Low Volume Vehicle Technical Association (inc)

Helping New Zealanders Build & Modify Safe Vehicles

LVV Operating Requirements Schedule

Chapter 10
LVV File Review System

Version 12 | Effective from 1 October 2025

Approval Record

Signed in accordance with clause *1.3(5)* of the *Low Volume Vehicle Code* of LVVTA, on …… by:			
New Zealand Transport Agency		Low Volume Vehicle Technical Association	
Name	Signature ----------	Name	Signature ----------

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Note 1 The first ten amendment processes to the LVV ORS (Amendment #s 1-10), carried out between August 2003 and June 2017, were made to the complete ORS document. From Amendment # 11 (which is Version 12, issued 10 September 2025), amendments are carried out to individual chapters.

Note 2 Text highlighted in grey shows amendments that have been made subsequent to the previous version of this chapter, and a grey vertical stroke to the left of the text denotes important new or changed information (which may include information which has been removed).

About the LVV Operating Requirements Schedule

The LVV Operating Requirements Schedule (LVV ORS), and its sub-set of LVV ORS chapters (the chapters) set out the operational systems and processes which enables the LVV certification system to function effectively. Whereas the *Low Volume Vehicle Code* provides the legal platform upon which the LVV certification system operates, the LVV ORS provides robust operational systems and processes to ensure that LVV certification outcomes are consistent, fair, transparent, and of a high quality.

Author, Publisher, & Owner

This chapter is authored, published, and owned by the Low Volume Vehicle Technical Association Incorporated (LVVTA). LVVTA is an incorporated society established in 1992, that represents a group of specialist automotive organisations (in turn representing approximately 150,000 members) who are dedicated to ensuring that vehicles, when scratch-built or modified, meet the highest practicable safety standards.

The information in this chapter has stemmed from work undertaken by LVVTA founding member organisations that commenced in 1989 and has been progressively developed as an integral part of the New Zealand Government's land transport regulatory system, by agreement and in consultation with the New Zealand Transport Agency (NZTA).

As a result, the considerable experience in specialist certification management built up by LVVTA and the specialist automotive member groups over the past several decades can be of benefit to members of the New Zealand public who also wish to build or modify motor vehicles.

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Availability & Current Version

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Note that printed copies of this chapter, like any other printed LVVTA documents, may have been superseded by a later version and become out of date.

Therefore, this and all other LVVTA documents should not be relied upon without first ensuring that the version number (on the right-hand side of the header above) is the current version – please visit the LVV ORS area of www.lvvta.org.nz to check that this chapter is in fact the latest version.

User's Feedback

This chapter is constantly undergoing an evolutionary development process in order to keep pace with changing trends and technology. To assist in this, LVVTA invites users of the chapter to engage in an ongoing consultation process with us by making submissions for any changes, additions, or clarifications which might improve the chapter, at any time.

Any submissions made via this rolling consultation process will be thoroughly considered, and incorporated, where appropriate, at the next available amendment opportunity.

Submissions should be made to submission@lvvta.org.nz, with the name of this chapter in the Subject line.

Legal Status & Copyright

This chapter is incorporated by reference, as an integral part of the *Low Volume Vehicle Code*, within *Land Transport Rule: Vehicle Standards Compliance 2002*.

Disclaimer

LVVTA has made all reasonable efforts to provide sound and correct advice, based on the historical knowledge and best practice experiences of all parties involved in the development and production of this chapter.

However, no responsibility or liability is accepted by LVVTA for any error or omission, or any loss suffered by any person relying directly or indirectly on this chapter. Any person who builds or modifies a motor vehicle accepts that there may be some associated risks, and does so in the full knowledge of this, and accepts full responsibility for their own actions.

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Chapter 10:
LVV File Review System

Purpose of this Chapter

The purpose of this LVV Operating Requirements Schedule chapter (the chapter) is to explain LVVTA's roles and responsibilities in relation to applying the LVV File Review System prior to activating the LVV Electronic Data Plate (LVV EDP). 'File Review', in this context, means a comprehensive desk-top auditing process, which has been progressively developed by LVVTA over many years specifically for the LVV certification system.

There are two types of LVV File Reviews undertaken by LVVTA. These are:

- the Administrative File Review, which is a limited desk-top audit applied to every LVV certification; and
- the Technical File Review, which is a more thorough and detail-oriented desk-top audit, heavily focussed on the technical quality of the LVV certification inspection, that is applied to LVV certifications on a sampling and targeted-to-risk basis.

This chapter should be read in conjunction with *LVV ORS Chapter 8: LVV Certification Inspection Procedures*, *LVV ORS Chapter 9: Submission of LVV Certification Files*, and *LVV ORS Chapter 12: LVV Certification Plates and Labels.*

Italics are used throughout this chapter when referencing *'external documents'* that are not part of this chapter.

