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Oversize Road Train and B-Double Period Permit Operating Conditions

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Amendments

Revision Number	Revision Date	Description of Key Changes	Section
1	1 February 2021	Updated document format and amended load height provision to 4.9m, specifically when carrying oversize huts.	All, cl.8.4 & 10.2
2	26 May 2023	Updated vehicle category chart. Added trailer gap requirements. Added 40 metre combinations and associated access provisions. Provided forward project, rear overhang and S-dimension concessions for oversize huts.	cl. 1.1, 4.5, 5, 8.2
3	21 September 2023	Added Category 1.1 RAV to Section 5 and added clause 5.5 to allow this combination length to exceed 20.0 metres, but not exceed 22.0 metres, excluding the dolly.	5
4	21 November 2023	Amended General Height Limits to remove minimum 14.0 tonnes on tandem axle groups and added note about WAHVA requirements to manage rollover risk and a link to online SRT calculator. Clarified the prevailing dimension requirements when carrying one (1) oversize hut on each trailer.	cl. 4.3 & s.5.

DEFINITIONS

The following are definitions for terms used in these Operating Conditions. Refer to the definitions in the Road Traffic (Administration) Act 2008 and the Road Traffic (Vehicles) Act 2012 and any subsidiary legislation to these Acts for the meanings of any terms not defined in this section. If a definition in the relevant Acts or the subsidiary legislation conflicts with a definition in this section, the definition in this section prevails for the purpose of these Operating Conditions.

Term	Definition		
Curfew	A period when the movement of a RAV is not permitted		
Day	The hours between sunrise and sunset. Sunrise and sunset times can be obtained from the Perth Observatory website at www.perthobservatory.com.au/ or by contacting the Perth Observatory on 08 9293 8255, or from the Geoscience Australia website at http://www.ga.gov.au/geodesy/astro/sunrise.jsp		
Large Indivisible Item	An item that: (a) cannot be divided without extreme effort, expense or risk of damage to it; and (b) cannot be carried on any vehicle without exceeding a mass or dimension limit in the Road Traffic (Vehicles) Regulations 2014.		
Licensing Authority	A Government Authority responsible for the administration of the vehicle licensing provision of the law of the relevant State, Territory or the Commonwealth.		
Main Roads Website www.mainroads.wa.gov.au			
Metropolitan Area	As depicted in Appendix 1, means the area within — (a) the northern boundaries of the local government districts of Wanneroo, Swan and Mundaring; (b) the eastern boundaries of the local government districts of Wanneroo, Swan, Mundaring, Kalamunda, Armadale and Serpentine-Jarrahdale; (c) the southern boundaries of the local government districts of Serpentine-Jarrahdale and Rockingham; and (d) the Indian Ocean coastline.		
Night	The hours between sunset and sunrise. Sunset and sunrise times can be obtained from the Perth Observatory website at www.perthobservatory.com.au/ or by contacting the Perth Observatory on 08 9293 8255, or from the Geoscience Australia website at http://www.ga.gov.au/geodesy/astro/sunrise.jsp		
Peak Traffic Periods	The hours of 7:30am to 9:00am and 4:30pm to 6:00pm, Monday to Friday (public holidays excluded).		
Permit	A permit issued under Part 4 of the <i>Road Traffic (Vehicles) Act 2012,</i> which these conditions form part of.		
Permit Holder	The Operator to whom the permit is issued.		
Posted Speed Limit	The speed limit indicated on the speed limit sign or in the absence of a speed limit sign in a built-up area, 50 kilometres per hour.		
RAV	An approved vehicle combination to which to which the "Oversize Road Train and B-double Period Permit" applies.		

