



DRAFT

Planning the opening of a road project guideline

Guideline: DRAFT – Planning the opening of a road project guideline

Version: 1.1

Issue: September 2009

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UNCONTROLLED WHEN PRINTED

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Note: This draft guideline should be read in conjunction with Policy PN 207 - Policy for planning the opening of a road project and PN 207G - Planning the opening of a road project guideline.

Introduction

Purpose of the guideline

This guideline provides project managers with a process and tools to meet requirements for the management of traffic, the road network and communication in the opening of a road project.

Project managers can use this guide to plan for and carry out a successful road opening that meets goals shared by the Roads and Traffic Authority (RTA) and the project itself – such as the accurate assessment and management of risks, identification of potential traffic disruption, preservation of road user safety, cost efficiency and efficient teamwork.

Opening a road project requires systematic planning and resource allocation to ensure the integration of road infrastructure, field resources, systems for traffic and network management and stakeholder communication for the opening period.

This guideline assists project managers and opening planning teams to:

- Understand the risks and impacts of the road opening on road safety, traffic management, the road network and the community.
- Develop a strategy and actions to be implemented at various phases of the project, in order to mitigate and manage the opening period risks.
- Be prepared and have adequate resources for personnel, technology, systems and data.
- Integrate implementation of planned activities during opening with sufficient allowance for risks.
- Document and evaluate lessons learned to ensure continuous improvement.

Opening a road project

Opening new infrastructure on the road network results in a change in traffic behaviour. The process is often complex and involves physical and operational changes that affect road infrastructure, traffic management systems, road user groups, the local community and interest groups.

In some projects, these consequences may extend beyond the physical work of the project. The opening period is characterised by busy last minute construction activities, temporary measures and ongoing traffic and road network management and communication activities. During this time, a project can also draw attention from media and local, State and Federal government agencies.

Optimal management of a road opening allows the RTA to:

- Inform and instruct road users of the new traffic conditions prior to commissioning the road project.
- Provide a safe and efficient road network during commissioning and in the immediate period after construction.
- Assist road users to use the new infrastructure safely.

Road projects can be opened in stages, with some stages opened several months before the final configuration. Opening a stage of a project can require a similar level of planning as the opening of the final configuration. Planning for all stages of a road opening should be done with a consistent approach.

Project managers need to plan for the opening as early as possible in the project, in order to accommodate all stakeholder expectations and ensure a smooth transition to the new traffic conditions during the opening period.

How to use this guideline

This guideline uses a five step planning process (see Figure 1 on page 7). The document is designed to lead project managers through each step.

The goal of the planning process is to ensure that adequate time and resources are allocated for implementing all planned activities, bearing in mind the scale, complexity, geographical location, risks and the desired outcomes of the project.

The initial summary (pages 5-11) is followed by a more detailed outline of each planning step. Templates located in the middle of the guideline provide simplified, standardised outputs (such as risk assessment forms and checklists).

At the end of the guideline, important reference documents and a glossary are provided to assist planners and clarify key terms.

The guideline is divided into 10 sections. The first section outlines the purpose of the guideline, the importance of planning for opening of a road project and provides advice on how to make the best use of the guideline. 'General information and directions' introduces the five step planning process to guide opening planning, opening objectives and outcomes. It demonstrates how the five step planning process integrates into RTA's *ProjectPack* and *MinorProject* project management systems.

Each of the five planning steps is divided into sections that outline procedure, templates to use, outputs, approval mechanisms and important reference documents. A summary is provided at the end of each step to provide project managers a quick overview of the tasks.

The appendices provide checklists, memorandums and templates to complete each step. A comprehensive list of all reference documents on page 51 and the glossary on page 53 will clarify all technical documents and terms used in the guideline.

The guideline is written to permit project managers to use the information in a variety of ways. For those starting out, a review of the whole guideline will be required. Those more experienced in opening planning and implementation can use the summary information provided on page 8 and at the end of each step in the guideline.

Figure 1: Opening planning process flowchart

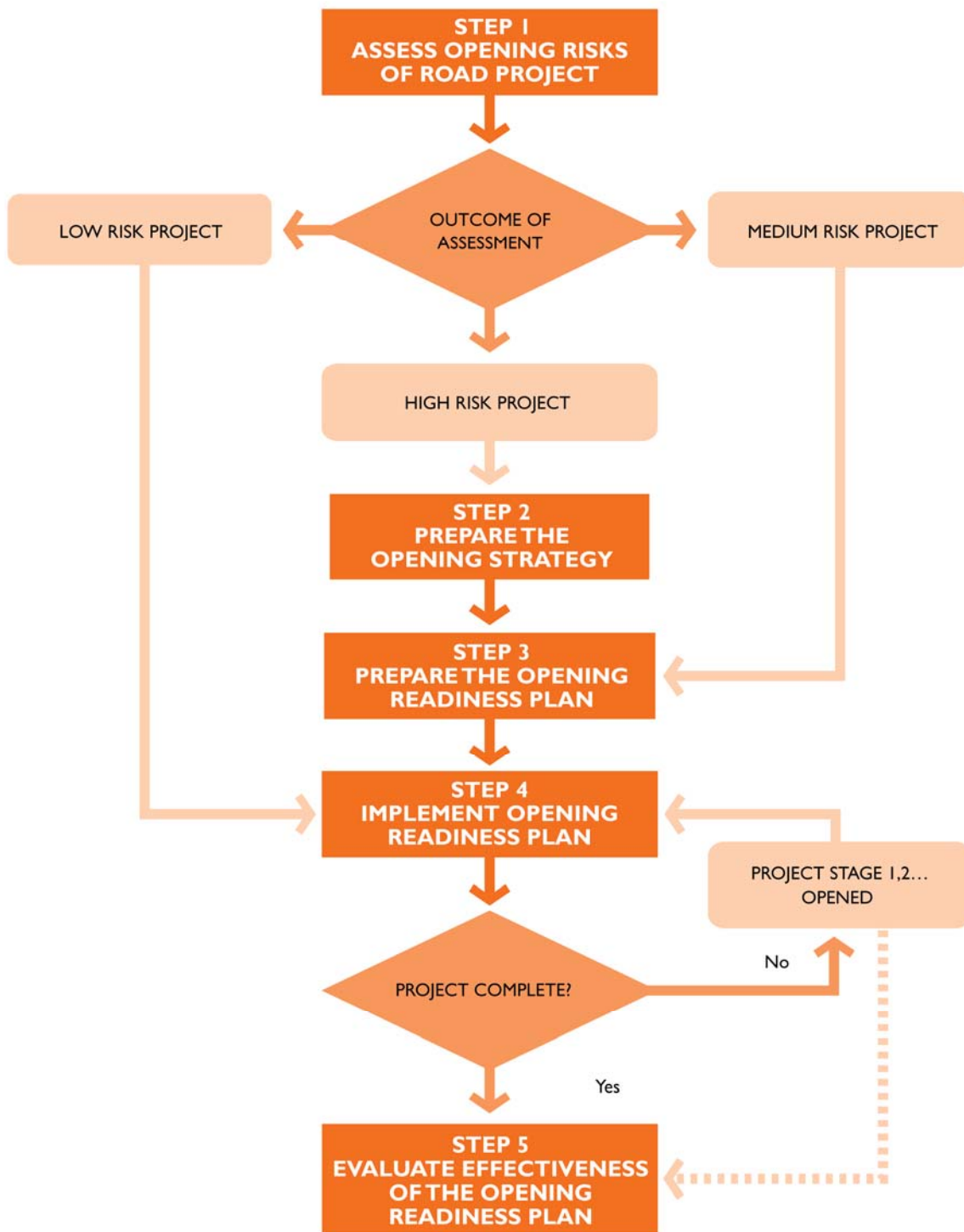


Table 1: Summary of planning objectives and outputs for project managers

Opening planning step	Objectives	Outputs
Step 1: Assess opening risks of road project	Identify RTA functional areas for consultation. Assess opening risks. Understand opening planning requirements. Identify special areas of consideration for resourcing, funding and so on.	Risk assessment report
Step 2: Prepare the opening strategy	Identify planning issues, objectives, performance indicators and requirements to be addressed in the project development, implementation and finalisation/operation phases.	Strategy and action plan
Step 3: Prepare the opening readiness plan	Identify scope of the opening readiness plan, including the need for specialist plans. Identify opening activities and their likely sequence. Identify funding, resources, timing, implementation, management and documentation requirements for the opening activities.	Readiness plan
Step 4: Implement opening activities	Safe and efficient project opening. Integrated infrastructure and systems operation and resource utilisation.	Activities achieved
Step 5: Evaluate effectiveness of the opening readiness plan	Suggestions to improve: <ul style="list-style-type: none"> • Functional areas consultation. • How opening risks are assessed. • Extent of opening planning requirements. • Special considerations for resources, funding and so on. 	Evaluation report

General information and directions

Summary of the five step planning process

Step 1 involves a risk assessment. What impact will the opening have on the operation of the road corridor? The risk assessment identifies and rates risks and leads to the project being placed in one of three risk categories (high, medium and low – see Table 2 below). This assessment of risk guides the planning for subsequent steps in the process.

Table 2 : Correlation between road project risk categories and planning steps

Outcome of assessment	Planning process
Project identified as high risk – such as a major infrastructure project or a project with high community expectations for a safe and efficient road network.	Carry out planning Steps 2, 3, 4 and 5.
Project identified as medium risk in terms of meeting community expectations for a safe and efficient road network.	Carry out planning Steps 3, 4 and 5.
Project identified as low risk with an expectation of providing a safe and efficient road network.	Carry out planning Steps 4 and 5.

Step 2 helps project managers to develop an opening strategy for a high risk project. The opening strategy will direct planning for the infrastructure, network management and communications required for the opening, all of which must be written into the design, procurement and construction stages of the project.

Step 3 will guide the development of an opening readiness plan. The opening readiness plan defines all the tactical initiatives and operational actions to occur during the opening period by all agencies. In high risk and complex projects, the opening readiness plan contains supplementary plans for specific needs.

Step 4 implements all the actions in the opening readiness plan. Project managers will create reports summarising the performance of the road project during the opening period for use by interested parties.

Step 5 guides the review of the results of the implementation of the opening planning and delivery including the opening strategy, readiness plan and implementation activities during the opening period. The results of the review will return to the policy owner to permit continuous improvement in the opening planning process.

