Event Bus Transportation Variables & Calculation Sheet (dedicated event shuttle buses)

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Event & Sports Projects Australia

Event:	Goodlife Music Festival, Randwick Racecourse	
Date:	10-Mar-13	
Total Estimated Attendance:	15,000	
Operational Phase Analysis:	Ingress	
Transport Overview:	Integrated Ticket, Shuttle Bus Ops from Central Station to High St Randwick Racecourse, 1x Drop off area	
Target Number of People to move	11250 people	75.00%

Timings & Operational Phases: Start:	12:00 PM	to	4:00 PM	
Over what Total Period:	240	min	6 hours 5min	
Preparation/ Transition Period	0	min	11:50am - 12:00pm	
Phase A: 'Lead-in'	60	min	12:00pm-1:00pm	Operational
Phase B: 'Standard Off-Peak'	0	min	not applicable for ingress	Operational but not applicable for ingress
Phase C: 'Peak'	120	min	1:00pm-3:00pm	Operational
Phase D: 'Lead-out'	60	min	3:00pm-4:00pm	Operational
Preparation/ Transision Period	0	min	5:00pm-6:00pm	

Bus Type & Standard Operating Capacities: Single Bus				**Bus Type & Standard Operating Capacities: Double Bus**			
Standard average capacity/	**60**	**pax**	service level 'A'	Standard average capacity/	100	pax	SL 'A'
Max Capacity/ bus	70	pax	service level 'A+Max'	Max Capacity/ bus	120	pax	SL'A+Max'
3/4 Average Capacity	45	pax	service Level 3/4	3/4 Average Capacity	75	pax	SL '3/4'
1/2 Average Capacity	30	pax	service Level 1/2	1/2 Average Capacity	50	pax	SL '1/2'
1/4 Average Capacity	15	pax	service Level 1/4	1/4 Average Capacity	25	pax	SL '1/4'

Loading/ Unloading Rates:	Load	Unload (half of Load time)		**Double Bus Rates**	Load	Unload (half of Load time)	
'*Average'	**2.00**	**1.00**	min	'*Average'	3.00	1.50	min
Fast	1.50	0.75	min	Fast	2.00	1.00	min
Slow	2.50	1.25	min	Slow	4.00	2.00	min

Lag 'Buffer' Time:**	2.50	min	**Note the 'Lag/ Buffer Time' refers to a time set that adjusts the round trip time due to traffic delays or increased loading/ unloading times.
Different Lag 'Buffer' Time:**	5.00	min	**A different 'Lag/ Buffer Time' may be applied to a different operational phase if increased traffic delays may be expected.

Round Trip Timings Including '*Average' Loading, Unloading & Set 'Lag/Buffer Time' & Usung SINGLE Bus**

Loading/ Unloading Rate Used:	'*Average'							
Round Trip 'Base' Time from **Area 1**	22	min	Rnd Trip 'Base' Time **Area 2**	27	min	Rnd Trip 'Base' Time **Area 3**	25	min
Total Time Phase A: 'Lead-in'	32.50	min	Total Time A: 'Lead-in'	32.50	min	Total Time A: 'Lead-in'	0	min
Total Time Phase B: 'Standard Off-Peak'	32.50	min	Total Time B: 'Strd Off-Peak'	32.50	min	Total Time B: 'Strd Off-Peak'	0	min
Total Time Phase C: 'Peak'	32.50	min	Total Time: 'Peak'	32.50	min	Total Time: 'Peak'	0	min
Total Time Phase D: 'Lead-out'	32.50	min	Total Time A: 'Lead-out'	32.50	min	Total Time A: 'Lead-out'	0	min

		Area 1	Area 2	Area 3
		Alison Rd	High St	nil
Loading Areas, [calculated bus movements/ min x average loading time]				
Area 1: Number of Loading bays:	2.0	**4**		
Area 2: Number of Loading bays:	0.0		**0**	
Area 3: Number of Loading bays:	0			**0**

Number of Buses Required/ Allocated to each Loading Area			
Area 1: Number of Buses Allocated:	32		
Area 2: Number of Buses Allocated:		0	
Area 3: Number of Buses Allocated:			0
Total Buses Required:	**32**		

Calculating the number of Bus Movements per minute, by Operational Phase & Area [total No. of buses/ total trip time in min]			
No. of buses loading / minute: Phase A	0.98	0.00	0.0
No. of buses loading / minute: Phase B	0.98	0.00	0.0
No. of buses loading / minute: Phase C	0.98	0.00	0.0
No. of buses loading / minute: Phase D	0.98	0.00	0.0

Calculation Sheet of Number of People Transported:		
Bus Type	Single/Double	
Loading Rate Used:	2.00 min	This loading rate has been used for all phases
Unloading Rate Used:	1.00 min	
Number of Loading Areas:	1 (one)	

Total Number of Bus Movements:			236	0		**236**
			Area 1	**Area 2**	**Area 3**	**Totals**
Transport Capability	pax used		Alison Rd	High St	nil	
Operational Phase A: 'Lead-in'	45	pax	2658	0	0	**2658**
Operational Phase B: 'Standard Off-Peak'	0	pax	0	0	0	**0**
Operational Phase C: 'Peak'	60	pax	7089	0	0	**7089**
Operational Phase D: 'Lead-out'	30	pax	1772	0	0	**1772**
Totals by Transport Hub Area Capability:			**11520**	**0**	**0**	**11520**