S-Curve Showing Planned and Actual Work Progress

The Construction of Mass Transit System Project in Bangkok (Red Line) (I)

Contract 2 : Civil Works for Bang Sue - Rangsit Railway

Item No.	Description	Price (Baht)	% wt.	% Cumulative		% Progress Upto Previous Month	% Progress This Month	% Progress Cum.	% Ahead / (Delay)
1	**Bill No. 1 : General Requirements**	272,629,120	1.32%	Plan	53.79	52.41	1.37	53.79	-9.74
				Actual	44.05	42.59	1.46	44.05	
2	**Bill No. 2 : Railway**	10,514,931,561	51.02%	Plan	50.99	47.00	3.98	50.99	-37.67
				Actual	13.31	11.89	1.42	13.31	
	2.1 Elevated Railway	9,755,027,899	47.33%	Plan	49.51	45.53	3.98	49.51	-37.76
				Actual	11.75	10.54	1.20	11.75	
	2.2 At Grade and Transition Railway	759,903,662	3.69%	Plan	69.96	65.89	4.07	69.96	-36.53
				Actual	33.43	29.25	4.18	33.43	
3	**Bill No. 3 : Stations**	8,558,445,112	41.52%	Plan	46.45	39.39	7.06	46.45	-38.84
				Actual	7.61	5.71	1.90	7.61	
	3.1 Procurement (MES & Architectural Works)	1,199,473,182	5.82%	Plan	92.84	71.00	21.84	92.84	-92.84
				Actual	-	-	-	-	
	3.2 Wat Samian Nari Station (Future Station)	405,055,567	1.97%	Plan	53.75	48.62	5.13	53.75	-41.41
				Actual	12.34	7.40	4.93	12.34	
	3.3 Bang Khen Station	677,186,704	3.29%	Plan	40.96	39.80	1.15	40.96	-28.63
				Actual	12.32	7.22	5.10	12.32	
	3.4 Thung Song Hong Station	708,215,650	3.44%	Plan	35.33	32.95	2.38	35.33	-20.26
				Actual	15.07	14.11	0.96	15.07	
	3.5 Lak Si Station	679,058,167	3.29%	Plan	58.40	51.08	7.32	58.40	-49.28
				Actual	9.12	7.86	1.26	9.12	
	3.6 Karn Kheha Station	671,478,824	3.26%	Plan	41.23	39.74	1.50	41.23	-32.47
				Actual	8.77	4.62	4.14	8.77	
	3.7 Don Muang Station	2,052,832,448	9.96%	Plan	34.24	31.72	2.52	34.24	-31.15
				Actual	3.09	2.42	0.66	3.09	
	3.8 Lak Hok Station (Future Station)	357,896,774	1.74%	Plan	47.67	40.09	7.58	47.67	-47.67
				Actual	0.00	0.00	- 0.00	0.00	
	3.9 Rangsit Station	1,807,247,796	8.77%	Plan	31.54	22.76	8.78	31.54	-18.97
				Actual	12.57	9.71	2.86	12.57	
5	**Bill No. 5 : Road Works**	1,264,542,043	6.14%	Plan	24.73	21.92	2.81	24.73	-23.22
				Actual	1.51	1.30	0.21	1.51	
	5.1 Local Road	1,131,293,721	5.49%	Plan	17.31	15.47	1.84	17.31	-17.31
				Actual	-	-	-	-	
	- Local Road	472,502,359	2.29%	Plan	7.81	5.39	2.42	7.81	-7.81
				Actual	-	-	-	-	
	- Drainage & Utilities	658,791,362	3.20%	Plan	24.12	22.70	1.42	24.12	-24.12
				Actual	-	-	-	-	
	5.2 Road Flyover	133,248,322	0.65%	Plan	87.71	76.66	11.05	87.71	-73.39
				Actual	14.32	12.34	1.98	14.32	
	- Road Flyover KM. 24+910	76,656,107	0.37%	Plan	93.65	86.95	6.70	93.65	-68.75
				Actual	24.90	21.45	3.44	24.90	
	- Road Flyover KM. 27+650	56,592,215	0.27%	Plan	79.66	62.72	16.94	79.66	-79.66
				Actual	-	-	-	-	
	Total (Baht, Bill No. 1, 2, 3, 5 excl. VAT)	**20,610,547,836**	**100.00%**						
% Work Progress	**Plan**			Monthly					
				Cumulative		42.37	5.16	47.53	-
	Actual			Monthly					
				Cumulative		9.08	1.55	10.63	-
Ahead / (Delay), days									
Work Value (M Baht)	**Plan**			Monthly					
				Cumulative					
	Actual			Monthly					
				Cumulative					
Cumulative Progress Difference in % against Planing									
Cumulative Progress Difference in (MB) % against Planing									