Relationship between the road safety audit process and planning for the opening of a road project

It is RTA policy that a pre-opening (stage 4) road safety audit must be undertaken prior to the opening of a road project. These guidelines complement this requirement but in no way negate the need for a project manager to undertake this mandatory requirement.

Objectives and outcomes

The objectives of planning for opening a road project are to:

- Ensure the planning effort is appropriate for the potential risks to the RTA and to ensure issues that require attention prior to and following the opening are identified, prioritised and addressed with cost effective management measures.
- Ensure that potential road safety and traffic management issues arising from the opening are identified and addressed so that road users' safety is preserved and maximum operational efficiency is achieved.
- Identify changes to motorist behaviour and stakeholder and community expectations so that communication strategies in the opening period have maximum effect.
- Maximise coordination of resources, road infrastructure and systems within the RTA and with private and public sector agencies for the opening period to ensure optimum teamwork.

Planning for the opening will help achieve the following outcomes:

- | | |
|----------------|--|
| RTA | Achieve a successful opening for the road project, with reference to the objectives outlined above for risk assessment and management, managing traffic safely and efficiently, using good communication strategies and coordinating stakeholders.

Maintain consistent success in meeting these objectives and in doing so, support the Traffic Management Branch business plan goals 'Road projects are integrated into the network' and 'Reduce and manage risk'. |
| Project | Provide a safe and efficient road network during the transition from the previous traffic arrangements or construction period to the new traffic conditions and manage stakeholder/community expectations during the opening period. |
| Process | Demonstrate a proactive approach to opening management through early and integrated planning actions with effective utilisation of resources and expertise in related functional areas within the RTA and external parties (where necessary). |

Integrating the road opening process within RTA project management systems

The five step planning process has been integrated with the phases of the project lifecycle described in RTA *ProjectPack* and *MinorProject* project management systems (see Figure 2 below).

Figure 2: Integration of opening planning process in RTA ProjectPack and MinorProject systems

PROJECT DELIVERY PHASE	PROCESS STEP	TIMELINE DESCRIPTION
INITIATION		
DEVELOPMENT	<p>Step 1: Assess opening risks of road project.</p> <p>Step 2: Prepare the opening strategy.</p> <p>Special notes for Step 1 and 2 for toll road projects.</p>	<p>When sufficient project information is available.</p> <p>Prior to the start of implementation phase.</p> <p>As project opening stages are planned by the concessionaire phase may be the more appropriate phase for these steps.</p>
IMPLEMENTATION	<p>Step 3: Prepare the opening readiness plan.</p> <p>Step 4: Implement planned activities.</p>	<p>Approx. 4 to 12 months prior to commencement of the opening period.</p> <p>During the opening period covering activities before, during and after opening day.</p>
FINALISATION AND OPERATION	<p>Step 5: Evaluate effectiveness of the opening readiness plan.</p>	<p>Shortly after opening period during operation.</p>

A more detailed outline on how each planning step is incorporated into RTA *ProjectPack* and *MinorProject* project management systems is provided in the Appendices on page 31.

Step 1:

Assess opening risks of road project

Opening risks are potential consequences of the new construction or infrastructure that may lead to a lowering in the performance of the road corridor of the project. These consequences may arise as a result of the project type, its complexity or its profile. They may be generated by road safety considerations, potential traffic management and network operational conditions or changes to motorist behaviour.

A risk assessment framework focused on the impact of the opening and its significance in the operation of the road corridor is provided to aid project managers to identify opening risks. An output of the framework is an agreed risk category that helps to guide project managers in planning for opening activities in subsequent steps.

Further, the assessment will identify preliminary resource and funding requirements and a timeline setting out when the remaining steps of the opening planning process are to be carried out.

Completing this step is essential as the opening impacts have the potential to lower the efficiency of the road network and lead to criticism of the project.

Timeline

Assessment will be carried out during the project development phase (see Figure 2 on page 11) when sufficient project information is available to assess the potential risks and impacts to traffic, road network operations and stakeholders/community.

For toll road projects, the concessionaire undertakes opening planning after contract signing. In this context opening planning may occur during the implementation phase.

Procedure

In completing the assessment, the project manager should undertake the following steps.

Assess the need for and create an opening risk assessment team

In most small and medium scale projects the Project Manager may assess the project.

In selected medium and all major infrastructure projects it is recommended that the Project Manager form an assessment team comprising representatives from the following RTA functional areas:

- Traffic Management Branch (major infrastructure projects only).
- Transport Management Centre.
- Corporate Communication and/or Infrastructure Communication branches.
- Regional Operational and Engineering Services Directorate (ROES) Road Safety and Traffic Management sections.

Additional functional areas can be included in the consultation process.

The project manager may delegate the role of the leader of the assessment team to another member of his or her team.

Determine opening risks

The assessment template on page 37 must be used to document the risk assessment to determine the level of opening planning required. This template can be completed when the following information becomes available:

- Preliminary project scope in terms of geographical coverage is confirmed.
- Concept plans showing potential road and traffic management infrastructure to be delivered.
- Likely road network changes and changes in traffic patterns can be predicted.
- Road users impacted can be predicted.
- Changes to driver behaviour can be predicted.
- Project timeline.
- Delivery mechanism.
- Likely community and media interest can be predicted.
- Potential resources available for the project can be predicted for each subsequent phase.

The assessment identifies and rates risks by considering potential project impacts and their significance in the operation of the road network. Factors that should be considered include:

- Potential road safety and traffic management issues.
- Impacts on or changes to motorist behaviour.
- Likely stakeholders and community expectations.
- Project profile and complexity.
- Network operational conditions and issues.

Operational issues may occur as a result of:

- Specific road and traffic management changes, for instance where there is a complex road layout (such as electronic lane control or tidal flow configurations); there are vehicle access restrictions (such as turn bans or the introduction of cashless tolling); or there are changes to the movement of specific road users (such as the introduction of bus lanes, transit lanes, bicyclists, pedestrians).
- Traffic flow changes in the corridor resulting from the opening of the project, leading to a reduction in performance of adjacent road links or intersections or a worsening of areas that already perform poorly ('pinch points').
- Traffic flow changes in the corridor that lead to locations with high levels of congestion and crash potential which are then worsened by the occurrence of traffic incidents (such as a vehicle breakdown or media parking on verges).
- The level of community interest in the project that may lead to closer scrutiny by interested parties and create the need for information about the performance of the road.

Opening planning for low risk projects

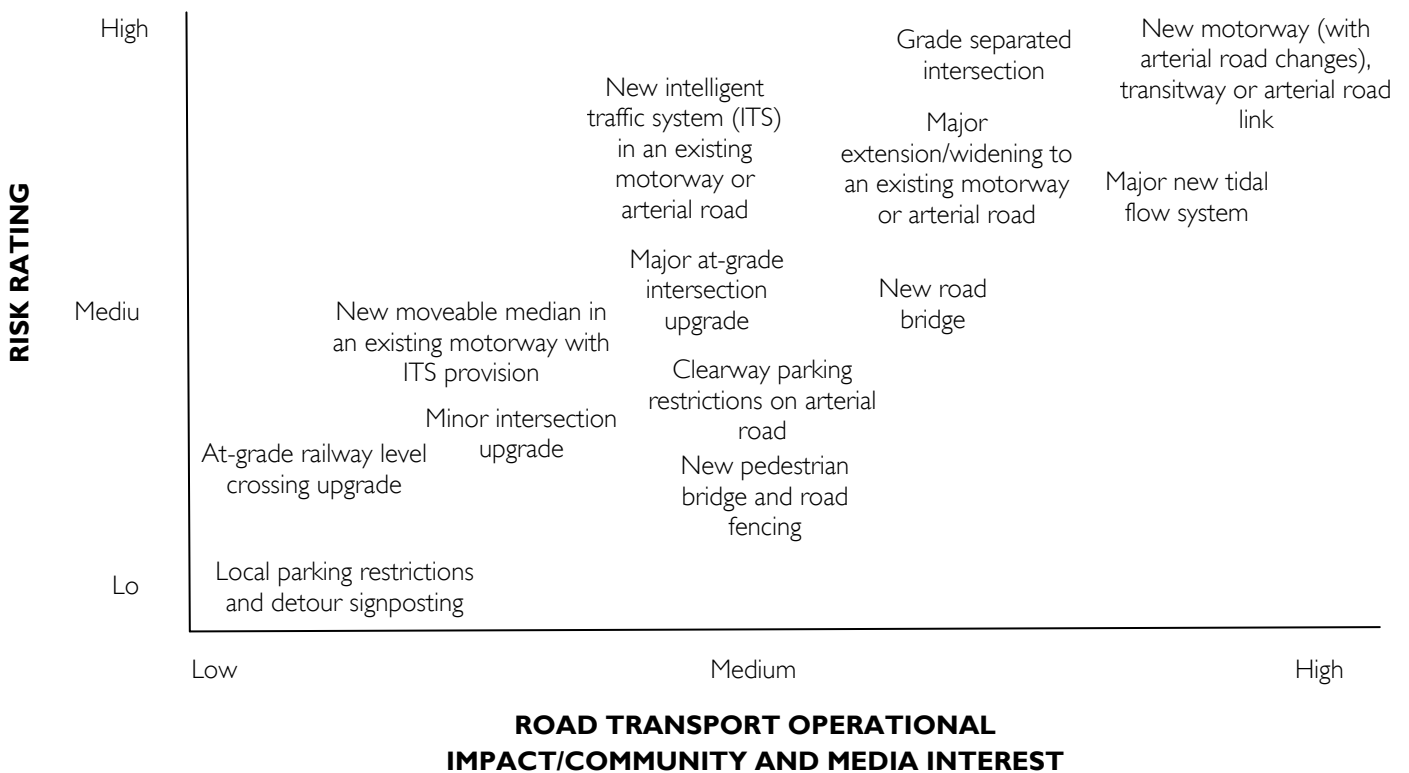
(A checklist for opening planning for low risk projects is provided in the appendices on page 35).

Most road projects are likely to have a low or medium level of risk. These projects would typically be frequently undertaken, use known and reliable infrastructure and technical specifications, and have local community interest.

Opening planning for these projects is focused on the integration of road and traffic infrastructure and systems into the existing road network so that it operates safely and efficiently. Communication will typically be directed at a local level.