Section 1 Principles of the LVV File Review System

1.1 Introduction

There are very few authorised LVV Certifiers throughout New Zealand, and so they have no choice but to work in isolation and do the best they can. LVV Certifiers don't have the luxury of bouncing things around with their peers in the same way as, say, a mechanic working in a large mechanical workshop does, or even a Warrant of Fitness inspector in a testing station can.

Because of the highly complex and diverse nature of LVV certification, it's easy for even the most experienced LVV Certifier to miss something during an inspection. LVVTA also recognises that anyone can have a bad day, and so the best outcomes are achieved by LVV Certifiers and LVVTA supporting each other to achieve the safest possible LVV certification outcomes.

To minimise the likelihood of modified or scratch-built vehicles being incorrectly certified and going on the road in an unsafe form, LVVTA has developed a number of safeguards over the years to protect LVV Certifiers, vehicle owners, and the integrity of the LVV certification system.

1.2 LVV Electronic Data Plates

At the end of the LVV certification inspection process, the LVV Certifier affixes an LVVTA-supplied LVV Electronic Data Plate (LVV EDP) to the vehicle, and then submits the *LVV Certification File* relating to the vehicle to LVVTA. At the time of affixing the LVV EDP, it is just an empty disc and contains no information. On its own, the LVV EDP is of no value until LVVTA activates the LVV EDP with the information relating to the LVV certified vehicle.

1.3 Introduction of the LVV File Review System

To enable LVVTA to verify the safety and compliance of a vehicle which has undergone an LVV certification inspection, a highly robust desk-top auditing regime known as the 'LVV File Review System', has been progressively developed over many years.

Since its introduction, the LVV File Review System has significantly reduced the likelihood of an LVV Certifier – knowingly or unknowingly - allowing an unsafe low volume vehicle to go on the road.

In essence, LVVTA's File Review System requires that a combination of specified documents and photographic evidence, known as the '*LVV Certification File*', are provided to LVVTA by the LVV Certifier upon completion of the LVV certification inspection. The *LVV Certification File* is comprised of specified *LVV Base Forms*, *LVV Inspection Form-sets*, supporting evidence, and photographic records.

Information about how an *LVV Certification File* is prepared and submitted can be found in *LVV ORS Chapter 9: Submission of LVV Certification Files*.

1.4 Finalising an LVV Certification Inspection

When LVVTA has completed a File Review on a *LVV Certification File* provided by an LVV Certifier and is satisfied that the applicable requirements (which vary depending on the type of File Review applied) have been met, LVVTA will link the pre-affixed LVV EDP to an on-line database that contains all of the information and photographs unique to that vehicle. This action finalises the LVV certification process.

LVVTA will not activate the LVV EDP if it has reason to believe that the LVV Certifier has not provided all of the required information and records within the *LVV Certification File*, or has not carried out the LVV certification inspection incorrectly, or that the vehicle is unsafe or non-compliant.

The LVV File Review System has become a highly effective 'firewall' in preventing an LVV Certifier's overlook, misinterpretation, or poor technical decision from 'hitting the street'. It's also a big component in the process of continuously improving consistency amongst the decision-making of all LVV Certifiers throughout New Zealand.

Information about the LVV EDPs can be found in *LVV ORS Chapter 12: LVV Certification Plates & Labels.*

1.5 Two types of LVV File Review

There are two types of LVV File Review; the 'Administrative File Review', which provides a cursory review of every LVV certification, and the 'Technical File Review' which is applied to some LVV certifications but looks at them in much greater detail.

The combination of the 'Administrative File Review' and the 'Technical File Review' has become the single-most important risk-mitigation element in the LVV certification system, by providing an everyday 'window' into the performance and capability of every LVV Certifier.

The LVV File Review system is, essentially, about 'lifting rocks', so that LVV Certifier performance problems can be identified early on, the problems can be resolved, and then those same problems are prevented from occurring again as a result of the coaching, mentoring, and training provided by LVVTA to fill any knowledge gaps.

The 'Administrative File Review' and the 'Technical File Review' combine to:

- show how each LVV Certifier is performing on a day-to-day basis; and
- reduce the likelihood of unknown underlying safety risks on LVV certified vehicles; and
- identify common problems and emerging trends; and
- provide information which can be used for mentoring and training other LVV Certifiers.

Section 2 Administrative File Review

2.1 Introduction

LVVTA reviews every LVV Certification File submitted by LVV Certifiers when applying for an LVV EDP. The process ensures that LVV Certifiers, for each LVV certification, are operating within the LVV certification categories for which they are appointed, they have completed and provided all required *LVV Base Forms* and *LVV Inspection Form-sets* correctly, and have supplied everything that is expected for the type of LVV certification undertaken.

