# Developing a new transport model for the city

Presentation to Cabinet

7 April 2011

Mark Prior, Lead Commissioner, City Regulation and Infrastructure



#### Why do we need a transport model?

- Illustrates current traffic flows and travel patterns
- Forecasts future year flows and patterns
- Evaluates impacts of changes proposed schemes or developments
- Supports justification of investment
- Better informed decisions



## What does the model consist of?

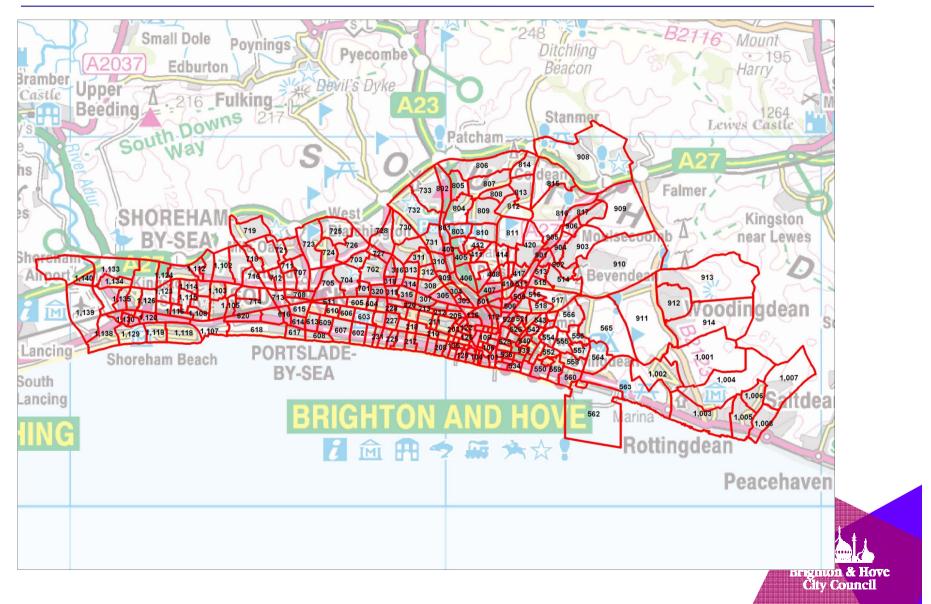
Road network

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- Public transport network
- Zones of activity (attractors and generators of movement)
- Movement between zones
- Different time periods
- Model has been built to latest DfT standards



#### **Citywide Model zones**



#### **Progress**

- Data collection
- Citywide Model
- Visual Model



#### **Data collection**

- Existing Data
  - Traffic counts
  - Pedestrian & Cycle counts
  - Rail, bus and taxi data



#### **Data collection**

New Data

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- Household interview Surveys
- Roadside interviews
- Car Park surveys
- Junction counts
- Automatic traffic counts
- Public transport surveys



#### Keeping the Model up to date

- Minimal updates required for first year
- Individual updates when changes made to road network or public transport services
- Full update required every 6 years to fulfill government requirements (estimated cost £100k)
- Model investment to secure other benefits

