

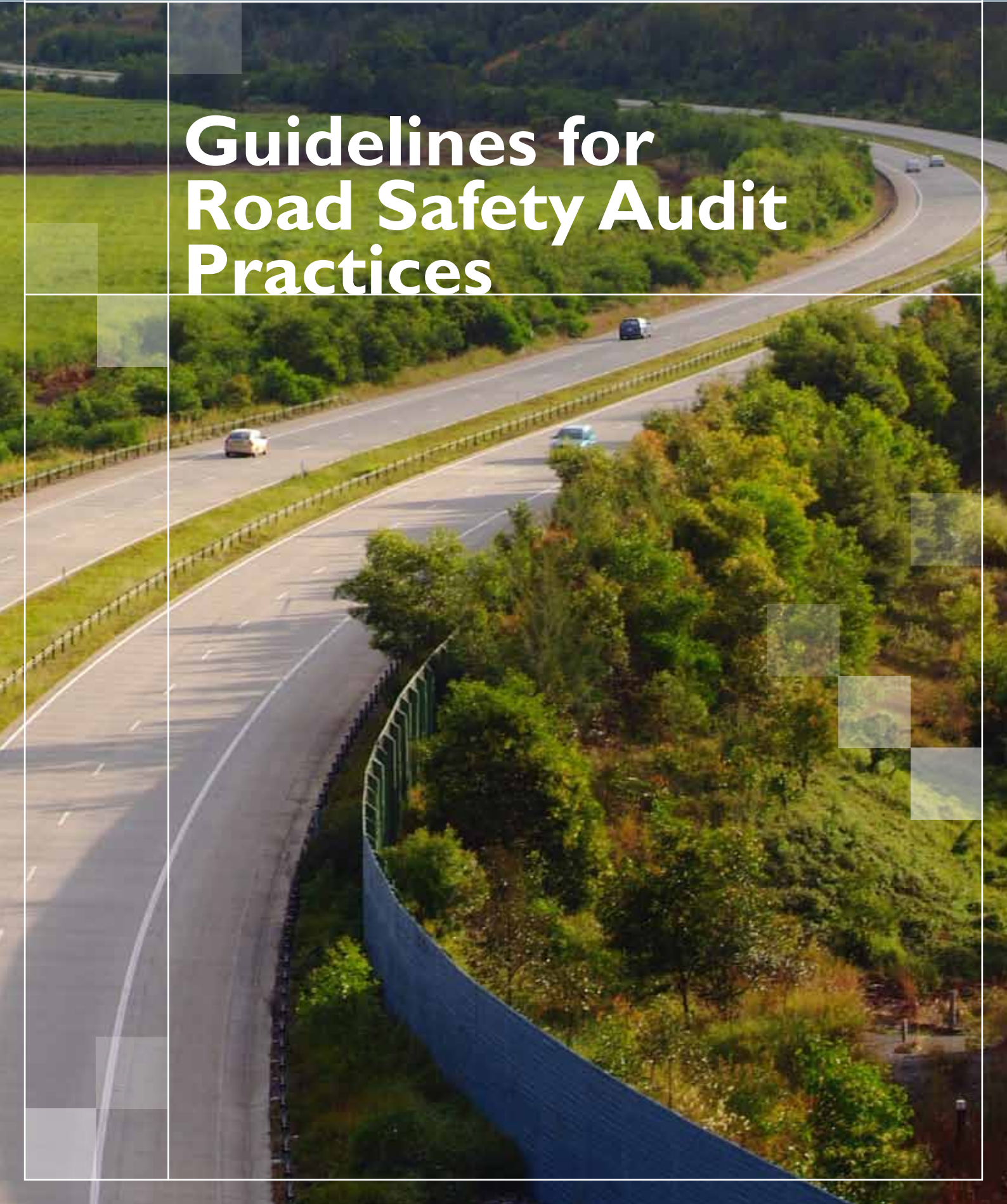


NSW Centre for
Road Safety



Transport
Roads & Traffic
Authority

Guidelines for Road Safety Audit Practices



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Transport
Roads & Traffic
Authority

PART I:

Road safety audit



Part I: Road safety audit

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I Introduction

Road Safety Audits are a pro-active approach to road safety.

Road Safety Audits form an integral part of the safe system approach.

Austrroads publication *Guide to Road Safety Part 6: Road Safety Audit* provides general guidance at a National level. This includes information on the safe systems approach, principles of road safety audits, legal issues, the audit process and road safety principles.

This document follows the principles outlined in the Austrroads publication and provides specific guidance at the State level for New South Wales. It includes detailed procedures for commissioning, conducting and completing road safety audits.

This document replaces the RTA publication, *Accident Reduction Guide Part 2: Road Safety Audits* (2005).

I.1 About this document

This document is designed to be used as the primary source of procedures for commissioning, conducting and completing road safety audits for the Roads and Traffic Authority (RTA) of NSW.

Where there are differences between this document and the Austrroads publication *Guide to Road Safety Part 6: Road Safety Audit*, this guide should take precedence.

This guide is divided into four sections:

- Section 1 provides introductory and background information relating to road safety audits.
- Section 2 provides details of the procedures involved in commissioning road safety audits. These procedures are meant for the project sponsor.
- Section 3 provides details of the procedures involved in conducting road safety audits. These procedures are meant for the lead road safety auditor and road safety audit team.
- Section 4 provides details of the procedures involved in completing road safety audits. These procedures are meant for the project sponsor.

I.2 Definitions

Road safety audit

A road safety audit is a formal examination of proposed or existing roads and road related areas from the perspective of all road users with the intention of identifying road safety deficiencies and areas of risk that could lead to road crashes. It does not consider crash history. It is conducted by an independent, qualified team of professionals.

Road safety auditor

A practicing professional with experience and capabilities in road design, traffic engineering, traffic / transport management, road construction techniques, road safety engineering, road user behaviours or another closely related road safety discipline, who is qualified to undertake road safety audits and has recent and regular demonstrated experience in conducting road safety audits.

The practicing professional is registered on the NSW Centre for Road Safety's *Register of Road Safety Auditors*.

The table on the following page, provides definitions of the roles that are referred to in this document.

TABLE 1.1 DEFINITIONS OF ROLES WITHIN THE ROAD SAFETY AUDIT PROCESS

| ROLE | MEANING |
|------------------------------|--|
| Project sponsor | The project manager or officer (employed or contracted by the road jurisdiction) responsible for delivering or overseeing the road infrastructure related works. |
| Lead auditor | A road safety auditor with qualifications, experience and skills required to lead and manage the conducting phase of the road safety audit process and participate in the entire undertaking of the road safety audit. |
| Audit team member | A road safety auditor with qualifications, experience and skills required to participate in the entire undertaking of the road safety audit. |
| Active observer | A person with an interest in undertaking the road safety audit who participates in the road safety audit as directed by the lead auditor. The person may be gaining experience to become a road safety auditor, offering the local perspective on the works or overseeing the auditing practices. |
| Specialist advisor | A practicing professional with specific skill sets, experience or knowledge of subject matter required to provide independent specialist advice to the project sponsor or the audit team on critical aspects of the project. A specialist advisor does not participate in the entire road safety audit. |
| Road safety advisor | A practicing professional with specific skill sets, experience or knowledge in road safety matters required to provide road safety advice to the project sponsor on critical aspects of the road safety audit process. A road safety advisor may participate/assist in the entire road safety audit process. The advisor does not need to be independent of the works. |
| Project stakeholder | A person with an interest in the road infrastructure related works. May be a planner, designer, construction manager, asset manager, operations manager, or alliance member. |
| Approval manager | The manager employed by the road jurisdiction who is accountable for delivering or overseeing the road infrastructure related works. |
| Service provider | The person, contractor, organisation or party required to deliver services. |
| Library administrator | The manager or officer (employed or contracted by the road jurisdiction) responsible for administering the Road Safety Audit Reports Library. |

1.3 Building safer roads

Road Safety Audits form an integral part of the safe system approach. For background information relating to the safe systems approach refer to *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Section 1.1 and *Austrroads Guide to Road Safety Part 1: Road Safety Overview*, Section 2.

Best practice in road safety is achieved by applying the basics of road safety engineering safety principles. For background information relating to the safety principles refer to *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Section 8.

1.4 An explanation of Road Safety Audits

For background information relating to what, when, why, who, and how of road safety audits refer to *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Sections 1.4, 1.5 and 2.

1.5 Types of road safety audits

For the purpose of road safety auditing, projects fall into three distinct categories. A project is either in the pre-construction phase of its life cycle, in the construction phase of its life cycle or in the post-construction phase of its life cycle.

These phases are further divided into the key life cycle stages of the project: strategic design, concept design, detailed design, roadworks, pre-opening, finalisation and existing road.

Road safety audits are typically conducted at these key life cycle stages of a project. The types of road safety audits therefore reflect these key stages. The table below provides a description of each type of road safety audit.

TABLE 1.2 DESCRIPTION OF EACH TYPE OF ROAD SAFETY AUDIT

| PROJECT PHASE | TYPE OF ROAD SAFETY AUDIT | PROJECT STAGE DESCRIPTION |
|-------------------|----------------------------|--|
| Pre-construction | Strategic design | Conducted at the completion of the strategic design stage of the project life cycle. The strategic design stage is where broad options for a proposed project are determined. Also known as the feasibility stage. |
| | Concept design | Conducted at the completion of the concept design stage of the project life cycle. The concept stage is where options are examined for a proposed project and a preferred option is selected. Also known as the preliminary design stage. |
| | Detailed design | Conducted at the completion of the detailed design stage of the project life cycle. The detailed design stage is where a design is completed to sufficient detail to commence construction. |
| Construction | Roadworks | Conducted at the commencement of each stage of the roadworks where changes affect traffic operations, traffic travel path characteristics, or traffic roadside characteristics during the construction stage of the project life cycle. This may be a one-off. Also known as road work traffic scheme stage. |
| | Pre-opening | Conducted immediately after the completion of construction of the entire project works or the construction of a roadworks stage and where possible prior to the road / path being used by traffic. |
| Post-construction | Finalisation ¹ | Conducted on an existing road, path or road network some time after the completion of the construction of road infrastructure works. It is typically conducted once road user patterns have settled following the works, or immediately prior to the change-over of ownership or responsibility in regard to the assets or network operations following the works. Also known as post-opening stage. |
| | Existing road ¹ | Conducted on an existing road, path or road network where no recent construction works were undertaken. |

¹ This type of road safety audit is a component of a Road Safety Evaluation.

Conducting road safety audits during the pre-construction phase of a project delivers the greatest road safety benefits. The earlier a project is audited the more likely that the road safety issues or risks identified can be significantly reduced or eliminated. As a result this minimises compromises in road safety and costly treatments at later stages of the project (for example once operating with traffic).

The same type of road safety audit can be conducted more than once for a particular project.

For background information and case studies relating to types of road safety audits refer to *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Sections 5, 6 and 7.

1.6 Legal issues

For background information relating to road authorities' responsibilities and legal issues refer to *Austrroads Guide to Road Safety Part 1: Road Safety Overview*, Section 3 and *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Section 3.

1.7 Road safety audit process

A road safety audit is only one component of the road safety audit process. The road safety audit process consists of a variety of tasks which together deliver the greatest road safety benefits back into the community.

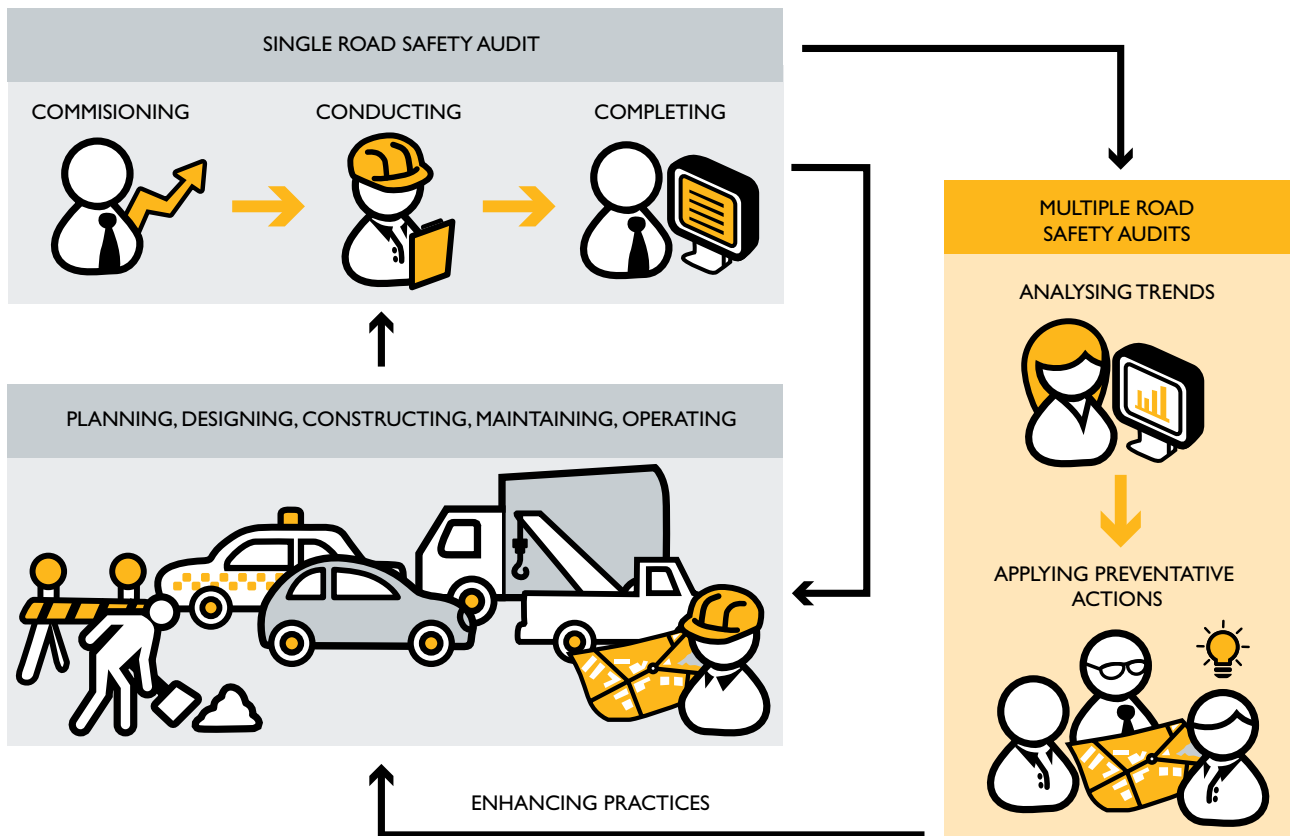
The phases of the road safety audit process for a single road safety audit are:

- Commissioning a road safety audit. This is undertaken by the project sponsor.
- Conducting a road safety audit. This is undertaken by the road safety audit team.
- Completing corrective actions to address road safety deficiencies arising from a road safety audit. This is undertaken by the project sponsor.

The phases of the road safety audit process relating to multiple road safety audits across a region are:

- Analysing recurring road safety deficiencies.
- Applying preventative actions, such as modifying standard drawings, improving training outcomes, enhancing policies.
- Enhancing practices in planning, development, construction, maintenance or operations of the road and road related areas.

For background information relating to disseminating knowledge gained from road safety audits refer to *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Section 4.9.



1.8 References

This guide provides details of the procedures to use for road safety audits.

For introductory and background information relating to road safety audits, refer to the following:

Austrroads (2009), *Guide to Road Safety Part 6: Road Safety Audits*. Austrroads Incorporated, Sydney, Australia.

Austrroads (2009), *Guide to Road Safety Part 1: Road Safety Overview*. Austrroads Incorporated, Sydney, Australia.

2 Commissioning a road safety audit

The procedures in this section are meant for the project sponsor.