Stronger weighting is provided to road projects that introduce complex traffic management changes such as a new road alignment, a tidal flow system or major works on high demand corridors. Major infrastructure projects are generally categorised as high risk. A guide to potential risk rating of a road project is provided in Figure 3 below.

Figure 3: Potential opening risk rating guide for road projects



If opening planning (Steps 2 to 4 on pages 17, 21 and 26) is required, the following information should be created and confirmed:

- A timeline to carry out the steps of the opening planning process within the overall project phases.
- Assessment of the need for a specific opening planning team.
- Broad outline of the resources and funding requirements for opening planning and implementation of opening readiness plan.

Obtain approval for the opening risk assessment report

(A memorandum template is provided in the appendices on page 36.)

For high risk projects, a completed copy of the opening risk assessment report must be forwarded to the relevant ROES regional manager and general manager in Major Infrastructure Directorate (MI) and Network Management Directorate (NM) for approval. For medium and low risk projects the relevant section manager and project manager respectively can approve the report.

File the completed assessment report

The Project Manager must file the approved assessment report as part of the project records.

Outputs

- Memorandum to general and regional managers.
- Opening risks assessment report.
- Completed checklist for opening planning for low risk projects.

Reference documents

- *ProjectPack* and *MinorProject* project management systems.
- Environmental, communications and design reports, assessments and plans for the project.
- Local, State and Federal government communication related to the project.
- Concept or initial designs for the project developed during project initiation and development.
- Any traffic data or modelling available for the area, including projections of traffic growth.
- Documentation submitted or developed for the approval to undertake the project or seek funding.
- Any other relevant information sources.

Summary of planning process for project managers for Step 1

Implemented by	Project Manager (or delegate) with opening planning assessment team (if required).
Timeline	Project development phase.
Participants/consultation	<p>RTA functional areas to be consulted as a minimum:</p> <ul style="list-style-type: none"> • Traffic Management Branch (major infrastructure projects only). • Transport Management Centre. • Corporate and/or Infrastructure Communication branches. • ROES Road Safety and Traffic Management sections.
Procedure	<p>INPUTS</p> <ul style="list-style-type: none"> Checklist for low risk projects Risk assessment template Memorandum template <p>STEPS</p> <ol style="list-style-type: none"> CREATE OPENING RISK ASSESSMENT TEAM DETERMINE OPENING PLANNING RISKS APPROVE RISK ASSESSMENT FILE ASSESSMENT REPORT <p>OUTPUTS</p> <ul style="list-style-type: none"> Completed checklist for low risk project Risk assessment report Memorandum Project file
Approvals	<p>High risk projects – approval by ROES Regional Manager and/or MI or NM Directorates general managers.</p> <p>Medium risk projects – relevant section manager.</p> <p>Low risk projects – Project manager.</p>

Step 2:

Prepare the opening strategy

An opening strategy describes the requirements and mechanisms to manage the opening of a road project. The strategy will document the risks and their associated areas of operational impact, identify tactical counter-measures and develop an agreed action plan that designates activities for resolution by RTA functional areas and the project team.

Understanding opening planning risks and amelioration requirements during the project development and implementation stage for high risk road projects enables timely input of opening requirements into the design, procurement and construction stages of a project. The requirements are likely to vary significantly depending on the type, scale, impacts and delivery mechanism of a road project.

The strategy is particularly relevant to 'build–own–operate–transfer' (BOOT) or alliance-type projects, or where contractual obligations between the RTA and the contractor are complex. Modifying the project scope to incorporate actions resulting from the opening planning, following the signing of the contract, may be costly or difficult from a contractual perspective.

Timeline

Preparation of the strategy and action plan will be carried out during the project development phase (see Figure 2 on page 11) and following approval of the opening risk assessment report.

For toll road projects, the concessionaire undertakes opening planning after contract signing. In this context opening planning may occur during the implementation phase.

The strategy must be completed prior to finalisation of the development phase or implementation phase (see Figure 2 on page 11).

Procedure

A strategy and action plan will only be prepared on road projects identified as high risk in the risk assessment (Step 1 on page 12).

A template to assist in the preparation of an opening strategy and action plan is provided in the appendices on page 44.

The project manager should undertake the following steps.

Create an opening planning team

The project manager will identify and request participation of the opening planning team. The opening planning team must contain functional representatives from those functional areas involved in the opening risk assessment team (Step 1 on page 12). The project manager may delegate the role of the leader of the opening planning team to another member of their team.

Review and define

The team will review the assessment of opening risks report and define the road corridor for operational management and monitoring.

Explore and document opening issues

The team will identify all issues that may potentially:

- Reduce road safety and traffic management and network operational performance of the road project and surrounding road network.
- Impact on or change motorist behaviour.
- Attract media attention or community reaction.

Develop desired outcomes, objectives and performance indicators

Some of the outcomes, objectives and performance indicators for the opening period will be the same as those adopted for the overall project.

Identify key tactical initiatives

The team will identify key tactical initiatives that need to be used and cost effective operational counter-measures. An action plan will document how the team plans to mitigate and manage impacts and meet the agreed objectives.

A selection of potential tactical initiatives and operational counter-measures are summarised below. The strategy and action plan should address these management areas, where relevant, during the development, implementation and operation phases of the project (other initiatives can also be considered):

- Minor road and traffic management safety and efficiency improvement initiatives.
- Network operation and incident management measures within the road project and surrounding road network including provision of closed circuit television cameras and variable message sign infrastructure.
- Communication needs including internet, radio, newspaper – preliminary requirements such as type, frequency, duration and content of messages throughout the opening period should be identified.
- Traffic and transport data collection and the means to ensure efficient, timely and effective reporting of traffic performance to stakeholders.
- Project specific and RTA systems and infrastructure and their operational requirements.
- Contractor and subcontractor requirements for the development and implementation phases.
- Coordination and integration requirements within the RTA and with external stakeholders such as the NSW Police Force.
- Traffic modelling including type and modelled time periods.

Obtain approval to the strategy and action plan

A memorandum template is provided in the appendices on page 36.

Responsibility for signing off the strategy rests with the ROES Regional Manager, a general manager in the Network Management and Major Infrastructure directorates and general manager Infrastructure Communication Branch and/or Corporate Communication Branch. In complex projects, approval from senior management in other functional areas may also be necessary.

File the completed strategy and action plan

The project manager must file the approved strategy and action plan as part of the project records.

Outputs

- An opening strategy and action plan.
- Memorandum to general and regional managers.

Reference documents

- *ProjectPack* and *MinorProject* systems.
- Environmental, communications and design reports, assessments and plans for the project.
- All plans developed as part of opening planning within this guideline in the preceding steps.
- Local, State and Federal government communication related to the project.
- Procurement strategy and project delivery mechanisms.
- Concept or initial designs for the project developed during project initiation and development.
- Any staging plans/proposals.
- Any traffic data or modelling available for the area, including projections of traffic growth.
- Documentation submitted or developed for the approval to undertake the project and seek funding.
- *Community Involvement and Communications, Draft: A resource manual for staff (2008)*.
- Any other relevant information.

Summary of planning process for project managers for Step 2

Implemented by	Project Manager (or delegate) with opening planning assessment team (if required).		
Timeline	Project development phase.		
Participants/consultation	<p>The opening planning team to include, as a minimum:</p> <ul style="list-style-type: none"> • Project manager or delegate (chair). • Functional area representatives from the opening risk assessment team. • Any other relevant representative. • Consultations with other internal and functional areas and stakeholders (including RTA legal, design team and so on). 		
Procedure	<div style="display: flex; justify-content: space-between;"> <div style="width: 25%; text-align: center;"> <p>INPUTS</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">Risk assessment report</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">Opening strategy template</div> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 20px;">Memorandum template</div> </div> <div style="width: 50%; text-align: center;"> <p>STEPS</p> <div style="border: 2px solid #e67e22; padding: 10px; margin-bottom: 10px; background-color: #e67e22; color: white;">CREATE OPENING PLANNING TEAM</div> <div style="text-align: center;">↓</div> <div style="border: 2px solid #e67e22; padding: 10px; margin-bottom: 10px; background-color: #e67e22; color: white;">REVIEW OPENING RISKS ASSESSMENT REPORT</div> <div style="text-align: center;">↓</div> <div style="border: 2px solid #e67e22; padding: 10px; margin-bottom: 10px; background-color: #e67e22; color: white;">DEFINE ROAD CORRIDOR</div> <div style="text-align: center;">↓</div> <div style="border: 2px solid #e67e22; padding: 10px; margin-bottom: 10px; background-color: #e67e22; color: white;">IDENTIFY OPENING ISSUES</div> <div style="text-align: center;">↓</div> <div style="border: 2px solid #e67e22; padding: 10px; margin-bottom: 10px; background-color: #e67e22; color: white;">DEVELOP OUTCOMES, OBJECTIVES AND PERFORMANCE INDICATORS</div> <div style="text-align: center;">↓</div> <div style="border: 2px solid #e67e22; padding: 10px; margin-bottom: 10px; background-color: #e67e22; color: white;">DETERMINE TACTICAL INITIATIVES AND OPERATIONAL COUNTER-MEASURES</div> <div style="text-align: center;">↓</div> <div style="border: 2px solid #e67e22; padding: 10px; margin-bottom: 10px; background-color: #e67e22; color: white;">APPROVE OPENING STRATEGY AND ACTION PLAN</div> <div style="text-align: center;">↓</div> <div style="border: 2px solid #e67e22; padding: 10px; background-color: #e67e22; color: white;">FILE OPENING STRATEGY AND ACTION PLAN</div> </div> <div style="width: 25%; text-align: center;"> <p>OUTPUTS</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px; background-color: #e67e22; color: white;">Opening strategy and action plan</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px; background-color: #e67e22; color: white;">Memorandum</div> <div style="border: 1px solid #ccc; padding: 5px; background-color: #e67e22; color: white; border-radius: 50%;">Project file</div> </div> </div>		
Approvals	General/Regional Manager of the project sponsor will approve the strategy.		

Step 3:

Prepare the opening readiness plan

An opening readiness plan captures approved operational plans and finalises the detailed scoping, design and operational arrangements of agreed opening management measures. In major infrastructure projects this can lead to the delivery and operation of infrastructure and systems by specialist management areas within and external to the RTA. An opening readiness plan can be created with or without an opening strategy.

The opening readiness plan is created by the project manager or opening planning team to optimise coordination of activities during the opening period.

