

Technical Specifications

Allowable Spans for Joists

APR JOIST SECTION SIZE D x B (mm)	APPLICATION			
	Residential	Public Access (Non Trafficable)	Light Vehicle Access	Heavy Vehicle Access
100 x 100	1.28	1.19	N/R	N/R
100 x 150	1.47	1.47	N/R	N/R
125 x 125	1.73	1.73	N/R	N/R
140 x 40	1.33	1.25	N/R	N/R
140 x 70	1.60	1.60	N/R	N/R
200 x 50	2.04	2.04	1.15	N/R
200 x 75	2.33	2.33	1.62	N/R
200 x 100	2.57	2.57	1.87	N/R
230 x 100	2.95	2.95	2.31	0.69
240 x100	3.08	3.08	2.46	0.76
250 x 90	3.10	3.10	2.48	0.74
300 x 40	2.84	2.84	2.04	N/R
300 x 75	3.50	3.50	2.97	0.89
300 x 100	3.85	3.85	3.43	1.18
Design Uniformly Distributed Load (UDL)	5kPa	5kPa	5kPa	10kPa
Design Point Load	1.8kN	4.5kN	14.6kN	64.7kN
Typical Usage	<ul style="list-style-type: none"> • Pedestrians • Mobility Scooters • Wheelchairs 	<ul style="list-style-type: none"> • 'Gator' Type Park Maintenance Vehicle to 1000kg GVM • Golf Cart to 1000kg GVM 	<ul style="list-style-type: none"> • Vehicles with a Maximum 3.5t GVM and 2.25t Maximum Axle Load such as 4X4 Utility Vehicle or Mercedes Benz "Sprinter" Ambulance 	<ul style="list-style-type: none"> • Road Legal Heavy Vehicles with Maximum Axle Load not Exceeding 10.0t

NOTES

1. This table is to be used for preliminary design only. A specific structural design is required for every project prior to ordering of materials.
2. All dimensions in metres.
3. N/R = Not Recommended.
4. Tabulated spans assume joists are at 600mm CTS.
5. Tabulated spans assume joists are in single span (simply supported). Spans can be increased by 20% for 2 or 3 span continuous spans of the same length.
6. Dead load deflections are limited to a long term deflection of L/240 assuming 0.5Kpa dead load and 2.5 long term creep factor.
7. Live load deflections are limited to L/200 under the full design UDL or Point Load, and 1.7mm under a 1.0kN midspan Point Load.
8. Design Point Loads for vehicles are based on 60:40 load distribution on axle with additional 10% dynamic load allowance.
9. Vehicle traffic is assumed to be slow moving (<10km/hr).