2.1 Overview

Objective - To establish the requirements, limitations and expectations for the conduct of a road safety audit.

| ROLE | RESPONSIBILITY |
|---------------------------------|--|
| Project sponsor | <ul style="list-style-type: none">• Produce a road safety audit brief which provides a clear statement of the scope of the audit and the expectations of the audit team.• Select and engage the road safety audit team.• Gather background information.• Hold the commencement meeting. |
| Lead auditor | <ul style="list-style-type: none">• Represent the road safety audit team. |
| Road safety advisor (Optional) | <ul style="list-style-type: none">• Provide advice on road safety matters and outcomes as directed by the project sponsor. |
| Project stakeholders (Optional) | <ul style="list-style-type: none">• Provide advice on project scope, deviations from standards, restraints and compromises as directed by the project sponsor. |

The commissioning phase is important to the road safety audit process. It is concerned with achieving the right combination of road safety auditors who are most suited to understanding the characteristics, needs and outcomes of the project to be audited. The commissioning phase also provides an opportunity to establish clear and concise communications and understanding between all parties.

The key steps that determine a successful outcome when commissioning a road safety audit involve:

- Preparing a road safety audit brief.
- Selecting the road safety audit team.
- Gathering background information about the project and delivering it to the audit team.
- Holding a commencement meeting.

2.2 Preparing a road safety audit brief

Objective - To create a brief which identifies the project and the phase of the project to be audited and sets the parameters for the road safety audit.

| ROLE | RESPONSIBILITY |
|---------------------------------------|--|
| Project sponsor | <ul style="list-style-type: none">• Draft the road safety brief.• Arrange for the review of the project brief.• Prepare the final road safety audit brief. |
| Road safety advisor (Optional) | <ul style="list-style-type: none">• Provide advice on road safety matters and outcomes as directed by the project sponsor. |

A successful project brief for a road safety audit identifies the project and the phase of the project to be audited and specifies the scope and deliverables of the audit. It is specific, clear and comprehensive and it is in writing.

The brief document becomes part of the contract agreement between the commissioning organisation and the auditor's organisation/employer.

2.2.1 Steps

1. Draft a road safety audit brief.

- ☑ The brief must be in writing.
- ☑ It should be specific, clear and comprehensive.
- ☑ The brief must define the audit tasks and what is required of the audit team.
- ☑ The brief must define the contents and format of the formal road safety audit report.
- ☑ The brief should include the following sections:
 - Purpose.
 - Background.
 - Scope of the audit.
 - Information and material.
 - Deliverables.
 - Audit timeframes.
 - Submission information
 - Contact information.
- ☑ The brief should be uniquely identified with a road safety audit number.

2. Review of road safety audit brief.

- ☑ Select the appropriate road safety advisor to review the brief, if required.
- ☑ Confirm that the road safety audit process will achieve the required road safety outcomes.

3. Finalise the brief.

2.3 Selecting the road safety audit team

Objective - To select a multidisciplinary team of independent, qualified and experienced road safety experts who can successfully conduct the road safety audit and provide the necessary outcomes.

| ROLE | RESPONSIBILITY |
|---------------------------------------|---|
| Project sponsor | <ul style="list-style-type: none"> Select the road safety audit team members and confirm their roles. Confirm the experience, qualifications, performance and independence of the road safety audit team members. |
| Road safety advisor (Optional) | <ul style="list-style-type: none"> Provide advice on the selection of members for the audit team. |

The most effective audits are those where the skills of the audit team match the skills needed by the project. The road safety audit team must consist of qualified and experienced professionals with the required knowledge, skills, experience and attitudes to deliver a successful road safety audit outcome. They must also be independent of the project being audited.

A successful audit team should be able to use their skills to visualise the completed project and view the road network from the perspective of all road users.

For background information relating to selecting the road safety audit team refer to *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Section 4.1.

2.3.1 Steps

- Review the knowledge and capabilities of potential road safety audit team members.**
 - ☑ Select the appropriate road safety advisor to make recommendations on the composition of the team, if required.
 - ☑ All members of the road safety audit team require:
 - Knowledge of road safety principles.
 - An understanding of NSW traffic legislation/ road rules.
 - The ability to view road safety from the perspective of different types of road users.
 - Familiarity with traffic operations.
 - ☑ Confirm qualifications, experience, performance and capabilities required of audit team members, by completing the *Selecting the road safety audit team checklist*.
 - ☑ All members of the audit team must be independent of the project to be audited. Confirm the independence of audit team members by completing the *Selecting the road safety audit team checklist*.
- Select the road safety audit team.**
 - ☑ The team must consist of at least two people and no more than four people.
 - ☑ The lead auditor must be registered at Level 3 certification and be listed on the NSW Centre for Road Safety's *Register of Road Safety Auditors* at the time the road safety audit is conducted.
 - ☑ One other audit team member must be registered at Level 2 certification or higher and be listed on the NSW Centre for Road Safety's *Register of Road Safety Auditors* at the time the road safety audit is conducted.
 - ☑ Each team member must actively participate in the entire road safety assessment.
- Confirm the role of specialist advisors or active observers (optional).**
 - ☑ Confirm the role of any specialist advisors and their independence of the project.
 - ☑ Confirm the role of any active observers and their independence of the project. They must not be included as members of the team.
- Engage the road safety audit team through a contract agreement.**

2.4 Gathering and delivering background information

Objective - To gather all the relevant project information, decide what is to be made available to the road safety audit team and provide it to them to assist with the delivery of a successful road safety audit.

| ROLE | RESPONSIBILITY |
|-----------------|---|
| Project sponsor | <ul style="list-style-type: none">Decide what information is appropriate to be provided to the road safety audit team.Gather all relevant information/material and ensure it is available.Deliver the relevant information to the lead auditor. |

The type of information provided to the road safety audit team varies depending upon the project and the phase/ stage of the project to be audited.

Background information is supplied to the road safety audit team members to enhance their understanding of the project background and constraints. The information may include details of any restrictions and compromises that were a part of the design process to enable them to identify measures that were taken.

For further information relating to gathering background information refer to Austroads *Guide to Road Safety Part 6: Road Safety Audits*, Sections 4.2 and 10.

2.4.1 Steps

- 1. Collect all the relevant information/material.**
- 2. Determine what information is appropriate to provide and the format in which to provide it.**
 - Do not provide the crash history of the site to be audited.
 - Do not provide the auditors with any company details or anything that could be considered private or confidential.
 - The latest full set of design plans, the design report and information on the project background must be provided for all pre-construction phase road safety audits.
 - It is highly desirable to provide traffic data.
 - It is desirable to provide any previous road safety audit reports of earlier stages.
 - Details of all corrective actions which still need to be actioned/completed from previous road safety audits must be provided.
 - Provide the information in the appropriate format for dissemination to the road safety audit team.
- 3. Deliver the information to the lead auditor.**
 - This may be done at the commencement meeting.

2.5 Holding the commencement meeting

Objective - To set the context for the road safety audit by bringing together the project sponsor, the road safety audit team representatives and all relevant stakeholders to discuss the scope of the road safety audit, the project constraints, the supplied and required information/material and clarify the understanding of expectations.

| ROLE | RESPONSIBILITY |
|--|---|
| Project sponsor | <ul style="list-style-type: none"> Determine which of the relevant stakeholders are required to attend the meeting. Convene and hold the meeting with all the applicable stakeholders. Record the meeting outcomes. |
| Lead auditor | <ul style="list-style-type: none"> Attend the commencement meeting. Seek clarification about the project. |
| Project Stakeholders (Optional) | <ul style="list-style-type: none"> Attend the commencement meeting as directed by the project sponsor. Explain the details of the project to the audit team representatives to ensure that they understand the project purpose and scope, deviations from standards, restraints, compromises and previous road safety audits. |

The commencement meeting is an important part of the road safety audit process. It is held before the audit team begins assessments/inspections and is attended by the project sponsor and members of the road safety audit team, or at least the lead auditor:

The meeting enables the project sponsor to hand over relevant information for the road safety audit to the lead auditor. It also provides an opportunity for the project sponsor to explain the purpose of the road safety audit and for the auditors to clarify any issues.

For background information relating to the commencement meeting and checklists refer to *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Sections 4.3, 10 and 11.

2.5.1 Steps

- Decide which of the relevant stakeholders are required at the commencement meeting and what information is to be provided.**
 - At a minimum, the meeting must be attended by the project sponsor and the lead auditor as the audit team representative.
- Convene the commencement meeting in an appropriate format.**
 - The commencement meeting must be held.
 - Decide how to conduct the meeting (eg face-to-face, phone).
- Hold the commencement meeting.**
 - Provide adequate information to enable the road safety audit team to understand the project and successfully conduct the road safety audit.
 - The checklists to be used for the road safety audit must be identified. Refer to *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Section 11.
 - Communicate matters of importance to the audit team. For example, do not review/analyse crash history, no recommendations are to be included in the report, the expected structure of the report.
 - Confirm the agreed schedule for the completion of the road safety audit and the expectations for the outputs of the audit.
 - Confirm the arrangements for the completion meeting, such as how and when it is to be conducted.
 - Set up lines of communication with the lead auditor and relevant stakeholders.
 - The meeting outcomes must be recorded.
- Confirm meeting actions/outcomes.**
 - Confirm the outcomes of the meeting with the lead auditor.
 - The record of the meeting outcomes must be filed in the official file for the project.

3 Conducting a road safety audit

The procedures in this section are meant for the lead auditor and road safety audit team.

3.1 Overview

Objective - To conduct a formal examination of proposed or existing roads and road related areas from the perspective of all road users, with the intention of identifying road safety deficiencies and areas of risk that could lead to road crashes.

| ROLE | RESPONSIBILITY |
|-------------------------------|---|
| Project sponsor | <ul style="list-style-type: none">• Hold the commencement meeting.• Represent the organisation commissioning the road safety audit at the completion meeting. |
| Lead auditor | <ul style="list-style-type: none">• Represent the road safety audit team at the commencement meeting.• Lead/manage the overall road safety audit.• Undertake the road safety audit.• Hold the completion meeting.• Produce and deliver the final road safety audit report to the project sponsor. |
| Audit team member | <ul style="list-style-type: none">• Undertake the road safety audit.• Assist in preparing the road safety audit report. |
| Specialist advisor (Optional) | <ul style="list-style-type: none">• Provide specialist advice to the road safety audit team, as directed by the lead auditor. |
| Active observer (Optional) | <ul style="list-style-type: none">• Observe or participate in the road safety audit, as directed by the lead auditor. |

The conducting phase is the actual road safety audit. It is concerned with identifying road safety deficiencies and areas of risk that could lead to road crashes and articulating these findings into a formal report for the project sponsor.

The key steps that determine a successful outcome for conducting a road safety audit involve:

- Attending the commencement meeting.
- Undertaking the road safety audit.
- Preparing the road safety audit report.
- Holding a completion meeting.
- Finalising the road safety audit report.

3.2 Attending the commencement meeting

Objective - To set the context for the road safety audit by discussing the scope of the road safety audit and the project constraints, clarify the understanding of expectations and receiving the relevant information/materials.

| ROLE | RESPONSIBILITY |
|--------------------------------------|---|
| Project sponsor | <ul style="list-style-type: none"> Hold the commencement meeting. Record and confirm meeting outcomes. |
| Lead auditor | <ul style="list-style-type: none"> Attend the commencement meeting as the road safety audit team representative. Determine who else is to attend the commencement meeting as the road safety audit representatives. |
| Audit team member | <ul style="list-style-type: none"> Attend the commencement meeting as directed by the lead auditor. |
| Specialist advisor (Optional) | <ul style="list-style-type: none"> Attend the commencement meeting as directed by the lead auditor. |
| Active observer (Optional) | <ul style="list-style-type: none"> Attend the commencement meeting as directed by the lead auditor. |

The commencement meeting is an important part of the road safety audit process. It is held before the audit begins and is attended by the project sponsor and at least the lead auditor.

The meeting enables the project sponsor to hand over responsibility for the road safety audit to the lead auditor. It also provides an opportunity for the project sponsor to explain the purpose of the road safety audit and for the auditors to clarify any issues.

For background information relating to the commencement meeting and checklists refer to *Austroads Guide to Road Safety Part 6: Road Safety Audits*, Sections 4.3, 10 and 11.

3.2.1 Steps

1. Determine and advise who is to attend the commencement meeting.

- ☑ The lead road safety auditor must attend the commencement meeting.
- ☑ It is highly desirable for all the audit team members to attend the meeting.

2. Attend the commencement meeting.

- ☑ Confirm the checklists that are to be used for the audit. Refer to *Austroads Guide to Road Safety Part 6: Road Safety Audits*, Section 11.
- ☑ Confirm the way in which all the necessary information/materials to conduct the audit are to be received. This includes the:
 - Delivery method to be used.
 - Format in which they are provided.
 - Timing of delivery.
- ☑ Confirm that the project sponsor understands the road safety audit process and agrees to the timeframes and outputs.
- ☑ Confirm with the project sponsor the method of communication to be used and the frequency of communication expected throughout the road safety audit process.
- ☑ Confirm the arrangements for the completion meeting, such as how and when it is to be conducted.

3.3 Undertaking the road safety audit

Objective - To conduct a formal examination of proposed or existing roads and road related areas from the perspective of all road users, with the intention of identifying road safety deficiencies and areas of risk that could lead to road crashes.

Undertaking the road safety audit is the core of the road safety audit process. A road safety audit involves different activities depending upon the phase of the project being audited.

The table below specifies the minimum activities for a road safety audit of each phase of a project.

For background information relating to undertaking the road safety audit refer to Austroads *Guide to Road Safety Part 6: Road Safety Audits*, Sections 4.4 and 4.5.

| ROLE | RESPONSIBILITY |
|---|--|
| Lead auditor | <ul style="list-style-type: none"> • Manage the overall road safety audit process including occupational health and safety. • Plan and schedule the road safety audit assessments/inspections. • Manage/delegate road safety audit responsibilities/activities. • Participate in the entire road safety audit. |
| Audit team member | <ul style="list-style-type: none"> • Participate in the entire road safety audit. |
| Specialist advisor (Optional) | <ul style="list-style-type: none"> • Provide specialist advice to the road safety audit team, as directed by the lead auditor. |
| Active observer (Optional) | <ul style="list-style-type: none"> • Observe or participate in the road safety audit, as directed by the lead auditor. |

TABLE 3.1 MINIMUM ACTIVITIES FOR A ROAD SAFETY AUDIT OF EACH PHASE OF A PROJECT

| PROJECT PHASE | TYPE OF ROAD SAFETY AUDIT | MINIMUM ACTIVITIES |
|--------------------------|---------------------------|---|
| Pre-construction | Strategic design | <ul style="list-style-type: none"> • View the site. • Assess the project from the design plans. • Record all road safety deficiencies. |
| | Concept design | |
| | Detailed design | |
| Construction | Roadworks | <ul style="list-style-type: none"> • Assess the project from the construction plans. • Assess the project by inspecting the site, both during day and night conditions. • Record all road safety deficiencies. |
| | Pre-opening | <ul style="list-style-type: none"> • Review the design plans. • Assess the project by inspecting the site, both during day and night conditions. • Record all road safety deficiencies. |
| Post-construction | Finalisation | <ul style="list-style-type: none"> • Assess the road and road related areas by inspecting the site, both during day and night conditions. • Record all road safety deficiencies. |
| | Existing road | |

3.3.1 Steps

Pre-construction phase road safety audits

1. Review all the information/material.

- ☑ Gather any additional information/material necessary for the road safety audit.
- ☑ The latest design plans must be reviewed.
- ☑ Follow up any missing information/material and clarify any uncertainties with the project sponsor.
- ☑ Details of any information/material that is not supplied but is needed/desirable to achieve the required road safety audit outcomes must be recorded.
- ☑ Must not review/analyse any crash history information that may have been supplied for separate processes following the road safety audit. This must be reviewed after the road safety audit assessments are complete.

2. View the site.

- ☑ It is highly desirable to physically visit the site.
- ☑ All audit team members must view the current site along all approaches, from the perspective of all the relevant different road users (use images if needed).
- ☑ It is desirable to use photographs/images to capture details of the current site.

