but a light railway could be built if funds were forthcoming. Two difficulties that would need to be resolved are access to properties fronting the roads taken over by the public transport service and the design of junctions where private vehicles must cross the public transport routes. In some sub-regions, small towns might be expanded to meet the demand for development, but in the Bristol sub-region the better prospect seems to be in the form of linear growth towards Weston-Super-Mare and a loop in the north incorporating the towns of Yate and Thornbury and a number of hamlets. This pattern offers locations for housing, industry and commerce served by the new public transport routes via rail and road. The proposals also allow for the expansion of a park and ride service to transfer travellers from the motorways to public transport and also for an interchange with main line and suburban railways to provide easy access by public transport from surrounding towns and from South Wales to all major activity centres.

Key stage 3

This key stage is to define the 'remainder' road system to sustain private access to all residential and business properties. This might prove the most controversial of all the proposals in the sub-region but if it cannot be faced by residents and businesses the prospects for a more sustainable city seem bleak. Testing the proposition in the centre and inner suburbs of Bristol, this stage proved simpler than anticipated and offered the prospect of considerable environmental improvement in most residential areas. The necessary closure of all side roads where they join the public transport routes would reverse traffic flows but would result in large residential areas being divided into smaller, more self-contained neighbourhoods. When fully implemented this stage would result in the road pattern as it appears on Figure 5.6. A preliminary calculation suggests that distributor and radial roads would be reduced to about 60% of their present capacity.

Key stage 4

Key stage 4 would be to develop a system of goods delivery which respects both residential and historic environments. There are three difficult dilemmas facing transport operators, businesses (where home delivery services would need to be much extended) and highway authorities: the routes to be sanctioned, the related size of vehicles and the timing of





Figure 5.6 Creating a new-road pattern, showing main and local roads in Bristol (above) and proposed closures of local roads to create self-contained neighbourhoods (below).

deliveries. Many new activity areas can be serviced directly from motorways and this will continue to stimulate dispersal, but the sub-region is typical in needing deliveries in historic centres and other locations accessible only through residential streets. The question then arises regarding the authorization of goods vehicles along some public transport routes or the restriction of the size of vehicle and the timing of deliveries along residential distributor roads.