
PART 3

Planning



Planning

3.1 Purpose

3.1.1 Purpose of Part 3

The purpose of this Part of the Guide is to provide information on the relationship between the ‘design area’ and the surrounding ‘planning area’.

- It is possible that the solutions to the problems can be resolved at the design level, without a need to consider a wider area. In that event, this Part of the Guide can be regarded as a checklist.

3.1.2 Content

Experience shows that an effective and acceptable scheme usually requires a strategic planning study up-front, even in situations where strategic planning has been undertaken before. Adaptation often raises issues which were not considered at the time or have consequences which were not foreseen.

For example:

- there may be changes in functions or proposals outside the Main Street or sub-arterial road which influence the scope for and approach towards environmental adaptation;
- environmental adaptation is likely to have an overspill effect on adjoining areas or the existing road hierarchy;

- the traffic function of the Main Street or sub-arterial road is dominant at peak periods (including tourist seasons) or throughout the day;
- the Main Street or sub-arterial road is a major truck route; or
- the centre is large.

The focus in this Part is on identifying the factors that may affect the development of the design concept, including:

- the kind of relationships that should be considered;
- the type of planning factors that may be relevant; and
- the process of identifying them.

3.2 Relationships

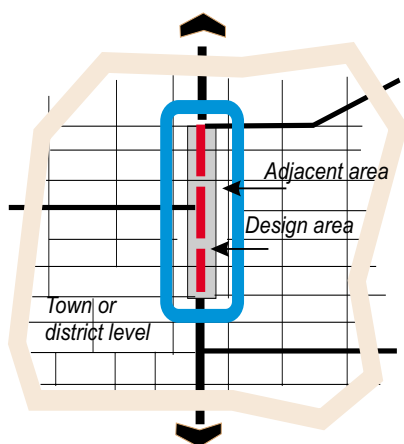


Fig. 3.1 Planning and Design Areas

3.2.1 The notion of ‘design area’ and ‘planning area’

It is useful to make a distinction between the ‘design area’ and the ‘planning area’ (Fig. 3.1).

- The *design area* is confined to the Main Street or sub-arterial road, its frontage and adjacent environment.

The ‘design’ of this area includes the selection of design, construction and control measures, and the process of combining them into a coherent scheme.

As will be explained in Part 4, there are two stages in the design process: concept design and detailed design.

- The *planning area* comprises other areas which may influence the approach to the design of, or are influenced by what happens with, the Main Street or sub-arterial centre.

The planning of this area includes the location of major land uses and transport routes and measures for environmental protection.

3.2.2 There are two planning area levels

The two levels are:

- town or district level (fig 3.2)

The extent of the area varies with each Main Street or sub-arterial centre and depends on the situation. For instance, there may be proposals for a new arterial route or a major commercial centre. If such proposals could have an impact on the development of the design area, the planning area should be defined to encompass them.

- adjacent areas (fig 3.3)

The extent of the area to be considered depends on the local street pattern, type of land uses, parking and access to the centre. In cases where there is a parallel service/access street, the impact area may be small, but in other cases the overspill area may require consideration of a larger area. If there are proposals for change in an adjoining area, such as the provision of additional parking, there are advantages in enlarging the planning area so that possibilities for integrated approaches can be explored.

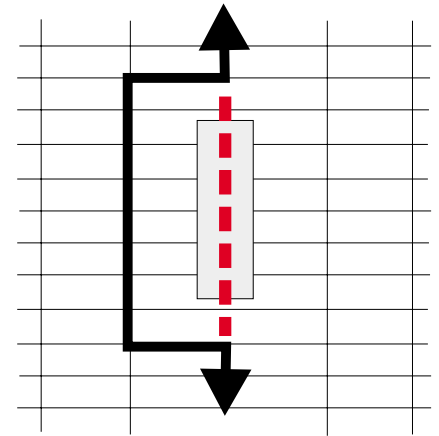


Fig 3.2 Proposals at the town/district level may influence the design approach. Conversely, the traffic function of the Main Street or sub-arterial may warrant examination of alternatives at the town/district level.