3. Assess the project from the design plans plus other material.

- ☑ All audit team members must participate in the entire assessment.
- ☑ The assessment must be conducted from the perspective of all the relevant different road users.
- ☑ The project must be assessed for potential road safety risks, that is, the assessment must go beyond assessing the conformance to standards.
- ☑ Consult specialist advisors where necessary.

4. Record all road safety deficiencies that are identified.

- ☑ Complete the checklists as agreed.

Construction phase road safety audits

1. Review all the information/material.

- ☑ Gather any additional information/material necessary for the road safety audit.
- ☑ The latest design plans must be reviewed.
- ☑ Follow up any missing information/material with the project sponsor.
- ☑ Details of any information/material that is not supplied but is needed/desirable to achieve the required road safety audit outcomes must be recorded.
- ☑ Must not review/analyse any crash history information that may have been supplied for separate processes following the road safety audit. This must be reviewed after the road safety audit assessments are completed.

2. Assess the project from the construction plans and by inspecting the site.

- ☑ All audit team members must participate in the entire assessment.
- ☑ The assessment must be conducted along all approaches from the perspective of all the relevant different road users.
- ☑ The project must be assessed for potential road safety risks, that is, the assessment must go beyond assessing the conformance to standards.
- ☑ It is highly desirable to perform inspections before the project is opened to traffic.
- ☑ The site must be inspected during daylight conditions.
- ☑ The site must be inspected during night lighting conditions.
- ☑ It is desirable to observe the site during peak and off-peak operating conditions.
- ☑ It is desirable to conduct inspections under adverse weather conditions such as fog, rain, snow, etc, if the opportunity arises.
- ☑ Consult specialist advisors where necessary.

3. Record all road safety deficiencies that are identified.

- ☑ Complete the checklists as agreed.
- ☑ It is highly desirable to use photos/images to support the descriptions of deficiencies.

Post-construction phase road safety audits

1. Review all the information/material.

- ☑ Gather any additional information/material necessary for the road safety audit.
- ☑ Follow up any missing information/material with the project sponsor.
- ☑ Details of any information/material that is not supplied but is needed/desirable to achieve the required road safety audit outcomes must be recorded.
- ☑ Must not review/analyse any crash history information that may have been supplied for separate processes following the road safety audit. This must be reviewed after the road safety audit assessments are completed.

2. Assess the road and road related areas by inspecting the site.

- ☑ All audit team members must participate in the entire assessment.
- ☑ The assessment must be conducted along all approaches from the perspective of all the relevant different road users.
- ☑ The road and road related areas must be assessed for potential road safety risks, that is, the assessment must go beyond assessing the conformance to standards.
- ☑ The site must be inspected during daylight conditions.

- ☑ The site must be inspected during night lighting conditions.
- ☑ It is highly desirable to observe the site during peak and off-peak operating conditions.
- ☑ It is desirable to conduct inspections under adverse weather conditions such as fog, rain, snow, etc, if the opportunity arises.
- ☑ Consult specialist advisors where necessary.

3. Record all road safety deficiencies that are identified.

- ☑ Complete the checklists as agreed.
- ☑ It is highly desirable to use photos/images to support descriptions of deficiencies.
- ☑ It is desirable to capture spatial references to support location descriptions of deficiencies where appropriate.

3.4 Preparing the road safety audit report

Objective - To produce a written report documenting all the road safety deficiencies identified during the road safety audit. It must be produced in the specified format and it must be specific, clear and comprehensive.

| ROLE | RESPONSIBILITY |
|----------------------------|--|
| Lead auditor | <ul style="list-style-type: none"> Oversee the preparation of the report. Finalise the draft report. |
| Audit team member | <ul style="list-style-type: none"> Assist in the preparation of the report as directed by the lead auditor. Review and provide support for the contents of the road safety audit report. |
| Active observer (Optional) | <ul style="list-style-type: none"> Assist in the preparation of the report as directed by lead auditor. |

A written road safety audit report is required for each road safety audit conducted. The report is a concise document which clearly identifies and describes all the road safety deficiencies identified during the road safety audit.

The lead auditor is responsible for producing the road safety audit report. The road safety audit team prepares the audit report and all team members sign the report to verify that they concur with the contents.

The report does not contain suggested actions or recommendations. These are the responsibility of the project sponsor.

For background information relating to preparing the road safety audit report refer to Austroads *Guide to Road Safety Part 6: Road Safety Audits*, Section 4.6.

3.4.1 Steps

1. Draft the road safety audit report.

- ☑ The report must be in writing and should be specific, clear and comprehensive.
- ☑ The report must be uniquely identified by a road safety audit number as supplied by the Library administrator.
- ☑ The report must not include any crash history of crash analysis comments or details.
- ☑ It should include the following sections:
 - Purpose.
 - Background.
 - Scope of the audit.
 - Audit team details.
 - Assessment methodology and details.
 - Information and material supplied, used and referenced.
 - Meeting and assessment details
 - Deficiency details (findings).
 - Formal statement.
- ☑ The report must include details of:
 - Each audit team member's status on the NSW Centre for Road Safety's *Register of Road Safety Auditors* at the time of the assessments, including details of the auditor's identification number, certification level and certification expiry date.
 - Specialist advisors or active observers who assisted during the road safety audit process.
 - The dates the assessments were conducted and the dates and times of site inspections.
 - The dates the commencement and completion meetings were held and a list of persons who attended these meetings. If a meeting was not held an explanation must be provided.
 - The scope of the road safety audit assessments, including lists of all plans reviewed and the area covered by the audit.
 - Risk levels used in the report.

- ☑ Each identified road safety deficiency or group of deficiencies must:
 - Be categorised into one of the groups as shown on the *Road safety categories* information sheet.
 - Have a risk level assigned to it.
- ☑ For each identified road safety deficiency or group of deficiencies, the report must:
 - Include a comprehensive description of the location.
 - Include an explanation of the potential road safety impact (ie in relation to crash types).
 - Not contain any suggested actions or recommendations.
- ☑ The formal statement in the report must provide for support by each team member; including details of their auditor identification number issued by the NSW Centre for Road Safety's *Register of Road Safety Auditors*.

2. The road safety audit team review the draft report.

- ☑ The contents of the report must be supported by all team members.

3. Finalise the draft road safety audit report.

3.5 Holding the completion meeting

Objective - To discuss the road safety audit findings and outcomes and finalise the contract agreement.

| ROLE | RESPONSIBILITY |
|------------------------------|--|
| Lead auditor | <ul style="list-style-type: none"> Convene and hold the completion meeting. Record and confirm the outcomes/ actions of the meeting. |
| Project sponsor | <ul style="list-style-type: none"> Attend the completion meeting. Determine and advise which project stakeholders need to attend the completion meeting. |
| Audit team member (Optional) | <ul style="list-style-type: none"> Attend the completion meeting as directed by the lead auditor. |

The completion meeting is an important part of the road safety audit process. It is held after the audit team has finished the assessments/inspections and produced a draft report of their findings. It is attended by the members of the road safety audit team or at least the lead auditor and the project stakeholders or at least project sponsor.

The meeting enables the lead auditor to present a draft report and discuss the audit findings and other relevant information from the road safety audit with the project sponsor. It also provides an opportunity for the project sponsor to confirm the expectations of the road safety audit report. Presenting the draft report at the meeting enables the lead auditor, the project sponsor and project stakeholders to work together to ensure the road safety audit outcomes can be achieved.

For background information relating to the completion meeting refer to Austroads *Guide to Road Safety Part 6: Road Safety Audit*, Section 4.7.

3.5.1 Steps

1. Convene the completion meeting in the appropriate forum.

- ☑ The completion meeting must be held (face-to-face, phone).
- ☑ It must be held prior to the submission of the final report.
- ☑ At a minimum, the meeting must be attended by the project sponsor and the lead auditor (team representative).
- ☑ Decide which other road safety audit representatives need to attend the completion meeting.

2. Hold the meeting.

- ☑ Copies of the draft road safety audit report must be made available at the completion meeting.
- ☑ Discuss the draft road safety audit report, ensuring that its contents maintain the integrity and independence of the road safety audit.
- ☑ The deficiencies identified during the road safety audit must be presented/discussed.
- ☑ Discuss possible corrective action options for key findings if requested by the project sponsor. These are not included in the report.
- ☑ Confirm the layout, format and level of detail of the draft road safety audit report with the project sponsor.
- ☑ Return all relevant information/materials that were used to conduct the audit.
- ☑ Confirm other matters to complete the contract agreement.
- ☑ The meeting outcomes/actions must be recorded.

3. Confirm meeting actions/outcomes.

- ☑ A copy of the record of the meeting must be provided to the project sponsor.

3.6 Finalising the road safety audit report

Objective - To produce and deliver the final written report which specifically, clearly and comprehensively documents all the road safety deficiencies identified during the road safety audit. The report is produced in the expected format and is signed and dated by all members of the road safety audit team.

| ROLE | RESPONSIBILITY |
|-------------------|--|
| Lead auditor | <ul style="list-style-type: none">• Produce the final road safety audit report, signed and dated by all members of the road safety audit team.• Deliver the expected number of copies of the final road safety audit report to the project sponsor. |
| Audit team member | <ul style="list-style-type: none">• Verify and agree with the contents of the final report by signing and dating it. |

Delivering the final road safety audit report marks the end of the involvement of the road safety audit team.

The road safety audit report is the formal product of the road safety audit. It is an important document which represents the road safety audit team members professional position. It is the document on which decisions about corrective actions will be based. The document is recognised by the legal system.

3.6.1 Steps

1. Amend the draft road safety audit report.

- ☑ In accordance with the outcomes of the completion meeting.
- ☑ In accordance with the project sponsor's feedback in relation to the draft road safety audit report.

2. Review the final road safety audit report.

- ☑ Each member of the road safety audit team must sign (and include their road safety auditor identification number) and date the report to verify that they have read the report and agree with its contents.
- ☑ Copies of the report that are not signed and dated are not acceptable.

3. Deliver the final road safety audit report.

- ☑ The agreed number of copies of the report must be provided in the agreed format.
- ☑ Original copies of the final road safety audit report must be provided to the project sponsor.

4 Completing a road safety audit

The procedures in this section are meant for the project sponsor.

4.1 Overview

Objective - To manage the implementation of actions which enhance road safety and comprehensively record the completed action for every deficiency identified in the final road safety audit report.

| ROLE | RESPONSIBILITY |
|---|--|
| Project sponsor | <ul style="list-style-type: none"> • Represent the organisation commissioning the road safety audit at the completion meeting. • Accept and review the final road safety audit report. • Produce and implement a corrective action program. • Close the corrective action program. |
| Specialist advisor (Optional) | <ul style="list-style-type: none"> • Provide specialist advice, as requested by the project sponsor. |
| Service provider | <ul style="list-style-type: none"> • Deliver implemented corrective action, as directed by the project sponsor. |
| Approval manager | <ul style="list-style-type: none"> • Overall road safety audit outcomes. |

The completing phase is critical to the road safety audit process. It is designed to ensure that the project delivers the best possible road safety outcomes. It also ensures transparency and accountability in relation to decision making and actions.

The key steps that determine a successful outcome for the completion of a road safety audit involve:

- Attending the completion meeting.
- Accepting the road safety audit report.
- Reviewing the report.
- Producing a corrective action program.
- Implementing corrective actions.
- Closing the corrective action program.

4.2 References

For introductory and background information relating to road safety and road safety treatments refer to the following references which are available on the Austroads website: www.austroads.com.au

Austroads (2009) *Guide to Road Safety - Part 1: Road Safety Overview*. Austroads Incorporated, Sydney, Australia.

Austroads (2006) *Guide to Road Safety - Part 2: Road Safety Strategy and Evaluation*. Austroads Incorporated, Sydney, Australia.

Austroads (2008) *Guide to Road Safety - Part 3: Speed Limits and Speed Management*. Austroads Incorporated, Sydney, Australia.

Austroads (2009) *Guide to Road Safety - Part 4: Local Government and Community Road Safety*. Austroads Incorporated, Sydney, Australia.

Austroads (2006) *Guide to Road Safety - Part 5: Road Safety for Rural and Remote Areas*. Austroads Incorporated, Sydney, Australia.

Austroads (2006) *Guide to Road Safety - Part 7: Road Network Crash Risk Assessment and Management*. Austroads Incorporated, Sydney, Australia.

Austroads (2008) *Guide to Road Safety - Part 9: Roadside Hazard Management*. Austroads Incorporated, Sydney, Australia.

4.3 Attending the completion meeting

Objective - To discuss the road safety audit findings, outcomes and finalise the contract agreement.

| ROLE | RESPONSIBILITY |
|--|---|
| Lead auditor | <ul style="list-style-type: none"> Hold the completion meeting. Record and confirm the outcomes/ actions of the meeting. |
| Project sponsor | <ul style="list-style-type: none"> Attend the completion meeting. Determine which project stakeholders need to attend the completion meeting and advise them. |
| Project stakeholders (Optional) | <ul style="list-style-type: none"> Attend the completion meeting as directed by the project sponsor. |

The completion meeting is an important part of the road safety audit process. It is held after the audit team has finished the assessments/inspections and produced a draft report of their findings. It is attended by the members of the road safety audit team, or at least the lead auditor and the project stakeholders, or project sponsor.

The meeting enables the lead auditor to present the draft report and discuss the audit findings and other relevant information resulting from the road safety audit with the project sponsor. It also provides an opportunity for the project sponsor to confirm the expectations of the road safety audit report. The draft report enables the lead auditor, the project sponsor and project stakeholders to work together to ensure the road safety audit outcomes can be achieved.

4.3.1 Steps

1. Determine which relevant stakeholders are to attend the completion meeting and invite them.

- ☑ It is highly desirable to invite the project stakeholders.

2. Attend the completion meeting.

- ☑ Provide feedback on the layout, format and level of detail of the draft road safety audit report.
- ☑ Discuss the deficiencies identified during the road safety audit.
- ☑ Confirm that each identified deficiency is a road safety deficiency.
- ☑ Must not compromise the integrity of the audit by requesting that deficiencies be amended, removed or added.

This is dealt with under the key step Reviewing the road safety audit report in section 4.4.

- ☑ It is highly desirable to discuss corrective action options for key findings. However, these are not to be included in the report.
- ☑ Confirm the expectations and delivery of the final road safety audit report.
- ☑ Confirm the arrangements for finalising the contract agreement.

3. Confirm meeting actions/outcomes.

- ☑ The record of the meeting outcomes must be filed in the official file for the project.

4.4 Accepting the road safety audit report

Objective - To ensure that the submitted final road safety audit report meets the expectations and requirements specified in the contract agreement.

| ROLE | RESPONSIBILITY |
|------------------------------|---|
| Project sponsor | <ul style="list-style-type: none"> Review the deliverables and confirm that they conform to the contract agreement. Submit a copy of the final report to the Road Safety Audit Reports Library. |
| Library administrator | <ul style="list-style-type: none"> Acknowledge receipt of a copy of the final road safety audit report for the Road Safety Audit Reports Library. |

All the original final road safety audit reports that are submitted must be signed and dated by all members of the road safety audit team. The report must meet the requirements of the contract agreement.

4.4.1 Steps

- 1. Confirm the receipt of the final road safety audit report and deliverables.**
 - ☑ Confirm that all the deliverables listed in the contract agreement have been received and are satisfactory.
 - ☑ Reports must be presented as originals.
 - ☑ Reports must be signed and dated by all members of the road safety audit team.
 - ☑ Confirm that the data/materials are returned, as required.
 - ☑ Complete the notification of completion of the contract, as required.
- 2. Submit the final report to the Road Safety Audit Report Library.**
 - ☑ A copy of the final road safety report must be submitted to the Road Safety Audit Reports Library. The Library collects copies of all road safety audits undertaken for the organisation.
 - ☑ The copy of the report must be submitted in the format required by the Road Safety Audit Reports Library.
 - ☑ Record the acceptance receipt number issued by the Road Safety Audit Reports Library. This will need to be reported in the corrective action program.