One of the functions of the Administrative File Review is to identify those *LVV Certification Files* that should be referred to LVVTA's technical staff for a full Technical File Review. There are several 'triggers' for this referral, some of which are determined by specific criteria, some based on a percentage of each LVV Certifier's LVV certifications, and some targeted to any LVV Certifiers who are identified as presenting a higher level of safety risk than other LVV Certifiers.

2.2 Key Words and Key Terms

One of the 'triggers' comes from a series of 'key words' and 'key terms' that LVVTA has in its LVV EDP system for particularly complex or problematic modifications. These 'key words' or 'key terms', when entered into a vehicle's modification information during the Administrative File Review, will automatically trigger the appearance of a 'Refer for Technical Review' dialogue box. The presence of this dialogue box requires that the *LVV Certification File* must be referred to the LVVTA technical staff for a full Technical File Review.

2.3 Administrative File Review Requirements

2.3(1) LVVTA is required to carry out an Administrative File Review of every *LVV Certification File* submitted to LVVTA by an LVV Certifier, as specified in *LVV ORS Chapter 9: Submission of LVV Certification Files* (see Note 1 below).

Note 1	*LVV ORS Chapter 9: Submission of LVV Certification Files*, as referred to in 2.3(1) is available to the public electronically, free of charge, from the LVVTA website www.lvvta.org.nz

2.3(2) The Administrative File Review specified in 2.3(1) will provide a general focus on the *LVV Certification File* ensuring that:

(a) the LVV Certifier is only certifying modifications which are legally required to be LVV certified, or that the vehicle owner has requested LVV certification for despite there being no legal requirement in place which would cause the vehicle to become LVV certified; and

(b) the LVV Certifier is appointed for the LVV certification category required to LVV certify the type of modifications or construction features which have been carried out (see Note 1 below); and

(c) all LVV certification inspection documents have been provided as required by *LVV ORS Chapter 9: Submission of LVV Certification Files* (see Note 2 below); and

(d) photographs have been provided as required by *LVV ORS Chapter 9: Submission of LVV Certification Files*, and match the details of the LVV certification inspection documents (see Note 2 below); and

(e) any supporting documentation that would be expected for the modifications and construction features present on the vehicle have been provided (see Note 3 below); and

(f) the LVV Certifier has personally filled out the *LVV Base Forms* and *LVV Inspection Form-sets*.

Note 1	Details of the LVV certification categories, as referred to in 2.3(2)(b), are provided in *LVV ORS Chapter 3: LVV Certification Categories*, which is available to the public electronically, free of charge, from the LVVTA website www.lvvta.org.nz
Note 2	*LVV ORS Chapter 9: Submission of LVV Certification Files*, as referred to in 2.3(2)(c) and 2.3(2)(d), is available to the public electronically, free of charge, from the LVVTA website www.lvvta.org.nz
Note 3	An example of the requirement in 2.3(2)(e) is in the case of a vehicle which has had modifications carried out that could affect the vehicle's suspension geometry, then a wheel alignment report should be provided.

2.4 Outcomes of an Administrative File Review

2.4(1) Where one or more procedural or administrative errors are identified within an LVV Certifier's *LVV Certification File* during an Administrative File Review, LVVTA will:

(a) coach the LVV Certifier to help prevent reoccurrences of the same errors, as specified in section 4 of this chapter; and

(b) ensure that the *LVV Certification File* is complete and correct; and

(c) record the errors within the LVV Error Recording System (see Note 1 below).

Note 1	Information about the 'LVV Error Recording System', as referred to in 2.4(1)(c) is provided in *LVV ORS Chapter 11: LVV Error Recording & Reporting*, which is available to the public electronically, free of charge, from the LVVTA website www.lvvta.org.nz

2.5 Determining if a Technical File Review is Required

2.5(1) In addition to the obligations specified in 2.3 and 2.4, LVVTA will, during the Administrative File Review, determine whether an *LVV Certification File* is required to be referred for a Technical File Review.

2.5(2) A referral, as specified in 2.5(1), of an *LVV Certification File* for a Technical File Review, will occur if it is identified that either:

(a) safety or compliance issues are identified as being present, or having the potential to be present; or

(b) a 'key-word alert' or 'key-term alert' is raised by the LVV EDP software system to indicate that a modification or construction feature is present which may present a particularly high level of risk (see Note 1 below); or

(c) a vehicle has modifications or construction features that are particularly complex, including in LVV certification categories LV1D, LV2B, LV2C, LV3B (see Note 2 below); or

(d) an LVV Certifier is subject to the application of a Technical File Review on 100% of their *LVV Certification Files*, because either:

(i) the LVV Certifier is recently appointed and is within a probationary period; or

(ii) the LVV Certifier is an existing LVV Certifier but has been issued with a new LVV certification category, and is within a probationary period for the new category; or

(iii) the LVV Certifier is undergoing Performance Monitoring as a result of featuring disproportionately in the LVVTA Error Recording System (see Note 3 below);

or

(e) a 'Category Extension' has been issued to the LVV Certifier for the LVV certification due to some modifications falling into a different category than those which the LVV Certifier holds (see Note 4 below); or

(f) the *LVV Certification File* was randomly selected for a Technical File Review in order to meet the minimum required percentage of *LVV Certification Files* to be subject to a Technical File Review for the LVV Certifier (see Note 5 below).

