

# Operating a Performance-Based Standards vehicle in Victoria

## Industry Guide

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### Introduction

More productive heavy vehicles are essential to accommodate Victoria's growing freight task.

The Victorian freight task is predicted to increase from around 360 million tonnes in 2014 to nearly 900 million tonnes by 2051.

### Why Performance-Based Standards?

Victoria, along with other states, has introduced Performance Based Standards (PBS) to unlock the heavy vehicle industry's potential for innovative and optimised vehicle design.

PBS disconnects heavy vehicle design from prescriptive limits like height, weight and length and encourages new designs that emphasise safety and productivity.

For example, a 6x4 truck towing a quad-dog trailer operating under general mass limits (GML) is permitted to operate at 50t, whereas the same vehicle operating under PBS can operate to a limit as high as 57.5t.

This represents a productivity boost of 15 per cent.

All heavy vehicle combinations that exceed 26 metres and/or have a gross combination mass greater than 68.5 tonnes, as well as semi-trailers fitted with a quad-axle group, must operate under PBS.



### Purpose of this guide

This guide should be read prior to applying for PBS access within Victoria. It is designed to provide stakeholders in the PBS approval process – vehicle owners, PBS applicants, PBS assessors and vehicle designers and manufacturers – with information unique to the Victorian operating environment.

It is designed to complement information provided by the National Heavy Vehicle Regulator (NHVR), which administers the PBS scheme.

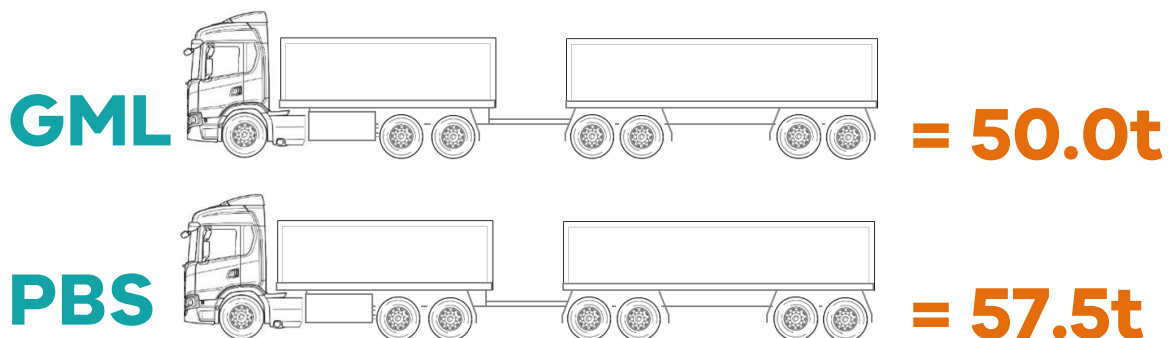


Figure 1: Comparison between a 6x4 truck towing four-axle trailer operating under general mass limits and under PBS



## Is PBS for you?

Ensure you have carefully considered the time and investment required in design, manufacturing and approvals for a PBS vehicle.

Prospective applicants seeking access to Victoria's PBS Level 1 and PBS Level 2A - Cubic networks must ensure their vehicle meets the [National Class 2 Performance Based Standards \(Tier 1\) Authorisation Notice 2021 \(No.1\)](#) as well as the Tier 1 bridge formula.

Prospective applicants for Victoria's PBS Level 2A - Mass, PBS Level 2B and PBS Level 3 networks must meet the [National Class 2 Performance Based Standards \(High Productivity\) Authorisation Notice 2021 \(No.1\)](#)

Prospective applicants should also consider whether a bespoke design is necessary or whether one of Victoria's reference vehicle designs would suit.

A reference vehicle design streamlines the process of PBS approval. An explanation of Victoria's PBS reference vehicle designs is available in the information sheet [Reference Designs for Performance Based Standards Vehicles](#) on the Department of Transport (DoT) website.

Applicants should allow up to 12 months to obtain the required approvals where vehicle designs are complex or routes are yet to be assessed.