4.5 Reviewing the road safety audit report

Objective - To review each deficiency identified in the road safety audit report to determine responsibilities, the requirement for further information and corrective actions and to assess the risks in relation to the organisation and project.

| ROLE | RESPONSIBILITY |
|---|--|
| Project sponsor | <ul style="list-style-type: none"> Review the road safety audit report and each identified deficiency. Propose and document corrective actions for each identified deficiency. |
| Specialist advisor (Optional) | <ul style="list-style-type: none"> Provide specialist advice, as requested by the project sponsor. |

The review of the final road safety audit report and each identified deficiency is an important step in preparation for the proposal of corrective actions.

The responsibility for reviewing each deficiency needs to be determined. Each identified deficiency is comprehensively checked to determine all possible actions and the risks to the organisation associated with each action. For each deficiency identified, corrective actions are proposed.

The corrective actions developed must be in the best interests of road safety, feasible and designed in accordance with the safe systems approach to road safety, in order to potentially reduce the incidence and/or severity of crashes.

For background information relating to reviewing the road safety audit report refer to Austroads *Guide to Road Safety Part 6: Road Safety Audit*, Section 4.8.

4.5.1 Steps

1. Review each identified deficiency.

- ☑ Confirm that each identified deficiency is a road safety deficiency.
- ☑ Identify the road authority, agency or directorate responsible for addressing each deficiency. This must be in accordance with legislation and organisational responsibilities.
- ☑ Obtain further advice or information if required or seek suggestions about actions to take to address each deficiency. This may include commissioning a separate project.
- ☑ Assign the priority rating in relation to road safety for each deficiency as shown in the *Risk assessment* information sheet. This should be reviewed in relation to community risks initially, then organisational risks and finally project risks. The priority rating should also be reviewed against the risk level assigned to the deficiency in the final road safety audit report.

2. Propose corrective actions.

- ☑ Each deficiency must be documented.
- ☑ Obtain sufficient advice/information from relevant sources to be able to determine and develop corrective actions. It is highly desirable to obtain advice from specialists.
- ☑ For each deficiency a corrective action (response) must be identified and it must be documented.
- ☑ For each corrective action the risks to the organisation in performing the action must be comprehensively documented. This includes actions such as 'no further action', 'referred to agency for action', etc.
- ☑ The corrective actions developed to address the deficiencies may be short, medium or long term.

3. Select and document the proposed corrective actions for each deficiency.

- ☑ Include all proposed corrective action options and the reasons for selecting the preferred option, including details of the safety benefit.
- ☑ Corrective actions must be clearly and comprehensively described.
- ☑ If no further action is proposed, a comprehensive explanation must be provided.

4.6 Producing a corrective action program

Objective - To assign accountability in relation to organisational responsibilities and obtain approval for the appropriateness of the corrective actions and the safety benefits they provide.

| ROLE | RESPONSIBILITY |
|-------------------------|--|
| Project sponsor | <ul style="list-style-type: none"> • Prepare the corrective action program. • Obtain written support for the corrective action program from the approval manager. • Record details of the corrective actions in the information system. |
| Approval manager | <ul style="list-style-type: none"> • Take overall responsibility for the corrective action program and road safety audit outcomes. |

Each corrective action is incorporated into a corrective action program.

The list of corrective actions should be signed off by an appropriate officer who verifies that they are appropriate and provide safety benefits. The person signing should have some road safety audit qualifications, knowledge and expertise or occupy a position of sufficient rank in the organisation to take full responsibility for the outcomes.

4.6.1 Steps

1. Prepare the corrective action program.

- ☑ The corrective action program must detail each deficiency identified in the final road safety audit report.
- ☑ It must specify the priority rating for each deficiency.
- ☑ It must clearly and concisely detail all the suggested actions/options considered for each deficiency. Where multiple options for actions to address a deficiency have been suggested, an explanation for the selection of the preferred option is required.
- ☑ It must clearly and concisely detail the proposed corrective action for each deficiency.
- ☑ It must provide an indication of the proposed timeframe for completing the implementation of each corrective action.
- ☑ It must provide an indication of the estimated total costs of implementation of the corrective action.
- ☑ It must include an action for the submission of the road safety report to the Road Safety Audit Reports Library.
- ☑ The corrective action program must be signed and dated by the project sponsor.

2. Obtain approval for the corrective action program.

- ☑ Amend the corrective action program as directed.
- ☑ Approval must be obtained from an officer with the appropriate delegation.
- ☑ The approval must be documented in writing.

3. Record details of the corrective action program in the appropriate information management system.

- ☑ The original corrective action program must be filed in the official file for the project.
- ☑ Enter details of each identified deficiency in the appropriate information management system.

4.7 Implementing corrective actions

Objective - To completely implement all corrective actions and clearly and concisely record the details of each completed corrective action implemented to address the deficiencies identified in the final road safety audit report.

| ROLE | RESPONSIBILITY |
|-------------------------|---|
| Project sponsor | <ul style="list-style-type: none"> Refer identified deficiencies to other internal branches or external agencies. Initiate or delegate the implementation of corrective actions. Prepare documentation for variations. Verify that the completed corrective actions have been satisfactorily implemented. |
| Approval manager | <ul style="list-style-type: none"> Approve variations to the corrective action program. |
| Service provider | <ul style="list-style-type: none"> Deliver implemented corrective actions, as directed by the project sponsor. |

The implementation of corrective actions to address some or all of the identified deficiencies can be delegated, but it remains the responsibility of the project sponsor until they have all been satisfactorily addressed.

If a deficiency relates to infrastructure that is maintained by a third party, forward the details to the relevant authority for action. File the acceptance of the referral from the third party.

Document all completed corrective actions. It is important to ensure that details of the work that was completed are documented as this may become a legal issue in the future.

4.7.1 Steps

1. Refer identified deficiencies to other internal branches or external agencies.

- ☑ Must receive a written acceptance of the referral. Until the acceptance is received, the deficiency remains the responsibility of the project sponsor. If the issue cannot be resolved, elevate it through the organisation until acceptance is acknowledged.
- ☑ The corrective action can only be recorded as complete after acceptance of the referral is received.

2. Initiate the implementation of corrective actions.

- ☑ Scheduled actions cannot be recorded as complete until the action has actually been implemented.
- ☑ Obtain progress reports of implementation of the corrective actions.
- ☑ Variations to a corrective action must be appropriately approved and documented. If there are variations, it must be able to be demonstrated that the relevant safety deficiency is still being addressed.
- ☑ Record details of approved variations in the information system.
- ☑ Regularly monitor the progress of all corrective actions and update the details in the information system.

3. Verify that the completed corrective action has been satisfactorily implemented.

- ☑ The implemented corrective action must be inspected/viewed. The inspection may be delegated, but it remains the responsibility of the project sponsor.
- ☑ The corrective action can only be recorded as complete when the completed action has been verified.
- ☑ At a minimum, record the date completed, the details of the project sponsor and the name of the officer who verified the completed action.
- ☑ The details must be recorded in the information system.

4.8 Closing the corrective action program

Objective - To produce a written report that clearly and concisely records the details of all the completed corrective actions which were implemented to address each road safety deficiency identified in the final road safety audit report.

| ROLE | RESPONSIBILITY |
|------------------|--|
| Project sponsor | <ul style="list-style-type: none">Produce the completed corrective action program report.Obtain final approval and close out the overall road safety audit. |
| Approval manager | <ul style="list-style-type: none">Take overall responsibility for road safety audit outcomes. |

It is important to ensure that all completed corrective actions are documented in one report to indicate that all road safety deficiencies identified in the final road safety audit report were addressed. This closing report must be endorsed by the appropriate delegated officer as it may become a legal issue in the future.

4.8.1 Steps

1. Produce a closing road safety audit report.

- At a minimum, the report must include details of each deficiency identified in the final road safety audit report, together with details of the completed corrective action and the date it was completed.
- The project sponsor must sign and date the report.

2. Obtain final approval.

- Approval must be obtained from an officer with the appropriate delegation. It is preferable to obtain approval from the same position that approved the corrective action program.
- Approval must be documented in writing.

3. Close out.

- All corrective actions must be closed out in the appropriate information management system.
- The original report must be filed in the official file for the project.
- A copy of the final program report must be submitted to the Road Safety Audit Reports Library. It must be submitted in the format required by the Road Safety Audit Reports Library.
- Record the acceptance receipt number issued by the Road Safety Audit Reports Library. This will need to be recorded in the official file for the project.

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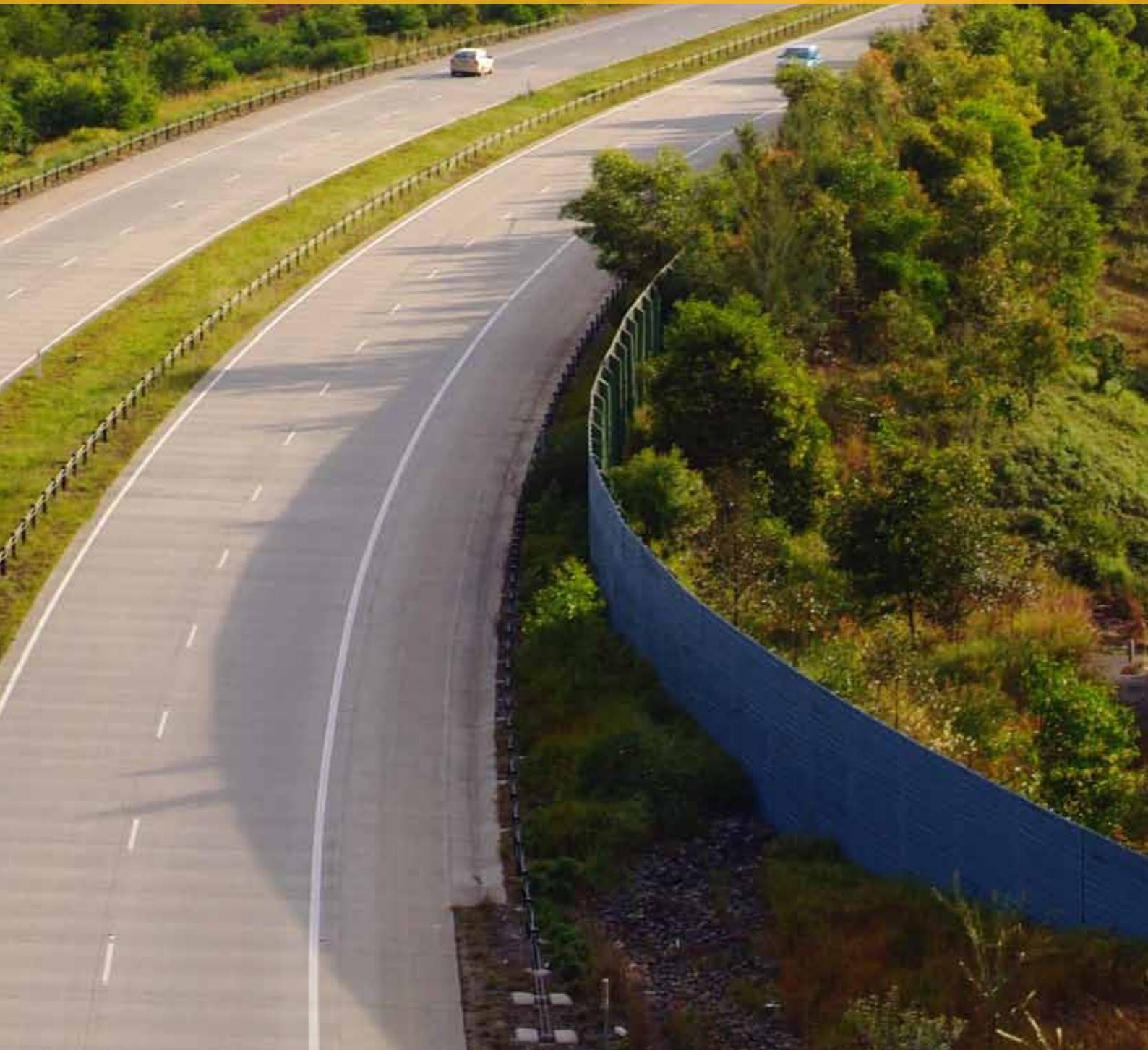
The information in this brochure is intended as a guide only and is subject to change at any time without notice. It does not replace the relevant legislation.



Transport
Roads & Traffic
Authority

PART 2:

Road safety evaluation



Part 2: Road safety evaluation

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I Introduction

Road Safety Evaluations are a pro-active approach to road safety.

Road Safety Evaluations form an integral part of the safe system approach to road safety.

The Austroads publication *Guide to Road Safety Part 6: Road Safety Audits* provides general guidance at a National level. It includes information on the safe systems approach, principles of road safety audits, legal issues, the audit process and road safety principles.

The Austroads publication *Guide to Road Safety Part 8: Treatment of Crash Locations* also provides general guidance at a National level. It includes information on the safe systems approach, road safety strategies, road crash data, components and characteristics, and the process for the treatment of crash locations.

While following the principles outlined in these Austroads publications, this document provides specific guidance at the State level for New South Wales. It includes detailed procedures for commissioning, conducting and completing road safety evaluations.

I.1 About this document

This document is designed to be used as the primary source of procedures for commissioning, conducting and completing road safety evaluations for Roads and Traffic Authority (RTA) of NSW.

Where there are differences between this document and the Austroads publications, this guide should take precedence.

This guide is divided into four sections:

- Section 1 provides introductory and background information relating to road safety evaluations.
- Section 2 provides details of the procedures involved in commissioning road safety evaluations. These procedures are meant for the project sponsor.
- Section 3 provides details of the procedures involved in conducting road safety evaluations. These procedures are meant for the lead road safety auditor and road safety audit team.
- Section 4 provides details of the procedures involved in completing road safety evaluations. These procedures are meant for the project sponsor.

I.2 Definitions

Road safety evaluation

A road safety evaluation involves a road safety audit, a crash investigation and a review of the speed zone. It is a formal examination of existing roads and road related areas from the perspective of all road users with the intention of identifying road safety deficiencies and areas of risk that have led to or could lead to road crashes. It is conducted by an independent, qualified team of professionals.

Road safety audit

A road safety audit is a formal examination of proposed or existing roads and road related areas from the perspective of all road users with the intention of identifying road safety deficiencies and areas of risk that could lead to road crashes. It does not consider crash history. It is conducted by an independent, qualified team of professionals.

Crash investigation

A crash investigation is a formal analysis of the road crash history for a specific period along existing roads or road related areas with the intention of identifying crash clusters, common crash characteristics, trends in the road crash statistics, site road safety deficiencies and areas of risk that have led to or could lead to more road crashes. It is conducted by a qualified professional or a team of professionals.

Speed Zone Review

A speed zone review is a formal assessment of the speed limits along existing roads, conducted with the intention of providing for the credible and consistent application of speed limits throughout NSW, as well as an appropriate balance between road safety, land use amenity, transport efficiency and environment on public roads.

Roles

The table on the following page, provides definitions of the roles that are referred to in this document.