3.2.3 Strategic and development planning

Strategic planning is a continuous and systematic process, when organisations make decisions about intended future outcomes, how they are to be accomplished, and how success is to be measured and evaluated. Strategic planning is needed for integrated approaches towards urban areas as a whole, and for major parts of them (Austroads, 1998).

In the context of this Guide, strategic planning is used to establish the broad parameters for the Main Street or sub-arterial adaptation.

Development planning is an activity which focuses on the achievement of development on the ground. Development planning is used in the preparation of 'masterplans', development concepts and development control plans as a means of integrating public and private development (Austroads, 1998).

In the context of this Guide, development planning can take two forms: (i) the planning of adjoining areas (including the preparation of development control plans, and road hierarchy plans), and (ii) the concept planning of the Main Street

or sub-arterial road itself. The second form is addressed in Part 4.

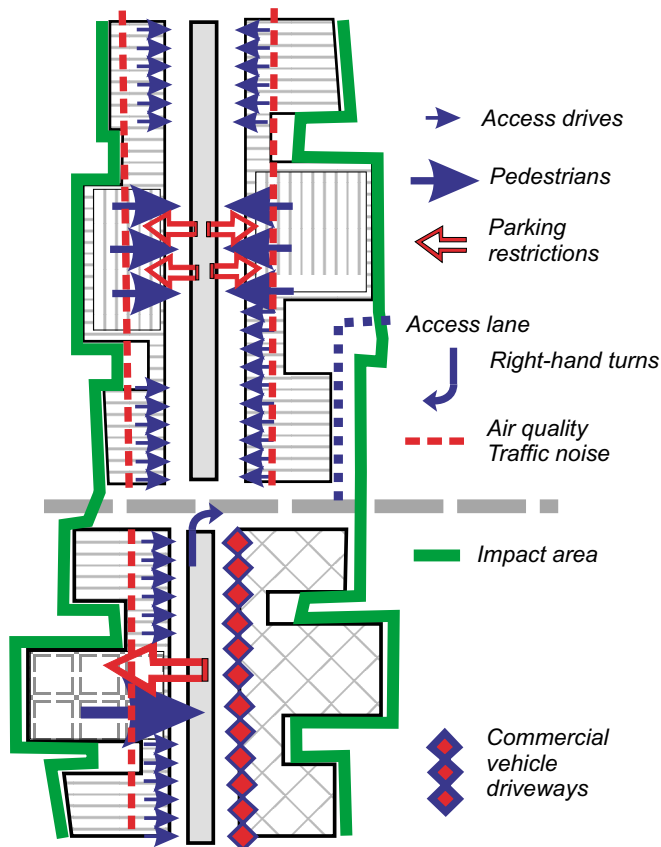


Fig. 3.3 There may also be interactions with adjacent areas.

3.2.4 Relationship to planning instruments

Local authorities will have prepared statutory plans (Local Environmental Plans or LEPs in NSW) and exercise development control based on such plans. There may be a need to review them, at least in respect of the zoning provisions that apply to the Main Street or sub-arterial road, so that there is a legal basis for implementing the principles of environmental adaptation.

- Similar actions may be needed for road hierarchy.

LEPs do not always provide the detailed context for development control, and there are considerable advantages in preparing more detailed development area plans (Development Control Plans in NSW) for the Main Street or sub-arterial road and its immediate environment.

Such plans are often prepared as land-use plans with little or no detail in respect to the road space and the way it is managed. Details on the road space and its

management are sometimes set out in separate plans, such as Traffic Management Plans (TMP) (see Part 1, 1.6.2).

- Environmental adaptation involves both frontage and road-space management. Development Control Plans should be prepared and implemented as integrated plans, where changes in land use, transport and the environment are considered together.