Term	Definition
Tandem Drive Network 7	The Tandem Drive Network 7 approved roads are published in the form of Road Tables or are available on the RAV Mapping Tool on the Main Roads website.
Tandem Drive Network 9	The Tandem Drive Network 9 approved roads are published in the form of Road Tables or are available on the RAV Mapping Tool on the Main Roads website.
27.5 m Oversize B- double Network	The 27.5 m Oversize B-double Network of approved roads are published in the form of Road Tables or are available on the RAV Mapping Tool on the Main Roads website.
27.5 m Oversize Road Train Network	The 27.5 m Oversize Road Train Network of approved roads are published in the form of Road Tables or are available on the RAV Mapping Tool on the Main Roads website.
36.5 m Oversize Road Train Network	The 36.5 m Oversize Road Train Network of approved roads are published in the form of Road Tables or are available on the RAV Mapping Tool on the Main Roads website.
53.5 m Oversize Road Train Network	The 53.5 m Oversize Road Train Network of approved roads are published in the form of Road Tables or are available on the RAV Mapping Tool on the Main Roads website.

REFERENCES AND RELATED DOCUMENTS

The following documents relate to these Operating Conditions and are available on the Main Roads website:

Document Title	Location		
Guidelines for Transporting Multiple Items on an Oversize or Over-mass Vehicle	Available on the Oversize Overmass (OSOM) page on the Main Roads website: <a getting-a-permit="" globalassets="" heavy-vehicles="" href="https://www.mainroads.wa.gov.au/globalassets/heavy-vehicles/getting-a-permit/osom/guidelines-for-transporting-multiple-items-on-an-oversize-or-over-mass-vehicle-november-2020.pdf?v=4ac4fa</th></tr><tr><th>Oversize Vehicle & Pilot Vehicle General Requirements</th><th>Available on the Oversize Overmass (OSOM) page on the Main Roads website: https://www.mainroads.wa.gov.au/globalassets/heavy-vehicles/getting-a-permit/osom/oversize-vehicle-and-pilot-vehicle-general-requirements.pdf?v=49f806		

1 APPLICATION

1.1 Approved Vehicles

1.1.1 The "Oversize Road Train and B-double Period Permit" applies to a RAV in the following table, when carrying one or more large indivisible items:

Category 1 RAVs					
Cat.	Vehicle Description	Maximum Length	Approved Network	Maximum Height	Maximum Width
1.1	Prime Mover, Semi-Trailer towing a Dolly	≤20.0 m + Dolly	27.5 m Oversize B-double Network	4.6 m	3.5 m
1.2	B-Double	≤27.5 m	27.5 m Oversize B-double Network	4.6 m	3.5 m
	Category 2 RA	AVs			
Cat.	Vehicle Description	Maximum Length	Approved Network	Maximum Height	Maximum Width
2.1	A-Double (Prime Mover, Semi-Trailer & Dog Trailer)	≤27.5 m	27.5 m Oversize Road Train Network	2.9 m	3.5 m
	Category 3 RA	AVs			
Cat.	Vehicle Description	Maximum Length	Approved Network	Maximum Height	Maximum Width
3.1	B-Double towing a Dolly	27.5 m, + Dolly	36.5 m Oversize Road Train Network	4.6 m	3.5 m
3.2	A-Double (Prime Mover, Semi-Trailer & Dog Trailer)	>27.5 m, ≤36.5 m	36.5 m Oversize Road Train Network	4.3 m	3.5 m
3.3	A-Double (Prime Mover, Semi-Trailer & Dog Trailer)	>27.5 m, ≤36.5 m	36.5 m Oversize Road Train Network	4.6 m	3.5 m

	B-Triple		36.5m		
3.4		>27.5 m, ≤36.5 m	Oversize Road Train Network	4.6 m	3.5 m
3.5	BA-Triple (B-Double & Dog Trailer)	>27.5 m, ≤36.5 m	36.5 m Oversize Road Train Network	4.6 m	3.5 m
3.6	AB-Triple (Prime Mover, Semi-Trailer & B-Double)	>27.5 m, ≤36.5 m	36.5m Oversize RAV Network	4.6 m	3.5 m
	Category 4 RA	AVs			
Cat.	Vehicle Description	Maximum Length	Approved Network	Maximum Height	Maximum Width
4.1	A-Double (Prime Mover, Semi-Trailer & Dog Trailer)	>36.5 m ≤40 m	Tandem Drive Network 9	4.3 m	3.5 m
4.2	A-Double (Prime Mover, Semi-Trailer & Dog Trailer)	>36.5 m ≤40 m	Tandem Drive Network 9	4.6 m	3.5 m
4.3	B-Triple	>36.5 m ≤40 m	Tandem Drive Network 9	4.6 m	3.5 m
4.4	BA-Triple (B-Double & Dog Trailer)	>36.5 m ≤40 m	Tandem Drive Network 9	4.6 m	3.5 m
4.5	AB-Triple (Prime Mover, Semi-Trailer & B-Double)	>36.5 m ≤40 m	Tandem Drive Network 9	4.6 m	3.5 m
4.6	A-Double towing a Dolly	36.5 m + Dolly	Tandem Drive Network 9	4.3 m	3.2 m