2013

Row	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	-2	-1	1	2	3	4	5	6	7	8	9	10
Bill No. 1 – Plan			14.40	14.31	3.87	1.85	1.53	1.53	1.43	1.49	2.20	1.42
Bill No. 1 – Actual			-	0.05	0.39	0.40	11.39	8.26	4.31	0.81	2.08	2.63
Bill No. 2 – Plan	0.003	0.01	0.25	0.86	1.41	2.49	3.83	4.00	3.82	4.56	4.82	3.88
Bill No. 2 – Actual			0.00	0.04	0.14	0.22	0.25	0.32	0.44	0.89	1.15	2.01
2.1 – Plan	0.003	0.02	0.26	0.90	1.48	2.55	3.74	3.75	3.50	4.22	4.48	3.78
2.1 – Actual			0.003	0.05	0.14	0.23	0.27	0.34	0.42	0.85	1.08	1.94
2.2 – Plan	-	-	0.06	0.37	0.49	1.59	5.02	7.17	7.98	8.93	9.09	5.22
2.2 – Actual			-	-	0.03	0.02	0.02	0.03	0.66	1.40	1.96	2.89
Bill No. 3 – Plan			0.06	0.05	0.01	0.15	0.61	1.77	2.89	3.24	3.11	2.36
Bill No. 3 – Actual									0.02	0.03	0.07	0.20
3.1 – Plan			-	-	-	-	-	-	-	-	-	-
3.1 – Actual									-	-	-	-
3.2 – Plan			-	-	-	-	-	0.00	0.00	-	7.89	9.73
3.2 – Actual									-	-	-	-
3.3 – Plan			-	-	-	0.00	0.49	4.76	6.83	9.44	4.71	2.92
3.3 – Actual									0.12	0.22	0.09	0.06
3.4 – Plan			-	-	-	0.00	0.03	0.78	4.96	6.88	7.32	3.60
3.4 – Actual									-	-	0.64	0.64
3.5 – Plan			0.28	0.25	0.06	1.82	4.95	6.56	7.35	4.98	5.06	3.14
3.5 – Actual									0.18	0.12	0.09	0.12
3.6 – Plan			-	-	-	0.00	2.18	6.06	7.72	6.75	3.92	2.47
3.6 – Actual									-	-	-	-
3.7 – Plan			0.08	0.07	0.01	0.00	-	1.39	3.15	4.16	4.35	3.85
3.7 – Actual									-	-	-	-
3.8 – Plan			-	-	-	-	-	-	-	-	0.06	0.17
3.8 – Actual									-	-	-	-
3.9 – Plan			0.07	0.06	0.00	-	-	-	-	-	-	-
3.9 – Actual									-	-	-	0.65
Bill No. 5 – Plan						0.04	0.06	0.09	0.71	1.83	1.93	2.72
Bill No. 5 – Actual								0.00	-	0.05	0.17	0.04
5.1 – Plan						-	-	-	0.67	1.57	1.57	1.39
- Local Road – Plan						-	-	-	-	-	-	-
- Local Road – Actual									-	-	-	-
- Drainage & Utilities – Plan						-	-	-	1.15	2.69	2.69	2.38
- Drainage & Utilities – Actual									-	-	-	-
5.2 – Plan						0.39	0.56	0.87	1.06	4.07	5.02	14.07
5.2 – Actual								0.002	0.00	0.52	1.66	0.42
KM. 24+910 – Plan						0.68	0.98	0.98	0.19	5.36	7.62	16.48
KM. 24+910 – Actual								0.004	-	0.90	2.88	0.73
KM. 27+650 – Plan						-	-	0.72	2.22	2.31	1.50	10.82
KM. 27+650 – Actual									-	-	-	-
% Work Progress Plan – Monthly	0.00	0.01	0.34	0.65	0.78	1.36	2.23	2.80	3.21	3.80	3.89	3.15
% Work Progress Plan – Cumulative	0.00	0.01	0.35	1.00	1.77	3.13	5.36	8.16	11.37	15.18	19.07	22.22
% Work Progress Actual – Monthly	-	-	0.002	0.02	0.07	0.12	0.28	0.27	0.29	0.48	0.65	1.15
% Work Progress Actual – Cumulative	-	-	0.002	0.02	0.10	0.22	0.49	0.77	1.06	1.54	2.19	3.33
Ahead / (Delay), days			(21)	(49)	(75)	(98)	(120)	(140)	(158)	(169)	(181)	(187)
Work Value Plan – Monthly	0	2	70	134	160	279	459	578	663	784	803	649
Work Value Plan – Cumulative	0	2	72	206	365	645	1,104	1,682	2,344	3,128	3,931	4,579
Work Value Actual – Monthly	-	-	0.33	5	15	24	57	56	60	99	134	236
Work Value Actual – Cumulative	-	-	0.33	5	20	44	102	158	218	317	451	687
Cumulative Progress Difference in %	0.00	-0.01	-0.35	-0.97	-1.67	-2.91	-4.86	-7.39	-10.32	-13.64	-16.88	-18.89
Cumulative Progress Difference in (MB)	0	-2	-71	-201	-345	-600	-1,002	-1,524	-2,126	-2,811	-3,480	-3,892