TABLE 1.1 DEFINITIONS OF ROLES WITHIN THE ROAD SAFETY EVALUATION PROCESS

| ROLE | MEANING |
|--|--|
| Project sponsor | The project manager or officer (employed or contracted by the road jurisdiction) responsible for delivering or overseeing the road infrastructure related works. |
| Lead auditor | A road safety auditor with qualifications, experience and skills required to lead and manage the conducting phase of the road safety audit process and participate in the entire undertaking of the road safety audit. |
| Audit team member | A road safety auditor with qualifications, experience and skills required to participate in the entire undertaking of the road safety audit. |
| Lead investigator | A professional with qualifications, experience and skills required to lead and manage the conducting phase of the crash investigation process and participate in the entire undertaking of the crash investigation. |
| Crash investigation team member | A professional with qualifications, experience and skills required to participate in the undertaking of the crash investigation. |
| Lead speed zone reviewer | A professional with qualifications, experience, skills and delegations required to lead, manage and authorise speed zone reviews and participate in the undertaking of speed zone reviews. |
| Specialist advisor | A practicing professional with specific skill sets, experience or knowledge of subject matter required to provide independent specialist advice to the project sponsor or the audit team on critical aspects of the project. A specialist advisor does not participate in the entire road safety audit. |
| Road safety advisor | A practicing professional with specific skill sets, experience or knowledge in road safety matters required to provide road safety advice to the project sponsor on critical aspects of the road safety audit process. A road safety advisor may participate/assist in the entire road safety audit process. The advisor does not need to be independent of the works. |
| Project stakeholder | A person with an interest in the road infrastructure related works. May be a planner, designer, construction manager, asset manager, operations manager, or alliance member. |
| Approval manager | The manager employed by the road jurisdiction who is accountable for delivering or overseeing the road infrastructure related works. |
| Service provider | The person, contractor, organisation or party required to deliver services. |
| Library administrator | The manager or officer (employed or contracted by the road jurisdiction) responsible for administering the Road Safety Audit Reports Library. |

1.3 Building safer roads

Road safety audits and crash investigations form an integral part of the safe system approach. For background information relating to the safe systems approach refer to *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Section 1.1, *Austrroads Guide to Road Safety Part 8: Treatment of Crash Locations*, Section 3; and *Austrroads Guide to Road Safety Part 1: Road Safety Overview*, Section 2.

Best practice in road safety is achieved by applying the basics of road safety engineering safety principles. For background information relating to the safety principles refer to *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Section 8 and *Austrroads Guide to Road Safety Part 8: Treatment of Crash Locations*, Section 9.

1.4 An explanation of Road Safety Audit and Crash Investigation

For background information relating to the what, when, why, who, and how of road safety audits refer to *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Sections 1.4, 1.5 and 2.

For background information relating to the what, when, why, who and how of road crash investigation refer to *Austrroads Guide to Road Safety Part 8: Treatment of Crash Locations*, Sections 2 and 4.

1.5 Types of road safety evaluations

For the purpose of road safety evaluations, an existing road or road related area is a project which is considered to be in the post-construction phase of its life cycle.

This phase is further divided into the key life cycle stages of a project: finalisation and existing road. Road safety evaluations are typically conducted at these key life cycle stages of a project.

The table below provides a description of each type of road safety evaluation.

TABLE 1.2 DESCRIPTION OF EACH TYPE OF ROAD SAFETY EVALUATION

| PROJECT PHASE | TYPE OF ROAD SAFETY AUDIT | PROJECT STAGE DESCRIPTION |
|-------------------|---------------------------|--|
| Post-construction | Finalisation | Conducted on an existing road, path or road network some time after the completion of the construction of road infrastructure works. It is typically conducted once road user patterns have settled following the works, or immediately prior to the change over of ownership or responsibility in regard to the assets or network operations following the works. |
| | Existing road | Conducted on an existing road, path or road network where no recent construction works has been undertaken. |

For background information and case studies relating to existing road safety audits refer to *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Sections 6.4, 7.8 and 7.9.

1.6 Legal issues

For background information relating to road authorities' responsibilities and legal issues refer to *Austrroads Guide to Road Safety Part 1: Road Safety Overview*, Section 3 and *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Section 3.

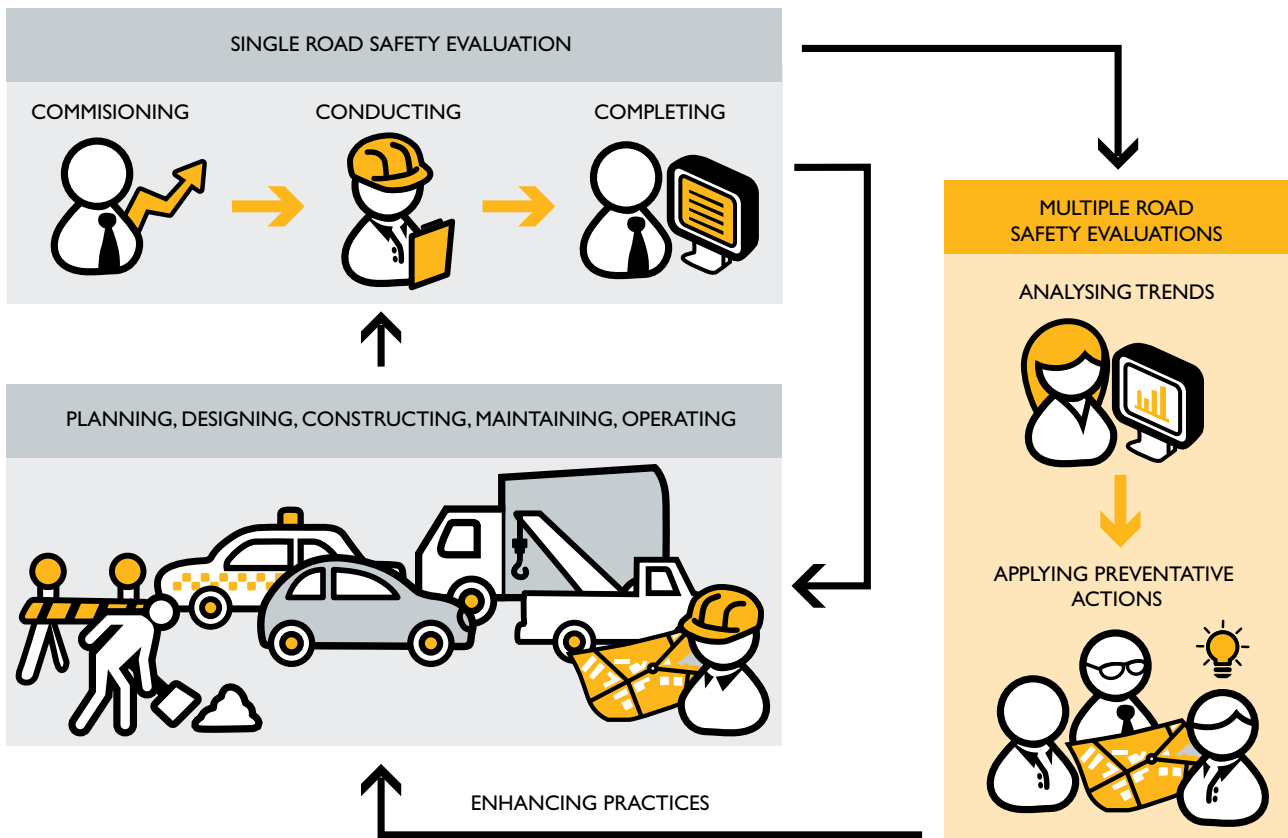
1.7 Road safety audit process

As part of a road safety evaluation, a road safety audit is conducted.

A road safety audit is only one component of the road safety audit process. The road safety audit process consists of a variety of tasks which together deliver the greatest road safety benefits to the community.

The phases of the road safety audit process in relation to a single road safety audit or road safety evaluation are:

- Commissioning a road safety audit/evaluation. This is undertaken by the project sponsor.
- Conducting a road safety audit/evaluation. This is undertaken by the road safety audit team, crash investigation team and lead speed zone reviewer.



- Completing corrective actions to address road safety deficiencies identified by a road safety audit/evaluation. This is undertaken by the project sponsor.

The phases of the road safety audit process relating to multiple road safety audits/evaluations across a region are:

- Analysing recurring road safety deficiencies.
- Applying preventative actions, such as modifying standard drawings, improving training outcomes, enhancing policies.
- Altering practices in planning, development, construction, maintenance or operations of the road and road related areas.

1.8 References

This guide provides details of the procedures to use for road safety evaluations.

For introductory and background information relating to road safety principles, practices and explanations, refer to the following documents:

RTA (2004), *Accident Reduction Guide Part 1: Accident investigation and Prevention*. Roads and Traffic Authority of NSW, Sydney, Australia.

RTA (2009) *NSW Speed Zoning Guidelines*. Roads and Traffic Authority, Sydney, Australia.

Austrroads (2009), *Guide to Road Safety Part 1: Road Safety Overview*. Austrroads Incorporated, Sydney, Australia.

Austrroads (2006), *Guide to Road Safety Part 6: Road Safety Audits*. Austrroads Incorporated, Sydney, Australia.

Austrroads (2009), *Guide to Road Safety Part 8: Treatment of Crash Locations*. Austrroads Incorporated, Sydney, Australia.

2 Commissioning a road safety evaluation

The procedures in this section are meant for the project sponsor.

2.1 Overview

Objective - To establish the requirements, limitations and expectations for the conduct of a road safety evaluation.

| ROLE | RESPONSIBILITY |
|--|--|
| Project sponsor | <ul style="list-style-type: none">• Produce the road safety audit brief, crash investigation brief and speed zone review request. These provide clear statements of the scope of work and the expectations of the relevant team.• Select and engage the road safety audit team and crash investigation team.• Gather background information.• Hold the commencement meetings. |
| Lead auditor | <ul style="list-style-type: none">• Represent the road safety audit team. |
| Lead investigator | <ul style="list-style-type: none">• Represent the road crash investigation team. |
| Road safety advisor (Optional) | <ul style="list-style-type: none">• Provide advice on road safety matters and outcomes as directed by the project sponsor. |
| Project stakeholders (Optional) | <ul style="list-style-type: none">• Provide advice on road and road related operational characteristics and practices, maintenance practices, enforcement practices, planning and development projects and regional history, as directed by the project sponsor. |

The commissioning phase is important to the road safety evaluation process. It is concerned with achieving the right combination of individuals to make up the road safety audit and road crash investigation teams. These teams should consist of individuals who together are most suited to understanding the characteristics, needs and outcomes of the project to be evaluated. The commissioning phase also provides an opportunity to establish clear and concise communications and understanding between all parties.

It is most important to undertake the road safety audit separately from the road crash investigation and speed zone review in order to ensure that the road safety audit process is not tainted by the other processes or their outcomes.

The key steps that determine a successful outcome for commissioning a road safety evaluation are:

- Commissioning a road safety audit.
- Commissioning a road crash investigation.
- Requesting a speed zone review.

2.2 Commissioning a road safety audit

Objective - To establish the requirements, limitations and expectations for the conduct of a road safety audit.

| ROLE | RESPONSIBILITY |
|--|---|
| Project sponsor | <ul style="list-style-type: none"> Produce a road safety audit brief which provides a clear statement of the scope of the audit and the expectations of the audit team. Select and engage the road safety audit team. Gather background information. Hold the commencement meeting. |
| Lead auditor | <ul style="list-style-type: none"> Represent the road safety audit team. |
| Road safety advisor (Optional) | <ul style="list-style-type: none"> Provide advice on road safety matters and outcomes as directed by the project sponsor. |
| Project stakeholders (Optional) | <ul style="list-style-type: none"> Provide advice on road and road related operational characteristics and practices, maintenance practices, enforcement practices, planning and development projects and regional history as directed by the project sponsor. |

The commissioning phase is an important part of the road safety audit process. It is concerned with achieving the right combination of road safety auditors who are most suited to understanding the characteristics, needs and outcomes of the project to be audited. It also provides an opportunity to establish clear and concise communications and understanding between all parties.

The road safety audit and road crash investigation may be conducted by the same team, provided they have the necessary qualifications and meet the requirements. If the same team is to conduct both the road safety audit and the road crash investigation, it is crucial that the road safety audit is performed first and before the team views any of the crash history.

The key steps that determine a successful outcome for commissioning a road safety audit involve:

- Preparing a road safety audit brief.
- Selecting the road safety audit team.
- Gathering background information about the project and delivering it to the audit team.
- Holding a commencement meeting.

For detailed instructions on commissioning a road safety audit refer to *Commissioning a road safety audit*, in *Part 1: Road Safety Audits of Guidelines for Road Safety Audit Practices*.

2.3 Commissioning a road crash investigation

Objective - To establish the requirements, limitations and expectations for the conduct of a road crash investigation.

| ROLE | RESPONSIBILITY |
|--|---|
| Project sponsor | <ul style="list-style-type: none"> Produce a road crash investigation brief which provides a clear statement of the scope of the investigation and the expectations of the crash investigation team. Select and engage the road crash investigation team. Gather background information. Hold the commencement meeting. |
| Lead investigator | <ul style="list-style-type: none"> Represent the road safety audit team. |
| Road safety advisor (Optional) | <ul style="list-style-type: none"> Provide advice on road safety matters and outcomes as directed by the project sponsor. |
| Project stakeholders (Optional) | <ul style="list-style-type: none"> Provide advice on road and road related operational characteristics and practices, maintenance practices, enforcement practices, planning and development projects and regional history as directed by the project sponsor. |

The commissioning phase is important to the road crash investigation process. It is concerned with achieving the right combination of road crash investigators who are most suited to analysing and interpreting the crash data, understanding the road, road user and network characteristics and outcomes of the project to be investigated.

The road safety audit and road crash investigation may be conducted by the same team provided they have the necessary qualifications and meet the requirements. If the teams are the same it is crucial that the road safety audit is performed before team members view any of the crash history. The road crash investigation team may consist of one person.

The commissioning phase also provides the opportunity to establish clear and concise communications and understanding between all involved parties.

The key steps that determine a successful outcome for commissioning a road crash investigation involve:

- Preparing a road crash investigation brief.
- Selecting the road crash investigation team.
- Gathering background information about the project and delivering it to the crash investigation team.
- Holding a commencement meeting.

For detailed instructions on commissioning a road crash investigation refer to RTA (2004), *Accident Reduction Guide Part 1: Accident investigation and Prevention*. Roads and Traffic Authority of NSW, Sydney, Australia.

2.4 Requesting a speed zone review

Objective - To obtain advice on the correct speed zone for the characteristics, needs and outcomes of the road.

| ROLE | RESPONSIBILITY |
|---------------------------------|--|
| Project sponsor | <ul style="list-style-type: none">• Produce a speed zone review request which provides a clear statement of the scope of the project and the requested review.• Gather background information.• Issue the speed zone request to the relevant lead speed zone reviewer. |
| Lead speed zone reviewer | <ul style="list-style-type: none">• Conduct the speed zone review.• Provide the speed zone review outcomes. |

The requesting phase is concerned with determining the right speed zone for the characteristics, needs and outcomes of the road to be reviewed. It also provides an opportunity to establish clear and concise communications and understanding between the parties involved.

The key steps that determine a successful outcome to a request for a speed zone review are:

- Preparing a speed zone review request.
- Gathering background information about the project and delivering it to the speed zone review team.
- Issuing the speed zone review request.
- Obtaining the latest speed zone review outcome.

For further information on speed zoning reviews refer to RTA (2009), *NSW Speed Zoning Guidelines*. Roads and Traffic Authority of NSW, Sydney, Australia.

3 Conducting a road safety evaluation

The procedures in this section are meant for the lead auditor, lead investigator and the associated teams.

3.1 Overview

Objective - To conduct two formal examinations of existing roads and road related areas from the perspective of all road users with the intention of identifying road safety deficiencies and areas of risk that could lead to or have led to road crashes.

| ROLE | RESPONSIBILITY |
|-------------------|---|
| Project sponsor | <ul style="list-style-type: none"> Request a speed zone review. Provide a copy of the final road crash investigation report to the lead auditor. |
| Lead auditor | <ul style="list-style-type: none"> Conduct the road safety audit. Produce and deliver the final road safety audit report to the project sponsor. Produce and deliver the final road safety evaluation report to the project sponsor. |
| Lead investigator | <ul style="list-style-type: none"> Conduct the road crash investigation. Produce and deliver the final road crash investigation report to the project sponsor. |

The conducting phase is the actual road safety evaluation. It involves conducting a road safety audit, a road crash investigation and a speed zone review and articulating the findings in a formal report to the project sponsor. This report does not include recommendations.

The key steps that determine a successful outcome to the conduct of a road safety evaluation involve:

- Conducting the road safety audit.
- Conducting the road crash investigation.
- Requesting a speed zone review.
- Finalising the road safety evaluation report.

