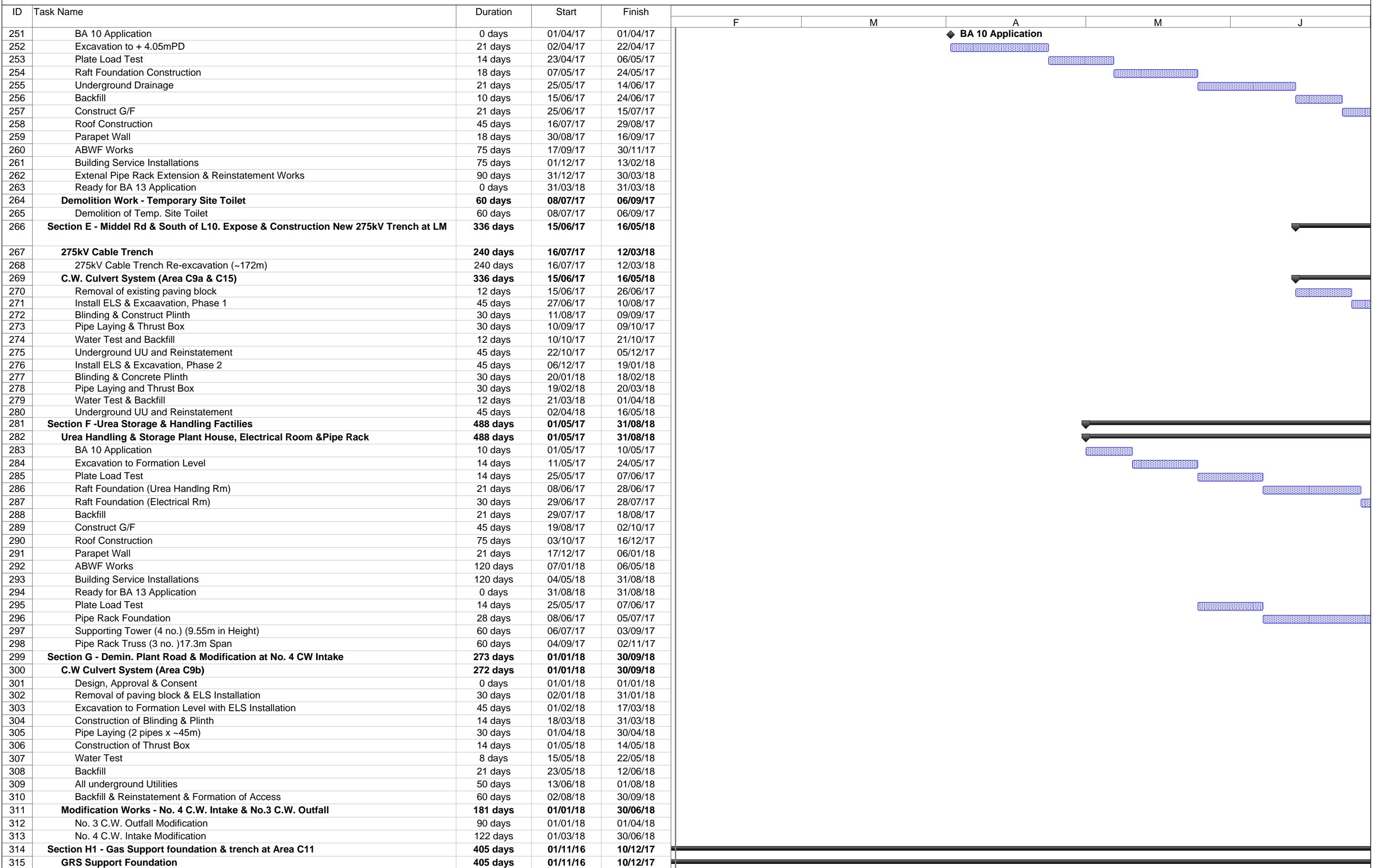
Contract No. 16/8002 Lamma Power Station Extension Civil and Building Unit L10



