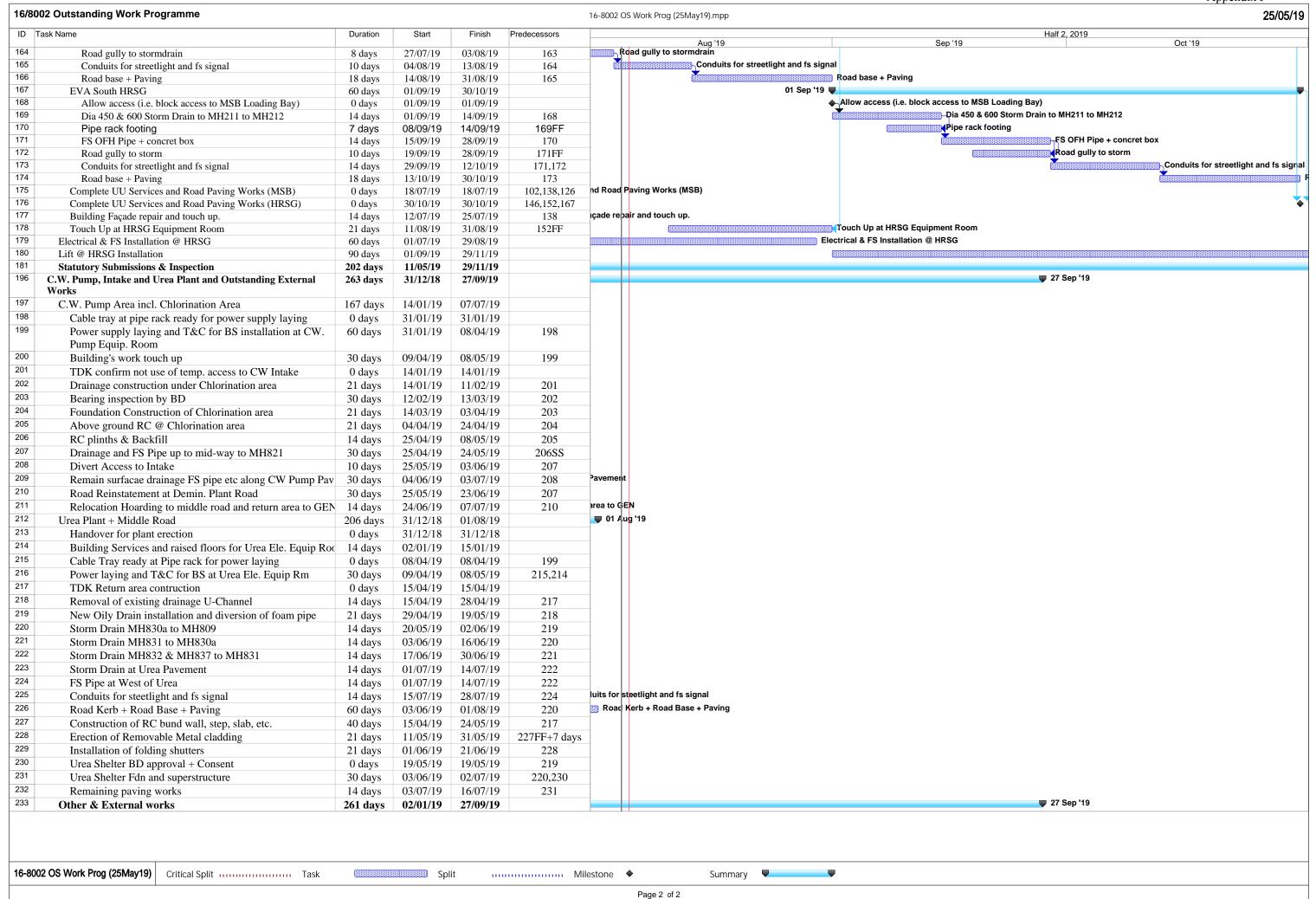


Appendix J





N.I.	Description		2019	
No.	Description	Aug		Oct
	Erection Key Date			
	HRSG PORTION			
<b>A</b> A-01	Install Casing (Bottom/Side/Top) with Structure			
A-01	mstair Casing (Bottom/Side/Top) with Structure			
A-02	Upper/Lower Connection Pipe			
A-03	Module Install (Bundle Tube Block)			
A-04	Down Commer Pipe			
	·			
A-05	Drum Lifting / HDR Level Adjustment			
A-06	Critical Piping/connecting piping (Main Steam, Aux, R/H, HP/LP Feed Water)			
A-07	Other piping			
A-08	Access Platform / Hand Rail	_		
A-09	Inside Baffle Plate & Seismic Tie Adjust / Setting	_		
A-10	SCR System			



			2019	
No.	Description	Aug	Sep	
	Erection Key Date		•	
	Inlat Duet Otrockure / Instude Dies Deels (I IO I I I I			
A-11	Inlet Duct Structure / Include Pipe Rack (U9-U10 Connection)			
A-12	Inlet Duct			
A-13	Exhaust Duct Structure			
A-14	Exhaust Duct			
	Aux Equip(B/D Tank, HP/IP Feed Water Pump, LP Eco			
A-15	Recirculation Pump, etc.)			
	HP/IP Feed Water Pump			
	Reserve feed water Tank			
A-16	Insulation			
A-10	Insulation			
A-17	Painting			
A-18	Install Catalyst			
A 40				
A-19	Steam Blowing out(other scope) & alkaline boiling out			



No.	Description	Λ	2019	Oct
		Aug	Sep	Oct
	Erection Key Date			
	Installation of Temporary piping, Support & Silencer			
	Excection of Steam blowing out			
	Dismantle of Temporary iping, Support & Silencer			
	Excection of Steam boiling out			
В	GT/ST/GEN PORTION			
B-1	Turbine O/H Crane			
B-2	Condenser			
B-3	Install ST			
		Lu		
		Insta	III	
		Final		
I	ı	1		



No.	Description		2019 Sep	
		Aug	Sep	Oct
	Erection Key Date			
B-4	Install GEN			
D 5	Leat II OT			
B-5	Install GT			
I				