2014

Row	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	11	12	13	14	15	16	17	18	19	20	21	22
Bill No. 1 – Plan	1.50	3.14	2.43	1.32	1.37	1.43	1.49	1.43	1.49	1.49	1.43	1.37
Bill No. 1 – Actual	1.87	2.42	6.48	1.49	1.46	-	-	-				
Bill No. 2 – Plan	3.86	3.43	5.12	4.66	3.98	3.59	3.86	3.95	3.84	3.14	2.66	2.40
Bill No. 2 – Actual	1.43	1.49	1.96	1.57	1.42							
2.1 – Plan	3.80	3.43	5.03	4.58	3.98	3.71	3.92	3.64	3.42	3.02	2.76	2.57
2.1 – Actual	1.33	1.46	1.45	0.98	1.20							
2.2 – Plan	4.68	3.42	6.24	5.63	4.07	2.01	3.03	8.05	9.28	4.58	1.37	0.27
2.2 – Actual	2.70	1.90	8.43	9.21	4.18							
Bill No. 3 – Plan	5.82	5.86	5.89	7.58	7.06	5.81	3.64	2.72	2.93	3.47	2.70	2.92
Bill No. 3 – Actual	0.41	1.01	1.83	2.13	1.90							
3.1 – Plan	22.17	24.88	7.23	16.73	21.84	7.16	-	-	-	-	-	-
3.1 – Actual	-	-	-	-	-							
3.2 – Plan	13.55	6.16	6.38	4.90	5.13	5.82	4.72	2.29	5.28	20.03	8.12	
3.2 – Actual	-	0.00	-	7.40	4.93							
3.3 – Plan	2.80	3.14	3.16	1.55	1.15	8.77	8.67	3.76	4.34	6.38	5.99	3.11
3.3 – Actual	0.01	0.00	1.61	5.11	5.10							
3.4 – Plan	3.14	1.40	2.58	2.28	2.38	1.84	0.93	-		-	3.25	10.89
3.4 – Actual	2.18	5.64	3.98	1.03	0.96							
3.5 – Plan	3.00	1.79	2.83	9.01	7.32	3.85	4.37	6.24	6.26	3.24	3.59	7.22
3.5 – Actual	0.01	2.01	3.12	2.23	1.26							
3.6 – Plan	3.28	2.89	2.77	1.69	1.50	9.27	7.88	3.92	4.45	6.47	5.91	3.01
3.6 – Actual	-	0.00	1.69	2.93	4.14							
3.7 – Plan	4.10	3.85	[illegible]	2.50	2.52	3.35	4.12	3.69	2.68	1.67	0.50	-
3.7 – Actual	-	0.11	[illegible]	[illegible]	0.66							
3.8 – Plan	2.46	9.36	13.99	14.04	7.58	6.46	2.51	1.89	1.96	1.96	1.89	12.26
3.8 – Actual	0.00	-	-	-	0.00							
3.9 – Plan	0.05	0.15	9.83	12.60	8.78	7.47	2.82	2.60	3.64	3.64	2.95	2.14