Note 1	A 'key-word alert' or 'key-term alert', as referred to in 2.5(2)(b), is part of a bespoke computer software system developed by LVVTA to create automated cautions if certain words or terms, relating to potentially high-risk modifications, are keyed into the LVV EDP information recording programme.
Note 2	Information about the LVV certification categories, as referred to in 2.5(2)(c), is provided in *LVV ORS Chapter 3: LVV Certification Categories,* which is available to the public electronically, free of charge, from the LVVTA website www.lvvta.org.nz
Note 3	Information about the 'LVV Error Recording System' and 'Performance Monitoring', as referred to in 2.5(2)(d)(iii), is provided in, respectively, *LVV ORS Chapter 11: LVV Error Recording & Reporting* and *LVV ORS Chapter 13: LVV Complaint & Performance Management*. Both chapters are available to the public electronically, free of charge, from the LVVTA website www.lvvta.org.nz
Note 4	Information about 'Category Extensions', as referred to in 2.5(2)(e), is provided in *LVV ORS Chapter 8: LVV Certification Inspection Procedures*, which is available to the public electronically, free of charge, from the LVVTA website www.lvvta.org.nz
Note 5	The 'minimum required percentage' of *LVV Certifications Files*, as referred to in 2.5(2)(f), is variable, based on a scaled percentage of certification volume for each LVV Certifier.

Section 3 Technical File Review

3.1 Introduction

In a world without compromise, a Technical File Review would be applied to every LVV Certification File, however the economic reality is that this would require resources well beyond that which is available to LVVTA. For this reason, LVVTA carries out Technical File Reviews on a combination of minimum percentage sampling and targeting to risk. Time has proven that this is sufficient to identify a high-risk LVV Certifier.

If a vehicle has undergone an LVV certification inspection but mechanical or engineering-related safety issues are identified as a result of a Technical File Review, the LVV EDP affixed by the LVV Certifier to the vehicle will not be activated, so the vehicle will not legally go 'on the road' in the unsafe or non-compliant condition.

The interposition of LVVTA's Technical File Review between an LVV Certifier's poor decision and the vehicle becoming road-legal is critical to the overall safety of the low volume vehicle fleet.

3.2 Technical File Review requirements

3.2(1) LVVTA is required to carry out a Technical File Review of *LVV Certification Files* submitted to LVVTA by an LVV Certifier, on a sampling and targeted-to-risk basis, as specified in *LVV ORS Chapter 9: Submission of LVV Certification Files* (see Note 1 below).

Note 1	*LVV ORS Chapter 9: Submission of LVV Certification Files*, as referred to in 3.2(1) is available to the public electronically, free of charge, from the LVVTA website www.lvvta.org.nz

3.2(2) The Technical File Review specified in 3.2(1) will provide, in addition to the assessment conducted during the Administrative File Review, a high level of mechanical and engineering analysis to the *LVV Certification File*, ensuring that (see Note 1 below):

(a) the vehicle's modifications or construction features are within the LVV Certifier's area of expertise; and

(b) the LVV Certifier has correctly applied the relevant *LVV Standards* and *NZ (Car or Motorcycle) Construction Manual chapters*; and

(c) the *LVV Base Forms* and *LVV Inspection Form-sets* provided have been filled out correctly; and

(d) by visual assessment of the *LVV Inspection Form-sets*, photographs, and supporting documentation, the vehicle appears to meet all relevant technical requirements, and is safe and compliant; and

(e) the LVV Certifier's technical judgments and decisions appear to be sound, including the process of, where necessary and appropriate, peer-reviewing the engineering analysis provided by the LVV Certifier (see Note 2 below).

Note 1	It must be clearly understood by the LVV Certifier, that the submission of documentation referred to in 3.2(2) in no way reduces the responsibility for the correct assessment of the vehicle by the LVV Certifier, or shifts any responsibility for the vehicle's safety or compliance to LVVTA.
Note 2	Information about LVVTA's involvement in engineering analysis work, as referred to in 3.2(2)(e), is specified in section 6 of this chapter.