3.2 Conducting a road safety audit

Objective - To conduct a formal examination of proposed or existing roads and road related areas from the perspective of all road users with the intention of identifying road safety deficiencies and areas of risk that could lead to road crashes.

| ROLE | RESPONSIBILITY |
|-------------------------------|---|
| Project sponsor | <ul style="list-style-type: none"> Hold the commencement meeting. Represent the organisation commissioning the road safety audit at the completion meeting. |
| Lead auditor | <ul style="list-style-type: none"> Represent the road safety audit team at the commencement meeting. Lead/manage the overall road safety audit. Undertake the road safety audit. Hold the completion meeting. Produce and deliver the final road safety audit report to the project sponsor. |
| Audit team member | <ul style="list-style-type: none"> Undertake the road safety audit. Assist in preparing the road safety audit report. |
| Specialist advisor (Optional) | <ul style="list-style-type: none"> Provide specialist advice to the road safety audit team, as directed by the lead auditor. |

The conducting phase is the actual road safety audit. It is concerned with identifying road safety deficiencies and areas of risk that could lead to road crashes and articulating these findings in a formal report to the project sponsor:

It is crucial that the road safety auditors performed the audit without viewing of any of the crash history.

The road safety audit report does not contain suggested actions or recommendations. These are the responsibility of the project sponsor.

The key steps that determine a successful outcome for the conduct of a road safety audit involve:

- Attending the commencement meeting.
- Undertaking the road safety audit.
- Preparing the road safety audit report.
- Holding a completion meeting.
- Finalising the road safety audit report.

For detailed instructions on conducting a road safety audit refer to Section 3: *Conducting a road safety audit* in *Part 1: Road Safety Audits of Guidelines for Road Safety Audit Practices*.

3.3 Conducting a road crash investigation

Objective - To conduct a formal analysis of the road crash history for a specific period along existing roads or road related areas, with the intention of identifying crash clusters, common crash characteristics, trends in the road crash statistics and site road safety deficiencies and areas of risk that have led to or could lead to more road crashes.

| ROLE | RESPONSIBILITY |
|--|--|
| Project sponsor | <ul style="list-style-type: none"> • Hold the commencement meeting. |
| Lead investigator | <ul style="list-style-type: none"> • Represent the road crash investigation team at the commencement meeting. • Lead/manage the overall road crash investigation. • Produce and deliver the final road crash investigation report to the project sponsor. |
| Crash investigation team member | <ul style="list-style-type: none"> • Undertake the road crash investigation. • Assist in preparing the road crash investigation report. |
| Specialist advisor (Optional) | <ul style="list-style-type: none"> • Provide specialist advice to the road crash investigation team, as directed by the lead investigator. |

The conducting phase is the actual road crash investigation. It involves performing an analysis of crash data and identifying road safety deficiencies and areas of risk that have led to or could lead to road crashes and articulating the findings in a formal report to the project sponsor:

The road crash investigation report does not contain suggested actions or recommendations. These are the responsibility of the project sponsor:

The key steps that determine a successful outcome for the conduct of a road crash investigation involve:

- Attending the commencement meeting.
- Undertaking the road crash investigation.
- Preparing the road crash investigation report.
- Finalising the road crash investigation report.

For detailed instructions on conducting a road crash investigation refer to RTA (2004), *Accident Reduction Guide Part 1: Accident investigation and Prevention*. Roads and Traffic Authority of NSW, Sydney, Australia.

3.4 Preparing the road safety evaluation report

Objective - To produce a written report in the specified format, documenting all the road safety deficiencies identified during the road safety audit and crash investigation. The report must be specific, clear and comprehensive.

| ROLE | RESPONSIBILITY |
|--------------------------|--|
| Project sponsor | <ul style="list-style-type: none"> • Provide a copy of the final road crash investigation report to the lead auditor. |
| Lead auditor | <ul style="list-style-type: none"> • Oversee the preparation of the report. • Finalise the draft report. |
| Audit team member | <ul style="list-style-type: none"> • Assist in the preparation of the report, as directed by the lead auditor. • Review and provide support for the contents of the road safety evaluation report. |

A written road safety evaluation report is required for each road safety evaluation conducted. The report is a concise document which clearly identifies and describes all the road safety deficiencies identified during the road safety audit and crash investigation.

The lead auditor is responsible for producing the road safety evaluation report. The road safety audit team prepares the evaluation report and all team members sign the report to verify that they concur with the contents.

The report does not contain suggested actions or recommendations. These are the responsibility of the project sponsor:

3.4.1 Steps

1. Collate all reports.

- ☑ The road safety evaluation report must include a final signed copy of the road safety audit report as an appendix.
- ☑ It must include a final signed copy of the road crash investigation report as an appendix.

2. Draft the road safety evaluation report.

- ☑ The report must be in writing and should be specific, clear and comprehensive.
- ☑ It must be uniquely identified by a road safety evaluation number as supplied by the Library administrator.
- ☑ The road safety evaluation report should include the following sections:
 - Purpose.
 - Background.
 - Scope of the evaluation.
 - The evaluation team.
 - Information and material supplied, used and referenced.
 - Meeting and assessment details.
 - Aggregated deficiency details (findings) based on the road safety audit, road crash investigation and speed zone review.
 - Formal statement.
- ☑ The report must include:
 - Details of specialist advisors who assisted during the road safety evaluation process.
 - The dates the commencement and completion meetings were held and a list of persons who attended these meetings. If a meeting was not held an explanation must be provided.
 - A statement verifying that the road safety audit was conducted prior to the road crash investigation and that none of the audit team members had any knowledge of the crash history when undertaking the road safety audit.
 - Details of the risk levels used in the report.

- ☑ Each identified road safety deficiency or group of deficiencies must be:

- Categorised into one of the groups as shown on the *Road safety categories* information sheet.
- Assigned a risk level.

- ☑ For each identified road safety deficiency or group of deficiencies the report must:

- Include a comprehensive description of the location.
- Include an explanation of its potential or real road safety impact (ie in relation to crash types).
- Not contain any suggested actions or recommendations.

- ☑ The formal statement in the report must provide for the support of each team member.

3. The road safety audit team review the draft report.

- ☑ The contents of the report must be supported by all members of the road safety audit team.

4. Finalise the draft road safety evaluation report.

3.5 Holding the completion meeting

Objective - To discuss the road safety evaluation findings and outcomes and finalise the contract agreement.

| ROLE | RESPONSIBILITY |
|-------------------------------------|--|
| Lead Auditor | <ul style="list-style-type: none"> • Convene and hold the completion meeting. • Record and confirm the outcomes/ actions of the meeting. |
| Project sponsor | <ul style="list-style-type: none"> • Attend the completion meeting. • Determine and advise which project stakeholders need to attend the completion meeting. |
| Audit team member (Optional) | <ul style="list-style-type: none"> • Attend the completion meeting as directed by the lead auditor. |

The completion meeting is an important part of the road safety evaluation process. It is held after the road safety audit and crash investigation teams have finished their assessments/inspections/analyses and produced a draft report of their findings. It is attended by the members of the road safety audit and crash investigation teams or at least the lead auditor and the project stakeholders or at least project sponsor.

The meeting enables the lead auditor to present a draft report and discuss the evaluation findings and other relevant information resulting from the road safety evaluation with the project sponsor. It also provides an opportunity for the project sponsor to confirm the expectations of the road safety evaluation report. By presenting a draft at the completion meeting, the lead auditor, the project sponsor and project stakeholders can work together to ensure the road safety evaluation outcomes can be achieved.

3.5.1 Steps

1. Convene the completion meeting in the appropriate forum.

- ☑ The completion meeting must be held (eg face-to-face, phone).
- ☑ It must be held prior to the submission of the final report.
- ☑ At a minimum, the meeting must be attended by the project sponsor and the lead auditor (team representative).
- ☑ Decide which other road safety audit or crash investigation representatives need to attend the completion meeting.

2. Hold the meeting.

- ☑ Copies of the draft road safety evaluation report must be made available at the completion meeting.
- ☑ Discuss the draft road safety evaluation report, ensuring that it maintains the integrity and independence of the road safety evaluation.
- ☑ The deficiencies identified during the road safety evaluation must be presented/discussed.
- ☑ It is highly desirable to discuss corrective action options for key findings. However, these options are not to be included in the report.
- ☑ Confirm the layout, format and level of detail of the draft road safety evaluation report from the project sponsor.
- ☑ Return all relevant information/materials that were used to conduct the evaluation.
- ☑ Confirm matters that are required to complete the contract agreement.
- ☑ The meeting outcomes/actions must be recorded.

3. Confirm meeting actions/outcomes.

- ☑ A copy of the record of the meeting must be provided to the project sponsor.

3.6 Finalising the road safety evaluation report

Objective - To produce and deliver the final written report which specifically, clearly and comprehensively documents all the road safety deficiencies identified during the road safety audit and road crash investigation. The report is produced in the expected format and is signed and dated by all members of the road safety audit team.

| ROLE | RESPONSIBILITY |
|--------------------------|---|
| Lead Auditor | <ul style="list-style-type: none"> Produce the final road safety evaluation report, signed and dated by all members of the road safety audit team. Deliver the expected number of copies of the final road safety evaluation report to the project sponsor. |
| Audit team member | <ul style="list-style-type: none"> Verify that they agree with the contents of final report by signing and dating it. |

Delivery of the final road safety evaluation report meeting marks the end of the involvement of the road safety audit team and the crash investigation team.

The road safety evaluation report is the formal document which presents the findings of the road safety evaluation. It is an important document which represents the professional position of the members of the road safety audit and crash investigation teams in relation to the road safety audit and road crash investigation outcomes. It is the document on which decisions about corrective actions will be based. This document is legally recognised.

3.6.1 Steps

1. Amend the draft road safety evaluation report.

- ☑ In accordance with the outcomes of the completion meeting.
- ☑ In accordance with any feedback from the project sponsor's resulting from the review of the draft road safety evaluation report.

2. Review the final road safety evaluation report.

- ☑ Each member of the road safety audit team must sign and date (and include their auditor identification number) the report to verify that they have read the report and agree with its contents.

3. Deliver the road safety evaluation report.

- ☑ Must provide the agreed number of copies of the report in the agreed format.
- ☑ The project sponsor must receive original copies of the final road safety audit report.
- ☑ Copies of the report that are not signed and dated are not acceptable.

4 Completing a road safety evaluation

The procedures in this section are meant for the project sponsor.

4.1 Overview

Objective - To manage the implementation of actions which are designed to enhance road safety and comprehensively record the completed action for every deficiency identified in the final road safety evaluation report.

| ROLE | RESPONSIBILITY |
|--------------------------------------|--|
| Project sponsor | <ul style="list-style-type: none"> Represent the organisation commissioning the road safety evaluation at the completion meeting. Accept and review the final road safety evaluation report. Produce and implement a corrective action program. Close the corrective action program. |
| Specialist advisor (Optional) | <ul style="list-style-type: none"> Provide specialist advice, as requested by the project sponsor. |
| Service Provider | <ul style="list-style-type: none"> Deliver implemented corrective actions, as directed by the project sponsor. |
| Approval manager | <ul style="list-style-type: none"> Overall road safety audit outcomes. |

The completing phase is critical to the road safety evaluation process. It involves ensuring that the project delivers the best possible road safety outcomes. It also ensures transparency and accountability in relation to decision making and actions.

The key steps that determine a successful outcome for the completion of a road safety evaluation are:

- Attending the completion meeting.
- Accepting the road safety evaluation report.
- Reviewing the report.
- Producing a corrective action program.
- Implementing corrective actions.
- Closing the corrective action program.

4.2 References

For introductory and background information relating to road safety and road safety treatments refer to the following references which are available on the Austroads website, www.austroads.com.au

Austroads (2009) *Guide to Road Safety - Part 1: Road Safety Overview*. Austroads Incorporated, Sydney, Australia.

Austroads (2006) *Guide to Road Safety - Part 2: Road Safety Strategy and Evaluation*. Austroads Incorporated, Sydney, Australia.

Austroads (2008) *Guide to Road Safety - Part 3: Speed Limits and Speed Management*. Austroads Incorporated, Sydney, Australia.

Austroads (2009) *Guide to Road Safety - Part 4: Local Government and Community Road Safety*. Austroads Incorporated, Sydney, Australia.

Austroads (2006) *Guide to Road Safety - Part 5: Road Safety for Rural and Remote Areas*. Austroads Incorporated, Sydney, Australia.

Austroads (2006) *Guide to Road Safety - Part 7: Road Network Crash Risk Assessment and Management*. Austroads Incorporated, Sydney, Australia.

Austroads (2008) *Guide to Road Safety - Part 9: Roadside Hazard Management*. Austroads Incorporated, Sydney, Australia.

4.3 Attending the completion meeting

Objective - To discuss the road safety evaluation findings, outcomes and finalise the contract agreement.

| ROLE | RESPONSIBILITY |
|---------------------------------|---|
| Lead auditor | <ul style="list-style-type: none"> Hold the completion meeting. Record and confirm the outcomes/ actions of the meeting. |
| Project sponsor | <ul style="list-style-type: none"> Determine which project stakeholders need to attend the completion meeting and advise them. Attend the completion meeting. |
| Project stakeholders (Optional) | <ul style="list-style-type: none"> Attend the completion meeting as directed by the project sponsor. |

The completion meeting is an important part of the road safety evaluation process. It is held after the audit and crash investigation teams have finished the assessments/ inspections/analyses and produced a draft report of their findings. It is attended by the members of the road safety audit and crash investigation teams or at least the lead auditor; and the project stakeholders or at least project sponsor.

The meeting enables the lead auditor to present a draft report and discuss the evaluation findings and other relevant information resulting from the road safety evaluation with the project sponsor. It also provides an opportunity for the project sponsor to confirm the expectations of the road safety evaluation report. Presenting the draft report at the completion meeting enables the lead auditor; the project sponsor and project stakeholders to work together to ensure the road safety evaluation outcomes can be achieved.

4.3.1 Steps

- Determine which relevant stakeholders are required to attend the completion meeting and advise them.**
 - It is highly desirable to invite the project stakeholders.
- Attend the completion meeting.**
 - Provide feedback on the layout, format and level of detail of the draft road safety evaluation report.
 - Discuss the deficiencies identified during the road safety evaluation.
 - Do not damage the integrity of the evaluation by requesting deficiencies be amended, removed or added. These issues are dealt with in *Section 4.5: Reviewing the road safety evaluation report*
 - Consider discussing corrective action options for key findings.
 - Confirm the expectations and delivery of the final road safety evaluation report.
 - Confirm the arrangements for finalising the contract agreement.

4.4 Accepting the road safety evaluation report

Objective - To ensure that the submitted final road safety evaluation report meets the expectations and requirements specified in the contract agreement.

| ROLE | RESPONSIBILITY |
|-----------------------|--|
| Project sponsor | <ul style="list-style-type: none">Review the report and confirm that the deliverables conform to the contract agreement.Submit the final report to the Road Safety Audit Reports Library. |
| Library administrator | <ul style="list-style-type: none">Acknowledge receipt of a copy of the final road safety evaluation report for the Road Safety Audit Reports Library. |

All the original final road safety evaluation reports that are submitted must be signed and dated by all members of the road safety audit team. They must also meet the requirements of the contract agreement.

4.4.1 Steps

1. Confirm the final road safety evaluation report and deliverables.

- ☑ Confirm that all the deliverables in the contract agreement have been received and are satisfactory.
- ☑ The reports must be presented as originals.
- ☑ The reports must be signed and dated by all members of the road safety audit team.
- ☑ Confirm that all data/materials are returned, as required.
- ☑ Complete the notification of completion of the contract, as required.

2. Submit the final report to the Road Safety Audit Reports Library.

- ☑ A copy of the final road safety evaluation report must be submitted to the Road Safety Audit Reports Library. The Library collects copies of all road safety audit and road safety evaluation reports produced for the organisation.
- ☑ The copy must be submitted in the format required by the Road Safety Audit Reports Library.
- ☑ Record the acceptance receipt number issued by the Road Safety Audit Reports Library. This will need to be reported in the corrective action program.