Category 5 RAVs					
Cat.	Vehicle Description	Maximum Length	Approved Network	Maximum Height	Maximum Width
5.2	A-Triple (Prime Mover, Semi-Trailer & 2 Dog Trailers)	>36.5 m, ≤53.5 m	53.5 m Oversize Road Train Network	4.3 m	3.2 m

1.2 Approved Axle Configuration

1.2.1 The axle groups of a RAV described in clause 1.1 are colour coded to indicate the minimum and maximum number of axles allowable for that category of vehicle, as shown below:



- **1.2.2** The "Oversize Road Train and B-double Period Permit" does not apply to a vehicle with less than the number of axles indicated.
- **1.2.3** The "Oversize Road Train and B-double Period Permit" does not apply to a vehicle with more than the number of axles indicated.

2 COMPLYING WITH LICENSING CONDITIONS

In addition to these Operating Conditions, the RAV must be driven in accordance with any conditions of the vehicle's licence, as imposed by the relevant licensing authority.

3 USING A NON-COMPLYING VEHICLE

3.1 Obtaining Exemptions or Modifications

A RAV may consist of a non-complying vehicle mentioned in clause 3.2, provided the relevant licensing authority has issued the necessary vehicle standards exemption.

3.2 Accepted Non-Complying Vehicles

A semi-trailer with a non-complying length may be used, provided:

- (a) The semi-trailer does not exceed 9.5 metres from the king pin to the centre of rear axle group; and
- (b) The semi-trailer does not exceed 13.2 metres from the king pin to the rear of the trailer; and
- (c) The front of the semi-trailer forward of the king pin does not exceed 1.43 metres or a radius of 1.9 metres; and
- (d) The semi-trailer is used as the rearmost trailer in the vehicle combination.

4 DIMENSION REQUIREMENTS

The modified width and height limits provided under the "Oversize Road Train and B-double Period Permit" only apply to large indivisible items that are being carried.

4.1 Length Limits

- **4.1.1** A RAV operating under the "Oversize Road Train and B-double Period Permit" must not exceed the maximum length indicated for the particular vehicle combination in the table under clause 1.1.
- **4.1.2** The two (2) semi-trailers used in a B-double must not be more than 20.6 metres in combined length, measured from the king pin of the lead semi-trailer to the rear of the second semi-trailer (including the space between the semi-trailers).

4.2 Width Limits

A RAV operating under the "Oversize Road Train and B-double Period Permit" must not exceed the maximum width indicated for the particular vehicle combination in the table under clause 1.1.

4.3 General Height Limits

A RAV operating under the "Oversize Road Train and B-double Period Permit" must not exceed the maximum height indicated for the particular vehicle combination in the table under clause 1.1.

Note: The rollover risk of the RAV must be managed and records must be kept in accordance with the Western Australian Heavy Vehicle Accreditation - Dimension & Loading Management Module Standards.

The <u>Static Rollover Threshold Calculator</u> is available on the Main Roads website to assist in assessing the rollover risk of the RAV and its load. This then allows for the load to be adjusted accordingly or ensure there are suitable controls in place to mitigate the risks.