Contract No. 16/8002 Lamma Power Station Extension Civil and Building Unit L10



Contract No. 16/8002 Lamma Power Station Extension Civil and Building Unit L10



Contract No. 16/8002 Lamma Power Station Extension Civil and Building Unit L10



ID	Task Name	Duration	Start	Finish					
					F	M	A	M	J
368	Cable Trench Re-excavation	208 days	07/06/17	31/12/17					
369	Completion Date of Trench Excavation for Site Handover	0 days	31/12/17	31/12/17					
370	Tentative Period for Backfilling and Road Reinstatement (Excluding Joint Bay and Trench at Station Road)	91 days	01/04/18	30/06/18					
371	<b>Part II (630m in Length, 1.1m to 1.5m Deep) (Works in existing Trench)</b>	<b>485 days</b>	<b>01/11/17</b>	<b>28/02/19</b>					
372	Tentative Commencement Date Of Civil Works	0 days	01/11/17	01/11/17					
373	Implementation of TTA	7 days	01/11/17	07/11/17					
374	Remove the Concrete Road Cover	32 days	08/11/17	09/12/17					
375	Trench Excavation and Installation of Road Decking at Joint Bay (Including Part I & II)	90 days	25/11/17	22/02/18					
376	Cable Trench Re-excavation	190 days	23/02/18	31/08/18					
377	Completion Date of Trench Excavation for Site Handover	0 days	31/08/18	31/08/18					
378	Tentative Period for Backfilling and Road Reinstatement (Including Joint Bay at Part I, but excluding Joint Bay SJ3)	90 days	01/12/18	28/02/19					
379	<b>Part III (400m in Length, 1.3m to 1.5m Deep) (Works in New Trench)</b>	<b>518 days</b>	<b>01/07/18</b>	<b>30/11/19</b>					
380	Tentative Commencement Date Of Civil Works	0 days	01/07/18	01/07/18					
381	Implementation of TTA	7 days	01/07/18	07/07/18					
382	Remove the Concrete Road Cover	30 days	08/07/18	06/08/18					
383	Cable Trench Excavation with shoring	270 days	07/08/18	03/05/19					
384	Construction of New Joint Bay	28 days	04/05/19	31/05/19					
385	Completion Date of Trench Excavation for Site Handover	0 days	31/05/19	31/05/19					
386	Tentative Period for Backfilling and Road Reinstatement (excluding new slab but including SJ3)	91 days	01/09/19	30/11/19					
387	<b>Part IV (Hand Dig Tunnel)</b>	<b>701 days</b>	<b>01/07/18</b>	<b>31/05/20</b>					
388	Tentative Commencement Date Of Civil Works	0 days	01/07/18	01/07/18					
389	Excavation to Approx. +5mPD	30 days	01/07/18	30/07/18					
390	Existing Drainage Diversion	50 days	31/07/18	18/09/18					
391	Construction of New Cable Joint Bay	30 days	19/09/18	18/10/18					
392	Ramp Trench	75 days	19/10/18	01/01/19					
393	Formation of Temp. Cable Pit	45 days	02/01/19	15/02/19					
394	Hand Dig Tunel (17.6m) (0.2~0.3m/day)	75 days	16/02/19	01/05/19					
395	Excavation for Duct Bank Construction	60 days	02/05/19	30/06/19					
396	Completion Date of Trench Excavation for Site Handover	0 days	30/06/19	30/06/19					
397	<b>Deferred Works - Cable Diversion CPX1 and CPX2 (during DLP)</b>	<b>274 days</b>	<b>01/09/19</b>	<b>31/05/20</b>					
398	Formation of Wall Opening between existing trench CPX1 and new Joint Bay	7 days	01/09/19	07/09/19					
399	Breaking up for Road Paving and Excavation down to Cable Tiles of Existing Trench CPX2	31 days	01/12/19	31/12/19					
400	Demolition of Existing Trench CPX1 and CPX2	30 days	01/04/20	30/04/20					
401	Final Reinstatement of the CPX1 and CPX2 Areas	31 days	01/05/20	31/05/20					
402	<b>Deferred Works - Shunt Reactor Compound SR4 (during DLP)</b>	<b>153 days</b>	<b>01/07/19</b>	<b>30/11/19</b>					
403	Trench Re-excavation and Cable Supports Installation for Shunt Reactor Compound SR4	62 days	01/07/19	31/08/19					
404	Backfilling and Road Re-instatement of Shunt Reactor SR4 and Associated Trench	30 days	01/11/19	30/11/19					