3.3 Outcomes of a Technical File Review

3.3(1) Where one or more technical errors are identified within an LVV Certifier's *LVV Certification File* during a Technical File Review, LVVTA will:

(a) coach the LVV Certifier to help prevent reoccurrences of the same errors, as specified in section 4 of this chapter; and

(b) ensure that any remedial work required on the vehicle is undertaken, as specified in section 5 of this chapter; and

(c) record the errors within the LVV Error Recording System (see Note 1 below).

Note 1	Information about the 'LVV Error Recording System', as referred to in 3.3(1)(c) is provided in *LVV ORS Chapter 11: LVV Error Recording & Reporting System,* which is available to the public electronically, free of charge, from the LVVTA website www.lvvta.org.nz

Section 4 Coaching

4.1 Introduction

Where necessary, outcomes from a Technical File Review feed directly into a one-on-one 'coaching' process where LVVTA technical staff coach LVV Certifiers in cases where the Technical File Review has identified a safety or compliance shortcoming on a vehicle which has undergone an LVV certification inspection, or shows that an LVV Certifier needs help.

In these situations, LVVTA will work with the LVV Certifier to achieve the required level of safety and compliance.

When the LVV Certifier provides evidence to LVVTA that the vehicle has, as a result of the coaching process, been made safe and compliant, the LVV EDP will be activated, and the vehicle will then become legal for road use.

'Coaching' is a guidance role, rather than a disciplinary process. Given the complexity and diversity of LVV certification, most LVV Certifiers welcome a second pair of eyes, and willingly resolve any issues that they might miss during their LVV certification inspection process. An LVV Certifier once said to an LVVTA technical-staff member, "*I'd rather you were telling me about this now rather than hearing about it later from a Coroner*".

The coaching role also enables LVVTA to identify common areas of difficulty or confusion for individual LVV Certifiers, which feeds directly into the collective improvement of LVV Certifiers' knowledge via the training programmes provided by LVVTA for all LVV Certifiers.

Information about the LVV training programmes provided by LVVTA to the LVV Certifiers is provided in *LVV ORS Chapter 14: LVVTA Services & Support*, and is available to the public electronically, free of charge, from the LVVTA website www.lvvta.org.nz

4.2 Provision of coaching

4.2(1) LVVTA will provide coaching to an LVV Certifier if a shortfall in the LVV Certifier's administrative or technical knowledge is identified during an Administrative File Review or Technical File Review of an *LVV Certification File* (see Notes 1 and 2 below).

Note 1	'Coaching' is generally defined as the guidance given when LVVTA initiates contact with an LVV Certifier, usually through the application of the File Review system. When contact is initiated by an LVV Certifier requiring information, interpretation, or assistance from LVVTA technical staff, this is generally defined as 'help-desk support'.
Note 2	Information about 'help-desk support', as referred to in Note 1 above, is provided in *LVV ORS Chapter 14: LVVTA Services & Support*, which is available to the public electronically, free of charge, from the LVVTA website www.lvvta.org.nz

4.3 Purpose of coaching

4.3(1) The purpose of the coaching referred to in 4.2(1) is to provide to an LVV Certifier, when errors are identified during an Administrative File Review or Technical File Review:

(a) support in understanding LVVTA's technical requirements; and

(b) support in understanding LVVTA's operational requirements; and

(c) reminders of an LVV Certifier's general obligations and responsibilities.

4.4 Coaching methods

4.4(1) LVVTA will provide coaching to LVV Certifiers, where necessary, via:

(a) e-mail and telephone one-on-one coaching; and

(b) coaching on subjects which are common coaching topics to all LVV Certifiers through *LVVTA Newsletters* and LVV Certifier training sessions.

4.5 Coaching engagement requirements

4.5(1) LVVTA will, during any coaching process, engage with an LVV Certifier in a way that:

(a) enables the LVV Certifier to explain their position and provide any further information to support their technical decisions; and

(b) gives careful consideration to the LVV Certifier's viewpoint, and any further information the LVV Certifier may provide; and

(c) ensures that, where any uncertainty exists, the opinion and advice of other LVVTA technical staff members is obtained before making a final determination as to any required remedial work to the vehicle in question; and

(d) professionalism and courtesy are always maintained.

4.5(2) Coaching on technical subjects will be provided to LVV Certifiers by LVVTA staff-members who have a high level of vehicle modification and construction knowledge.

4.5(3) An LVV Certifier must, during any coaching process, engage with LVVTA in such a way that:

(a) where applicable, the safety of the vehicle in question remains the highest priority; and

(b) a spirit of cooperation and willingness to learn and continuously improve their LVV certification performance is always maintained; and

(c) professionalism and courtesy are always maintained.

4.6 Disputes arising from coaching

4.6(1) An LVV Certifier may, if dissatisfied with the imposition of coaching by an LVVTA technical staff-member, request a review of the outcome by the LVVTA Certifier Support Officer.