4.4 Axle Spacings

A RAV must comply with the minimum axle spacing requirements specified in the following table:

Adjacent Axles or Axle Groups	Minimum Distance
Single axle to single axle	2.5 m
Single axle to tandem axle group	4.3 m
Single axle to tri axle group	5.5 m
Tandem axle group to tandem axle group	6.8 m
Tandem axle group to tri axle group	8.0 m
Tri axle group to tri axle group	9.2 m

Note: Axle spacing measurements are taken from the outermost extreme axles of the two adjacent axle groups, as shown below:

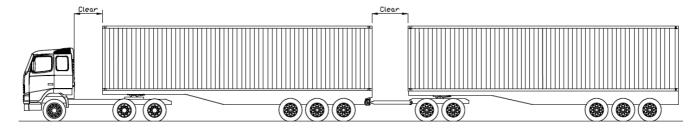


[&]quot;Single axle" does not include a single steer axle.

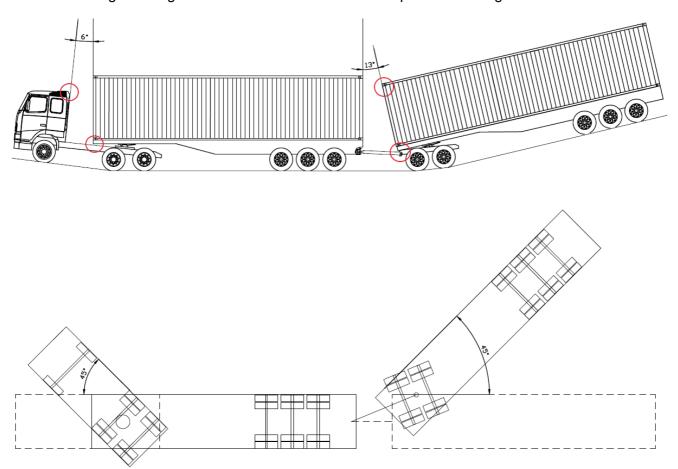
[&]quot;Tandem axle group" does not include a twin steer axle group.

4.5 Trailer Gap Requirements

- **4.5.1** The RAV must be able to achieve the following angles of rotation simultaneously and independently, without any part of the trailer contacting any part of the towing vehicle (i.e. prime mover, lead semi-trailer or converter dolly), including the load:
 - (a) Articulation 45° left and right;
 - (b) Pitch 6° forward and 7° rearward;
 - (c) Roll as provided by the coupling.
- **4.5.2** There must be sufficient clear gap, as per the below example to achieve the specified angles of rotation:



4.5.3 The clear gap must be sufficient to enable the trailers to move through all the specified angles of rotation without contacting any other part of the towing vehicles, as per the following two diagrams. The red circles indicate the potential fouling zones.



5 CONCESSIONS WHEN CARRYING OVERSIZE HUTS

This section only applies to a Category 1.1, 3.2, 3.3, 4.1 and 4.2 RAV when carrying one (1) oversize hut on each trailer and the dimensions specified prevail other dimension requirements within these Operating Conditions.

5.1 Forward Projection

The semi-trailer forward projection limit may be exceeded, subject to compliance with the trailer gap requirements stipulated under clause 4.5.

5.2 Rear Overhang

- **5.2.1** The rear overhang on the rear trailer must not exceed 3.7 metres.
- **5.2.2** The rear overhang limit on the lead trailer may be exceeded, subject to compliance with the trailer gap requirements stipulated under clause 4.5.

5.3 S-Dimension

The distance measured from the king pin to the centre of rear axle group of any semi-trailer within the RAV may exceed 9.5 metres, but must not exceed 11 metres.

5.4 Height Allowance

The height may exceed 4.6 metres, but must not exceed 4.9 metres.

5.5 Length Allowance

The maximum length of a Category 1.1 RAV may exceed 20.0 metres, but must not exceed 22.0 metres, excluding the dolly.

6 WARNING DEVICES

6.1 Lights

- **6.1.1** A RAV exceeding 2.5 metres in width must operate with headlights switched on at all times.
- **6.1.2** A RAV in excess of 2.5 metres in width must display at least one amber warning light complying with the requirements set out in the *Oversize Vehicle & Pilot Vehicle General Requirements*.
- **6.1.3** A RAV must not display an amber warning light if not required under this clause.