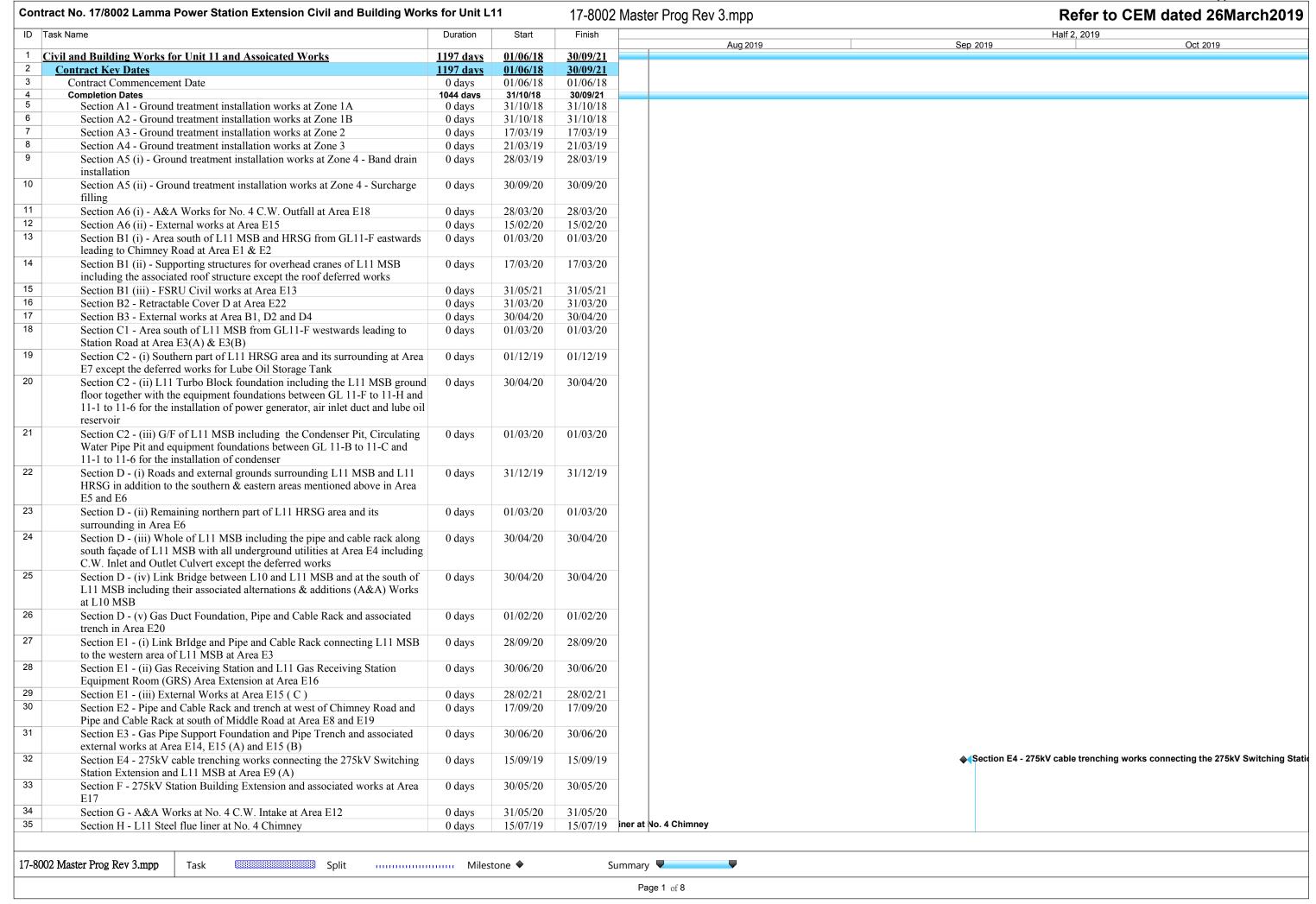
No. Description  Erection Key Date  B-6 Aux Equipment	Au	2019 g Sep	Oct
Erection Key Date	Au	у Бер	Oct
B-6 Aux Equipment			
7 tax Equipment			
B-7 Insulation			
De intin a			+
B-8 Painting			
B-9 Switchgear/Hoist/Hoist for condenser			
2			