4.5 Reviewing the road safety evaluation report

Objective - To review each identified deficiency to determine responsibilities, the requirement for further information, corrective actions and to assess the risks in relation to the organisation and project.

| ROLE | RESPONSIBILITY |
|---|---|
| Project sponsor | <ul style="list-style-type: none"> Review the road safety evaluation report and each identified deficiency. Propose and document corrective actions for each identified deficiency. |
| Specialist advisor (Optional) | <ul style="list-style-type: none"> Provide specialist advice, as requested by the project sponsor. |

The review of the final road safety evaluation report and each identified deficiency is an important step in preparation for the proposal of corrective actions.

The responsibility for reviewing each deficiency needs to be determined. Each identified deficiency is comprehensively checked to determine all possible actions and the risks to the organisation associated with each action. For each deficiency, corrective actions are proposed.

The corrective actions developed must be in the best interests of road safety, feasible and designed in accordance with the safe systems approach to road safety, in order to potentially reduce the incidence and/or severity of road crashes.

4.5.1 Steps

1. Review each identified deficiency.

- ☑ Confirm that each identified deficiency is a road safety deficiency.
- ☑ Identify the road authority, agency or directorate responsible for addressing each deficiency in accordance with legislation and organisational responsibilities.
- ☑ Obtain further advice or information if required or seek suggestions in relation to actions to take to address the deficiencies. This may include commissioning a separate project.
- ☑ Assign the priority rating in relation to road safety for each deficiency as shown in the *Risk assessment* information sheet. This should be reviewed in relation to community risks initially, then organisational risks and finally project risks. The priority rating should also be reviewed against the risk level assigned to the deficiency in the final road safety audit report and crash investigation report.

2. Propose corrective actions.

- ☑ Take the speed zone review outcome into consideration.
- ☑ Each deficiency must be documented.
- ☑ For each deficiency there must be a corrective action (response) and it must be documented.
- ☑ Each corrective action must comprehensively document the risks to the organisation in performing that action. This includes actions such as 'no further action', 'referred to agency for action', etc.
- ☑ The corrective actions developed to address the deficiencies may be short, medium or long term.
- ☑ Obtain sufficient advice/information from relevant sources to be able to decide upon and develop corrective actions. It is highly desirable to obtain advice from specialists.

3. Select and document the proposed corrective actions for each deficiency.

- ☑ Include details of all proposed options and the reasons for selecting the preferred option, including details of the safety benefit.
- ☑ Describe the selected corrective action clearly and comprehensively.
- ☑ If proposing no further action a comprehensive explanation must be provided.

4.6 Producing a corrective action program

Objective - To assign accountability in relation to organisational responsibilities and obtain approval for the appropriateness of the corrective actions and the safety benefits they provide.

| ROLE | RESPONSIBILITY |
|-------------------------|--|
| Project sponsor | <ul style="list-style-type: none"> • Prepare the corrective action program. • Obtain written support for the corrective action program from the approval manager. • Record details of the corrective actions in the information system. |
| Approval manager | <ul style="list-style-type: none"> • Take overall responsibility for the corrective action program and road safety evaluation outcomes. |

Each corrective action is incorporated into the corrective action program.

The list of corrective actions should be approved by an appropriate officer who verifies that they are appropriate and provide safety benefits. The person approving should have some road safety audit qualifications, knowledge and expertise or occupy a position of sufficient rank in the organisation to take full responsibility for the outcomes.

4.6.1 Steps

1. Prepare the corrective action program.

- ☑ The program must detail each deficiency identified in the final road safety evaluation report.
- ☑ It must specify the priority rating for each deficiency.
- ☑ It must clearly and concisely detail all the suggested actions/options considered for each deficiency. Where multiple options are suggested to address a deficiency, an explanation for the selection of the preferred option is required.
- ☑ It must clearly and concisely detail the proposed corrective action for each deficiency.
- ☑ It must indicate the proposed timeframe for completing the implementation of each corrective action.
- ☑ It must provide the estimated total costs of implementation of the corrective action.
- ☑ It must include an action for the submission of the road safety evaluation report to the Road Safety Audit Reports Library.
- ☑ The corrective action program must be signed and dated by the project sponsor.

2. Obtain approval for the corrective action program.

- ☑ Amend the corrective action program as directed.
- ☑ Approval must be obtained from an officer with the appropriate delegation.
- ☑ The approval must be documented in writing.

3. Record details of the corrective action program in the appropriate information management system.

- ☑ The original corrective action program must be filed in the official file for the project.
- ☑ Enter details of each identified deficiency in the appropriate information management system.

4.7 Implementing corrective actions

Objective - To completely implement corrective actions and to clearly and concisely record the details of each completed corrective action implemented to address the deficiencies identified in the final road safety evaluation report.

| ROLE | RESPONSIBILITY |
|-------------------------|---|
| Project sponsor | <ul style="list-style-type: none"> Refer identified deficiencies to other internal branches or external agencies. Initiate or delegate the implementation of corrective actions. Prepare documentation for variations. Verify that the completed corrective actions have been satisfactorily implemented. |
| Approval manager | <ul style="list-style-type: none"> Approve variations to the corrective action program. |
| Service provider | <ul style="list-style-type: none"> Deliver implemented corrective action, as directed by the project sponsor. |

The implementation of corrective actions to address some or all of the identified deficiencies can be delegated, but it remains the responsibility of the project sponsor until they have all been satisfactorily addressed.

If a deficiency relates to matters that are the responsibility of a third party, forward the details to the relevant authority for action. File the acceptance of the referral from the third party.

Document all completed corrective actions. It is important to ensure that details of the work that was completed are documented as this may become a legal issue in the future.

4.7.1 Steps

1. Refer identified deficiencies to other internal branches or external agencies.

- ☑ A written acceptance of the referral must be received. Until an acceptance is received, the deficiency remains the responsibility of the project sponsor.

If the issue cannot be resolved, elevate it through the organisation until acceptance is acknowledged.

- ☑ The corrective action can only be recorded as complete after acceptance of the referral is received.

2. Initiate the implementation of corrective actions.

- ☑ Scheduled actions cannot be recorded as complete until the action has actually been implemented.

- ☑ Obtain progress reports on the implementation of the corrective actions.

- ☑ Any variations to the corrective action must be appropriately approved and documented. Where there are variations it must be able to be demonstrated that the relevant safety deficiency is still being addressed.

- ☑ Record details of approved variations in the information system.

- ☑ Regularly monitor the progress of all corrective actions and update the details in the information system.

3. Verify that the completed corrective action has been satisfactorily implemented.

- ☑ The implemented corrective action must be inspected/viewed. The inspection may be delegated but it remains the responsibility of the project sponsor.

- ☑ The corrective action can only be recorded as complete when the completed action has been verified.

- ☑ At a minimum, record the date completed, the details of the project sponsor and the details of the officer who verified the completed action.

- ☑ The details must be recorded in the information system.

4.8 Closing the corrective action program

Objective - To produce a written report that clearly and concisely records the details of all the completed corrective actions that were implemented to address each road safety deficiency identified in the final road safety evaluation report.

| ROLE | RESPONSIBILITY |
|------------------|---|
| Project sponsor | <ul style="list-style-type: none">Produce the completed corrective action program report.Obtain final approval and close out the overall road safety evaluation. |
| Approval manager | <ul style="list-style-type: none">Take overall responsibility for road safety evaluation outcomes. |

It is important to ensure that all completed corrective actions are documented in one report to verify that all road safety deficiencies identified in the final road safety evaluation report were addressed. This closing report must be endorsed by the appropriate delegated officer as it may become a legal issue in the future.

4.8.1 Steps

1. Produce a closing road safety evaluation report.

- At a minimum, the report must include details of each deficiency identified in the final road safety evaluation report, together with details of each completed corrective action and the date of completion.
- The report must be signed and dated by the project sponsor.

2. Obtain final approval.

- Approval must be obtained from an officer with the appropriate delegation. It is preferable to obtain approval from the same position that approved the corrective action program.
- The approval must be documented in writing.

3. Close out.

- All corrective actions must be closed out in the appropriate information management system.
- The original report must be filed in the official file for the project.
- A copy of the final program report must be submitted to the Road Safety Audit Reports Library. It must be submitted in the format required by the Road Safety Audit Reports Library.
- Record the acceptance receipt number issued by the Road Safety Audit Reports Library in the official file for the project.

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The information in this brochure is intended as a guide only and is subject to change at any time without notice. It does not replace the relevant legislation.

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Transport
Roads & Traffic
Authority

PART 3:

Road safety check



Part 3: Road Safety Check

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I. Introduction

Road safety checks are a pro-active approach to road safety.

Road safety checks form an integral part of the safe system approach.

A road safety check is designed to identify road safety deficiencies and areas of risk and implement corrective actions to address each identified road safety deficiency. It can be conducted in the pre-construction, construction or post-construction phases of a project.

A road safety check involves the principles of road safety auditing and crash investigation. It is conducted by a road safety professional.

I.1 About this document

This document is designed to be used as the primary source of procedures for commissioning, conducting and completing road safety checks for the Roads and Traffic Authority (RTA) of NSW.

This guide is divided into four sections:

- Section 1 provides introductory and background information relating to road safety checks.
- Section 2 provides details of the procedures involved in commissioning road safety checks. These procedures are meant for the project sponsor.
- Section 3 provides details of the procedures involved in conducting road safety checks. These procedures are meant for the road safety professional.
- Section 4 provides details of the procedures involved in completing road safety checks. These procedures are meant for the project sponsor.

I.2 Definitions

Road safety check

A road safety check is an assessment of proposed or existing roads and road related areas from the perspective of all road users with the intention of identifying road safety deficiencies and areas of risk that could lead to or have led to road crashes. It is conducted by a road safety professional.

The following table provides definitions of the roles that are referred to in this document.

TABLE 1.1 DEFINITIONS OF ROLES WITHIN THE ROAD SAFETY CHECK PROCESS

| ROLE | MEANING |
|---------------------------------|---|
| Project sponsor | The project manager or officer (employed or contracted by the road jurisdiction) responsible for delivering or overseeing the road infrastructure related works. |
| Road safety professional | A practicing professional with experience and capabilities in road safety engineering, who either holds a position with road safety responsibilities or accountabilities, or is a qualified road safety auditor or road crash investigator with recent and regular demonstrated experience in conducting road safety audits or road crash investigations. |
| Specialist advisor | A practicing professional with specific skill sets, experience or knowledge of subject matter required to provide independent specialist advice to the project sponsor or the road safety professional on critical aspects of the project. |
| Project stakeholder | A person with an interest in the road infrastructure related works. May be a planner; designer; construction manager; asset manager; operations manager; or alliance member. |
| Approval manager | The manager employed by the road jurisdiction who is accountable for delivering or overseeing the road infrastructure related works. |
| Service provider | The person, contractor; organisation or party required to deliver services. |

1.3 Building safer roads

Road safety checks form an integral part of the safe system approach. For background information relating to the safe systems approach refer to *Austrroads Guide to Road Safety Part 1: Road Safety Overview*, Section 2.

Best practice in road safety is achieved by applying the basics of road safety engineering safety principles. For background information relating to the safety principles refer to *Austrroads Guide to Road Safety Part 6: Road Safety Audits*, Section 8.

1.4 Types of road safety checks

For the purpose of road safety checks, projects fall into one of three distinct categories. The project is either in the pre-construction phase, the construction phase or the post-construction phase of its life cycle.

These phases are further divided into the key life cycle stages of the project: strategic, concept design, detailed design, roadworks, pre-opening, finalisation and existing road.

Road safety checks are typically conducted at these key life cycle stages of a project. The types of road safety checks therefore reflect these key stages.

The table on the following page provides a description of each type of road safety check.

Continuously performing road safety checks at all the different phases/stages of a project produces road safety benefits. In particular, conducting road safety checks when road safety audits or road safety evaluations are not undertaken. As a result this ensures that road safety is constantly assessed throughout the project.

TABLE 1.2 TYPES OF ROAD SAFETY CHECKS

| PROJECT PHASE | TYPE OF ROAD SAFETY CHECK | PROJECT STAGE DESCRIPTION |
|-------------------|---------------------------|--|
| Pre-construction | Strategic | Conducted at the completion of the strategic stage of the project life cycle. The strategic stage is where broad options for a proposed project are determined. |
| | Concept design | Conducted at the completion of the concept design stage of the project life cycle. The concept stage is where options are examined for a proposed project and a preferred option is selected. |
| | Detailed design | Conducted at the completion of the detailed design stage of the project life cycle. The detailed design stage is where a design is completed to sufficient detail to commence construction. |
| Construction | Roadworks | Conducted at the commencement of each stage of the roadworks where changes affect traffic operations, traffic travel path characteristics, or traffic roadside characteristics during the construction stage of the project life cycle. |
| | Pre-opening | Conducted immediately after the completion of construction of the entire project works or the construction of a roadworks stage and where possible prior to the road/path being used by traffic. |
| Post-construction | Finalisation | Conducted on an existing road, path or road network some time after the completion of the construction of road infrastructure works. It is typically once road user patterns have settled following the works, or immediately prior to the change-over of ownership or responsibility in regard to the assets or network operations following the works. |
| | Existing road | Conducted on an existing road, path or road network where no recent construction works were undertaken. |

The same type of road safety check can be conducted more than once for a particular project.

1.5 References

This guide provides details of the procedures to use for road safety checks.

For introductory and background information relating to road safety principles and practices, refer to the following references:

Austrroads (2009) *Guide to Road Safety - Part 1: Road Safety Overview*. Austrroads Incorporated, Sydney, Australia.

Austrroads (2006) *Guide to Road Safety - Part 5: Road Safety for Rural and Remote Areas*. Austrroads Incorporated, Sydney, Australia.

Austrroads (2009) *Guide to Road Safety - Part 6: Road Safety Audit*. Austrroads Incorporated, Sydney, Australia.

Austrroads (2009) *Guide to Road Safety - Part 8: Treatment of Crash Locations*. Austrroads Incorporated, Sydney, Australia.

Austrroads (2008) *Guide to Road Safety - Part 9: Roadside Hazard Management*. Austrroads Incorporated, Sydney, Australia.

2. Commissioning a road safety check

The procedures in this section are meant for the project sponsor.

2.1 Overview

Objective - To establish the requirements, limitations and expectations for the conduct of a road safety check.

| ROLE | RESPONSIBILITY |
|---------------------------------|--|
| Project sponsor | <ul style="list-style-type: none">• Produce a brief which provides a clear statement of the scope of the check and the expectations of the road safety professional.• Select and engage the road safety professional.• Gather background information.• Provide information to the road safety professional. |
| Road safety professional | <ul style="list-style-type: none">• Provide advice on road safety matters and outcomes as directed by the project sponsor. |
| Project stakeholders (Optional) | <ul style="list-style-type: none">• Provide advice on project scope, limitations, deviations from standards, restraints and compromises as directed by the project sponsor. |

The commissioning phase is concerned with identifying the road safety professional who is most suited to understanding the characteristics, needs and outcomes of the project to be checked. This phase also provides an opportunity to establish clear and concise communications and understanding between all parties.

The key steps that determine a successful outcome for commissioning a road safety check are:

- Preparing a brief.
- Selecting and engaging the road safety professional.
- Providing information to the road safety professional.

2.2 Preparing a brief

Objective - To create a brief which identifies the project and the phase of the project to be checked and sets the parameters for the road safety check.

| ROLE | RESPONSIBILITY |
|-----------------|--|
| Project sponsor | <ul style="list-style-type: none">• Prepare the road safety brief.• Decide what information/access is appropriate to provide for the road safety check.• Gather all relevant information/material and ensure that it is available. |

A successful project brief for a road safety check identifies the project and the phase of the project to be checked and specifies the scope and deliverables of the check. It is specific, clear and comprehensive.

