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Your ref: CA-V01

By email
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Confidential

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Alex,

Ivanhoe Stage 1 | Apartment Design Guide (ADG) Lift Provisioning

We understand that ADG 4F-1 clause 2 states “for buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40”.

WSP have undertaken concept design for the lifts of the proposed Ivanhoe Stage 1 Building A1 and C1 development. Although the lift concept design does not strictly comply with ADG 4F-1 clause 2, it does meet international design criteria outlined by Chartered Institute of Building Services Engineers (CIBSE) and the design of similar buildings.

Based on our experience and supported by professional legal opinion and discussions on similar buildings, it has been established that the ADG is a guide and can be deviated from should calculations be provided to show that the lift concept design meets international benchmarks.

Please find attached the calculations for the Buildings A1 and C1 showing the lift configurations meeting the CIBSE Guide D 2015 performance criteria. On this basis, the quantity of lifts prescribed by the ADG would be an over provision in this instance and therefore the ADG non-compliance is justified.

Kind regards

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Childcare	Residential lifts	Floor Heights	People
	MRL		
Level 24			
Level 23		3.1	37
Level 22		3.1	31
Level 21		3.1	31
Level 20		3.1	31
Level 19		3.1	31
Level 18		3.1	31
Level 17		3.1	31
Level 16		3.1	31
Level 15		3.1	31
Level 14		3.1	31
Level 13		3.1	31
Level 12		3.1	31.2
Level 11		3.1	31.2
Level 10		3.1	31.2
Level 9		3.1	31.2
Level 8		3.1	31.2
Level 7		3.1	31.2
Level 6		3.1	31.2
Level 5		3.1	31.2
Level 4		3.1	31.2
Level 3		3.1	31.2
Level 2		3.1	27
Level 1		3.1	3.1 Resi Lobby
Upper Grd			4 Child care
Lower Grd			3 CC & Resi Lobby
Basement 1			3 CP & CC
Basement 2			3 CP
Basement 3			3 CP
Basement 4			3 CP
	Pit		




Design Criteria

Building Quality	Good
Handling Capacity	6 - 8%
Average Waiting Time	50 - 60s

Normal Income	
1 Bed	1.8
2 Bed	3
3 Bed	4

Design Outcome

No. of lifts	3
Car size	1275kg
Speed	2.5m/s
HC Capacity	6%
Average Waiting Time	36s

DATE 06/03/2018	DRAWN MBR	 Level 1, 41 McLaren Street North Sydney NSW 2060 Australia Telephone 61 2 8907 0900 Facsimile 61 2 9957 4127 sydney@wspgroup.com
SCALE -	CHECKED RWH	
SHEET SIZE -	APPROVED RAB	
PROJECT Ivanhoe Macquarie Park Sydney		TITLE Preliminary vertical transportation calculations summary
CLIENT FRASERS	PROJECT NO. PS106555	DRAWING NO. A1-VT-002
	REVISION 00	


	Social 1	People	Social 2	People	Market 3	People	Market 4	People	Floor Heights
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	Social 1	People	Social 2	People	Market 3	People	Market 4	People	Floor Heights
Level 19					MRL	16.6	MRL	16.6	3.1
Level 18						16.6		16.6	3.1
Level 17						16.6		16.6	3.1
Level 16						16.6		16.6	3.1
Level 15						16.6		16.6	3.1
Level 14						16.6		16.6	3.1
Level 13	MRL		MRL			16.6		16.6	3.1
Level 12		21.6		21.6		12.6		12.6	3.1
Level 11		21.6		21.6		12.6		12.6	3.1
Level 10		21.6		21.6		12.6		12.6	3.1
Level 9		21.6		21.6		12.6		12.6	3.1
Level 8		21.6		21.6		12.6		12.6	3.1
Level 7		21.6		21.6		12.6		12.6	3.1
Level 6		21.6		21.6		12.6		12.6	3.1
Level 5		21.6		21.6		12.6		12.6	3.1
Level 4		22.2		22.2		12.6		12.6	3.1
Level 3		22.2		22.2		12.6		12.6	3.1
Level 2		22.2		22.2		12.6		12.6	3.1
Level 1		22.2		22.2		6		12.6	3.1
Upper Ground		12.6		19.8		15		8.4	3.1 Lobby M
Ground	Pit	11.4	Pit	7.2	Pit	15	Pit	5.4	3.1 Lobby S/M

Design Criteria		
Building Quality		Good
Handling Capacity		6 - 8%
Average Waiting Time		50 - 60s

Normal Income	
1 Bed	1.8
2 Bed	3
3 Bed	4

Design Outcome							
No. of lifts	2		2		2		2
Car size	1600kg		1600kg		1600kg		1600kg
Speed	1.75m/s		1.75m/s		2.0m/s		2.0m/s
HC Capacity	8%		8%		8%		8%
Average Waiting Time	27s		23s		35s		34s

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PROJECT				TITLE
Ivanhoe Macquarie Park Sydney				Preliminary vertical transportation calculations summary
CLIENT				PROJECT NO. DRAWING NO. REVISION
FRASERS				PS107250 C1-VT-002 00