6.2 Warning Signs and Flags

- **6.2.1** In addition to the "Long Vehicle" or "Road Train" warning sign required under the *Road Traffic (Vehicles) Regulations 2014*, a RAV exceeding 2.5 metres in width must clearly display:
 - (a) "Oversize" warning signs on the front of the vehicle; and
 - (b) "Oversize" warning signs on the rear of the vehicle or if carrying a rear projecting load, the "Oversize" warning sign is to be mounted as close to the rear of the load as practical; and
 - (c) Four (4) warning flags. One flag must be positioned at each side of both the front and rear of the vehicle, or if there is any projecting load, at each side of both the front and rear of the projecting load.

- **6.2.2** A warning flag must comply with the requirements set out in the *Oversize Vehicle & Pilot Vehicle General Requirements*.
- **6.2.3** An "Oversize" warning sign must comply with the requirements set out in the *Oversize Vehicle & Pilot Vehicle General Requirements*.
- **6.2.4** A RAV must not display an "Oversize" warning sign if not required under this clause.

6.3 Delineating Side Projection

A RAV carrying a load that projects beyond the side of the vehicle and any part of the projecting load extends horizontally more than 150 mm and is less than 500 mm thick from top to bottom, must display:

- (a) A warning light, which must comply with the requirements set out in the *Oversize Vehicle & Pilot Vehicle General Requirements*; and
- (b) Delineation on the side projection in accordance with the allowable methods, as set out in the Oversize Vehicle & Pilot Vehicle General Requirements.

6.4 Additional Warning Devices at Night

A RAV travelling at night must also display:

- (a) Lights showing yellow to the front and red to the rear (known as "side markers"), no more than 2 metres apart along both sides of the vehicle or load;
- (b) If in excess of 2.5 metres in width, yellow or white lights (known as "front clearance lights") on the front of the trailer deck, one on each side of the trailer, as near as practical to the front outer edge and clearly visible to oncoming traffic;
- (c) If carrying a load that is not contained within the confines of the vehicle, flood lights attached to the load or the trailer, directed upward at the extremities of the load in a manner so as not to dazzle any driver.

7 CURFEWS

7.1 Night Curfew

A RAV that exceeds 2.7 metres in width must not operate at night.

7.2 Metropolitan Curfew

A RAV that exceeds 2.7 metres in width must not be driven on any road within the Metropolitan Area during the peak traffic periods, other than the roads depicted in <u>Appendix 1</u> as an "Approved Road" within the Metropolitan Area during curfew.

8 ACCESS REQUIREMENTS

8.1 Prohibited Roads

- **8.1.1** A RAV must not travel on any Freeway, except on Kwinana Freeway between Anketell Road and Forrest Highway.
- **8.1.2** A RAV exceeding 2.5 metres in width must not travel on a road that is identified as a "Low Volume (LV)" road in the 27.5m Oversize B-double Network.

8.2 Approved Roads & Conditions

8.2.1 Subject to clause 8.1, a RAV must only operate on roads in the Approved Network specified for the particular vehicle category in clause 1.1.

- **8.2.2** A RAV must operate in accordance with any conditions specified for a particular road in the Approved Network.
- **8.2.3** In addition to the Approved Networks under subclause 8.2.1, a Category 3 and 4 RAV may operate on *Tandem Drive Network 7*, provided the RAV is accompanied by two pilot vehicles. One pilot vehicle must be positioned at the front of the RAV and the other pilot vehicle must be positioned at the rear of the RAV, unless required to be in another position to safely manage traffic.

8.3 Route Survey

- **8.3.1** Prior to departure, the operator or driver of the RAV must assess the route of travel to ensure that it is suitable for use and that it can be driven along without contravening these Operating Conditions.
- **8.3.2** A RAV must not be driven along a route or within an area if doing so would be likely to cause:
 - (a) Damage to property or another vehicle; or
 - (b) Damage to telecommunication, electrical, gas, water or sewage services; or
 - (c) Damage to a road (including a bridge), structure, roadside furniture, rail crossing or tree.

8.4 Other Agency Height Approval

- **8.4.1** A RAV exceeding 4.6 metres in height must not be driven on a road without current written approval from all the relevant overhead cable operator(s).
- **8.4.2** Written approvals must be carried in the RAV and produced upon request.