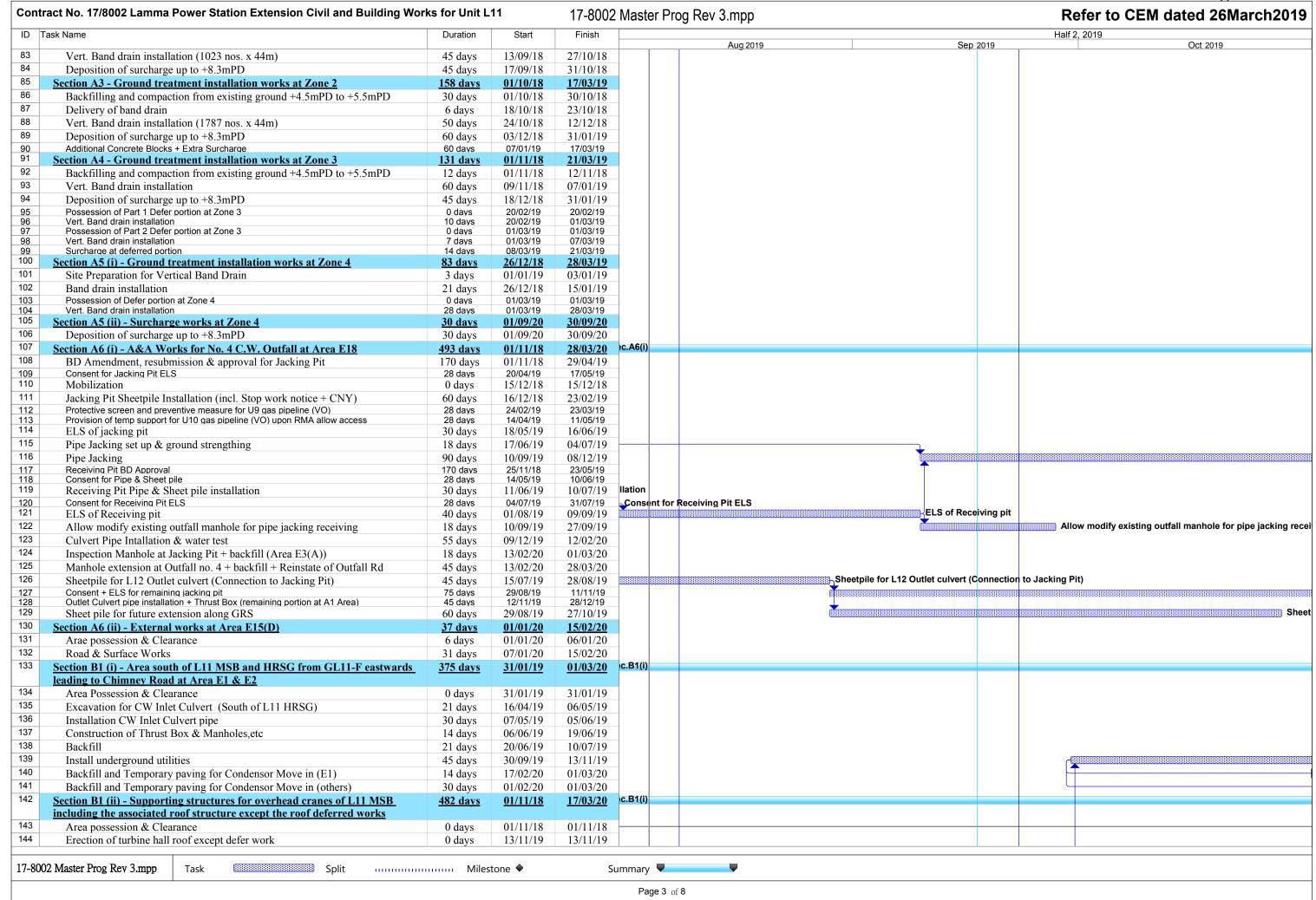
No	Description		2019	
No.	Description	Aug	Sep	Oct
	Erection Key Date			
С	ERECTRICAL & INSTRUMENTATION PORTION			
C-1	Transformer & Ancillaries (G Tx, U Tx, Ex Tx, SFC Tx)			
C-2	EQUIPMENT INSTALLATION			
	Generator & Ancillaries			
	Isolated Phase Busducts			
	Switchgear and Accessories			
	UPS, Batterys, Battery Charger System & DBs			
	Electrical Panels & Local Control Panels			
	Control Systems, Control Panels, Local Instrument Cubicle & Rack			
	Channel Base Installation			
C-3	CABLING SYSTEM INSTALLATION			
	Cable Ladder / Tray Installation			
	Conduit Pipe Installation			
	Earthing Installation			
	Cable Laying & Termination			
	Fire Resistant Sealing			
	Cable Trench Opening & Transportation			