## SUNLEY ENGINEERING &amp; CONSTRUCTION CO., LTD.

Contract No. 16/8015 - Lamma Power Station Extension Foundation Works for Unit L11Master Programme

ID	Task Name	Duration	Start	Finish	2017年			2018年
					M4	M5	M6	
1	<b>Key Date</b>							
2	Commencement date	455 days	2016/12/21	2018/3/20				
3	Duration of works	0 days	2016/12/21	2016/12/21				
4	Site possession date	455 days	2016/12/21	2018/3/20				
5	Completion of the Contract	0 days	2016/12/21	2016/12/21				
6		0 days	2018/3/20	2018/3/20				
7	<b>Submission &amp; Works Commenced Before the Contract</b>							
8	<b>Preliminaries</b>							
9	Coordination with utility companies	231 days	2016/11/14	2017/7/2				
10	Condition survey	75 days	2016/11/14	2017/1/27				
11	Notification of commencement of works to Labour Department	14 days	2016/12/14	2016/12/27				
12	Notification of air pollution control for commencement of works to EPD	1 day	2016/12/14	2016/12/14				
13	Application of water discharge licence from EPD	1 day	2016/12/19	2016/12/19				
14	Application for billing account for disposal of construction waste from EPD	14 days	2016/12/12	2016/12/25				
15	CCTV for existing underground drainage pipe around site boundary	7 days	2016/12/12	2016/12/18				
16	Erection of contractor's site office	12 days	2017/1/16	2017/1/27				
17	Installation of monitoring checkpoints	21 days	2016/12/14	2017/1/3				
18	Submission of BA10 for foundation works	2 days	2016/12/13	2016/12/14				
19	Submission of BA10 for foundation works	0 days	2016/11/14	2016/11/14				
20	<b>Predrilling Works</b>							
21	Drilling rigs mobilization (6 rigs)	51 days	2016/11/23	2017/1/12				
22	Predrilling works	1 day	2016/12/22	2016/12/22				
23	Submission of predrill logs	31 days	2016/11/23	2016/12/23				
24	Completion of predrilling works	16 days	2016/12/28	2017/1/12				
25		0 days	2017/1/12	2017/1/12				
26	<b>Plant Mobilization for Bored Pile Construction</b>							
27	<b>Crawler Crane</b>							
28	1st & 2nd set	207 days	2016/12/8	2017/7/2				
29	3rd & 4th set	86 days	2016/12/8	2017/3/3				
30	5th & 6th set	1 day	2016/12/8	2016/12/8				
31	<b>Oscillator</b>							
32	1st & 2nd set	7 days	2017/1/6	2017/1/6				
33	3rd & 4th set	206 days	2016/12/9	2017/7/2				
34	5th set	2 days	2017/1/7	2017/1/8				
35	6th set	7 days	2017/3/4	2017/3/10				
36	<b>RCD</b>							
37	1st & 2nd set	7 days	2017/1/7	2017/1/13				
38	3rd & 4th set	84 days	2016/12/9	2017/3/31				
39	5th & 6th set ( Optional if necessary )	7 days	2017/1/21	2017/1/27				
40	Completion of plant mobilization for bored pile construction	7 days	2017/3/25	2017/3/31				
41		0 days	2017/3/31	2017/3/31				
42	<b>Delivery of Temporary Steel Casing for Bored Pile Construction</b>							
43	Duration for delivery of temporary steel casing	192 days	2016/12/21	2017/6/30				
44	Completion of delivery of temporary steel casing for bored pile construction	192 days	2016/12/21	2017/6/30				
45		0 days	2017/6/30	2017/6/30				
46	<b>Total Contract Period</b>							
47		455 days	2016/12/21	2018/3/20				
48	<b>Section A</b>							
49	<b>Delivery of Permanent Casing &amp; Double Wall Liner</b>	315 days	2016/12/21	2017/10/31				
50	Testing for double wall liner (subject to HEC's request)	270 days	2016/12/21	2017/9/16				
		45 days	2016/12/21	2017/2/3				
Master Programme MP-03 ( 14 Jan 2017 )		Task	Critical Task	Milestone	◆	Summary	▼	