4.6(2) LVVTA may refer a matter which cannot be resolved between LVVTA and an LVV Certifier during the coaching process to NZTA if an LVV Certifier is unable or unwilling to:

(a) provide further information when requested; or

(b) improve their LVV certification inspection performance into the future despite the coaching provided; or

(c) accept coaching in a spirit of willingness and co-operation.

Section 5 Remedial Work

5.1 Introduction

An important component of the LVV File Review system is to provide a pathway whereby LVVTA technical staff work with an LVV Certifier to rectify any technical issues identified on a vehicle which LVVTA considers may cause the vehicle in question to be unsafe or non-compliant. Section 5 sets out how this occurs.

5.2 Required remedial work

5.2(1) In a case where, during a Technical File Review, LVVTA has identified that a vehicle is non-compliant or may present a safety risk (see Note 1 below):

(a) LVVTA may require the LVV Certifier to arrange for and oversee any remedial work required to bring the vehicle into a safe and compliant condition; and

(b) the LVV Certifier must, where LVVTA has required remedial work to be undertaken:

(i) work with LVVTA to ensure that LVVTA's remedial requirements are met; and

(ii) provide evidence to LVVTA to verify that LVVTA's remedial requirements have been met.

Note 1	LVVTA will always direct an LVV Certifier to arrange for and oversee remedial work on a vehicle where aspects of the vehicle are unsafe.

5.3 Disputes arising from remedial work

5.3(1) An LVV Certifier may, if dissatisfied with the requirement by an LVVTA technical staff-member for remedial work, request a review of the requirement by the LVVTA Certifier Support Officer.

5.3(2) LVVTA may refer a matter which cannot be resolved between LVVTA and an LVV Certifier during the remedial work process to NZTA if an LVV Certifier is unable or unwilling to:

(a) arrange for and oversee any remedial work considered to be necessary by LVVTA; or

(b) provide evidence of the remedial work to the satisfaction of LVVTA.

Section 6 Limitations of Technical Analysis

6.1 Introduction

It is important that LVV Certifiers understand where LVVTA's responsibilities start and stop in relation to the review and analysis of technical documentation, as part of the Technical File Review process.

LVV Certifiers need to be clear as to what is expected of them if they are to embark on carrying out LVV certification on vehicles that feature components and systems that are outside the scope of the *LVV Certification Manuals*.

If becoming involved in components or systems which are outside of the scope of the *LVV Certification Manuals*, a detailed assessment, with evidence of compliance through some form of engineering analysis, is required to be provided by the LVV Certifier in order to prove that the components or systems are fit for their intended purpose. It is important that this proposal and confirmation work is carried out by the LVV Certifier prior to the *LVV Certification File* being submitted to LVVTA.

6.2 Limitations of LVVTA's technical analysis responsibilities

LVVTA's role in relation to the Technical File Review prior to activating the LVV EDP is to review technical documents, provide guidance, and clarify and provide interpretation on LVVTA's technical requirements contained within the *LVV Certification Manuals*.

Included within LVVTA's responsibilities are the tasks of reviewing calculation work, confirming the validity of overseas standards, and reviewing test reports.

When submitting technical documentation within an *LVV Certification File* that is outside of the straight-forward scope of the *LVV Certification Manuals*, an LVV Certifier is expected to propose their own engineering solution and seek confirmation from LVVTA, rather than relying on LVVTA to provide the technical solution.

6.3 LVV Certifier's responsibilities

It is not appropriate that LVV Certifiers rely on LVVTA to provide their customers with a free consultancy service. It is not the role of LVVTA to solve the LVV Certifier's technical problems by coming up with a solution, or to spend time researching the validity of a solution by checking overseas standards, contacting vehicle or component manufacturers for information, or carrying out engineering calculation work.

It is expected that where a component or system does not meet a technical requirement contained within the *LVV Certification Manuals*, and LVVTA requires an analysis to be made, the LVV Certifier is to provide LVVTA with a detailed file of all the required information for the component or system, including any manufacturer's data, calculation work, test reports, and approvals that have been issued. It is up to the LVV Certifier to provide sufficient evidence to substantiate the component or system's suitability.

The LVV Certifier is expected to provide information that is complete, well presented, and written in English, so that it becomes a simple matter for LVVTA to review the documents, and, where necessary, provide a summary to enable the LVVTA Technical Advisory Committee or the LVV Technical Working Group to approve the design.

Information about the 'LVVTA Technical Advisory Committee' and the 'LVV Technical Working Group', as referred to in 6.3, can be found in *Chapter 15: LVVTA Committees & Working Groups*, which is available to the public electronically, free of charge, from the LVVTA website www.lvvta.org.nz

6.4 Test report validation

It is the responsibility of the LVV Certifier, if providing a test report to LVVTA for a component or system that does not meet a technical requirement contained within the *LVV Certification Manuals*, to understand the report, be satisfied with the content of the report, and provide written confirmation of the suitability of the component or system to LVVTA.