## Before you begin

- Research the technology best suited to your business to deliver remote tracking. PBS vehicles require remote tracking via either the Intelligent Access Program (IAP) or Telematics Monitoring Application (TMA). Vehicle Identification Numbers (VIN) are required to apply for IAP and TMA, and may only be available after the vehicle has been built.
- Consider your readiness to participate in the [National Heavy Vehicle Accreditation Scheme \(NHVAS\)](#) which is mandatory for PBS vehicles operating at up to 68.5t GCM with more than 20.0t on a tri-axle group.
- Research the technology best suited to your business to deliver smart on-board mass monitoring. From November 2021, PBS vehicles operating at above 68.5t GCM (including quad-axle semi-trailers operating at above 46t GCM) must be fitted with a certified OBM system that can be integrated with IAP or TMA. More information is available at <https://www.vicroads.vic.gov.au/business-and-industry/heavy-vehicle-industry/heavy-vehicle-road-safety/new-telematics-requirements-for-hpfv-and-mobile-cranes>
- Be aware that PBS combinations cannot include non-PBS components without a permit amendment. PBS approval covers the entire vehicle combination, not the truck and trailer separately.

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## What is in-principle approval?

In Victoria, applicants for the PBS scheme can obtain in-principle approval prior to settling on a final vehicle design.

In-principle approval does not require a PBS assessor.

In-principle approval is valid for 12 months and provides certainty that your PBS vehicle will have network access as long as the final design is within the range of your initial application.

You must still apply for access after the PBS vehicle has been manufactured.

In-principle approval allows operators to factor the costs of access into their business case and can reduce the expense of engaging a PBS assessor.

In-principle applications are not recommended where there is uncertainty over the final vehicle design. Varying the design from your in-principle approval can be more expensive and time consuming than seeking the advice of a PBS assessor to begin with.

The process of obtaining in-principle approval can take up to six months, however, because bridge and route assessments can be completed during this stage, design approval and manufacture can be undertaken concurrently.



## Applying for in-principle approval

Applications for in-principle approval are made through the [NHVR portal](#). Your application will be similar to a PBS permit application, however it will include a range for the vehicle's axle spacings and mass rather than specific measurements.

For example, if your application fits within one of Victoria's reference vehicle designs, in-principle approval can be granted on the basis of the reference design's range of axle spacings and GCM.

The NHVR will forward your application for in-principle approval to DoT. From this step onward, the approval process will be similar to the standard PBS approval process.

In-principle approval acts as road manager consent under Division 2 of the National Heavy Vehicle Law. It authorises the NHVR to issue a PBS permit without the need to re-apply for consent from DoT.

Any changes to the vehicle's GCM, dimensions or route will require DoT to re-assess access.





## Engaging a PBS assessor<sup>1</sup>

Once you've identified that a PBS vehicle is the option that best suits your business needs, you will need to engage a certified PBS assessor.

A PBS assessor can:

- Develop a vehicle design;
- Provide support during in-principle applications;
- Seek design approval;
- Liaise directly with a vehicle manufacturer to ensure the vehicle matches your design
- Submit access permits.

A list of approved PBS assessors can be found at <https://www.nhvr.gov.au/road-access/performance-based-standards/assessors-and-certifiers/assessors>.

You should engage a PBS assessor who understands your needs and has experience with similar vehicle designs.



<sup>1</sup> If you are applying for access for a reference vehicle on a gazetted network, some steps will not be required.

## Selecting a vehicle design

Here is where you and your PBS assessor work together to design a vehicle that accommodates your business needs.

Your assessor will ask questions such as:

- What will you be transporting?
- What is the mass and dimensions of your freight?
- Where will you be travelling?
- What constraints will you encounter?

Your assessor will advise the likelihood of approval and any design changes you should consider.

During this stage, your assessor may also recommend a reference vehicle design.

Once you have decided on a vehicle design, your assessor will apply to the NHVR for design approval.

Your application for design approval will be considered by the PBS Review Panel (PRP).

## The PBS Review Panel

The PRP is an advisory body appointed by the NHVR to provide expert advice in the assessment process. It comprises representatives from each state and territory, a chair and a deputy.

The PRP forwards your application to Victoria's PRP representative for initial review.

The Victorian PRP representative:

- Ensures the application complies with the 16 safety and four infrastructure standards.
- Considers exemption requests (for requirements such as frontal swing and swept path).
- Provides advice on the appropriate network access for the vehicle.

Once the Victorian representative is satisfied with your application, it will be returned to the PRP. The PRP will undertake a final check and advise the NHVR, which will issue design approval to your PBS assessor.

Design approval initiates the purchase and/or construction of your PBS vehicle.



## Seeking vehicle approval

Once you have taken ownership of your PBS vehicle, the next step is to engage the services of a PBS certifier.

A PBS certifier is a mechanic trained specifically in PBS and licensed to ensure that PBS vehicles remain the safest heavy vehicles on the network.