The type of information provided to the road safety professional who is to perform the check varies depending upon the project and the phase/stage of the project to be checked.

Background information is supplied to the road safety professional to enhance their understanding of the project background and constraints. The information may include details of any restrictions and compromises that were involved in the design process to enable them to identify measures that were taken.

2.2.1 Steps

1. Prepare a road safety check brief.

- ☑ It is highly desirable for the brief to be provided in writing.
- ☑ The brief must define what is required of the road safety professional.
- ☑ The brief should include the following:
 - Purpose.
 - Background.
 - Scope of the check.
 - Information and material provided.
 - Deliverables.
 - Check timeframes.
 - Format of the final report

2. Collect all the relevant information/material necessary to perform the check.

- ☑ Do not provide any company details or anything that could be considered private or confidential.
- ☑ The latest set of design plans must be provided for all pre-construction phase road safety checks.
- ☑ It is desirable to provide previous road safety audit reports or road safety evaluation reports.

2.3 Selecting and engaging the road safety professional

Objective - To select a qualified and experienced road safety expert who can successfully conduct the road safety check and provide road safety related outcomes.

| ROLE | RESPONSIBILITY |
|---------------------------------|---|
| Project sponsor | <ul style="list-style-type: none"> • Select the road safety professional based on the experience, qualifications, performance and position. • Invite the road safety professional to undertake the road safety check. • Verify the road safety professional's relevant certifications. • Enter into an agreement. |
| Road safety professional | <ul style="list-style-type: none"> • Seek clarification about details of the project. • Submit a response to the invitation to conduct the road safety check. |

The most effective road safety checks are those where the skills of the road safety professional conducting the check match the skills needed by the project. The road safety professional should be a trained and experienced professional with the required knowledge, skills, experience and attitudes to deliver a successful road safety check outcome. They should be able to use their skills to visualise the completed project and view the road network from the perspective of all road users.

2.3.1 Steps

- 1. Review the knowledge and capabilities of potential road safety professionals.**
 - ☑ It is highly desirable to use a road safety auditor who is registered at Level 2 or higher. Refer to the NSW Centre for Road Safety's *Register of Road Safety Auditors*.
 - ☑ The road safety professional's areas of expertise should match the skills needed by the project.
 - ☑ Seek details of the qualifications, experience, performance and position of the road safety professional.
 - ☑ The road safety professional must have:
 - An understanding of NSW traffic legislation/ road rules.
 - The ability to view road safety from the perspective of different types of road users.
 - Familiarity with traffic operations.
 - Experience with road safety auditing or road crash investigations.
- 2. Select the road safety professional.**
- 3. Invite the road safety professional to undertake the road safety check.**
 - ☑ The invitation must be in writing, either initially or as a follow-up to verbal discussions. Email is acceptable.
 - ☑ Provide the road safety check brief to the road safety professional through the appropriate forum. For example, it could be delivered by email, phone, face-to-face meeting.
- 4. Enter into an agreement with the road safety professional.**

2.4 Providing information to the road safety professional

Objective - To provide the road safety professional with details of the scope of the road safety check, the project constraints, the supplied and required information/material, access arrangements to information/site and expectations in order to successfully conduct the road safety check.

| ROLE | RESPONSIBILITY |
|--------------------------|---|
| Project sponsor | <ul style="list-style-type: none"> Determine the appropriate method of delivery of the information to the road safety professional. For example, it could be delivered by email, phone, face-to-face meeting. Deliver the relevant information to the road safety professional. Determine the appropriate method for the road safety professional to deliver the findings of the road safety check and advise. For example, the findings could be delivered by phone or at a face-to-face meeting. |
| Road safety professional | <ul style="list-style-type: none"> Seek clarification of any details of the project, as required. |

Meeting with the road safety professional to provide information is an important part of the road safety check process. The information is provided before the road safety professional begins to perform assessments/inspections. The forum for the meeting depends upon the project and the phase/stage of the project to be checked.

A telephone or face-to-face meeting provides a forum in which the project sponsor can discuss/hand over relevant information, explain the purpose of the road safety check and the road safety professional can clarify any issues.

2.4.1 Steps

- Determine the appropriate forum for delivering the information to the road safety professional.**
 - It is highly desirable to hold a meeting in some form, eg phone, face-to-face.
- Deliver the information to the road safety professional.**
 - This may be done via email or at a face-to-face meeting.
 - Advise the road safety professional of the forum in which the findings of the road safety check are to be delivered.

3. Conducting a road safety check

The procedures in this section are meant for the road safety professional.

3.1 Overview

Objective - To conduct an assessment of proposed or existing roads and road related areas from the perspective of all road users, with the intention of identifying road safety deficiencies and areas of risk that could lead to road crashes.

| ROLE | RESPONSIBILITY |
|--------------------------|--|
| Project sponsor | <ul style="list-style-type: none">• Represent the organisation commissioning the road safety check. |
| Road safety professional | <ul style="list-style-type: none">• Undertake the road safety check.• Provide the findings resulting from the road safety check.• Produce and deliver the final road safety check report to the project sponsor. |

The conducting phase is the actual road safety check. It is concerned with the identification of road safety deficiencies and areas of risk that could lead to or have led to road crashes and articulating these findings in a report for the project sponsor:

The key steps that determine a successful outcome for the conduct of a road safety check are:

- Undertaking the road safety check.
- Advising the findings to the project sponsor.
- Producing a road safety check report.

3.2 Undertaking the road safety check

Objective - To conduct an assessment of proposed or existing roads and road related areas from the perspective of all road users, with the intention of identifying road safety deficiencies and areas of risk that could lead to or have lead to road crashes.

| ROLE | RESPONSIBILITY |
|-------------------------------|---|
| Road safety professional | <ul style="list-style-type: none">Plan and schedule the road safety check assessments/inspections.Manage and participate in the road safety check process. |
| Specialist Advisor (Optional) | <ul style="list-style-type: none">Provide specialist advice, as directed by the road safety professional. |

Undertaking the road safety check is the core road safety check process. The activities involved in a road safety check vary depending upon the phase of the project being checked.

3.2.1 Steps

- 1. Review all the information/material.**
 - ☑ The latest design plans must be reviewed, if applicable.
 - ☑ Follow up any additional or missing information/material that is necessary for the road safety check and clarify any uncertainties with the project sponsor.
- 2. Assess the project/site.**
 - ☑ Apply the principles/practices for conducting a road safety audit. Refer to *Austrroads Guide to Road Safety Part 6: Road Safety Audits*.
 - ☑ Apply the principles/practices for conducting a road crash investigation. Refer to *Austrroads Guide to Road Safety Part 8: Treatment of Crash Locations*.
 - ☑ The assessment must be conducted along all approaches from the perspective of all the relevant different road users.
 - ☑ The road and road related areas must be assessed for potential and actual road safety risks. That is, the assessment must go beyond checking for conformance to standards.
 - ☑ Consult specialist advisors, where necessary.
- 3. Record all road safety deficiencies that are identified.**

3.3 Reporting the findings to the project sponsor

Objective - To discuss the road safety check findings and outcomes and finalise the contract agreement.

| ROLE | RESPONSIBILITY |
|--------------------------|--|
| Road safety professional | <ul style="list-style-type: none">• Convene and hold discussions in the appropriate forum.• Confirm the outcomes/actions of the discussion. |
| Project sponsor | <ul style="list-style-type: none">• Be available for a discussion. |

Advising the findings of the road safety check to the project sponsor provides an opportunity to discuss the findings, further assessments and actions.

By discussing the findings, the road safety professional and the project sponsor can work together to ensure road safety outcomes can be achieved.

3.3.1 Steps

1. Hold the discussion.

- Discuss the deficiencies identified during the road safety check.
- Discuss possible corrective action options for the key findings.
- Confirm the format and level of detail required in the road safety check report from the project sponsor.
- Confirm matters to complete the agreement.

2. Confirm discussion actions/outcomes.

3.4 Producing the road safety check report

Objective - To produce and deliver the written report which specifically, clearly and comprehensively documents all the road safety deficiencies identified during the road safety check.

| ROLE | RESPONSIBILITY |
|--------------------------|--|
| Road safety professional | <ul style="list-style-type: none">• Produce the road safety check report.• Deliver the road safety check report to the project sponsor. |

The road safety check report documents the findings of the road safety check and represents the road safety professional's professional position. It is the document on which decisions about corrective actions will be based.

The report does not contain suggested actions or recommendations. These, if requested by the project sponsor, are documented in a separate report. Suggested actions or recommendations are the responsibility of the project sponsor.

3.4.1 Steps

1. Draft the road safety check report.

- ☑ The draft should be in accordance with the outcomes of discussions.
- ☑ It must be in writing and should be specific, clear and comprehensive.
- ☑ The report should be uniquely identified by a road safety check number or title as supplied by the project sponsor.
- ☑ It should include details of the:
 - Purpose and background.
 - Assessment methodology and details including the scope of the check, the dates on which assessments were conducted, dates and times of site inspections, the design plans assessed and references used.
 - Deficiency details (findings).
- ☑ For each identified road safety deficiency or group of deficiencies the report must:
 - Include a comprehensive description of the location.
 - Include an explanation of the potential road safety impact, ie in relation to crash types.
 - Not contain any suggested actions or recommendations.

2. Deliver the road safety check report.

- ☑ Provide the report in the agreed format.

4. Completing a road safety check

The procedures in this section are meant for the project sponsor.

4.1 Overview

Objective - To manage the implementation of actions which enhance road safety and record the completed action for every deficiency identified in the road safety check report.

| ROLE | RESPONSIBILITY |
|---|--|
| Project sponsor | <ul style="list-style-type: none"> Review the road safety check report. Develop and implement a corrective action program. Close the corrective action program. |
| Specialist advisor (Optional) | <ul style="list-style-type: none"> Provide specialist advice, as requested by the project sponsor. |
| Service provider | <ul style="list-style-type: none"> Implement corrective actions, as directed by the project sponsor. |
| Approved manager | <ul style="list-style-type: none"> Overall road safety check outcomes. |

The completing phase is critical to the road safety check process. It is concerned with ensuring that the project delivers the best possible road safety outcomes. It also ensures transparency and accountability in relation to decision making and actions.

The key steps that determine a successful outcome for completing a road safety check involve:

- Producing a corrective action program.
- Implementing corrective actions.
- Closing the corrective action program.

4.2 Producing a corrective action program

Objective - To review each identified deficiency in order to assign accountability for organisational responsibilities and obtain approval for the appropriateness of the corrective actions and the safety benefits they provide.

| ROLE | RESPONSIBILITY |
|---|--|
| Project sponsor | <ul style="list-style-type: none"> Review the road safety check report and each identified deficiency. Prepare the corrective action program. Obtain written support for the corrective action program from the approval manager. |
| Specialist advisor (Optional) | <ul style="list-style-type: none"> Provide specialist advice, as requested by the project sponsor. |
| Approved manager | <ul style="list-style-type: none"> Accept overall responsibility for the corrective action program and road safety check outcomes. |

The review of the road safety check report and each identified deficiency is an important step in preparing for the proposal of corrective actions.

The responsibility for reviewing each deficiency needs to be determined. Each identified deficiency is comprehensively checked to determine all possible actions and the risks to the organisation associated with each action. For each deficiency, corrective actions are proposed.

The corrective actions developed must be in the best interests of road safety, feasible and designed in accordance with the safe systems approach to road safety, in order to potentially reduce the incidence and/or severity of crashes.

The list of corrective actions should be approved by an appropriate officer who verifies that they are appropriate and provide safety benefits. The person signing should occupy a position in the organisation of sufficient rank to take full responsibility for the outcomes.

4.2.1 Steps

1. Review each identified deficiency.

- ☑ Identify the road authority, agency or directorate responsible for addressing each deficiency. This must be in accordance with legislation and organisational responsibilities.
- ☑ Obtain further advice or information if required or seek suggestions about actions to take to address the deficiencies.

2. Prepare the corrective action program.

- ☑ Include details of each deficiency identified in the final road safety check report.
- ☑ Obtain sufficient advice/information from relevant sources to be able to decide upon and develop corrective actions. It is highly desirable to obtain advice from specialists.
- ☑ Clearly and concisely detail the proposed corrective action for each deficiency.
- ☑ If no further action is proposed, a comprehensive explanation must be provided.
- ☑ Indicate the proposed timeframe for completing the implementation of each corrective action.
- ☑ Provide an estimate of the total costs of implementation of each corrective action.
- ☑ Include the name of the project sponsor and submission date.

3. Obtain approval for the corrective action program.

- ☑ Amend the corrective action program as directed.
- ☑ Approval must be obtained from an officer with the appropriate delegation.
- ☑ Approval must be documented in writing.
- ☑ File the corrective action program in the official file for the project.

4.3 Implementing corrective actions

Objective - To completely implement the corrective actions and clearly and concisely record the details of each completed corrective action which was implemented to address the deficiencies identified in the road safety check report.

| ROLE | RESPONSIBILITY |
|-------------------------|---|
| Project sponsor | <ul style="list-style-type: none"> Refer identified deficiencies to other internal branches or external agencies. Initiate or delegate the implementation of corrective actions. Prepare documentation for variations. Verify that the completed corrective actions have been satisfactorily implemented. |
| Approved manager | <ul style="list-style-type: none"> Approve variations to the corrective action program. |
| Service provider | <ul style="list-style-type: none"> Implement corrective action, as directed by the project sponsor. |

The implementation of corrective actions to address some or all of the identified deficiencies can be delegated, but it remains the responsibility of the project sponsor until they have all been satisfactorily addressed.

If a deficiency relates to matters that are the responsibility of a third party, forward the details to the relevant authority for action. File the acceptance of the referral received from the third party.

Document all completed corrective actions. It is important to ensure that details of the work that was completed are documented as this may become a legal issue in the future.

4.3.1 Steps

1. Refer identified deficiencies to other internal branches or external agencies.

- ☑ Must receive a written acceptance of the referral. Until the acceptance is received, the deficiency remains the responsibility of the project sponsor. If the issue cannot be resolved, elevate it through the organisation until acceptance is acknowledged.
- ☑ The corrective action can only be recorded as complete when acceptance of the referral is received.

2. Initiate the implementation of corrective actions.

- ☑ Scheduled actions cannot be recorded as complete until the action has actually been implemented.
- ☑ Variations to the corrective action must be appropriately approved and documented. If there are variations, it must be able to be demonstrated that the relevant safety deficiency is still being addressed.

3. Verify that the completed corrective action has been satisfactorily implemented.

- ☑ The implemented corrective action must be inspected/viewed. The inspection may be delegated, but it remains the responsibility of the project sponsor.
- ☑ The corrective action can only be recorded as complete when the completed action has been verified.
- ☑ At a minimum, record the date completed, the details of the project sponsor and the details of the officer who verified the completed action.

4.4 Closing the corrective action program

Objective - To produce a written report that clearly and concisely records the details of all the completed corrective actions that were implemented to address each road safety deficiency identified in the road safety check report.

| ROLE | RESPONSIBILITY |
|------------------|--|
| Project sponsor | <ul style="list-style-type: none">Produce the completed corrective action program report.Obtain final approval and close out the overall road safety check. |
| Approved manager | <ul style="list-style-type: none">Accept overall responsibility for road safety check outcomes. |

It is important to ensure that all completed corrective actions are documented in one report. This indicates that all road safety deficiencies identified in the road safety check report have been addressed. The closing report must be endorsed by the appropriate delegated officer.

4.4.1 Steps

1. Produce a closing road safety check report.

- At a minimum, the report must include details of each deficiency identified in the final road safety check report, together with details of the completed corrective action and the date of completion.
- The project sponsor must sign and date the report.

2. Obtain final approval.

- Approval must be obtained from an officer with the appropriate delegation. It is preferable to obtain approval from the same position that approved the corrective action program.
- Approval must be documented in writing.

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The information in this brochure is intended as a guide only and is subject to change at any time without notice. It does not replace the relevant legislation.

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