Planning Perspective on Interurban Roads

Torbjörn Suneson
Chief Architect
Swedish Road Administration

Carreteras Sustentables
PIARC TC 2.2 / AMIVTAC, Monterrey, Mexico 8 y 9 Mayo de 2006
Sweden
(in the projection of Mercator)
Geography of Sweden

- From latitude 55°N to 69°N
- Distance from South to North 1,572 km, from East to West 500 km
- Go 1,572 km south from Sweden and you’ll be in Naples Italy
- Sweden’s area is 449,964 km² (1/4 of Mexico). About the same as Spain
- Population 9 miljon (1/10 of Mexico)
- Population density 22 inh/km² (Mexico 44 inh/km²) Netherlands (372 inh/km²).
Population and roads
Road planning in Sweden

- National Road Administration (under ministry of industry);
  - responsible for national roads
  - responsible for national contribution to development of the road transport sector (incl public transport, mobility management, regulations, coordination between national, regional och local level etc)
  - 7 regions
- County administrations
  - Responsible for contributions to regional road transport plans
- Municipalities
  - responsible for municipal roads
Road planning context in Sweden 1

- Lack of money to road investments and maintenance
- Traffic safety (2+1 roads, attitudes, speed, vehicles etc)
- Environmental issues
- In Sweden there might be a need to underline that the transport infrastructure is an investment in well-fare, primarily neither a way to destroy the environment nor a way to kill people
  (Ref. to Anders Jansson, who yesterday spoke about environmental actions as an investment, not a cost.)
Road planning context in Sweden 2

- Great and well differentiated regions are important for the national economy in the global economy (NEG)
- Future accessibility through smart balance between density (location of buildings and enterprises), and coordinated rail and road carried transport systems (of different modes)
- Need for better coordination across sectors
- Need for better coordination between national, regional and local level as well as between public and private interests
The Four-stage principle
– a general approach to measures for the road transport system

• Measures which affect the demand for transport and choice of modes of transport
• Measures that give more efficient utilisation of the existing road network
• Improvements and minor rebuilding measures
• New investments and major rebuilding measures
Framework for The Planning Process ("The Cube")

... and analysing the challenges on diverse parts of the transport system

- Competitiveness of industry and commerce
- People's everyday mobility needs
- Balanced regional development
- Society's general targets (Environment, safety, economical efficiency)

... it is possible to find the most effective services to improve the transport system

- Affecting transport demand and choice of transport mode
- Making the use of present infrastructure more effective
- Small investments for improving the present infrastructure
- Large investments to increase the capacity of the transport system

Knowing the different needs and expectations...
The Four-stage principle and the Cube

principle aims

- Secure provision of socio-economic, efficient and long term sustainable transport support for citizens and the business
- Guarantee broad approach in planning of roads
- To turn attention from construction of roads to need of transport in society
Urban areas and network of roads in a strategical perspective

- Identify different types of regions
- Develop type-specific strategies
  - Mix 1; metropolitan areas
  - Mix 2a; middle-size cities in network
  - Mix 2b; middle-size city with densely populated countryside
  - Mix 3a; small cities in thinly populated areas
  - Mix 3b; thinly populated areas
- Develop strategies for each region
Two cases – examples of cross-sectorial cooperation

• Corridor analysis of road 36 between Motala and Linköping. Demands on a new road to incorporate Motala better in the Linköping work-region.

• Corridor analysis and in-debth design study of the meeting between the E22, Göta Canal and Söderköping
Corridor analysis road 36 Motala - Linköping

- Enlarge workregion
- Cooperation between national, regional and local level
- Coordination between land use planning and transport planning
- Analysis of both inter-urban and urban areas develops joint understanding
- Gathering vision
Commuting between Motala and Linköping
Flexibel measures to meet different budget levels

- Develop public transport, esp. the commuter train (stage 1)
- Mobility management (stage 1)
- Land use planning; location of enterprises, housing and schools (stage 1)
- Priority for public transport (stage 2)
- Improvements, e.g. access points, bus stops and underpasses for pedestrians (stage 3)
- Shared vision basis for coordinated successiv implementation
Large potential to improvements in Linköping

- 30 % of travel time in Linköping
- Priority to regional public transport
- Miniterminals in the outskirt of Linköping
- Fast bus-lines on separate lanes, later replaced by light-rail
In-debth design study of the meeting between the E22, Göta Canal and Söderköping

- Cooperation between National Road, Söderköping municipality, the Regional Development Council, the Göta Canal Company and the County
- Public participation
The improvement of E22 has a long history

• Piece by piece has been improved and rebuilt
• The bridge over Göta canal and the lights in Söderköping creates hours-long queues in the summer
• Dispute on the location of the road in the municipality
• High bridge expensive and resisted by heritage authorities
Three days intensiv seminar

Välkommen till charretten i Söderköping
14 - 16 november på Söderköpings Brun

Var med och diskutera hur vägen, kanalen och staden ska mötas!
Preparations

• Lot of knowledge through many years of parallell sector planning and sector analysis
• Careful preparations, identification of key actors
• Publicity to get public awareness
• Invitation to key actors and to the public
• Secure attendance of decision-makers
• External independent facilitator
• Teams lead by town and road planning experienced architects/landscape architects and engineers, skilled in design and sketching (a rare competence)
Method

- Identification of interests rather than positions
- Presentations och debates
- Workshops in two teams of 8-10 participants; sketches and pictures produced in dialogue
  - as a tool for analysis of interests and needs
  - stimulating the creativity
  - develops alternatives which meets own intrests and can be accepted by others in the team
- Hearings, lectures by experts and as inspiration
- Access to basic data and expertis
- Discussions and negotiations
Figure 7: Finished proposal from one of the teams.
Source: Henrik Undeland
Decision makers at place

• "We have in three days taken a longer step towards a solution than during the last 10 years"

• "For the first time we worked together with urban development and traffic planning, in dialogue with both public and private interests"

• "Without this we wouldn’t have manage to start the comprehensive planning for area between the road and the city"
Discussion

- Process design that enhance early acceptans and mutual understanding through joint learning processes
- The importance of a gathering vision and active management of the vision
- Public participation and confidence
- Private investors interest in a solid framework and regulations as a basis for strategic planning of investments
- Is deeper analysis a way to a solution? Shouldn’t we be more designoriented?
- The Engineer and the Mind’s Eye – the picture as a tool for understanding, creative development of solutions and as an essential part discussions and negotiations
- Lack of competence in creative management of integrated processes