An integrated approach also provides a basis for the development (in NSW) of a Section 94 contribution plan under the provisions of the (NSW) Environmental Planning and Assessment Act (1994). The contribution plan links the nature and level of contribution of any proposed private development in an area to the public improvements which need to be made associated with this development.

3.3 Planning parameters

3.3.1 Parameters associated with the town or district area

There are two basic interactions which require consideration at the town or district level. They are:

1. transport and land-use developments and proposals may influence the scope for environmental adaptation of the Main Street or sub-arterial centre; and
2. the opportunity for environmental adaptation may be constrained by the traffic function unless major transport initiatives are taken.

The *first* situation arises when there are proposals to Fig 3.4):

- change the traffic function of the Main Street or sub-arterial (for example by developing an internal or external by-pass);
- travel demand management;
- re-route heavy vehicles; and/or

- expand the centre or to reduce its role because major commercial development is likely to occur elsewhere.
- The impact of such changes must be considered at the town/district level. There are conventional planning techniques for undertaking such an assessment.

The *second* situation may occur if traffic conditions on the Main Street or sub-arterial impose a constraint on the scope for environmental adaptation. This situation occurs when (see Section 2.3):

- existing traffic volumes on the Main Street or sub-arterial road exceed about 12,000 vpd;
- the amount or proportion of through traffic (defined as vehicles that have no intention of stopping in the centre)

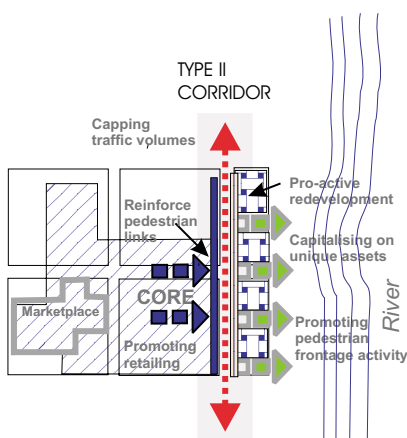


Fig 3.4 Example of a planning strategy (Taree).

during normal business hours is high; and

- the number of heavy vehicles exceeds 60 per hour during normal business hours.
- there is agreement that a cap should be set on the amount of traffic in the Main Street or sub-arterial road by limiting the number of lanes for movement (eg one lane in each direction; or one or two lanes in one direction)
- In all these situations, there is a need to investigate on an area-wide basis whether through traffic or certain types of vehicles for the whole day or part thereof can be redirected.
- If there are alternatives, the design constraints may be eased.

It should be understood, however, that the implementation of ancillary measures usually take time and may delay the full implementation of the adaptation project. Alternatively, design and construction measures should be selected which allow for further changes later.

- If there are no alternatives, then there are constraints which must be recognised in the design of the Main Street or sub-arterial.

For instance, with heavy traffic volumes or a relatively high number of heavy vehicles, there may be a need to place more reliance on traffic signals and medians than on measures involving horizontal or vertical changes in the carriageway. There may also be a need to restrict right-hand turns.

3.3.2 Parameters associated with the area immediately adjacent

A similar set of situations can arise in areas in the immediate vicinity (Figure 3.5):

- (1) transport and land-use proposals in adjacent areas may influence the design for environmental adaptation of the Main Street or sub-arterial centre; and
- (2) there may be overspill effects which need to be considered in developing design solutions.

The *first* situation can occur if there are proposals, for example, to:

- increase residential densities and to provide for urban housing in adjacent areas, or directly above shops (called ‘shop-top housing’);
- introduce local area traffic management or ‘traffic calming’ measures in adjacent residential areas; and/or
- improve public transport, provide bicycle ways. or reroute some main street traffic.

- In such a situation, there is a need for an integrated planning study so that the potential benefits of each are maximised.