Successful coordination and roll out of the opening readiness plan is vital to the smooth integration of the road project into the road corridor. It is also vital for responding to media interested in understanding the performance of the project during the opening period.

Timeline

Preparation of the opening readiness plan will be carried out during the project implementation phase (see Figure 2 on page 11) and following approval of the opening strategy and action plan (if developed).

It is recommended that this step be carried out between four and 12 months prior to the opening period (see Figure 2 on page 11). Longer time is necessary for projects requiring detailed Paramics modelling and infrastructure changes.

Procedure

One opening readiness plan will be created for the project or stage.

The opening readiness plan will bring together requirements of the RTA and external parties that have a role in the opening of a project. In completing the opening readiness plan the project manager should complete the following steps.

Create the governance arrangements

In most projects this would typically involve the creation of an opening planning team (Step 2 on page 17) chaired by the project manager. In some instances, such as major infrastructure projects, a multi-function steering group comprising general/regional managers may be necessary to oversee, guide and coordinate the opening planning team in its development of the opening readiness plan.

Review the opening strategy

Review the opening strategy (if one exists) and refine and expand the action plan in consultation with the opening planning team and external stakeholders.

Define the structure and scope of the opening readiness plan

The opening readiness plan describes the tactical initiatives and operational counter-measures outlined in the opening strategy (if developed) in greater detail. The action items will be implemented before, during and after the opening. Action items include:

- Data collection and analysis.
- Traffic modelling.
- Temporary and permanent signage.
- Coordination with other emergency and road based public transport services.
- Network operational management.
- Low cost infrastructure improvements.
- Temporary traffic control facilities.
- Contingency plans.
- Stakeholder and community communication.
- Media information.

The timing, resource allocation, funding, personnel training, reporting, monitoring and integration requirements for each action should be captured in the readiness plan.

A typical table of contents for an opening readiness plan is provided in Table 3 below. Topic headings can be added or deleted based on the project characteristics.

Table 3: Opening readiness plan table of contents

INTRODUCTION	1
PURPOSE	2
OBJECTIVES AND PERFORMANCE INDICATORS	3
CORRIDOR DESCRIPTION	4
HIGH RISK ISSUES IMPACTING CORRIDOR PERFORMANCE	5
ROAD NETWORK PLANS AND TRAFFIC MODELLING RESULTS	7
INFRASTRUCTURE IMPROVEMENTS AND ROAD SAFETY AUDITS	9
SIGNAGE AND WAY FINDING	9
PRE-OPENING, OPENING DAY AND POST OPENING TRAFFIC AND TRANSPORT DATA COLLECTION, SYSTEMS MONITORING AND REPORTING	10
COORDINATION REQUIREMENTS WITH OTHER SERVICES (SUCH AS POLICE, BUSES AND SO ON).....	11
SCHEDULE OF OPENING PERIOD SHIFTS, RESOURCES AND TRAINING	15
NETWORK OPERATIONS AND INCIDENT MANAGEMENT ¹	18
COMMUNICATION PLAN ²	25
PROJECT PLAN ³	26

Notes

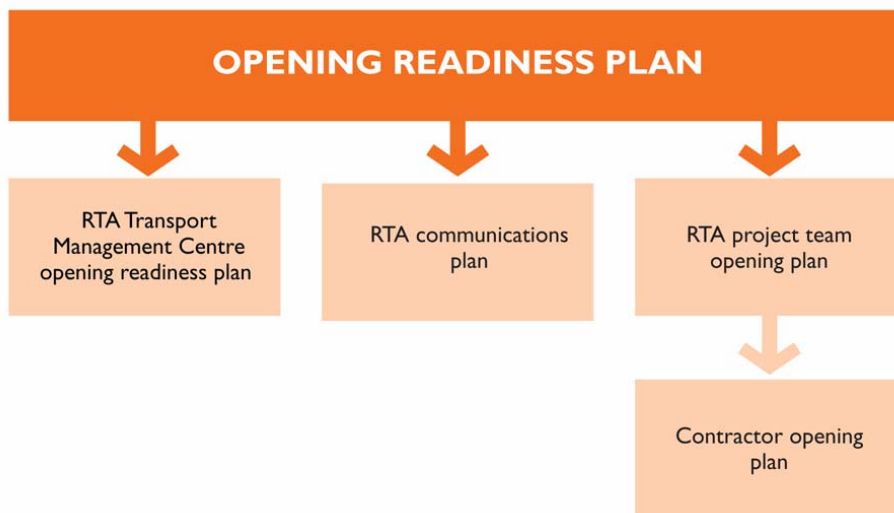
1. A referral to a separate transport management opening plan would suffice in Network operations and incident management if a separate RTA transport management opening plan is created.
2. A referral to a separate communication plan would suffice if a separate RTA communications plan is created.
3. A referral to a separate project plan would suffice if a separate RTA project team plan were created.

Determine the need, scope and timeline for supporting specialist plans

The opening planning team may develop individual functional area plans to be included within the opening readiness plan. A contractor may also prepare an opening readiness plan in meeting their brief or quality assurance requirements. The RTA opening readiness plan is to take account of key aspects of the contractor's plan.

The opening readiness plan may incorporate specialist plans as shown in Figure 4.

Figure 4: Opening readiness plan and supporting specialist plans



A description of each plan is provided below:

RTA Transport Management Centre opening plan

This plan describes all resources, services and infrastructure (permanent and temporary) to be used by the RTA Transport Management Centre for the real time management of the corridor during the opening period.

RTA communications plan

This plan describes all resources, services and infrastructure (permanent and temporary) available to the communications area for the communication of information to the community and road users of the corridor during the opening period.

RTA project team opening plan

This plan describes all resources, services, systems and permanent infrastructure to be opened as part of the road project within the corridor during the opening period.

Contractor opening plan

This plan describes all resources, services, systems and permanent infrastructure to be opened as part of the road project within the corridor during the opening period by a private contractor for BOOT and large alliance projects.

An outline and generic table of contents for each supporting plan is provided on page 33. Functional area representatives will be responsible for the development of specialist plans for incorporation into the overall opening readiness plan.

It should be noted that whilst the specialist plans refer to the RTA Transport Management Centre, Infrastructure Communication Branch and Corporate Communication Branch as the plan owners, these plans can be created by ROES Directorate in consultation with these branches.

Complete planning for the opening readiness plan

Developing the final approved opening readiness plan is an iterative process depending on the complexity and scope of the project.

In complex road environments traffic modelling may be necessary to accurately determine the changes in traffic conditions including up and downstream corridor impacts due to the changes to traffic patterns and benefits of infrastructure improvement initiatives and operational changes to traffic control systems.

Monitoring of the road network and related data collection and analysis is necessary to enable the RTA to respond to performance information needs by interested parties such as media.

Templates for monitoring of traffic volumes, travel times, speeds and the creation of the joint operations centre roster and shifts are provided in the appendices on page 48.

Agree on a timeline

The project manager and team must agree on timeline for implementation of the opening readiness plan.

Obtain approval to the opening readiness plan

A memorandum template is provided in the appendices on page 36.

The opening readiness plan will be signed off by the relevant ROES Regional Manager, a general manager in the Network Management and Major Infrastructure directorates and General Manager Infrastructure Communication Branch or Corporate Communication Branch.

File the completed opening readiness plan

The Project Manager must file the approved opening readiness plan as part of the project records.

Outputs

- Opening readiness plan including traffic studies and modelling outputs.
- Memorandum to general and regional managers.

Reference documents

- *ProjectPack* and *MinorProject* systems.
- Environmental, communications and design reports, assessments and plans for the project.
- All plans developed as part of opening planning within this guideline in the preceding steps.
- Local, State and Federal government communication related to the project.
- Project documents.
- Benchmark information.
- Concept or initial designs for the project developed during project initiation and development.
- Any traffic data or modelling available for the area, including projections of traffic growth.
- Documentation submitted or developed for the approval to undertake the project and seek funding.
- *Community Involvement and Communications, Draft: A resource manual for staff (2008)*.
- Any other relevant information sources.

Summary of planning process for project managers for Step 3

Implemented by	Project Manager (or delegate) with opening planning assessment team (if required).		
Timeline	Project implementation phase.		
Participants/consultation	High and medium risk projects – typically the project manager (or delegate) with support from the opening planning team (where appointed). A multi-function steering group may be created in some instances for high risk projects. Consultation with relevant RTA functional areas and any other internal and/or external stakeholders as necessary.		
Procedure	<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 25%;"> <p>INPUTS</p> <ul style="list-style-type: none"> Opening strategy and action plan Opening readiness plan template Memorandum template </div> <div style="width: 50%; text-align: center;"> <p>STEPS</p> <pre> graph TD S1[CREATE GOVERNANCE STRUCTURE] --> S2[REVIEW OPENING STRATEGY AND ACTION PLAN] S2 --> S3[DEFINE SCOPE OF OPENING READINESS PLAN] S3 --> S4[DETERMINE NEED FOR SPECIALIST OPENING PLANS] S4 --> S5[COMPLETE OPENING READINESS PLAN] S5 --> S6[AGREE TIMELINE FOR IMPLEMENTATION OF OPENING READINESS PLAN] S6 --> S7[APPROVE OPENING READINESS PLAN] S7 --> S8[FILE OPENING READINESS PLAN] </pre> </div> <div style="width: 25%; text-align: right;"> <p>OUTPUTS</p> <ul style="list-style-type: none"> Opening readiness plan Memorandum Project file </div> </div>		
Approvals	The opening readiness plan is to be signed off by the general or regional manager.		

Step 4:

Implement opening readiness plan

The planned opening activities in the opening readiness plan are implemented, operated, monitored and documented.

This step covers the implementation and operation of the action items identified in the opening readiness plan and those for low risk projects.

Timeline

Implementation of the opening readiness plan will occur during the opening period as specified in the timeline in the opening readiness plan (see Figure 2 on page 11).

Procedure

Functional area representatives will coordinate the implementation of opening management activities.

In high risk projects a joint operations centre may oversee the implementation, operation and monitoring of the opening activities and the road corridor.

Outputs

- Reports created during the opening period which may include traffic volume, travel time and speed survey results.
- Notes from the project manager, opening planning team and other participants involved in the implementation of the opening readiness plan.

Reference documents

- All plans developed as part of opening planning within this guideline in the preceding steps.
- RTA corporate procedures and systems relevant to action items.
- Project documents, including contractor documents (opening and traffic management plans and so on).
- Output documents of implementation of action items in previous projects.