Note: "Contact Details for Other Agency Approvals" are available on the Oversize Overmass (OSOM) page on the Main Roads website.

8.5 Minimum Following Distance

The driver of a RAV must maintain a distance of at least 200 metres from any other heavy vehicle travelling in front of it, unless:

- (a) The RAV is overtaking the vehicle in front or the vehicle in front is stopping; or
- (b) There is a separate lane available for the use of overtaking traffic; or
- (c) The RAV is in an urban area and it is not reasonably practicable to maintain such a distance: or
- (d) The RAV is stopped, or coming to a stop for the purpose of complying with a provision of any law or avoiding conflict with other traffic.

8.6 Poor Visibility

- **8.6.1** The driver of a RAV must not begin to travel if, due to circumstances such as fog, heavy rain, smoke, dust or insect plague:
 - (a) The visibility is less than 250 metres during the day; or
 - (b) The headlights of a vehicle approaching within 250 metres could not be seen at night.
- **8.6.2** Where a RAV is already travelling when visibility is reduced to the level described above, the driver must drive into the nearest safe parking area, and wait until visibility improves beyond that level before continuing to travel.

9 SPEED RESTRICTIONS

Unless otherwise specified as a condition for a particular road in the Approved Network, a RAV must not travel at a speed exceeding 10 km/h lower than the posted speed limit, where the posted speed limit is greater than 60 km/h.

10 CARRYING MULTIPLE ITEMS

- **10.1.1** A RAV must only carry multiple items in accordance with the *Guidelines for Transporting Multiple Items on an Oversize or Over-mass Vehicle*.
- **10.1.2** A RAV carrying items other than a large indivisible item must be reduced to its minimum practicable dimensions, e.g. extendable trailers closed.
- **10.1.3** A RAV may carry multiple oversize tyres, side by side in the upright standing position. For the purpose of this clause, an oversize tyre is a tyre with a diameter in excess of 2.5 metres.

11 COMPULSORY HEAVY VEHICLE INCIDENT REPORTING

All on-road incidents involving a RAV must be reported to Main Roads Heavy Vehicle Services by the permit holder. The Heavy Vehicle Incident Reporting form is available on the Incident Reporting page on the Main Roads website, and it must be submitted within 48 hours of the incident occurring.

12 AMENDMENTS TO OPERATING CONDITIONS & ACCESS

12.1 Access Approval Suspension & Revocation

- **12.1.1** Approval to operate a RAV may be suspended when road and/or traffic conditions are considered unsuitable. Main Roads personnel, WA Police or Traffic Escort Wardens, may make verbal notification of such suspension.
- **12.1.2** Approval to operate a RAV may be suspended or revoked if the operator or vehicle combination fails to comply with any of the requirements specified in these Operating Conditions.

12.2 Amendments & Notifications

- **12.2.1** These Operating Conditions are subject to occasional amendments. If amendments are made that impact transport operators, they will be published as an "HVS Update" on the Main Roads website on the first working day of the month. Operators and drivers are required to ensure that they are operating vehicles on the public road network in accordance with the current Operating Conditions.
- 12.2.2 The RAV Networks are subject to periodic amendments, which include additional roads being included in the lists, roads being removed from the lists, or amendments being made to a condition relating to a particular road in the lists. RAV Network updates will be effective from the Wednesday following the amendment and the RAV Networks are maintained on the Main Roads website. Operators and drivers are required to ensure they are operating vehicles on the public road network in accordance with the current and up to date RAV Networks.

- **12.2.3** Heavy Vehicle Travel Impact Tables are published when road conditions may impede the movement of Restricted Access Vehicles. Operators and drivers are required to check the Heavy Vehicle Travel Impact Tables on the Main Roads website prior to operating the vehicle on the public road network to ensure that there is no relevant information that will impede their vehicle operating on the WA road network.
- **12.2.4** All conditions stipulated in HVS Updates or Heavy Vehicle Travel Impact Tables must be adhered to.

Appendix 1: Metropolitan Area Curfew Map