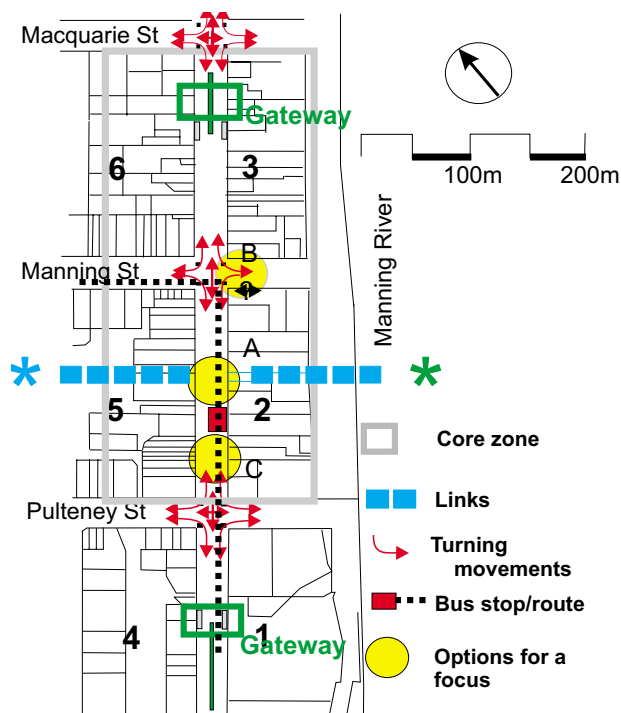


Figure 3-5 Example of parameters for concept design (Taree).

The *second* situation can occur if:

- speed control measures could lead to increased traffic in adjoining streets;
 - there are side street closures;
 - there is lateral expansion of the centre;
 - there are changes in circulation: restricted turning movements, improved pedestrian and cycle access;
- parking provision is increased; and
 - changes to rear access are required.
- If there is a risk of undesirable impacts on adjacent areas, the contributing factors should be identified and become a constraint in the design for environmental adaptation.

3.3.3 Parameters associated with both levels

- Large centres require an integrated development plan

Where the Main Street or frontage activity along a sub-arterial road are part of a larger centre with extensive lateral development into adjoining streets, there is a need for a planning study of the entire centre. A strategy and an integrated development control plan should be developed so that any factors for environmental adaptation can be considered within a longer term planning context.

- Major variations in traffic and activity require special study

Seasonal variations in the level of traffic and activity often occur in the Main Streets of towns with a tourist function. The design must have the flexibility to respond to these different situations and

his may influence the type of measures that can be used.

Other constraints can arise where there are *daily* variations in the level of traffic and activity. This frequently occurs on sub-arterial roads which serve as major traffic routes at peak periods, but carry mainly local traffic during other times of the day. Pedestrian activity may peak during the day, but still be high during evening peak traffic. The design factors in this case can only be determined after careful study, but it is likely that there is a need for more reliance on traffic signals and medians than on measures involving horizontal or vertical changes in the carriageway.

- Limits of the core and transition zones should be defined within a planning area context.

It is not possible to provide definitive information on how such limits should be determined as they are derived from local conditions. However, the aim should be to confine the core zone to those sections where there is active and concentrated pedestrian frontage. The transition zone should also be confined, so that drivers perceive it as a transition and driver behaviour is modified accordingly.

- Speed zones should also be determined for adjoining areas.

Speed zoning prevents other streets from being used as 'rat-runs' and provides an important legal basis for speed control (Figure 3.6).

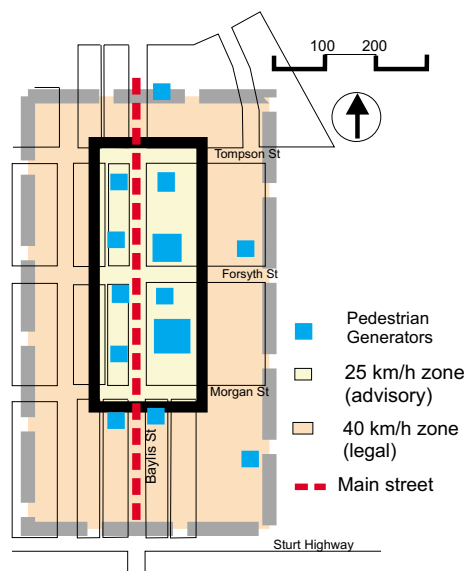


Fig. 3.6 Speed zones should be established for the core and adjoining areas (Wagga Wagga).