Summary of planning process for project managers for Step 4

Implemented by	Project manager (or delegate) with opening planning assessment team (if required).
Timeline	Project implementation phase.
Participants/consultation	Project manager (or delegate) with support from the opening planning team (where appointed) and related functional area support resources. External stakeholders may also contribute.
Procedure	There is no procedure for this step.
Approvals	Checklist for opening planning of a low risk project by the project manager. Public education materials to be approved by Infrastructure Communication Branch. Media Unit will manage media statements.

Step 5:

Evaluate effectiveness of the opening readiness plan

Continuous improvement in the planning and delivery of opening planning is important to the RTA.

The project manager and opening planning team will document the lessons learnt during a project, including both positive and negative outcomes.

These lessons are a valuable source of information for all future projects. Each project poses unique and diverse challenges but future projects may nevertheless be guided by previous experiences. Recommendations may be included in future versions of this guideline.

Timeline

Evaluation of the effectiveness of the opening plan is to be carried out shortly after the completion of the opening period during the operation/finalisation phase of the project.

Procedure

The project manager initiates the evaluation process and may invite feedback from participants in the opening planning and operations. The number of participants will depend on the scale and complexity of the project and the sensitivity of the impacts expected and experienced.

Evaluation should consider:

- Outputs from the opening risk assessment process and their correlation to the results in the actual opening period.
- The application of the opening strategy and opening readiness plan.
- The planning process itself.

It is mandatory to provide the outputs from, and comments related to, the opening planning risk assessment process (Step 1 on page 12). These are vital as they will improve the RTA's knowledge of the relationship between project type, geographical location and opening risk, and will facilitate the ongoing improvement to the risk management approach.

Feedback from the performance of low risk projects will only be required when a negative outcome arises.

A memorandum template is provided in the appendices on page 36.

Output

- A report documenting specific learning outcomes related to the application of the opening planning process and any recommendations for improvement to the policy, opening planning process and this guideline.

Reference documents

- *ProjectPack* and *MinorProject* systems.
- Environmental, communications and design reports, assessments and plans for the project.
- All plans developed as part of opening planning within this guideline in the preceding steps.
- Local, State and Federal government communication related to the project.
- The contractor's opening and traffic management plans.
- Feedback received from external stakeholders related to the opening period and/or opening planning activities.
- Media reports.
- Any other relevant information sources.

Summary of planning process for project managers for Step 5

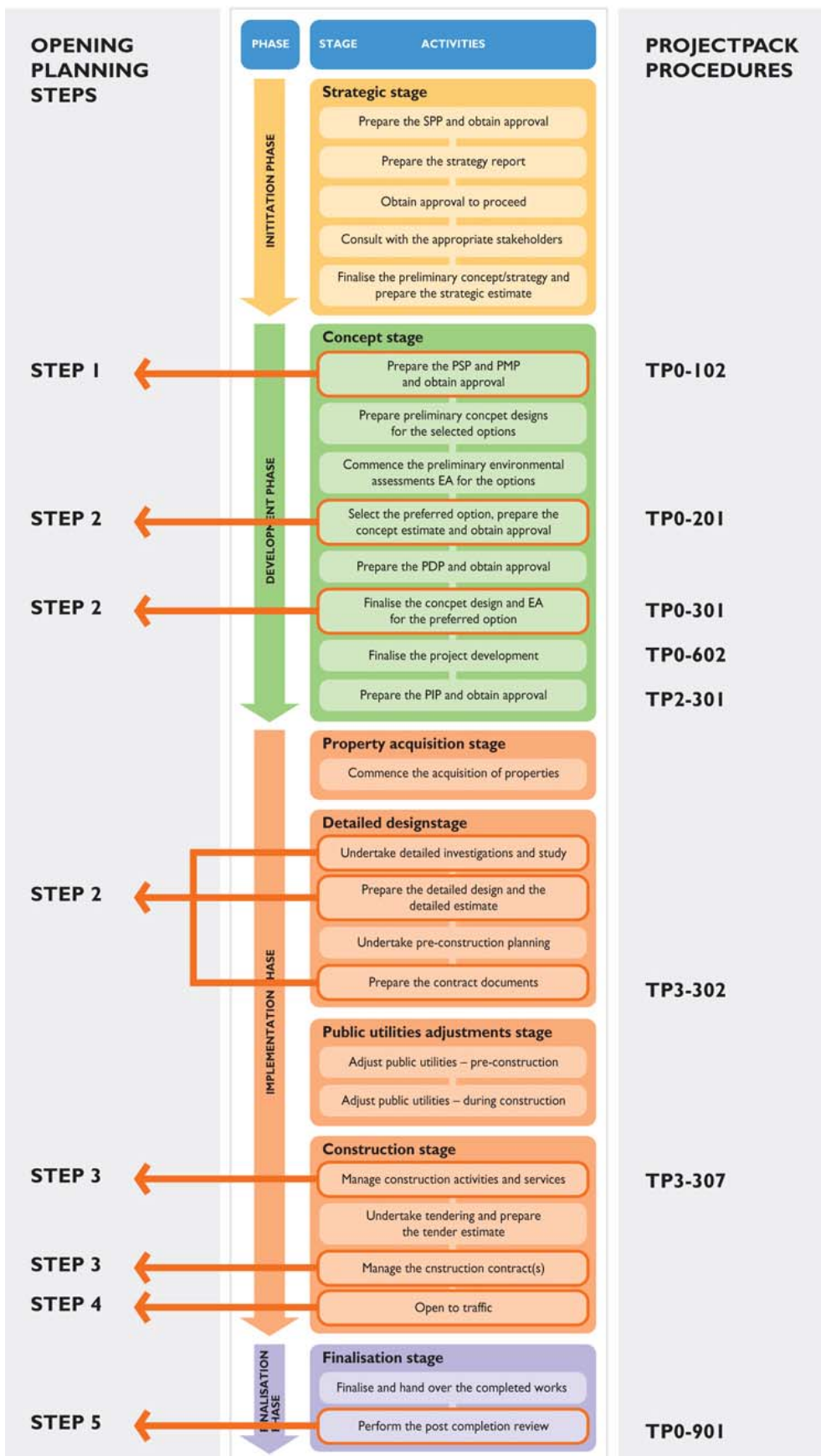
Implemented by	Project manager (or delegate) with opening planning assessment team (if required).
Timeline	Project finalisation and operation phase.
Participants/ Consultation	May seek feedback from all participants including steering committee/opening planning team and other internal and external stakeholders. Feedback from the performance of low risk projects will only be required when a negative outcome arises.
Procedure	There is no procedure for this step.
Approvals	A copy of the evaluation report must be forwarded to the owner of this policy and guideline.

Appendices

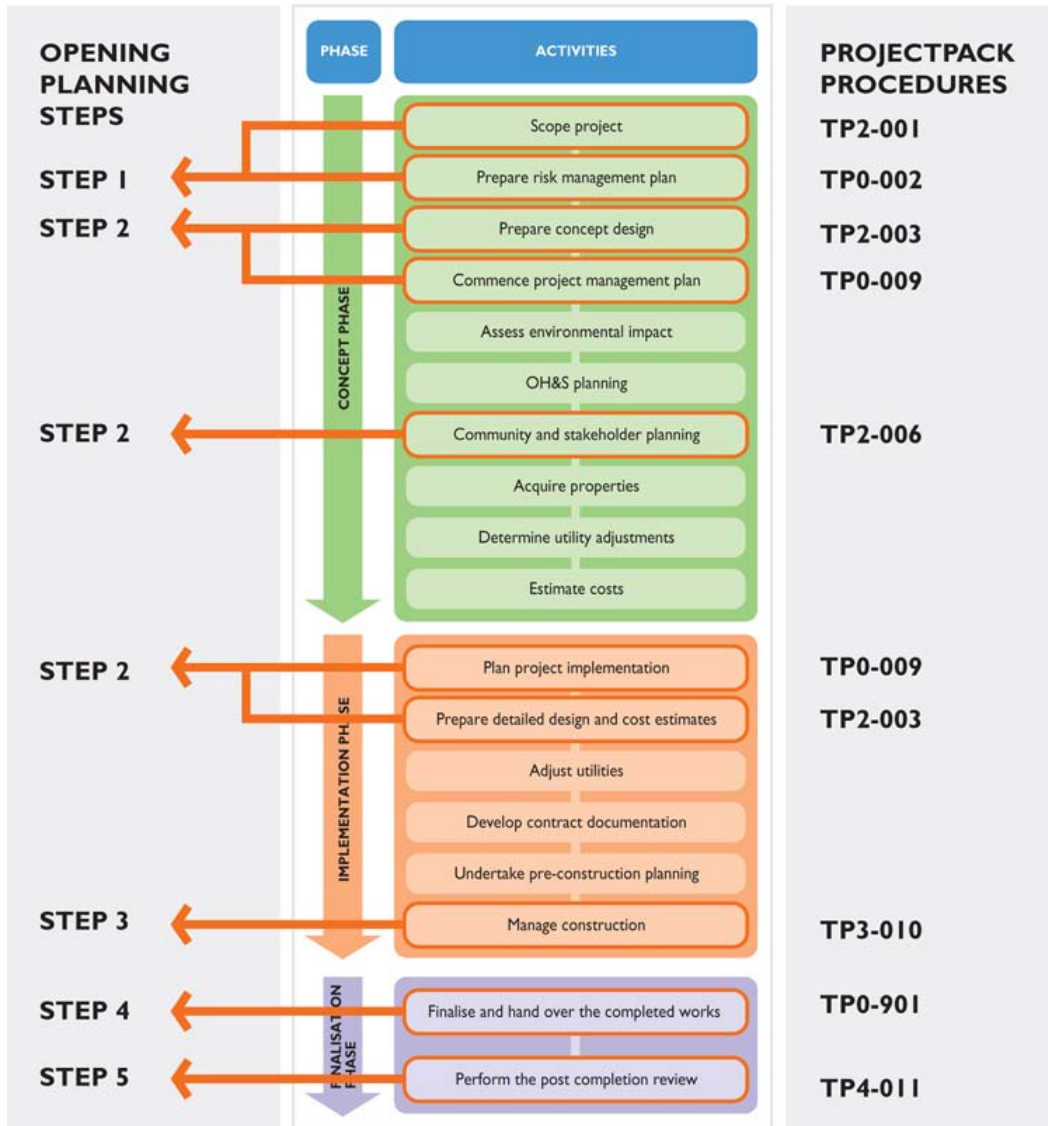
RTA planning with <i>ProjectPack</i> and <i>MinorPack</i>	31
Special plans for opening readiness plan	33
Checklist for opening planning of a low risk project	35
Memorandum for approval of reports, opening strategy and plans	36
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Template for the preparation of an action plan	46
Traffic volume, travel time and travel speed monitoring template	48
Joint Operations Centre roster and shifts template	50

RTA planning with *ProjectPack* and *MinorPack*

Correlation of each step within RTA *ProjectPack* (Sept 2008)



Correlation of each step within RTA *MinorProject* (Sept 2008)



Special plans for opening readiness plan

RTA Transport Management Centre opening plan

The purpose of this plan is to collate all the resources, services and infrastructure (permanent and temporary) available to the RTA Transport Management Centre (TMC) for the real-time management of the corridor during the opening period. Items within this plan may interface with the RTA communications plan, RTA project team and the contractor's opening plan.