The LVV Certifier must analyse the component or system with reference to the applicable LVVTA technical requirements, and a statement must be provided by the LVV Certifier to LVVTA confirming that the LVV Certifier is satisfied that the system is fit for its intended purpose.

6.5 Standards compliance validation

If an LVV Certifier is assessing a component or system against a recognised international standard, it is the responsibility of the LVV Certifier to ensure that the standard that the component or system is being assessed against is a valid and appropriate standard. If the standard is not relevant to the component or system in question, then compliance with that standard cannot be claimed, and another more appropriate standard must be used for the assessment.

If LVVTA is required to become involved in the validation of test reports or standards compliance information beyond LVVTA's normal accepted responsibilities, this time may be charged to the LVV Certifier.

6.6 Separation of responsibility

6.6(1) LVVTA's role in relation to test report or standards compliance verification is only a support role on a 'best efforts' basis, recognising that (see Note 1 below):

(a) it is not LVVTA's role, nor is LVVTA sufficiently resourced, to carry out engineering analysis work on behalf of an LVV Certifier's client; and

(b) the LVV Certifier is the person being paid by the LVV certification client for the LVV certification service being provided; and

(c) the LVV Certifier is the individual appointed by NZTA to provide the LVV certification services.

Note 1	LVVTA's role is to provide a support function, to assist and support the LVV Certifiers, but its role is not to do the LVV Certifier's work for them.

6.7 Cost recovery for consultancy services to LVV Certifiers

6.7(1) LVVTA may charge a fee to an LVV Certifier, on the basis of a fair and reasonable hourly rate, depending on the service provided, for technical consultancy work if (see Note 1 below):

(a) LVVTA conducts work that exceeds the normal expectations of LVVTA's responsibility in the areas of test report or standards compliance verification; or

(b) excessive time is required by LVVTA to analyse and approve a component or system because of incomplete or insufficient information provided by the LVV Certifier.

Note 1	LVVTA will not charge, as a matter of course, for its normal Technical File Review and normal technical support to LVV Certifiers. The cost recovery referred to in 6.7(1) will only be applied to LVV Certifiers who repeatedly fail to meet the normal expectations outlined in section 6 and, as a result, cause LVVTA a disproportionate amount of work over and above its normal responsibilities.

Terms & Definitions for Chapter 10

Applicable requirements	means any technical or operational requirement referred to in the *LVV Code* which an LVV must comply with in order to be approved for LVV certification.
CCM	(**NZ Car Construction Manual**) means LVVTA's detailed technical standards, incorporated by reference under the *LVV Code*, which must be met to enable an LVV to comply with applicable requirements. The *CCM* is referred to by the corresponding *LVV Standard*.
Certify	is, as defined in the *Land Transport Rule: Vehicle Standards Compliance 2002*, to verify that a vehicle complies with safety-related legal requirements prescribed by New Zealand land transport legislation.
Compliant	(also known as compliance) means a condition where evidence exists that an LVV complies with the applicable requirements specified in the *LVV Code*.
Inspection	means the vehicle inspection process specified in *section 2.4*, *2.5*, and *2.6* of the *LVV Code*, carried out by an LVV Certifier during the LVV certification of a low volume vehicle.
LVV	(**Low Volume Vehicle**) means, in simple terms, vehicles which are modified or scratch-built in small numbers, and includes individually modified or scratch-built vehicles. The full definition of an LVV is contained in the *LVV Code*.
LVV Base Forms	(**Low Volume Vehicle Base Forms**) means the set of Forms used by an LVV Certifier as part of their inspection of an LVV which are common to all LVV certifications.
LVV Certification	(**Low Volume Vehicle Certification**) means the process specified by the *LVV Code*, by which the design of an LVV is determined to comply with any applicable requirements, and, in recognition of which, an LVV EDP is affixed.
LVV Certification File	(**Low Volume Vehicle Certification File**) means the set of documents, including the *LVV Base Forms*, *LVV Inspection Form-sets*, supporting information, and photographic record, which an LVV Certifier is required to collate during an LVV certification inspection process, and submit to LVVTA upon completion.