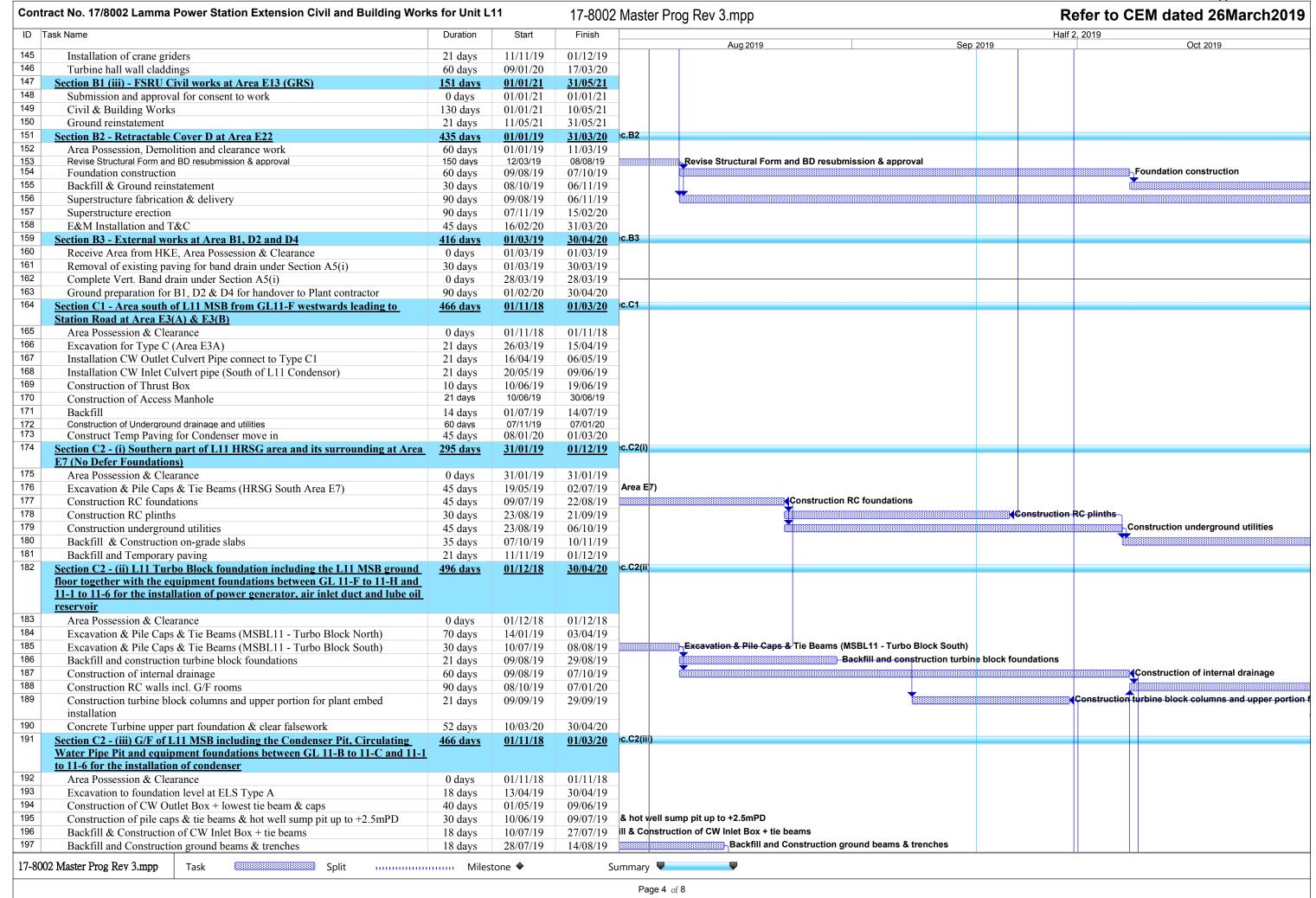


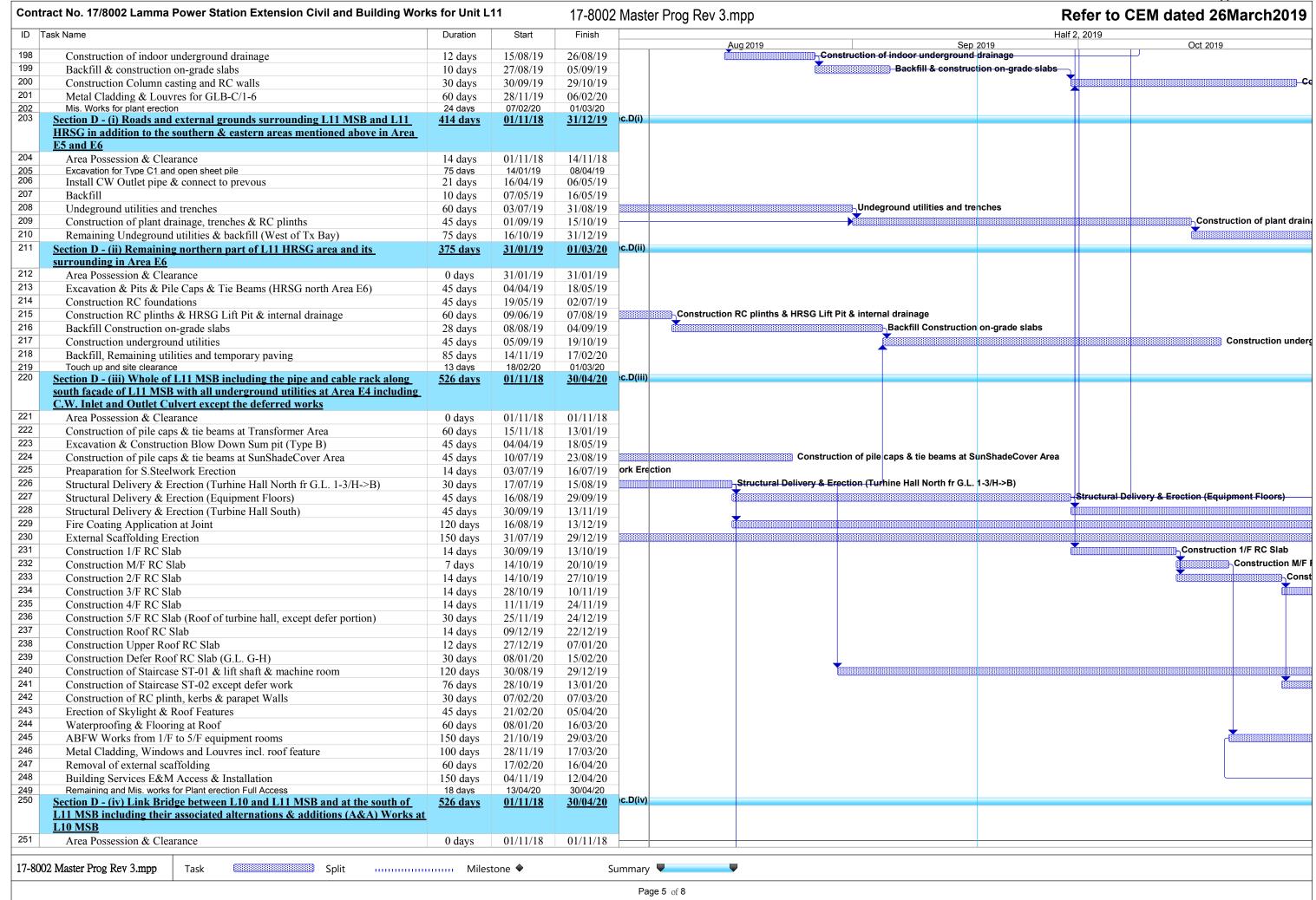
No.	Description		2019	
INU.		Aug	Sep	Oct
	Erection Key Date			
C-4	INSTRUMENTS, INSTR. PIPINGS & AIR TUBE			
	interreductive, interrest in integration rest.			
	Local Instruments, Piping & Tubing			
	Instrument Calibration			
	The state of the s			
C-5	OTHER WORK			
	275kV Shunt Reactor Relocation			
	Turbine Overhead Crane, Hoist, Battery Power Supply			
	Existing CWP etc.			
	BOP & Other Works			
	Site Cleaning			
C-6	TESTING & COMMISSIONING			
	Testing & Commissioning			
	Commissioning Assistant			

