

SUNLEY ENGINEERING & CONSTRUCTION CO., LTD.

**Contract No. 15/8009 - Lamma Power Station Extension Foundation Works for Unit L10**

**Master Programme Revision 1**

ID	Item	Task Name	Duration	Start	Finish	2016年		
						M9	M10	M11
						9月	10月	11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		<b>2.1 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		<b>2.2 Section A</b>	<b>305 days</b>	<b>2016/1/1</b>	<b>2016/10/31</b>			
24		<b>2.2.1 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		<b>2.2.2 Foundation Works at Unit L10</b>	<b>295 days</b>	<b>2016/1/11</b>	<b>2016/10/31</b>			
27		<b>2.2.2.1 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		<b>2.2.2.2 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		<b>2.2.2.3 Bored Pile - Plant Mobilization</b>	<b>56 days</b>	<b>2016/1/15</b>	<b>2016/3/11</b>			
33		<b>2.2.2.3.1 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		<b>2.2.2.3.2 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		<b>2.2.2.3.3 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		<b>2.2.2.4 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		<b>2.2.2.5 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			

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Task  Critical Task  Milestone  Summary 

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						M9 9月	M10 10月	M11 11月
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	<b>2.5.2.4.1</b>	<b>Crawler Crane</b>	<b>0 days</b>	<b>2016/10/1</b>	<b>2016/10/1</b>			
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>			

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						M9 9月	M10 10月	M11 11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	Reloaction 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			

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