3.3.4 Time, resources and responsibilities

There are other planning parameters which may constrain the scope for environmental adaptation:

- time frame: it will take much longer to establish an activity profile than a speed profile, and provision for interim arrangements should be made. However, if the speed profile is correctly designed and implemented, then realisation of the activity profile is likely to be accelerated.
- environmental adaptation of the Main Street or sub-arterial road may depend on other actions.

For example, the preparation of an integrated development control plan may need to precede a design in the case of a large centre.

- resources: available funding, including demonstration grants and Section 94 contributions, may constrain the options and influence their staging;
- responsibilities: there may be shared responsibilities which may affect the type of measures to be used.

3.4.1 Checklist of steps

The process of identifying planning Factors is illustrated in Figure 3.7.

- Step 1** triggers off the process when the key parameters, set out in Table 2-1, apply.
- Step 2** involves a check whether studies and plans exist.
- Step 3** is a check to determine whether such plans provide sufficient information.
- Step 4** examines whether any spillover effects may occur. If this is not likely to be the case, no further planning is needed.
- Step 5** examines the need for further studies and plans if they do not exist.
- Step 6** deals with the situation where existing studies and plans do not provide a sufficient context for the development of the design.
- Step 7** ascertains whether planning action is necessary because there could be overspill effects for adjacent areas.

3.4 Process

- Steps 8 and 9** address the interactions in the planning area which requires further data collection.
- Step 10** involves the collection and interpretation of data.
- Step 11** produces alternative strategic approaches.
- Step 12** assesses the possible consequences of each strategic option.
- Step 13** obtains the views of the stakeholders on the options and the consequences.
- Step 14** involves selecting the preferred planning strategy.
- Step 15** consists of the preparation of integrated development area plans and work programs appropriate for the planning area level, where it is necessary for such plans to be prepared.
- Step 16** establishes the planning criteria for assessment (see Appendix B, Table B-1).
- Step 17** is the statement of the planning parameters which should be considered in the development