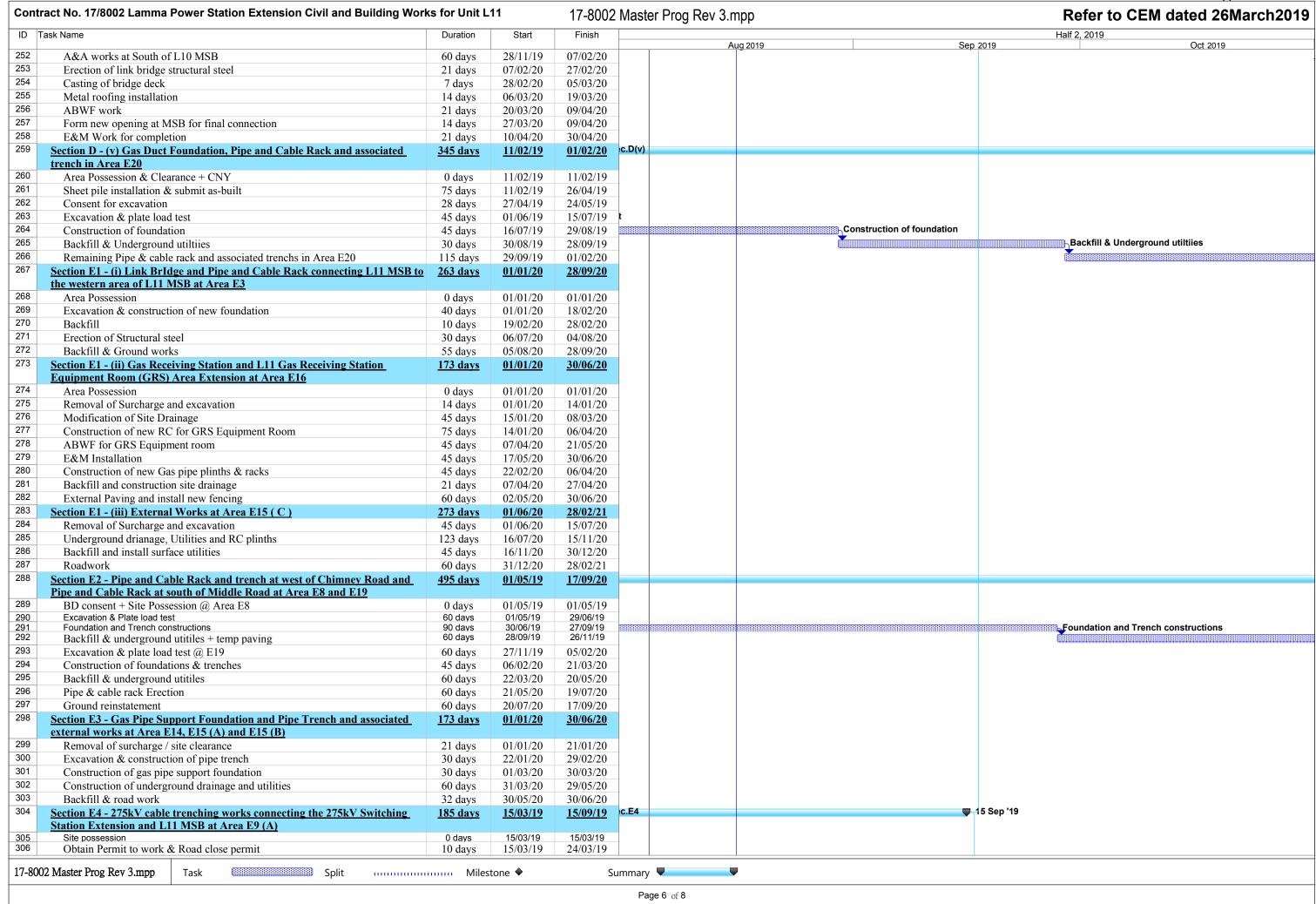


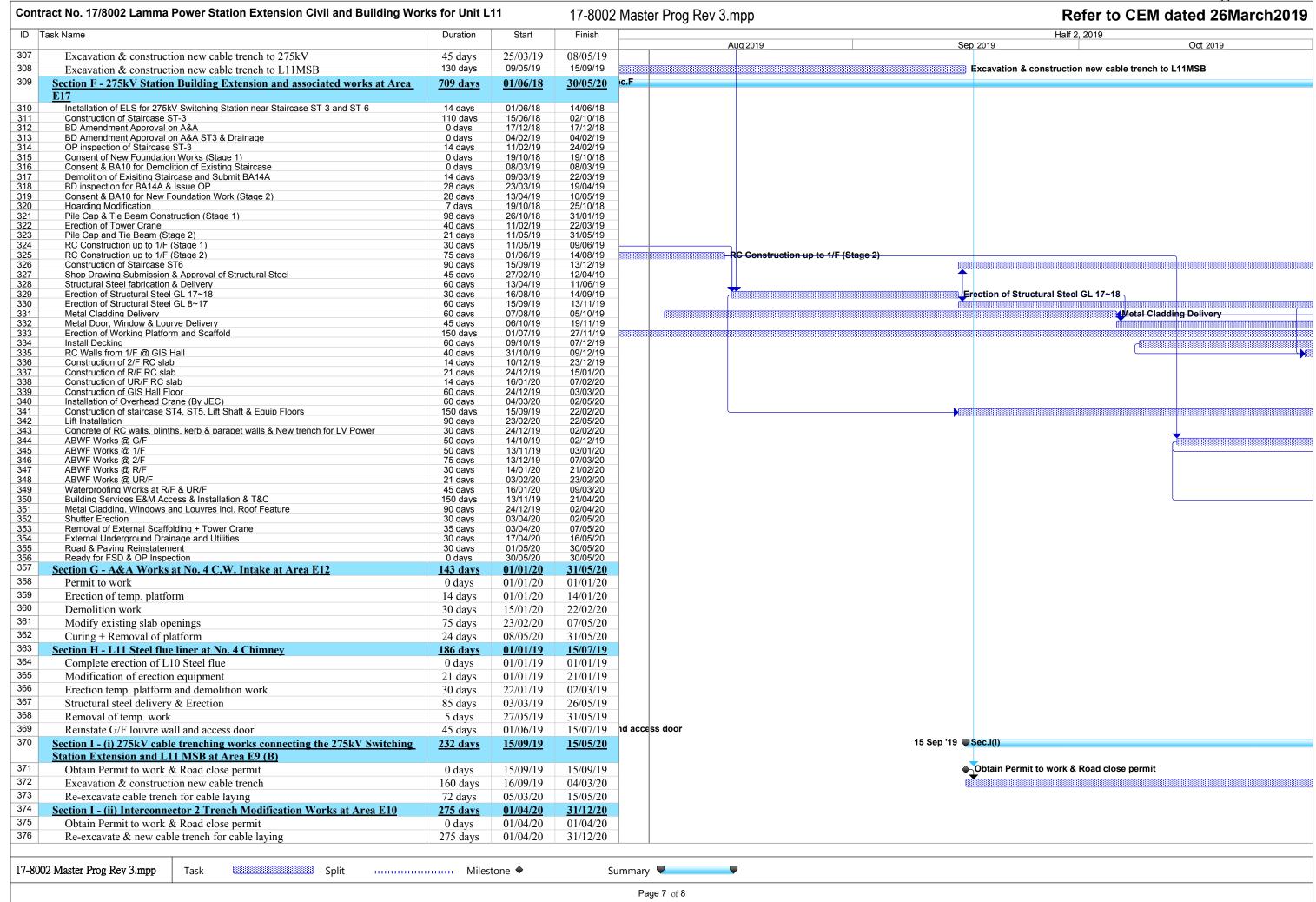
ID 36	Task Name	DC.			
36		Duration	Start	Finish	Half 2, 2019
ì	Section I - (i) 275kV cable trenching works connecting the 275kV Switching	0 days	15/05/20	15/05/20	Aug 2019 Sep 2019 Oct 2019
1	Station Extension and L11 MSB at Area E9 (B)	o unjo	10,00,20	10,00,20	
37	Section I - (ii) Interconnector 2 Trench Modification Works at Area E10	0 days	15/05/20	15/05/20	
38	Section J - (i) Demolition of Retractable Cover A&B & (ii) Foundation of	0 days	30/04/21	30/04/21	
	LMX Light Oil Storage Tank Nos. 3 & 4 and A&A for Existing Bund Wall at				
39	Section K1 - External works at Area 15 (E) and 15(F)	0 days	31/05/21	31/05/21	
40	Section K2 - Removal of Southern Bund and External Works at Area D5, D6	0 days	31/05/21	31/05/21	
	and D7		- 0 / 0 0 / - 1		
41	Section K3 - All remaining works shall be completed for reporting	0 days	30/09/21	30/09/21	
42	completion to BD and ready for OP inspection	210 days	01/07/10	24/04/10	
43	General & Preliminary Set up Temporary Site Office and Utilities	<b>318 days</b> 90 days	01/06/18 01/06/18	<b>24/04/19</b> 29/08/18	
44	Permit Applications & Statuary Submissions	120 days	30/08/18	27/12/18	
45	Existing Utilities scanning & Excavation Permit	45 days	13/11/18	27/12/18	
46	Tower Crane erection 2@MSB, 1@ 275	50 days	06/03/19	24/04/19	
47	Submission and Approval	554 days	01/06/18	16/12/19	
48		240 days	01/06/18	26/01/19	
ļ	Works	<i>J</i> ~			
49	BD Approval & Consent (If required)	120 days	01/06/18	28/09/18	
50	BIM Model, CSD & CBWD Submission & Approval from HEC	200 days	29/09/18	26/04/19	
51	Structure Steelwork Connection Design Submission & BD Approval	60 days	29/09/18	27/11/18	
52	Structure Steelwork Shop Drawing & Approval	60 days	13/10/18	11/12/18	
53	Metal Cladding, louvre & windows submission & BD Approval	60 days	28/11/18	26/01/19	
54	Metal Cladding, louvre & windows shop drawing submission	60 days	12/12/18	19/02/19	
55	Order, Off Site Fabrication and Delivery (S. Steel & Cladding & louvres)	180 days	27/10/18	04/05/19	
56	Retractable Cover D BD Submission & Approval	90 days	20/02/19	20/05/19	
57	No. 4 C.W. Outfall A&A BD 1st Submission	90 days	30/08/18	27/11/18	
58	Sumission & Approval of Steel Flue Assessment Report and Design Drawings	60 days	30/09/18	28/11/18	
<b>F</b> 0		60.1	20/00/10	20/11/10	
59 60	Submission and Approval of Steel Flue Design from BD	60 days	30/09/18	28/11/18	
61	Material Fabrication & Delivery for L11 Flue	100 days	15/10/18 20/02/19	22/01/19 19/06/19	
62	Folding Shutters Shop Drawing Submission & Approval Fabrication & Delivery of Folding Shutters	120 days 150 days	20/02/19	16/11/19	
63	Sewage Pump System Design submission & approval	90 days	20/00/19	19/06/19	
64	Fabrication & Delivery of Sewage Pump	180 days	20/06/19	16/12/19	
65	Other material submission & approval & delivery	300 days	30/08/18	05/07/19	
66	Coordination with the Employer's Specialist Contractors	478 days	20/05/19	19/09/20	
67	Installation of Puddle Pipes at C.W. outlet Culvert	7 days	20/05/19	26/05/19	
68	Installation of Puddle Pipes at C.W. Inlet Culvert	7 days	07/07/19		C.W. In et Culvert
69	Template setting at L11 Turbo Block Foundation	60 days	01/01/20	09/03/20	
70	Template setting of holding down bolts at HRSG column base	46 days	23/07/19	06/09/19	Template setting of holding down bolts at HRSG column base
71	I-beam / channel base installation on top of transformer foundations at	30 days	17/04/20	16/05/20	
	Transformer Area	-			
72	Overhead crane erection at turbine hall using access through a temporary	36 days	01/12/19	07/01/20	
	opening at L11 MSB roof between GL11-G to 11-H and 11-2 to 11-6	105 :	04 /02 :	0 = 10 = 10 =	
73	Condenser assembly and erection using access through a temporary façade	127 days	01/03/20	05/07/20	