## SUNLEY ENGINEERING &amp; CONSTRUCTION CO., LTD.

## Contract No. 16/8015 - Lamma Power Station Extension Foundation Works for Unit L11

## Master Programme

ID	Task Name	Duration	Start	Finish	2017年			2018年	
					M4	M5	M6		
51	Duration for delivery of permanent casing & double wall liner	240 days	2017/1/20	2017/9/16					
52	Bored Pile Construction (22 piles)	315 days	2016/12/21	2017/10/31					
53	1st set - G2 > G1 > G4 > G3 (1 crane operator, 1 oscillator operator, 1 RCD operator, 4 riggers & 2 welders)	186 days	2016/12/21	2017/6/24					
54	G2	45 days	2016/12/21	2017/2/3					
55	G1	46 days	2017/2/4	2017/3/21					
56	G4	50 days	2017/3/22	2017/5/10					
57	G3	45 days	2017/5/11	2017/6/24					
58	2nd set - G7 > G5 > G6 > BP26 > BP20 > BP23 (1 crane operator, 1 oscillator operator, 1 RCD operator, 4 riggers & 2 welders)	283 days	2016/12/21	2017/9/29					
59	G7	45 days	2016/12/21	2017/2/3					
60	G6	43 days	2017/2/4	2017/3/18					
61	G5	48 days	2017/3/19	2017/5/5					
62	BP26	46 days	2017/5/6	2017/6/20					
63	BP20 (required after 1 July 17)	44 days	2017/7/3	2017/8/15					
64	BP23 (required after 1 July 17)	45 days	2017/8/16	2017/9/29					
65	3rd set - BP5 > BP1 > BP13 > BP9 > BP17 (1 crane operator, 1 oscillator operator, 2 RCD operators, 4 riggers & 2 welders)	135 days	2017/1/9	2017/5/23					
66	BP5	45 days	2017/1/9	2017/2/22					
67	BP1	50 days	2017/1/27	2017/3/17					
68	BP13	45 days	2017/2/23	2017/4/8					
69	BP9	50 days	2017/3/18	2017/5/6					
70	BP17	45 days	2017/4/9	2017/5/23					
71	4th set - G10 > G8 > G9 (1 crane operator, 1 oscillator operator, 1 RCD operator, 4 riggers & 2 welders)	136 days	2017/1/16	2017/5/31					
72	G10	45 days	2017/1/16	2017/3/1					
73	G8	45 days	2017/3/2	2017/4/15					
74	G9	46 days	2017/4/16	2017/5/31					
75	5th set - BP8 > BP4 (1 crane operator, 1 oscillator operator, 1 RCD operator, 4 riggers & 2 welders)	85 days	2017/7/3	2017/9/25					
76	BP8 (required after 1 July 17)	41 days	2017/7/3	2017/8/12					
77	BP4 (required after 1 July 17)	43 days	2017/8/14	2017/9/25					
78	6th set - BP12 > BP16 (1 crane operator, 1 oscillator operator, 1 RCD operator, 4 riggers & 2 welders)	87 days	2017/7/3	2017/9/27					
79	BP12 (required after 1 July 17)	46 days	2017/7/3	2017/8/17					
80	BP16 (required after 1 July 17)	41 days	2017/8/18	2017/9/27					
81	Interface & sonic test	30 days	2017/9/7	2017/10/6					
82	Prepare & submit as-built record plan	7 days	2017/9/30	2017/10/6					
83	Submission of BA14	1 day	2017/10/7	2017/10/7					
84	Allow 14 days for selection of pile for concrete full core test	14 days	2017/10/8	2017/10/21					
85	Concrete full core test	10 days	2017/10/22	2017/10/31					
86	Completion of bored pile construction	0 days	2017/10/31	2017/10/31					
87	Sheet Pile	163 days	2017/5/22	2017/10/31					
88	Plant mobilization (1 rig) (1 operator, 4 riggers & 4 welders)	7 days	2017/8/13	2017/8/19					
89	Delivery of sheet pile material	90 days	2017/5/22	2017/8/19					
90	Installation of sheet pile - Type B (approx. 80 piles)	65 days	2017/8/20	2017/10/23					
91	Prepare & submit as-built record plan	7 days	2017/10/24	2017/10/30					
92	Submission of BA14	1 day	2017/10/31	2017/10/31					
93	Completion of sheet pile	0 days	2017/10/31	2017/10/31					
94	Completion of section A	0 days	2017/10/31	2017/10/31					