The certifier's job is to ensure the vehicle meets the design approval issued by the NHVR. The certifier may highlight issues that need to be resolved prior to recommending a vehicle approval (VA).

A VA is the certification allowing a vehicle to operate under PBS.

On receipt of the inspection report from the PBS certifier, the NHVR will undertake a final audit of your application prior to issuing a VA.

A VA will include the vehicle and trailer's VIN and specify any operating conditions.



## Applying for access

Complying PBS Level 1, 2 and 3 vehicles can access an approved network of roads without the need for an access permit. This is referred to as the gazetted network and can be found at <https://www.vicroads.vic.gov.au/business-and-industry/heavy-vehicle-industry/heavy-vehicle-map-networks-in-victoria/cl2-pbs-hpfv>

Operators who need to travel on routes that are not gazetted must apply for an access permit. Applications for access permits are made through the NHVR portal. Your vehicle must have a VA prior to applying.

The NHVR will allocate your application to the relevant road manager.

As the road manager for Victoria's arterial road network, DoT will determine whether a bridge assessment is required.

If you need access to local roads, the NHVR will forward your application to the relevant local government for review.

Table 1 indicates the threshold mass triggering a bridge assessment.

PBS vehicles that meet the design parameters of a reference vehicle operating on a gazetted network do not require a bridge assessment.

Table 1

Vehicle	GCM triggering bridge assessment*
<b>B-double</b>	68.5t
<b>A-double</b>	68.5t
<b>Innovative PBS</b>	43.0t
<b>Quad-axle semi trailer</b>	46.0t

Indicative only. A bridge assessment may still be required as a result of factors such as non-standard axle groups.

Table 2

Number of vehicles	Number of routes	Total amount	Timeframe
<b>1</b>	1	\$1,000 - 8,000	2 weeks
<b>1</b>	Multiple	\$2,000 - 30,000	2+ weeks
<b>Multiple</b>	1	\$2,000 - 10,000+	2+ weeks
<b>Multiple</b>	Multiple	\$2,000 - 50,000+	2+ weeks



## Getting a bridge assessment

If you require a bridge assessment, DoT will ask you for written acceptance of a \$500 quotation fee.

You should allow DoT 14 business days to prepare the quote. Table 2 contains estimated costs based on historical data and is indicative only.

You will be advised by email of the total amount owing, less the \$500 quotation fee.

Quotes are valid for a fortnight and you must inform DoT if you wish to proceed. If you elect not to, you will be invoiced \$500 and your application will be cancelled.

If you accept the quote, DoT will advise of an expected completion date of your assessment.

At this point, you will be invoiced for the total amount owing.

You will also receive email notification via the NHVR portal and a link to the access permit. A copy of this permit must be carried in the vehicle at all times.

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## Crossing tracks

Some PBS vehicles require a separate permit to cross rail tracks or tram tracks. The gazetted network or your NHVR permit will indicate whether you need to apply for a rail permit.

Further information on crossing rail and tram tracks is available from the information sheet *ODL Vehicles Crossing Tramways and Railways* available at <https://transport.vic.gov.au/getting-around/roads/over-dimensional-load-permits-for-travel-across-railways-and-tramways>.

## Amendments to access permits

Approved mass limits on Victoria's road network are based on a worst-case scenario, and in some cases, may be less than the mass provided on your permit. Unless there are changes to your vehicle configuration like axle mass or spacings, you can continue to operate at the mass approved on your permit.

Any changes made to your vehicle will be assessed by DoT. If the combination is deemed to have retained the key performance characteristics of its VA, the original access permit will be honoured.

Where degradation or damage has reduced the posted mass limit of a structure, the NHVR will inform you of the change and amend your access permit accordingly.

## Renewals to PBS permits

Once your vehicle has PBS approval, you have access to the gazetted network as well as any other routes in your application for the nominated period.

Access to roads managed by DoT is valid for two years. Access to roads managed by local government or other third parties is at the road manager's discretion.

If your access is for a gazetted network, your PBS permit must be renewed annually.

## Renewals to access permits

Fourteen days prior to its expiry, the NHVR will forward your renewal to the relevant road manager/s. Once all road managers have consented to renewal, the NHVR will check any conditions added to the permit and ensure they are valid for the vehicle type.

Email notification of your renewal will include a link to the portal where your new permit can be accessed.

A road manager has 14 days to grant consent or deny access. If 14 days pass without a response, the NHVR will automatically renew access.

A renewal application submitted less than two weeks prior to expiry jeopardizes access.





PBS design and vehicle approval and access permit process