ļ	opening at L11 MSB below 1/F along GL 11-6 from GL11-B to 11-C including				
74	a clear space below 1/F between GL 11-B to 11-C  Installation of power train equipment including air inlet duct using access	142 days	01/05/20	19/09/20	
, -	through a temporary façade opening at L11 MSB below 1/F along GL 11-6 from	142 uays	01/03/20	17/07/20	
ļ	GL11-F to 11-H including a clear space below 1/F of the above area				
75	Installation of embedded materials such as holding down bolts for equipment	30 days	23/06/19	22/07/19	mbedded materials such as holding down bolts for equipment foundations - Commencement
ļ	foundations - Commencement	<del></del> j =			
76	Section A1 & A2 - Ground treatment at Zone 1A & 1B	<u>92 days</u>	01/08/18	31/10/18	
77	Plant establishment for earthworks	7 days	01/08/18	07/08/18	
78	Backfilling and compaction from existing ground +4.5mPD to +5.5mPD	45 days	08/08/18	21/09/18	
79	Delivery of band drain	5 days	29/08/18	02/09/18	
80	Plant establishment for band drain (1st rig)	10 days	03/09/18	12/09/18	
81	Plant establishment for band drain (2nd rig)	7 days	20/09/18	26/09/18	
82	Plant establishment for band drain (3rd rig)	7 days	11/10/18	17/10/18	
17-80	02 Master Prog Rev 3.mpp Task Split Split	Miles	tone 🔷	Si	ummary ————————————————————————————————————
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ID	ask Name	Duration	Start	Finish		Aug 2019		Sep 2019	Half 2, 2019	Oct 2019
77	Section J - (i) Demolition of Retractable Cover A&B & (ii) Construction of	426 days	01/03/20	30/04/21		7.009 20.10	1	ООР 20.10	'	00, 20.0
	new LOT 3 & 4									
'8	Obtain permit to work & Road close permit	0 days	01/03/20	01/03/20						
9	Erection of Hoarding	21 days	01/03/20	21/03/20						
)	Removal of existing cover & structural steel	30 days	22/03/20	20/04/20						
1	Demolish of existing bund wall and staircases	45 days	21/04/20	04/06/20						
2	Demolish of existing slab & foundation	60 days	05/06/20	03/08/20						
3	Consent for new work	30 days	04/08/20	02/09/20						
4	Construction of new bund wall and foundation	100 days	03/09/20	11/12/20						
5	Construction of new oil separator	80 days	23/09/20	11/12/20						
3	Construct underground drainage and surface channel	40 days	12/12/20	20/01/21						
7	Construction on-grade slab	60 days	21/01/21	21/03/21						
8	Removal of hoarding and ground reinstatement	40 days	22/03/21	30/04/21						
9	Section K1 - External works at Area 15 (E) and 15(F)	365 days	01/06/20	31/05/21						
)	Removal of surcharge	30 days	01/06/20	30/06/20						
1	Construct new drainage and utilities work	200 days	01/07/20	16/01/21						
2	Road & Paving	135 days	17/01/21	31/05/21						
3	Section K2 - Removal of Southern Bund and External Works at Area D5, D6	365 days	01/06/20	31/05/21						
	and D7									
1	Demolition work	30 days	01/06/20	30/06/20						
5	Construct new drainage and utilities work	200 days	01/07/20	16/01/21						
6	Road & Paving	135 days	17/01/21	31/05/21						
7	Section K3 - All remaining works shall be completed for reporting completion	623 days	08/01/20	30/09/21						
	to BD and ready for OP inspection (PS1.4.4)									
3	Completion of remaining roof after over headcrane move in	30 days	08/01/20	15/02/20						
9	Construction of G/F Lube Oil Tank Room (BY TDK)	61 days	06/10/20	05/12/20						
0	Construction of wall and staircase at G/F after Condensor Move in	90 days	06/07/20	03/10/20						
1	Construction of Durasteel Steel wall panel after IBP installation	30 days	20/09/20	19/10/20						
2	Construction of Transformer fence wall, cladding & associated FS services	122 days	01/09/20	31/12/20						
3	Final restatement of road & paving around MSB & HRSG	122 days	01/09/20	31/12/20						
1	Installation of trench covers and gratings after plant installation	151 days	01/10/20	28/02/21						
5	Backfill and reinstatement after 275kV cable laying	122 days	01/06/21	30/09/21						