LVV Certification Manuals	(**Low Volume Vehicle Certification Manuals**) means LVVTA's set of manuals which house all of LVVTA's legal, operational, and technical certification documents which are incorporated by reference under the *LVV Code*. The *LVV Certification Manuals* contain the *LVV Code*, the *LVV ORS*, *LVV Standards*, *LVV Base Forms* and *LVV Inspection Form-sets*, *Safety Alerts*, *Information Sheets*, *Newsletters*, and Reference Material.
LVV Certifier	(**Low Volume Vehicle Certifier**) means a person appointed by NZTA under the provisions of *Land Transport Rule: Vehicle Standards Compliance 2002*, to carry out certification of modified and scratch-built LVVs, as specified by *Part 2* of the *LVV Code*.
LVV Certify	(**Low Volume Vehicle Certify**) means the same as LVV certification.
LVV Code	(**Low Volume Vehicle Code** or **the Code**) means an LVVTA document which is incorporated by reference into the *Land Transport Rule: Vehicle Standards Compliance 2002*, and all applicable individual *Land Transport equipment rules*, that provides the legal framework to enable the LVV certification of modified and scratch-built LVVs in New Zealand.
LVV EDP	(**Low Volume Vehicle Engraved Certification Plate** or **LVV Certification Plate**) is an engraved aluminium plate (approximately 110 mm x 80 mm in size) in use from the commencement of LVV certification in April 1992 to February 2021, which displays a summary of information, via engraving, about the modifications and construction features on the LVV to which it is affixed.
LVV File Review System	(**Low Volume Vehicle File Review System**) means a comprehensive desk-top auditing process applied by LVVTA to a specified percentage of *LVV Certification Files* submitted by LVV Certifiers, upon completion of their LVV certifications, as an additional step in ensuring safety and compliance of LVVs.
LVV Information Sheets	(**Low Volume Vehicle Information Sheets**) means *Information Sheets* incorporated by reference under the *LVV Code*, which provide or support applicable requirements.
LVV Inspection Form-set	(**Low Volume Vehicle Inspection Form-set** or **LVV Form-set**) means the check-sheets used by an LVV Certifier to guide and record their inspection of an LVV, and confirm compliance with applicable requirements.
LVV Look-up	is LVVTA's online system used to enable the public to view the LVV certification information provided on an LVV EDP or LVV engraved certification plate.
LVV ORS	(**Low Volume Vehicle Operating Requirements Schedule** or **ORS**) means the document, incorporated by reference under the *LVV Code*, which provides LVVTA's operational processes and systems necessary to meet applicable requirements. The *LVV ORS* sets out the obligations and responsibilities of LVVTA, and the LVV Certifiers.
LVV plate	(**Low Volume Vehicle engraved certification plate**) is an engraved aluminium plate (approximately 110 mm x 80 mm in size) in use from the commencement of LVV certification in April 1992 to February 2021, which displays a summary of information, via engraving, about the modifications and construction features on the LVV to which it is affixed.
LVV Safety Alerts	(**Low Volume Vehicle Safety Alerts** or **Safety Alerts**) means LVVTA's publication system, incorporated by reference under the *LVV Code*, which is designed to draw attention to unsafe aftermarket automotive components, and which must be met to enable an LVV to comply with applicable requirements.

LVV Standards	(**Low Volume Vehicle Standards**) means LVVTA's technical standards, incorporated by reference under the *LVV Code,* that set out the legal requirements which vehicles that are modified and scratch-built vehicles in New Zealand must meet. Each *LVV Standard* refers to a corresponding *CCM* or *MCM* for detailed technical requirements.
LVVTA	(**Low Volume Vehicle Technical Association**) is an incorporated society comprised of specialist vehicle associations. Established in 1992, its objectives are to represent the interests of vehicle modifiers and builders in New Zealand, and to ensure high safety standards for modified and scratch-built LVVs. The LVVTA owns and administers the *LVV Code*.
MCM	(**NZ Motorcycle Construction Manual**) means LVVTA's detailed technical standards, incorporated by reference under the *LVV Code*, which must be met to enable a low volume motorcycle to comply with applicable requirements. The *MCM* is referred to by the corresponding *LVV Standard*.
Modification	is defined in *Land Transport Rule: Vehicle Standards Compliance 2002*) to change a vehicle from its original state by altering, substituting, adding or removing any structure, system, component or equipment, but does not include repair. 'Modified' and 'modification' have corresponding meanings.
NFC	(**Near Field Communication**) means a short-range wireless technology, typically requiring a distance of 40 mm or less to initiate a contact.
NZTA	(**New Zealand Transport Agency**) is a Crown entity responsible for managing New Zealand's land transport system.
Scratch-built (LVV)	means, in simple terms, an LVV which has been individually constructed from unrelated components, or a mass-produced vehicle which has been modified to such an extent that it can no longer be considered to be a modified mass-produced vehicle. The full legal definition of a scratch-built LVV is currently under review, and will be incorporated within the *LVV Code* once revised.
RFID	(**Radio Frequency Identification**) is a technology which uses electromagnetic fields to automatically identify and track tags attached to objects. These tags link to electronically stored information, which can be accessed using RFID readers.
TWG	(**Technical Working Group**) is a working group involving LVVTA and NZTA technical staff, which meets regularly to focus on day-to-day technical issues, challenges, and problems relating to the LVV certification system.