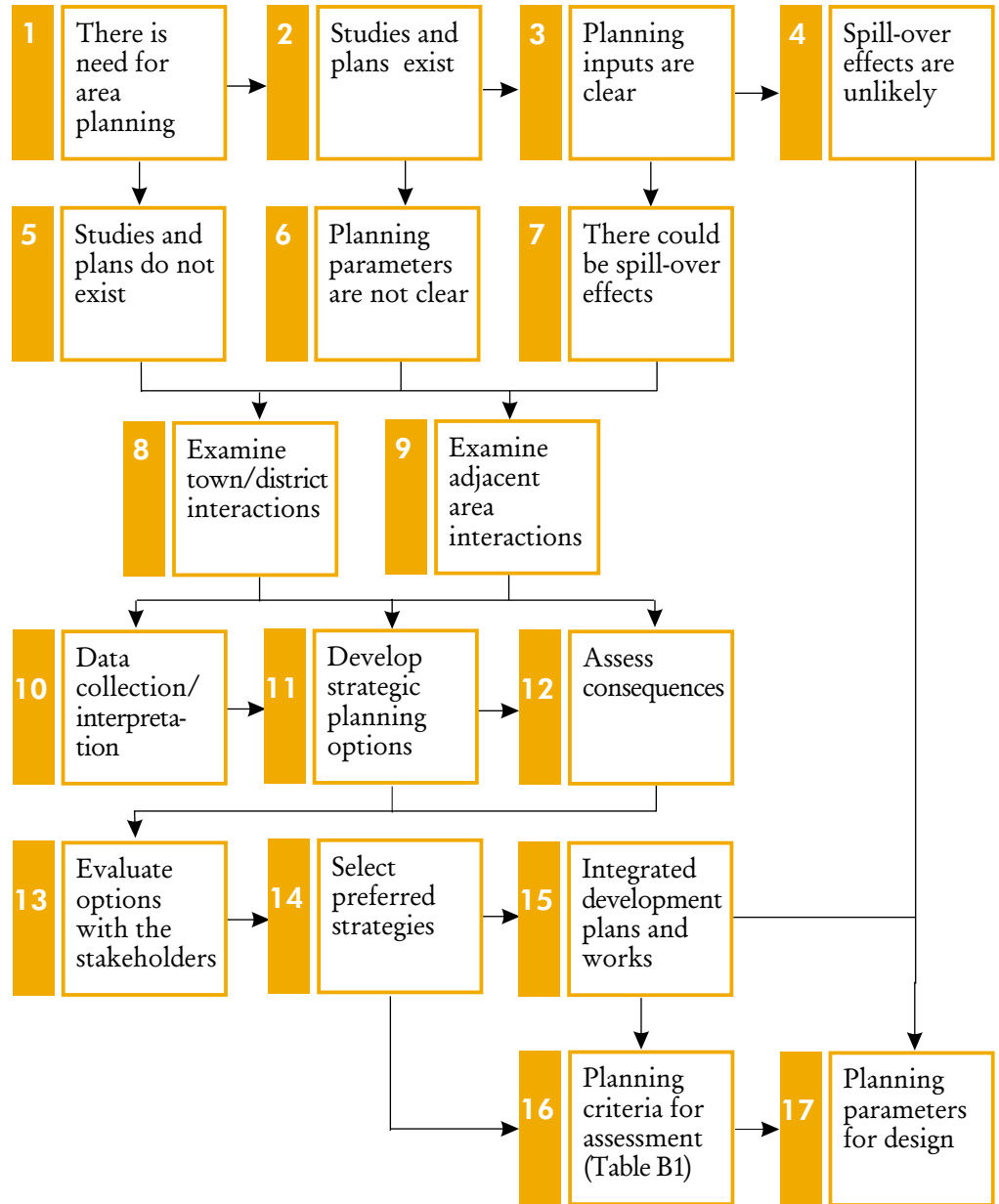


Figure 3.7 Checklist of planning actions.

TABLE 3-1: Summary of Planning Parameters

Situation	Planning parameters to be considered in design
Town or district level	
<i>There may be land-use and transport changes</i>	
Road network development (eg by-pass)	Inputs derived from studies and plans.
Traffic management (eg. truck routes)	
Role of Main Street/sub-arterial centre	
<i>The traffic function of Main Street/sub-arterial is a constraint</i>	
High traffic volumes	Inputs derived from re-examination of area-wide strategies. Interim arrangements where there are alternatives If no alternatives: place more reliance on traffic signs and medians than on measures involving horizontal or vertical changes in the carriageway.
High amount or proportion of through traffic	
High proportion of heavy vehicles	
The pedestrian environment is of greater importance	
Adjacent areas	
<i>There are proposals for change</i>	
Retail/Commercial development	Inputs derived from integrated studies and plans.
Increased residential densities	Pay special attention to provision for turning movements, side street closures, parking and delivery access, pedestrian and cycle ways to and across Main Street or sub-arterial.
Traffic calming	
Public transport stops or bicycle ways	
<i>There may be spillover effects</i>	
	Pay special attention to the effects of lateral expansion of the centre changes in circulation & access. Overspill on-street parking is an important issue for residents.
Both levels of planning	
Large centre	Inputs derived from strategy and development area plan.
Wide variations in the level of traffic and activity	Inputs derived from special study. If no alternatives, see comment above (under constraint).
Core and transition zones	Identification of the limits of the core and transition zones.
Time, resources and responsibilities	
Changes take time to implement	Provide for interim solutions.
Resources	Select cost-effective measures and provide for staged implementation.