#### Appendix J SUNLEY ENGINEERING & CONSTRUCTION CO., LTD. Contract No. 18/8004 - Lamma Power Station Extension Foundation Works for Unit L12 **Master Programme** Finish ID Task Name Duration Start 2020年 八月 九月 十月 Key Date 416 days 3月12日星期二 4月30日星期四 3月12日星期二 3月12日星期二 Commencement date 0 days Duration of works 3月12日星期二 4月30日星期四 4 Site possession date 0 days 3月12日星期二 3月12日星期二 4月30日星期四 4月30日星期四 Completion of the Contract 5 0 davs 6 7 **Total Contract Period** 455 days 2月1日星期五 4月30日星期四 8 3月12日星期二 4月1日星期一 9 Preliminaries 21 days 3月12日星期二 3月25日星期一 10 Coordination with utility companies 14 days 11 Pre-construction condition survey 14 days 3月12日星期二 3月25日星期-12 Notification of commencement of works to Labour Department 7 days 3月12日星期二 3月18日星期-13 Notification of air pollution control for commencement of works to EPD 7 days 3月12日星期二 3月18日星期-14 Application of water discharge licence from EPD 7 days 3月12日星期二 3月18日星期-3月12日星期二 3月18日星期一 15 Application for billing account for disposal of construction waste from EPD 7 days 16 3月12日星期二 4月1日星期一 CCTV for existing underground drainage pipe around site boundary 21 days 17 3月12日星期二 4月1日星期一 Utility detection for existing underground cables 21 days 18 21 days 3月12日星期二 4月1日星期一 19 Set up contractor's site office 21 days 3月12日星期二 4月1日星期一 20 Installation of monitoring checkpoints 20 days 3月12日星期二 3月31日星期日 7 days 21 Submission of BA10 for ELS & foundation works 3月12日星期二 3月18日星期-22 23 Predrilling Works for Section of A1 to A3 (Area P1 to P3) 96 days 2月1日星期五 5月7日星期二 2月1日星期五 2月10日星期日 24 Drilling rigs mobilization 10 days 2月11日星期一 5月2日星期四 25 Predrilling works (46 holes) (8 rigs) 81 days 2月26日星期二 5月7日星期二 26 Submission of predrill logs 71 days 27 Completion of predrilling works 0 days 5月7日星期二 5月7日星期二 28 3月19日星期二 8月15日星期四 29 Plant Mobilization for Bored Pile Construction 150 days 3月19日星期二 8月1日星期四 30 Crawler Crane 136 days 31 1st & 2nd set 21 days 3月19日星期二 4月8日星期一 32 3rd set 21 days 4月10日星期三 4月30日星期二 33 4th & 5th set 21 days 6月14日星期五 7月4日星期四 34 6th set 21 days 7月12日星期五 8月1日星期四 35 Oscillator 136 days 3月19日星期二 8月1日星期四 36 1st & 2nd set 21 days 3月19日星期二 4月8日星期一 37 3rd set 21 days 4月10日星期三 4月30日星期二 38 4th & 5th set 21 days 6月14日星期五 7月4日星期四 7月12日星期五 8月1日星期四 39 6th set 21 days 40 RCD 129 days 4月9日星期二 8月15日星期四 41 1st & 2nd set 14 days 4月9日星期二 4月22日星期一 42 3rd set 14 days 5月1日星期三 5月14日星期二 43 4th & 5th set 14 days 7月5日星期五 7月18日星期四 8月2日星期五 8月15日星期四 44 6th set 14 days 45 Completion of plant mobilization for bored pile construction 8月15日星期四 8月15日星期四 0 days 46 47 Delivery of Temporary Steel Casing for Bored Pile Construction 150 days 3月19日星期二 8月15日星期四 3月19日星期二 8月15日星期四 48 Duration for delivery of temporary steel casing 150 days 8月15日星期四 8月15日星期四 49 Completion of delivery of temporary steel casing for bored pile construction 0 days 50 51 Delivery of Permanent Casing & Double Wall Liner 369 days 3月18日星期一 3月20日星期五 52 3月18日星期一 5月1日星期三 Testing for double wall liner 45 days 53 Duration for delivery of permanent casing & double wall liner 5月1日星期三 3月20日星期五 54 55 320 days 3月18日星期一 1月31日星期五 Section A1