The plan owner is the Transport Management Centre.

A generic table of contents is provided below:

ROLE OF JOINT OPERATIONS CENTRE	1
TIMES OF OPERATION OF JOINT OPERATIONS CENTRE.....	2
PERSONNEL, ROLES AND RESPONSIBILITIES OF JOINT OPERATIONS CENTRE.....	3
LAYOUT OF JOINT OPERATIONS CENTRE.....	4
TRAFFIC MANAGEMENT SYSTEMS OPERATIONAL REQUIREMENTS.....	5
COMMUNICATION SYSTEMS AND PROTOCOLS FOR JOINT OPERATIONS CENTRE.....	7
OPERATIONAL RELATIONSHIP AND PROTOCOLS BETWEEN TRANSPORT OPERATIONS ROOM AND JOINT OPERATIONS CENTRE.....	9
TRAFFIC, COMMUNICATION AND INFORMATION SYSTEMS INTERFACE AND PROTOCOLS BETWEEN TMC AND OTHER AGENCIES (SUCH AS THE MINISTRY OF TRANSPORT, PRIVATE MOTORWAY OPERATOR.....	10
CONTINGENCY PLANS FOR PLANNED AND UNPLANNED INCIDENTS.....	11

RTA communications plan

The purpose of this plan is to collate all resources, services and infrastructure (permanent and temporary) available to the communications area for the communication of information to the community and road users of the corridor during the opening period. Items within this plan may interface with the RTA Transport Management Centre opening plan, RTA project team or contractor's opening plan.

The plan owners are the Infrastructure Communication Branch and the Corporate Communication Branch.

A generic table of contents is provided below:

COMMUNICATIONS AND MEDIA STRATEGY AND ACTION PLAN.....	1
COMMUNICATION TIMELINE.....	3
MEDIA CONFERENCE LAYOUT AND REQUIREMENTS.....	5
RESOURCES REQUIREMENTS	7
LIAISON WITH MINISTER, CHIEF EXECUTIVE AND EXTERNAL MEDIA.....	9
OPERATIONAL RELATIONSHIP AND PROTOCOLS BETWEEN PROJECT TEAM AND RTA MEDIA UNIT	11
ROLE OF THE RTA TRANSPORT MANAGEMENT CENTRE AND RTA CALL CENTRE TO MANAGE CUSTOMER ENQUIRIES.....	15

RTA project team opening plan

The purpose of this plan is to collate all resources, services, systems and permanent infrastructure to be opened as part of the road project within the corridor during the opening period. In projects involving the private sector, a contractor's opening plan may also be developed. This would typically be captured within the RTA project team plan. Items within this plan may interface with the RTA Transport Management Centre opening plan.

The plan owner is the project manager.

A generic table of contents is provided below:

PROJECT DESCRIPTION	1
INFRASTRUCTURE AND SYSTEMS TO BE OPENED, TRAFFIC MANAGEMENT PLANS INCLUDING OPENING SEQUENCE	3
CONTACT DETAILS OF PROJECT TEAM PERSONNEL, THEIR ROLES AND RESPONSIBILITIES	7
COMMUNICATION WITH TRANSPORT MANAGEMENT CENTRE	8
CONTINGENCY PLANS.....	10
MONITORING AND IMPROVEMENTS TO INFRASTRUCTURE OPERATION	15
CONTRACTOR'S OPENING PLAN	18

Checklist for planning the opening of a low risk project

ITEM	TASK	COMPLETE (Tick)
Road safety audits	Confirm completion of pre-opening (Stage 4) road safety audit. <i>Refer to relevant Centre for Road Safety policy.</i>	
Infrastructure provision (examples): <ul style="list-style-type: none"> • Signposting • Linemarking/pavemarking • Channelisation • Traffic control signals • Other matters 	<ul style="list-style-type: none"> • Confirm that new infrastructure is designed in accordance with RTA specifications. • Confirm infrastructure is provided in accordance with the design plan. • Confirm traffic control facilities are installed in accordance with work instructions or design plans. • Correct any on-site anomalies. • Undertake additional operational improvements. <i>Refer to relevant Traffic Management Branch policy and technical direction and Transport Management Centre standard operating procedures.</i>	
Traffic management systems and operating configuration (if applicable)	<ul style="list-style-type: none"> • Confirm that new infrastructure is designed in accordance with RTA specifications. • Confirm communication link and connection to existing RTA system is operating to standard. • Confirm that new infrastructure operates to standards. <i>Refer to relevant Traffic Management Branch policies and technical directions and Transport Management Centre standard operating procedures.</i>	
Communications	Ensure relevant communication measures have been implemented. Typical measures include: <ul style="list-style-type: none"> • Briefing notes for the Minister for Roads and a media release. • Letters to nearby residents, such as notification of changing local traffic arrangements. • Advertising. <i>Refer to relevant Infrastructure Communication Branch and Corporate Communication Branch policies.</i>	

Created by:

(signature)

(insert name)

(insert title)

Date: (insert date)

Approved by:

(signature)

(insert name)

(insert title)

Date: (insert date)

Memorandum for approval of reports, opening strategy and plans

To:	General Manager Regional Manager [insert names of relevant personnel]
Cc:	[Select and type recipient copy name(s)]
From:	[Select and type sender name] (insert Project Manager's name)
Date:	[Select and type date]
Pages:	[# pages] Ref: [Recipient reference]
File no:	[Select and type file number]
Subject:	<p style="text-align: center;">Approval of Opening risk assessment report/Opening strategy and action plan/Opening readiness plan (use relevant topic heading) for <i>Project Name</i> (insert project name)</p>

Approval of Opening risk assessment report/Opening strategy and action plan/Opening readiness plan (insert relevant topic heading) for *Project Name* (insert project name)

Dear (insert name)

Please find attached a copy of the opening risk assessment report/opening strategy and action plan/opening readiness plan (insert relevant topic heading) for your approval.

Please contact me for clarification of any information provided in the material.

(insert Project Manager's name)

(insert project name)

(insert region name)

(insert Region manager's name)

(insert region name)

APPROVED/ NOT APPROVED/ APPROVED WITH CHANGES

Template for the assessment of risk for opening a road project

(Notes on completing the template are provided on page 40.)

ASSESSMENT OF OPENING RISK REPORT		
Project title:	(insert title)	
Project Manager:	(insert name)	
Date:	(insert date)	
I. PROJECT BRIEF		
Project description (include location, scope, and so on)	(insert text)	
Estimated project value (\$)	(insert value)	
Planned project timeline	(insert project phases and planned completion date)	
Delivery mechanism	(insert text)	
Any other relevant information	(insert text)	
2. ATTENDEES IN ASSESSMENT MEETING		
Functional area	Functional area representative	Title
RTA project team	(insert name)	(insert position title)
Traffic Management Branch	(insert name)	(insert position title)
Transport Management Centre	(insert name)	(insert position title)
Corporate Communication Branch	(insert name)	(insert position title)
Infrastructure Communication Branch	(insert name)	(insert position title)
ROES Road Safety and Traffic Management Section	(insert name)	(insert position title)
Major Infrastructure Directorate	(insert name)	(insert position title)
Other	(insert name(s) if necessary)	(insert position title)

3. PRELIMINARY OPENING PLANNING PROJECT RISK RATING

Risk rating	Comments
(insert rating)	(insert comments relevant to decision on risk rating)

4. DETAILED IMPACT ASSESSMENT

Impact description	Area or specialisation	Impact			EVALUATION	
		L	M	H	Planning assessment	Execution assessment suggestions
(insert impact)						

5. PROJECT OPENING RISK DECISION

(Tick)

Level of risk category	High	
	Medium	
	Low	
Justification	(insert comments relevant to decision on risk rating)	

6. OPENING PLANNING TIMELINE

Step	Additional comments	Project phase	Planned completion date
Prepare opening planning strategy (Step 2)	(insert comments)		
Prepare opening readiness plan (Step 3)	(insert comments)		
Implement planned activities (Step 4)	(insert comments)		
Evaluate effectiveness of opening readiness plan (Step 5)	(insert comments)		

7. RESOURCE AND FUNDING REQUIREMENTS

(insert comments)

8. ANY SPECIAL OPENING REQUIREMENTS

(insert comments)

9. SUPPLEMENTARY INFORMATION AND REFERENCE DOCUMENTS

(insert comments)

Created by:

(signature)

(insert name)

(insert title)

Date: (insert date)

Approved by:

(signature)

(insert name)

(insert title)

Date: (insert date)

Approved by:

(signature)

(insert name)

(insert title)

Date: (insert date)

Notes on using the template

1. Project brief	Information about the project. This can be sourced from other project specific documentation such as the strategic planning proposal or the project scoping proposal
2. Assessment attendees	Names, titles and functional areas of personnel involved in the assessment process.
3. Opening planning project risk rating	<p>Risk rating based on the analysis of the project in relation to Figure 3 on page 14 provides a selection of the range of projects delivered by the RTA. Additional notes on each project are provided in Table 4 on page 41. Project managers and opening planning assessment teams (if appointed) should use the diagram as well as operational knowledge and experience to assess and rate projects not identified there.</p> <p>This provides an initial rating that can be later reviewed based on local circumstances.</p>
4. Detailed impact assessment	<p>A detailed identification of the traffic management operation and road user behavioural issues and an assessment of likely risk to the project opening and the RTA. Examples of potential risks include:</p> <ul style="list-style-type: none">• Increased delays at downstream intersection due to faster arrival rate.• Increased incident potential due to high speed lane changing on freeway.• Driver assistance required to navigate through new road configuration. <p>Information is provided in Table 4 on page 41.</p> <p>Definitions used in the table:</p> <ul style="list-style-type: none">• Area/ specialisation – traffic or communication.• Impact – rated low, medium or high.• Planning assessment – comments regarding the likelihood of the impact occurring.• Execution assessment suggestions – practical, cost effective options to minimise consequence of the impact.
5. Project opening risk decisions	Final decision on the risk rating of the project, including comments on why the rating was decided upon.
6. Opening planning timeline	Steps that require planning, relevant project phase and target completion date for the planning.
7. Resource and funding requirements	Strategic estimate of resource and funding requirements.
8. Any special opening requirements	Any special requirements for the opening planning and opening period management should be documented.
9. Supplementary information and reference documents	Any additional information and reference documents that were considered or used and should be noted.