Master Programme  
MP-03 ( 14 Jan 2017 )

Task



Critical Task



Milestone



Summary



## SUNLEY ENGINEERING &amp; CONSTRUCTION CO., LTD.

## Contract No. 16/8015 - Lamma Power Station Extension Foundation Works for Unit L11

## Master Programme

ID	Task Name	Duration	Start	Finish	2017年			2018年
					M4	M5	M6	
95								
96	Section B							
97	Delivery of Permanent Casing & Double Wall Liner	455 days	2016/12/21	2018/3/20				
98	Testing for double wall liner (subject to HEC's request)	390 days	2016/12/21	2018/1/14				
99	Duration for delivery of permanent casing & double wall liner	45 days	2016/12/21	2017/2/3				
100	Bored Pile Construction (16 piles)	305 days	2017/3/16	2018/1/14				
101	1st set - BP21 > BP22 > BP18 > BP19 > BP15 (1 crane operator, 1 oscillator operator, 1 RCD operator, 4 riggers & 2 welders)	373 days	2017/3/13	2018/3/20				
102	BP21	227 days	2017/6/25	2018/2/6				
103	BP22	46 days	2017/6/25	2017/8/9				
104	BP18	45 days	2017/8/10	2017/9/23				
105	BP19	45 days	2017/9/25	2017/11/8				
106	BP15	45 days	2017/11/9	2017/12/23				
107	3rd set - BP14 > BP11 > BP29 > BP6 > BP7 (1 crane operator, 1 oscillator operator, 2 RCD operators, 4 riggers & 2 welders)	137 days	2017/5/7	2017/9/20				
108	BP14	46 days	2017/5/7	2017/6/21				
109	BP11	45 days	2017/5/24	2017/7/7				
110	BP29	45 days	2017/6/22	2017/8/5				
111	BP6	45 days	2017/7/8	2017/8/21				
112	BP7	46 days	2017/8/6	2017/9/20				
113	4th set - BP27 > BP28 > BP25 > BP24 (1 crane operator, 1 oscillator operator, 1 RCD operator, 4 riggers & 2 welders)	182 days	2017/6/1	2017/11/29				
114	BP27	45 days	2017/6/1	2017/7/15				
115	BP28	46 days	2017/7/16	2017/8/30				
116	BP25	45 days	2017/8/31	2017/10/14				
117	BP24	46 days	2017/10/15	2017/11/29				
118	5th set - BP10 > BP3 (1 crane operator, 1 oscillator operator, 1 RCD operator, 4 riggers & 2 welders)	94 days	2017/3/13	2017/6/14				
119	BP10	45 days	2017/3/13	2017/4/26				
120	BP3	44 days	2017/5/2	2017/6/14				
121	Interface & sonic test	30 days	2018/1/18	2018/2/16				
122	Prepare & submit as-built record plan	7 days	2018/2/17	2018/2/23				
123	Submission of BA14	1 day	2018/2/24	2018/2/24				
124	Allow 14 days for selection of pile for concrete full core test	14 days	2018/2/25	2018/3/10				
125	Concrete full core test	10 days	2018/3/11	2018/3/20				
126	Completion of bored pile construction	0 days	2018/3/20	2018/3/20				
127	Sheet Pile	235 days	2017/7/10	2018/3/1				
128	Delivery of sheet pile material	90 days	2017/7/10	2017/10/7				
129	Installation of sheet pile - Type A (approx. 192 piles) (1 rig mobilized after completion of sheet pile of Type B) (1 operator, 4 riggers & 4 welders)	45 days	2017/10/24	2017/12/7				
130	Installation of sheet pile - Type C (approx. 325 piles) (1 rig mobilized after completion of sheet pile of Type A) (1 operator, 4 riggers & 4 welders)	76 days	2017/12/8	2018/2/21				
131	Prepare & submit as-built record plan	7 days	2018/2/22	2018/2/28				
132	Submission of BA14	1 day	2018/3/1	2018/3/1				
133	Completion of sheet pile	0 days	2018/3/1	2018/3/1				
134	Completion of section B	0 days	2018/3/20	2018/3/20				
135								
136	Contract completion	0 days	2018/3/20	2018/3/20				

Master Programme  
MP-03 ( 14 Jan 2017 )

Task

Critical Task

Milestone

Summary