3.9 – Actual	1.08	1.69	3.34	2.95	2.86							
Bill No. 5 – Plan	3.20	3.77	4.15	3.41	2.81	2.71	3.21	3.68	6.09	6.00	4.75	3.21
Bill No. 5 – Actual	0.15	0.13	0.27	0.48	0.21							
5.1 – Plan	1.91	2.81	3.36	2.19	1.84	2.29	3.15	3.86	6.81	6.70	5.31	3.59
- Local Road – Plan		0.48	2.59	2.32	2.42	1.67	3.14	3.36	3.52	3.57	2.24	1.71
- Local Road – Actual	-	-	-	-	-							
- Drainage & Utilities – Plan	3.28	4.49	3.91	2.10	1.42	2.73	3.15	4.21	9.16	8.95	7.51	4.94
- Drainage & Utilities – Actual	-	-	-	-	-							
5.2 – Plan	14.12	11.89	10.90	13.71	11.05	6.27	3.80	2.22	-	-	-	-
5.2 – Actual	1.42	1.25	2.56	4.51	1.98							
KM. 24+910 – Plan	15.70	14.79	15.94	8.25	6.70	[illegible]	[illegible]	-	-	-	-	-
KM. 24+910 – Actual	2.47	2.18	4.45	7.85	3.44							
KM. 27+650 – Plan	11.98	7.96	4.06	21.11	16.94	7.64	7.47	5.24	-	-	-	-
KM. 27+650 – Actual	-	-	-	-	-	-	-					
% Work Progress Plan – Monthly	4.60	4.46	5.34	5.75	5.16	4.43	3.70	3.39	3.57	3.43	2.79	2.65
% Work Progress Plan – Cumulative	26.82	31.28	36.62	42.37	47.53	51.96	55.65	59.05	62.62	66.05	68.83	71.49
% Work Progress Actual – Monthly	0.93	1.22	1.86	1.74	1.55							
% Work Progress Actual – Cumulative	4.27	5.48	7.35	9.08	10.63							
Ahead / (Delay), days	(203)	(214)	(221)	(235)	(250)							
Work Value Plan – Monthly	949	919	1,101	1,186	1,063	913	762	699	736	707	575	547
Work Value Plan – Cumulative	5,528	6,447	7,548	8,734	9,796	10,709	11,471	12,170	12,906	13,612	14,187	14,734
Work Value Actual – Monthly	192	251	384	358	319							
Work Value Actual – Cumulative	879	1,130	1,514	1,872	2,191							
Cumulative Progress Difference in %	-22.55	-25.80	-29.27	-33.29	-36.90							
Cumulative Progress Difference in (MB)	-4,649	-5,316	-6,034	-6,862	-7,606							