Table 4: Road project descriptions and criteria impacting risk rating

ROAD PROJECT	DESCRIPTION	COMMENTS
Local parking restrictions	Examples include the introduction of new 'No Parking, No Stopping' parking restrictions on an arterial road.	Risk rating may rise if parking changes are proposed within areas of high parking demand such as a 'strip' shopping centre.
Detour 'D' signposting	Provision of 'D' detour signposting on arterial roads to guide traffic during a traffic incident on an adjacent arterial road.	Risk rating may rise if non-State roads are used as detour routes.
At-grade railway level crossing upgrade	Examples include upgrading an existing railway level crossing from passive to active traffic control (bells, lights and booms).	Risk rating may rise if project is: <ul style="list-style-type: none"> • In a high traffic and pedestrian activity area. • Includes road network changes. • Includes traffic control signals which are linked to a railway control system.
Minor intersection upgrade	Examples include provision of seagull treatment, roundabout, right and left turn bays, turn bans. May also apply for road link improvements including changes at multiple locations along the same road.	Risk rating may rise if: <ul style="list-style-type: none"> • Project proposes turn bans where transfer of traffic to nearby intersections/roads may occur. • Traffic volumes are high. • In high pedestrian activity area.
New moveable median in an existing motorway with intelligent traffic/transport system	Examples include provision of new moveable median, variable message sign or variable speed limit signs within a freeway or motorway May also apply for road link improvements including changes at multiple locations along the same road	Risk rating may rise if: <ul style="list-style-type: none"> • It results in a major change in travel patterns, such as restriction in access. • High traffic patterns. • High level of infrequent users. • Is combined with other changes to the road.
New pedestrian bridge and road fencing	Example includes new grade separated pedestrian bridge across a State Road with the implementation of new fencing along the footpath or central concrete median.	Risk rating may rise if: <ul style="list-style-type: none"> • It results in a major change in travel patterns, such as restriction in traffic or pedestrian access. • There is a high level of infrequent users. • It is combined with other changes to the road.
Clearway parking restrictions on arterial road	Examples include introduction of new weekday or weekend clearway parking restrictions on an arterial road.	Risk rating may rise if parking is proposed: <ul style="list-style-type: none"> • Within areas of high parking demand, such as a 'strip' shopping centre. • Over an extended road length.

Major at-grade intersection upgrade

Examples include provision of new road and traffic arrangements, for instance:

- New traffic control signals.
- Change an existing roundabout to traffic control signals.
- Major road widening (requiring property acquisition) and traffic control signals.

May also apply for road link improvements including changes at multiple locations along the same road and the provision of overtaking lanes in rural areas.

Risk rating may rise if:

- Project proposes turn bans where transfer of traffic to nearby intersections/roads may occur.
- Traffic volumes are high.
- In high pedestrian activity area.
- Incorporates changes to bus, bicycle or pedestrian infrastructure and operations.

New road bridge

Examples include provision of a new road bridge along an existing road that duplicates bridge capacity and requires new roadwork on approach and departure to the two bridges.

Typically delivered by Major Infrastructure Directorate.

Risk rating may rise if:

- It results in a major change in travel patterns.
- Traffic patterns are high.
- There is a high level of infrequent users.
- It is combined with other changes to the road.
- It incorporates changes to bus, bicycle or pedestrian infrastructure and operations.

Replacement of an existing road bridge would typically have a lower risk rating.

New intelligent traffic system in an existing motorway or arterial road

Examples include provision of new intelligent traffic system including ramp meters, variable message signs, closed circuit television cameras, variable speed limit signs along a length of an existing motorway or arterial road.

Risk rating may rise if:

- It results in a major change in travel patterns.
- Traffic patterns are high.
- There is a high level of infrequent users.
- It uses technology or systems that are new, innovative and untried, either or both from a road user or the RTA perspective.
- It is combined with other changes to the road, such as tidal system.

Major extension or widening of an existing motorway or arterial road

Examples include provision of new travel lanes, road widening, new intersections, new traffic controls to an existing motorway or arterial road.

Typically delivered by Major Infrastructure Directorate.

Risk rating is normally high as it:

- Results in a major change in travel patterns.
- Is located in high traffic roads.
- May have a high level of infrequent users.
- May be combined with other changes to the road, such as new intelligent traffic systems.
- Typically incorporates changes to

		<p>bus/ bicycle/pedestrian infrastructure and operations.</p> <p>Risk rating may be lower in rural areas.</p>
Grade separated intersection	<p>Examples include provision of full or partial grade separation of an intersection of State Roads.</p>	<p>Typically delivered by Major Infrastructure Directorate.</p> <p>Risk rating is normally high as it:</p> <ul style="list-style-type: none"> • Results in a major change in travel patterns. • Is located in high traffic roads. • May have a high level of infrequent users. • May be combined with other changes to the road, such as new intelligent traffic systems. • Typically incorporates changes to bus/ bicycle/pedestrian infrastructure and operations. <p>Risk rating may be lower in rural areas.</p>
Major new tidal flow system	<p>Examples include provision of major new manual or automated tidal flow system.</p>	<p>Risk rating is normally high as it:</p> <ul style="list-style-type: none"> • Results in a major change in travel patterns. • Is located in high traffic roads. • May have a high level of infrequent users. • May be combined with other changes to the road, such as new intelligent traffic systems. • Typically incorporates changes to bus/ bicycle/pedestrian infrastructure and operations.
New motorway (with arterial road changes), transitway or arterial road link	<p>Examples include provision of new motorway (with arterial road changes), transitway or arterial road link.</p>	<p>Typically delivered by Major Infrastructure Directorate.</p> <p>Risk rating is normally high as it:</p> <ul style="list-style-type: none"> • Results in a major change in travel patterns. • Is located in high traffic roads. • May have a high level of infrequent users. • May be combined with other changes to the road, such as new intelligent traffic systems. • Typically incorporates changes to bus/ bicycle/pedestrian infrastructure and operations. <p>Risk rating may be lower in rural areas.</p>

Template for the preparation of an opening strategy

(Notes on completing the template are provided on page 45.)

ITEM	COMMENTS
1. Project brief	(insert comments)
2. Attendees at the opening strategy development session	(insert comments)
3. Corridor definition	(insert comments)
4. Opening planning issues	(insert comments)
5. Opening planning outcomes	(insert comments)
6. Opening planning objectives	(insert comments)
7. Opening planning performance indicators	(insert comments)
8. Action plan	(insert comments)

Notes on using the template

1. Project brief	Copy information from item 1 in assessment of opening risk report.
2. Attendees at the opening strategy development session	Copy information from item 2 in assessment of opening risk report.
3. Corridor definition	<p>The corridor is the road network directly affected by the operation of the project. Typically, it includes the route upon which the project is undertaken and a defined road network that surrounds the project.</p> <p>The road network includes State, Regional and Local roads that will be affected by the operation of the opening of the project.</p>
4. Opening planning issues	These are the traffic, operational and stakeholder issues in the corridor generated as a consequence of the opening of the project.
5. Opening planning outcomes	List the desired outcomes from the opening planning process.
6. Opening planning objectives	<p>The suite of objectives¹ that will be used to guide the planning and operations for the opening period including:</p> <ul style="list-style-type: none">• Road network performance objectives (such as travel speeds, traffic throughput) may be similar to those adopted for the overall project.• Specific opening planning objectives include collection of data for reporting, extent of impact of communication initiatives.
7. Opening planning performance indicators	These are performance indicators underpinning the agreed objectives identified in the preceding section.
8. Action plan	<p>Outlines the specific key result areas related to the project openings, including (but not limited to):</p> <ul style="list-style-type: none">• Open readiness plan scope.• Infrastructure and resource requirements.• Systems operational requirements.• Data collection and reporting.• Stakeholder communication requirements. <p>The specific requirements for opening will be captured within the key result areas outlined above.</p> <p>Tactical initiatives and action items for each project phase will be identified.</p> <p>A template is provided to assist the systematic documentation of information.</p>

¹ It is important that objectives chosen are measurable.

Template for the preparation of an action plan (Notes on completing the template are provided on page 47.)

TACTICAL INITIATIVES AND ACTION ITEMS	PROJECT DEVELOPMENT	PROJECT IMPLEMENTATION	OPERATION	FINALISATION
Infrastructure <ul style="list-style-type: none"> • Traffic management • Traffic control • Traffic monitoring • Traveller Information • Other 	(insert comments)	(insert comments)	(insert comments)	(insert comments)
Traffic management systems <ul style="list-style-type: none"> • Data collection, analysis and reporting • SCATS • Freeway management • Traveller information • Incident management • Other 	(insert comments)	(insert comments)	(insert comments)	(insert comments)
Communication <ul style="list-style-type: none"> • Stakeholder • Road users • Media • Other 	(insert comments)	(insert comments)	(insert comments)	(insert comments)
Resources <ul style="list-style-type: none"> • Transport Management Centre • Traffic operations (in regions) • Field • RTA project team • Communications • Other 	(insert comments)	(insert comments)	(insert comments)	(insert comments)

Notes on using the template

- These notes supplement existing project contract and management practices undertaken by the RTA.
- These notes relate to a road project managed by the RTA, and those funded or commissioned by the RTA and delivered by private sector (such as BOOT projects)

Project development

During this phase matters to be considered for opening planning and operation requirements of any construction stage(s) and the final (complete) project opening during implementation and operation phases include:

- Items to be captured in tender documentation for the contractor/constructor and any other relevant parties (subcontractors, suppliers, designers and so on).
- Permanent and temporary infrastructure requirements to be captured in design and construction traffic management plans and documentation.
- Traffic management systems specifications and operation protocols.
- Communication and information management systems specifications and operation protocols for information transfer to Transport Management Centre.
- Resource allocation and utilisation.
- Funding allocations and responsibilities.
- Traffic modelling requirements.
- Communications and media information requirements.