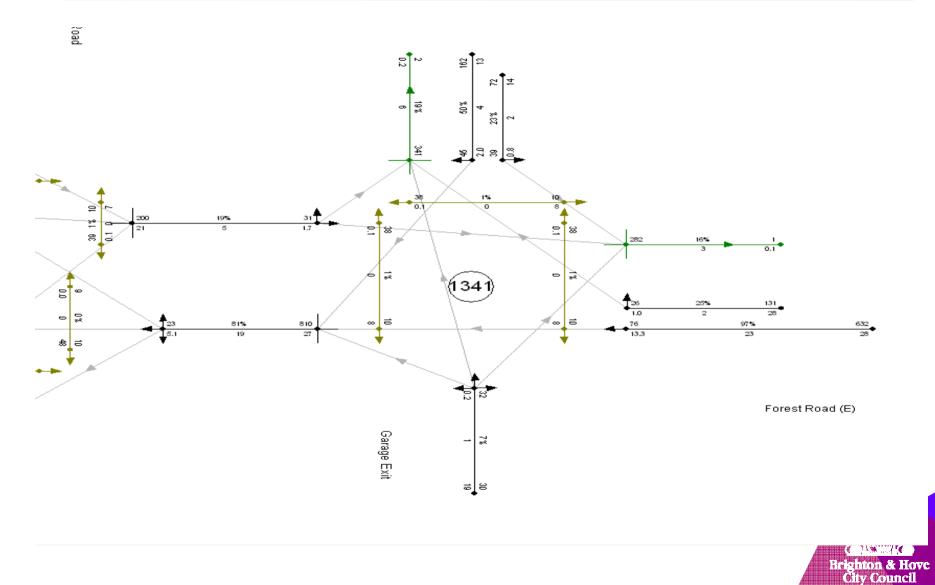


#### **Citywide Model output**

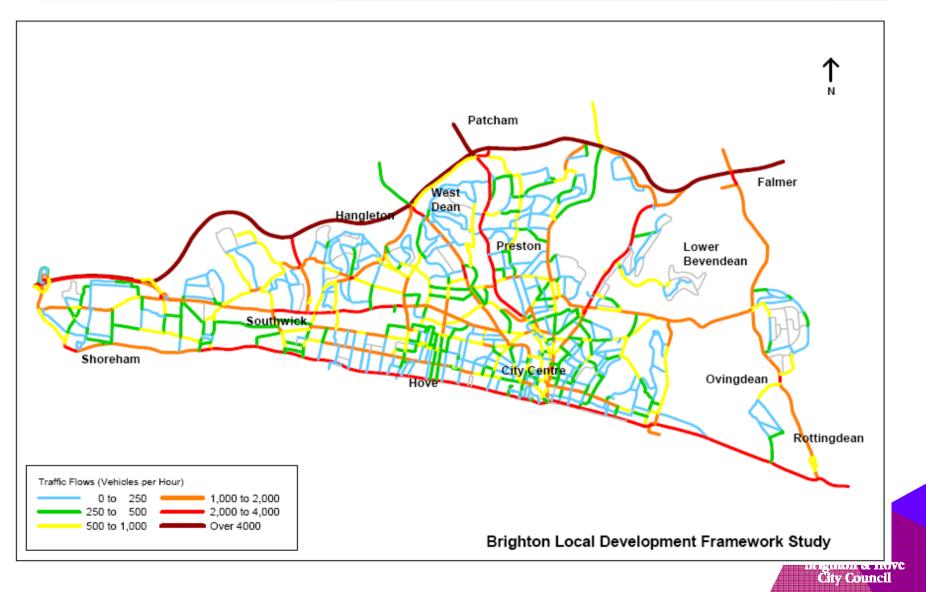
			`AM		`Off		`PM		`Sa t
Road	Movement	Mod. DoS%	Mod. Queue (PCU)	Mod. DoS%	Mod. Queue (PCU)	Mod. DoS%	Mod. Queue (PCU)	Mod. DoS%	Mod. Queue (PCU)
Forest Rd WB	Ahead/Right	87%	33	61%	15	61%	16	81%	19
Forest Rd WB	Ahead/Left	87%	33	61%	15	61%	16	81%	19
Forest Rd EB	Ahead	57%	18	75%	20	86%	20	80%	21
Forest Rd EB	Ahead/Left	57%	18	75%	20	86%	20	80%	21
Fulbourne Rd SB	Ahead/left/Right	73%	15	47%	9	54%	11	21%	4
Wood St NB	Ahead/left/Right	96%	18	78%	11	90%	16	80%	11
Forest Rd WB	Ahead	79%	29	62%	17	63%	15	72%	16
Forest Rd WB	Ahead/Left	79%	29	62%	17	63%	15	72%	16
Forest Rd EB	Right	48%	6	30%	3	51%	6	39%	4
Forest Rd EB	Ahead	31%	11	43%	14	49%	17	41%	13
Forest Rd EB	Ahead	31%	11	43%	14	49%	17	41%	13
Shernhall St NB	Right	76%	8	53%	5	72%	11	63%	121

Brighton & Hove City Council

#### **Citywide Model output**



#### **Citywide Model output**



#### **Brighton & Hove Visual Model Area**





#### **Visual Model – City Centre**





#### Visual Model – Aquarium Roundabout



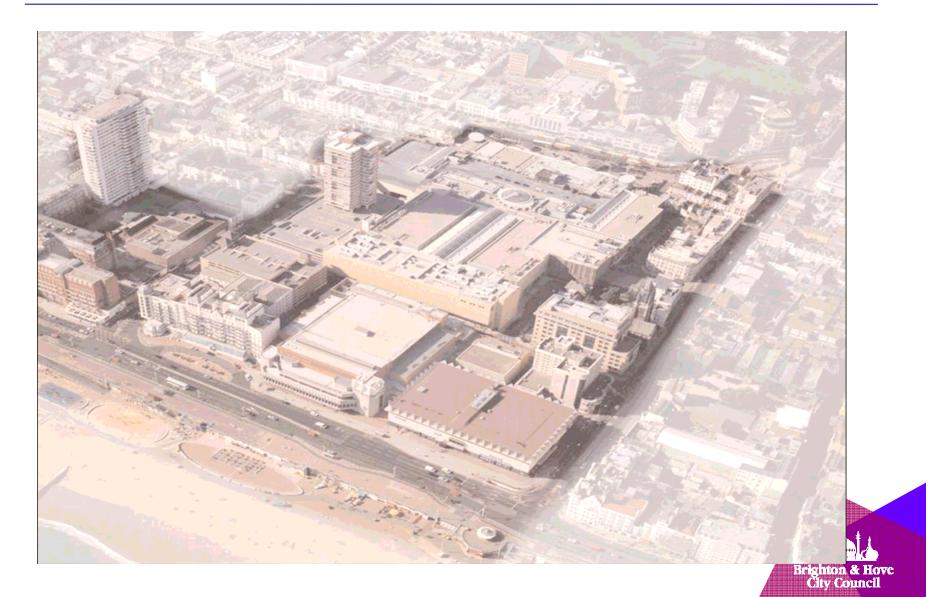


#### How will we use the model?

- Assess citywide effects
  - Spatial / land use strategies
  - Transport strategies
- Assess localised effects
  - Proposed developments
  - Transport Schemes



## **Brighton Centre**



#### **Sackville Trading Estate**



Brighton & Hove City Council

#### **Brighton Station Gateway**





#### **Brighton Station Gateway - Surrey Street scenario**



- Completion of 2010 'base year' model by mid-May
- Use model to assess traffic and network management implications of events, roadworks and schemes.
- Develop protocol for use of model by external organisations.



#### **Summary**

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- Technical analysis and easy to understand visuals
- Better informed decisions
- Assists planning for the short term & long term
- Will support council projects and developer proposals



# Thank you