2015

Row	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	23	24	25	26	27	28	29	30	31	32	33	34
Bill No. 1 – Plan	1.49	1.32	1.49	1.32	1.37	1.49	1.49	1.43	1.49	1.49	1.43	1.37
Bill No. 2 – Plan	2.64	2.28	2.66	2.41	2.22	2.04	1.70	1.63	1.68	1.56	1.64	1.60
2.1 – Plan	2.79	2.41	2.85	2.59	2.39	2.20	1.83	1.76	1.81	1.68	1.76	1.72
2.2 – Plan	0.66	0.58	0.20	-	-	-	-	-	-	-	-	-
Bill No. 3 – Plan	3.49	3.26	3.32	2.10	2.56	2.31	2.24	2.32	1.93	1.09	1.42	1.95
3.1 – Plan	-	-	-	-	-	-	-	-	-	-	-	-
3.2 – Plan	-	-	-	-	-	-	-	-	-	-	-	-
3.3 – Plan	3.71	6.59	6.80	0.90	0.01	-	-	-	-	-	-	-
3.4 – Plan	5.81	3.50	4.51	5.47	5.37	3.19	4.29	8.71	6.90	0.02	-	-
3.5 – Plan	6.54	0.28	0.00	-	-	-	-	-	-	-	-	-
3.6 – Plan	3.74	6.97	6.66	0.49	0.00	-	-	-	-	-	-	-
3.7 – Plan	-	1.64	4.02	4.20	6.42	5.27	4.53	4.07	3.31	2.83	3.35	5.55
3.8 – Plan	20.18	3.23	-	-	-	-	-	-	-	-	-	-
3.9 – Plan	5.01	6.40	4.36	2.52	2.71	3.70	3.78	2.96	2.65	1.93	2.91	2.96
Bill No. 5 – Plan	3.63	3.56	4.27	2.79	2.56	2.73	2.90	2.64	3.19	3.51	3.64	2.97
5.1 – Plan	4.06	3.97	4.77	3.11	2.87	3.05	3.24	2.95	3.56	3.92	4.07	3.31
- Local Road – Plan	6.78	6.18	7.60	4.08	2.79	2.80	4.42	4.01	5.35	6.48	7.76	4.75
- Drainage & Utilities – Plan	2.10	2.39	2.73	2.42	2.92	3.23	2.39	2.20	2.28	2.09	1.43	2.28
5.2 – Plan	-	-	-	-	-	-	-	-	-	-	-	-
KM. 24+910 – Plan	-	-	-	-	-	-	-	-	-	-	-	-
KM. 27+650 – Plan	-	-	-	-	-	-	-	-	-	-	-	-
% Work Progress Plan – Monthly	3.04	2.75	3.01	2.29	2.37	2.19	1.99	1.98	1.87	1.48	1.67	1.83
% Work Progress Plan – Cumulative	74.52	77.27	80.29	82.58	84.94	87.13	89.13	91.11	92.98	94.46	96.13	97.95
Work Value Plan – Monthly	626	567	621	472	488	451	411	408	386	306	343	377
Work Value Plan – Cumulative	15,360	15,926	16,548	17,020	17,508	17,959	18,369	18,777	19,163	19,469	19,812	20,189

2016 / 2017

Row	Jan 2016	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 2017	Feb
	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Bill No. 1 – Plan	1.43	1.37	1.55	1.32	1.32	1.49	1.43	1.49	1.49	1.43	1.49	1.37	1.43	0.29
Bill No. 2 – Plan	1.08	0.39	0.07											
2.1 – Plan	1.16	0.42	0.07											
2.2 – Plan	-	-	-											
Bill No. 3 – Plan	1.37	0.00												
3.1 – Plan	-	-												
3.2 – Plan	-	-												
3.3 – Plan	-	-												
3.4 – Plan	-	-												
3.5 – Plan	-	-												
3.6 – Plan	-	-												
3.7 – Plan	4.57	0.01												
3.8 – Plan	-	-												
3.9 – Plan	1.30	0.00												
Bill No. 5 – Plan	2.25	2.16	2.18	0.66										
5.1 – Plan	2.51	2.41	2.44	0.74										
- Local Road – Plan	2.70	2.59	2.92	1.77										
- Drainage & Utilities – Plan	2.38	2.28	2.09	-										
5.2 – Plan	-	-	-	-										
KM. 24+910 – Plan	-	-	-	-										
KM. 27+650 – Plan	-	-	-	-										
% Work Progress Plan – Monthly	1.28	0.35	0.19	0.06	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.00
% Work Progress Plan – Cumulative	99.23	99.58	99.77	99.83	99.84	99.86	99.88	99.90	99.92	99.94	99.96	99.98	100.00	100.00
Work Value Plan – Monthly	263	72	39	12	4	4	4	4	4	4	4	4	4	1
Work Value Plan – Cumulative	20,452	20,524	20,563	20,574	20,578	20,582	20,586	20,590	20,594	20,598	20,602	20,606	20,610	20,611

Plan 47.53 %

Actual 10.63 %

Delay -36.90 %

100 % 90 % 80 % 70 % 60 % 50 % 40 % 30 % 20 % 10 % 0 %