Project implementation

During this phase matters to be considered for opening planning and operation requirements of any construction stage(s) and the final (complete) project opening during operation phase include:

- Monitoring of the planning, design, manufacture, construction, delivery, installation, connection and testing of infrastructure and systems including connection with Transport Management Centre systems.
- Monitoring of the planning, design, approval and delivery of relevant opening plans and operational protocols.
- Monitoring of the planning, design, manufacture, approval and delivery of communication material.
- Monitoring of the planning and training of resources.

Operation

During this phase matters to be considered for opening planning and operation requirements of any construction stage(s) and the final (complete) project opening during operation phase include:

- Correct operation of infrastructure and systems.
- Roll out of relevant opening plans.
- Roll out of communication material.
- Provision of trained resources.

Finalisation

Completion of handover to Transport Management Centre.

Template for traffic volume, travel time, travel speed monitoring

VOLUMES						ARTERIAL ROAD															
TIME OF DAY	ROAD INFRASTRUCTURE PROJECT					LINK 1					LINK 2					LINK X					
	Before	Opening day	Day 2	Day 3	Average	Before	Opening day	Day 2	Day 3	Average	Before	Opening day	Day 2	Day 3	Average	Before	Opening day	Day 2	Day 3	Average	
06:00-07:00	2313E 485W	2235E 522W	2310E 535W	2303E 485W	2283E 514W																
06:30-07:30																					
07:00-08:00	2856E 1527W	2797E 1532W	2866E 1540W	2472E 1595W	2712E 1556W																
07:30-08:30																					
08:00-09:00	2022E 1871W	2093E 1799W	2135E 1945W	2162E 1972W	2130E 1906W	Sample		Data		Only											
16:00-17:00	1543E 2598W	1332E 2655W	1455E 2644W	1564E 2773W	1450E 2691W																
16:30-17:00																					
17:00-18:00	1818E 2558W	1618E 2699W	1753E 2670W	1666E 2666W	1679E 2678W																

TRAVEL TIMES (MIN:SEC)		ROAD INFRASTRUCTURE PROJECT / ARTERIAL ROADS																				
TIME PERIOD	DIRECTION OF TRAVEL	LINK 1					LINK 2					LINK 3					LINK 4					
		Before	Opening day	Day 2	Day 3	Average	Before	Opening day	Day 2	Day 3	Average	Before	Opening day	Day 2	Day 3	Average	Before	Opening day	Day 2	Day 3	Average	
07:30-08:30	Eastbound Westbound	0:56	1:01	1:23	1:18	1:14	Sample		Data													
17:00-18:00	Eastbound Westbound	1:16	1:44	1:27	0:56	1:22																

SPEED (KM/HR)		ROAD INFRASTRUCTURE PROJECT / ARTERIAL ROADS																				
TIME PERIOD	DIRECTION OF TRAVEL	LINK 1					LINK 2					LINK 3					LINK 4					
		Before	Opening day	Day 2	Day 3	Average	Before	Opening day	Day 2	Day 3	Average	Before	Opening day	Day 2	Day 3	Average	Before	Opening day	Day 2	Day 3	Average	
07:30-08:30	Eastbound Westbound	58	54	39	42	45	Sample		Data													
17:00-18:00	Eastbound Westbound	43	32	38	59	40																

Template for Joint Operations Centre roster and shifts

ROLE	AREAS OF RESPONSIBILITY	NAME	DAY	OPENING DAY		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7	
			Time	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Corridor Manager or Director	Overall management of the JOC and strategic corridor decisions. Senior management liaison.	(Insert name)															
		“															
		“															
		“															
Communications Manager	Media Communications prior to, during and after the opening event.	(Insert name)															
		“															
		“															
Networks operations staff (SCATS)	SCATs management to improve traffic flow conditions.	(Insert name)															
		“															
		“															
Project liaison	Provide knowledge on traffic issues near the project and liaise with RTA staff in motorway operator control room/ motorway operators in control room.	(Insert name)															
		“															
		“															
- TOR liaison (Chief TOC)	Provide information on network behaviour and liaise with TOR on implementation of strategies for efficient traffic flow.	(Insert name)															
- Public transport liaison	Single point of contact for resolution of public transport issues	(Insert name)															
		“															
- Information officer	Collect from various data sources and compile information into road network performance reports for management and to assist JOC decision making.	(Insert name)															
		“															
Field observation staff liaison	Contact field staff and collect information on critical queuing points.	(Insert name)															

Reference documents

Documents for all steps

The following documents may be referred to during all planning steps in accordance with this Guideline and the associated policy:

- *ProjectPack* and *MinorProject* systems.
- Environmental, communications and design reports, assessments and plans for the project.
- All plans developed as part of opening planning as set out this guideline in the preceding steps.
- Local, State and Federal government communications related to the project.
- Any other relevant information.

Documents for Step 1: Assess opening risks of road project

The following documents may be referred to during Step 1 in accordance with this guideline and the associated policy:

- Concept or initial designs for the project developed during project initiation and development.
- Any traffic data or modelling available for the area, including projections of traffic growth.
- Documentation submitted or developed for the approval to undertake the project and seek funding.
- Any other relevant information sources.

Documents for Step 2: Prepare the opening strategy

The following documents may be referred to during development of Step 2 in accordance with this guideline and the associated policy:

- Procurement strategy and project delivery mechanisms.
- Concept or initial designs for the project developed during project initiation and development.
- Any staging plans and proposals.
- Any traffic data or modelling available for the area, including projections of traffic growth.
- Documentation submitted or developed for the approval to undertake the project and seek funding.
- *Community Involvement and Communications, Draft: A resource manual for staff 2008*
- Any other relevant information.

Documents for Step 3: Prepare the opening readiness plan

The following documents may be referred to during development of the Step 3 in accordance with this guideline and the associated policy:

- Project documents, including program.
- Benchmark information.
- Concept or initial designs for the project developed during project initiation and development.
- Any traffic data or modelling available for the area, including projections of traffic growth.
- Documentation submitted or developed for the approval to undertake the project and seek funding.
- *Community Involvement and Communications, Draft: A resource manual for staff (2008)*.
- Any other relevant information sources.

Documents for Step 4: Implement opening readiness plan

The following documents may be referred to during Step 4 in accordance with this guideline and the associated policy:

- RTA corporate procedures and systems relevant to action items.
- Project documents, including contractor documents (opening and traffic management plans, etc.).
- Output documents of implementation of action items in previous projects.
- Outputs, documentation and evaluation of previous stages of the same project.
- Any other relevant information sources.

Documents for Step 5: Evaluate effectiveness of the opening readiness plan

The following documents may be referred to during the Step 5 in accordance with this guideline and the associated policy:

- Contractor's opening and traffic management plan.
- Any feedback received from external stakeholders related to the opening period or opening planning activities.
- Media reporting.
- Any other relevant information sources.

Glossary

The following definitions apply to this guideline.

External stakeholders	<p>The following groups:</p> <ul style="list-style-type: none">• Contractor/developer/operator.• Road transport and trucking operators, emergency service agencies.
Functional area, functional area representative	<p>A functional area is an RTA branch, or a section within a branch, responsible for a specific function related to the opening and operation of the project. A representative staff member of an RTA functional area may be consulted for advice or invited to be a member of an opening planning team.</p>
Internal stakeholders	<p>The following groups:</p> <ul style="list-style-type: none">• Project team.• Corporate Communication Branch.• Infrastructure Communication Branch.• Transport Management Centre.• Traffic Management Branch.• ROES Road Safety and Traffic Management Section.
Major infrastructure project	<p>New or upgraded road infrastructure projects managed, funded, commissioned or delivered by Major Infrastructure Directorate.</p> <p>Major infrastructure projects often are complex, costly and involve many external parties in the development, implementation and through to the operation phases. There are different delivery mechanisms involved, including design and construction (D&C), partnering, alliance, BOOT and so on, where significant work (planning, design and construction) is delivered by parties outside of RTA.</p>
Network	<p>The State, Regional and Local road network in NSW.</p>
Opening period	<p>The time period covering the implementation of all of the planned action items in the opening readiness plan related to the opening of the project or stage including before, during and after the opening day.</p>

Opening planning team	<p>A team of specialist personnel responsible for collaborating and coordinating all relevant activities for the opening of road infrastructure covered within this guideline.</p> <p>The opening planning team is to include as a minimum:</p> <ul style="list-style-type: none"> • Project manager (chair). • Functional area representatives as above. • Any other relevant representative.
Opening readiness plan	<p>A strategy and detailed action plan for the opening period including training, data collection and analysis, monitoring requirements, modelling, signage including temporary and permanent, coordination with other services, operational management, temporary traffic control facilities and resources, contingencies, community advice and so on.</p>
Project Manager	<p>The person responsible for the overall delivery of the whole project or specific stages associated with a road project. The Project Manager is normally appointed by the project sponsor (or the directorate delegated to deliver the project on behalf of the project sponsor).</p>
Road corridor	<p>The corridor is the road network directly affected by the operation of the project. Typically it includes the route upon which the project is undertaken and a defined road network that surrounds the project.</p> <p>The road network includes State, Regional and Local roads that will be impacted by the operation of the opening of the project.</p>
Road project	<p>A project funded or commissioned by the RTA that results in a new road or traffic management infrastructure or a physical change to the infrastructure of an existing road that will become part of the State Road Network in NSW, including:</p> <ul style="list-style-type: none"> • A new motorway or improvement to an existing motorway. • A new arterial road or upgrade to an existing freeway or arterial road, including road widening, traffic control signals, intelligent transport systems and traffic control facilities. • An enhancement to the road based public transport network, such as a transitway or bus priority measure on an existing freeway or arterial road.
Traffic	<p>All road users directly affected by the opening of the road infrastructure project.</p>

Roads and Traffic Authority

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.

For further enquiries

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Month Year
RTA/Pub. 09.371