Master Programme Task Critical Task Milestone ◆ Summary Page 1

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

#### Contract No. 18/8004 - Lamma Power Station Extension Foundation Works for Unit L12

Page 2

# Appendix J SUNLEY ENGINEERING & CONSTRUCTION CO., LTD. Contract No. 18/8004 - Lamma Power Station Extension Foundation Works for Unit L12 Master Programme

	Master Programme									
ID	Task Name	Duration	Start	Finish	2019年 2020年					
					M7 M8 M9					
					八月 九月 十月					
111	Completion of predrilling works	0 days	2月3日星期一	2月3日星期一						
112 113	Bored Pile Construction (4 piles)	113 days	1800 <b>2 10</b> m	4月30日星期四	m .					
114	Plant mobilization	15 days		1月23日星期四						
115	1st set plant - BPR-B4 > BPR-E2	65 days		3月20日星期五						
116	3rd set plant - BPR-E6 > BPR-E5	65 days		3月28日星期六						
117	Interface & sonic test	14 days		4月6日星期一						
118	Prepare & submit as-built record plan	7 days		4月6日星期一						
119	Submission of BA14	1 day		4月6日星期一						
120	Allow 14 days for selection of pile for concrete full core test	14 days		4月20日星期一						
121	Concrete full core test	10 days		4月30日星期四						
122	Completion of bored pile construction	0 days		4月30日星期四						
123	Completion of shunt reactor	0 days		4月30日星期四						
124		V ==,-	·//	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
125	Cable Bridge	267 days	7月1日星期一	3月23日星期一	<del>-</del>					
126	Site possession date	0 days		7月1日星期一						
127	Predrilling Works for Bored Pile	55 days		8月24日星期六						
128	Drilling rigs mobilization	7 days		7月7日星期日						
129	Predrilling works (8 holes) (2 rig)	46 days		8月22日星期四						
130	Submission of predrill logs	30 days		8月24日星期六						
131	Completion of predrilling works	0 days		8月24日星期六						
132										
133	Bored Pile Construction (6 piles)	178 days	9月16日星期一	3月11日星期三	<u> </u>					
134	Plant mobilization	14 days	9月16日星期一	9月29日星期日	a   <b></b>					
135	2nd set plant - CP6-1 > CP6-3 > CP6-6 > CP6-8 > CP6-5 > CP6-2 > CP6-7 > CP6-4	150 days	9月30日星期一	2月26日星期三	<u>=</u>					
136	Interface & sonic test	14 days	2月27日星期四	3月11日星期三						
137	Completion of bored pile construction	0 days	3月11日星期三	3月11日星期三						
138										
139	Temporary Working Platform for Socketted H-Pile Construction	74 days	7月1日星期一	9月12日星期四	<b>───</b> ▼					
140	Material delivery for temporary working platform erection	14 days	7月1日星期一	7月14日星期日	3					
141	Erection of temporary working platform	60 days	7月15日星期一	9月12日星期四	9					
142	Completion of temporary working platform	0 days	9月12日星期四	9月12日星期四						
143										
144	Predrilling Works for Socketted H-pile	27 days		10月9日星期三						
145	Drilling rigs mobilization	7 days	9月13日星期五	9月19日星期四	9					
146	Predrilling works (6 holes) (2 rigs)	18 days		10月7日星期一						
147	Submission of predrill logs	13 days		10月9日星期三						
148	Completion of predrilling works	0 days	10月9日星期三	10月9日星期三	<u> </u>					
149										
150	Socketted H-Pile Construction (30 piles)	168 days		3月23日星期一						
151	Plant mobilization	14 days		10月21日星期一						
152	Trial pile installation (1 pile)	14 days		11月4日星期一						
153	Socketted H-pile installation (16 piles) (1 set plant)	65 days		1月8日星期三						
154	Post drill	5 days		1月13日星期一						
155	Prepare & submit as-built record plan	28 days		2月5日星期三						
156	Submission of BA14	1 day		2月6日星期四						
157	Allow 14 days for selection of pile for loading test	14 days		2月20日星期四						
158	Set up loading test platform for 1st pile testing	12 days		3月3日星期二						
159	Loading test for 1st pile	4 days		3月7日星期六						
160	Set up loading test platform for 2nd pile testing	12 days		3月19日星期四						
161	Loading test for 2nd pile	4 days		3月23日星期一						
162	Completion of socketted H-pile construction	0 days		3月23日星期一						
163	Completion of cable bridge	0 days		3月23日星期一						
164	Completion of section B	0 days		4月30日星期四						
165	Contract completion	0 days	4月30日星期四	4月30日星期四	<b>4</b>					

