SUPPLEMENTARY PLANNING GUIDANCE LDP 3
ARWEINIAD CYNLLUNIO ATODOL CDLI 3

CAERPHILLY BASIN
STRATEGIC HIGHWAY NETWORK
OBLIGATION

DEPOSIT LOCAL DEVELOPMENT PLAN
UP TO 2021

October 2008

YMRWYMIAD RHWYDWAITH
PRIFFYRDD STRATEGOL BASN
CAERFFILI

CYNLLUN ADNEUO DATBLYGU LLEOL
HYD AT 2021

Hydref 2008
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1. INTRODUCTION

1.1 New housing development can place a strain on transport infrastructure unless the necessary transportation improvements are provided through planning obligations. This Supplementary Planning Guidance (SPG) identifies the circumstances in which the Council will seek contributions from developers towards the provision of improvements to the strategic highway network in the Caerphilly Basin and how contributions will be calculated and used.

1.2 The application of this SPG will be in accordance with the overarching guidance contained in Welsh Office Circular 13/97, which states that planning obligations should only be sought where they are:

- Necessary
- Relevant to planning
- Directly related to the development
- Fairly and reasonably related in scale and kind to the proposed development
- Reasonable in all other respects.

1.3 This guidance supplements policy (SP7D) of the Draft Caerphilly Local Development Plan (LDP).

2. THE CAERPHILLY BASIN AREA

2.1 The requirements of this obligation apply only to the geographical area of the Caerphilly Basin within Caerphilly county borough. The Caerphilly Basin lies within the Southern Connections Corridor LDP area and is defined as the area comprising the following electoral wards:

- St. James
- St. Martins
- Bedwas, Trethomas and Machen
- Penyrheol
- Morgan Jones
- Llanbradach

2.2 A plan defining the Caerphilly Basin area is included as Appendix A.

3. THE NEED FOR THE OBLIGATION

3.1 This SPG is an update of the UDP Development Design Guide 18 (DDG18) – Caerphilly Basin Strategic Highway Obligation (adopted April 2006). The justification for the production of DDG18 was provided at the Inquiry into the UDP, whereby the Inspector concluded that more housing land should be provided in the Caerphilly Basin than the Council had initially allocated in its Deposit plan. In making this recommendation, the Inspector acknowledged the additional pressures and potential impacts the extra housing would place on existing infrastructure, stating ‘I consider the Plan is too inflexible … I recognise there is evidence of the need to improve certain infrastructure and
other local facilities before any significant development can take place … nor has the Council given sufficient recognition to the extent of the contribution which new development could make to infrastructure and other facilities earlier than might otherwise be possible during the lifetime of this plan’. In making this statement the Inspector clearly identified the link between the provision of more housing and the need to fund highway improvements. This provided the initial justification for seeking a contribution from developers towards a series of critical highway improvements on the strategic network and the development of DDG18.

3.2 The strategic network in the Caerphilly Basin is basically defined as the northern bypass and its junctions with the major routes into and out of Caerphilly town. This network currently operates at capacity during the peak period. Excess traffic queues on the roads approaching the network, notably the Lower Rhymney Valley Relief Road in the morning and roads from Caerphilly town and Nantgarw Hill in the evening. Throughout the LDP period the congestion on these routes will worsen and will spread into the inter-peak period.

3.3 Future housing development that takes place in the Caerphilly Basin area will put further pressure on the existing highway network and exacerbate existing problems of congestion. These developments will undoubtedly take the strategic highway network well beyond the existing level of congestion and result in significant adverse impacts upon the highway system in the Caerphilly Basin area. Increasing congestion levels would eventually lead to long delays being experienced throughout the day, which would have significant implications for businesses and for residents of the Caerphilly area.

3.4 It is imperative that the strategic highway network be improved to accommodate the additional problems created by the new development. As such, this SPG updates DDG18 to ensure that further housing development that takes place throughout the LDP period contributes to the necessary infrastructure improvements in the Caerphilly Basin area.

4. TYPE OF DEVELOPMENT SUBJECT TO THE OBLIGATION

4.1 The requirements of this obligation apply only to housing developments within the Caerphilly Basin area. Other types of development, such as employment and retail developments, will not be subject to the obligation. The reasons for this are linked to the LDP economic development aspirations for the county borough. Caerphilly county borough experiences high levels of out-commuting, with Cardiff and Newport being the main destinations. The employment and retail allocations identified in the LDP aim to improve employment opportunities within the county borough, reduce levels of out-commuting and reinforce the role and function of town centres. Applying the obligation to employment and retail development would be counterproductive to these aims by potentially undermining the viability of future employment and retail development, which would conflict with economic development goals of the LDP.
4.2 Therefore the obligation will apply to all proposed housing developments in the Caerphilly Basin area (including housing that is an element of a mixed-use development). This includes:

- All housing candidate sites in the LDP (with the exception of those sites that already have planning permission or have a contribution to strategic highway improvements committed through the previous DDG18).
- All other housing development in the Caerphilly Basin area, i.e. any windfall site development over and above the candidate sites identified in the LDP.

4.3 The obligation will apply to all housing developments, irrespective of the size of the development. The SPG is based on the cumulative impact of housing development on the Caerphilly Basin strategic highway network. Consequently, all housing development that takes place, regardless of the size of the development, will increase pressure on the existing highway network and will require investment to ensure the existing network can support the traffic generated by the proposed development.

5. CRITERIA FOR CONTRIBUTIONS

5.1 The Council will levy a financial contribution towards the cost of improvements to the strategic highway network from developers proposing housing developments in the Caerphilly Basin area.

Contribution Formula

5.2 The levy that the developer will be expected to contribute to strategic highways improvements will be calculated by multiplying the following factors:

(a) The number of dwelling units in the development;

(b) The current level of the Caerphilly Basin Strategic Highway Network Obligation.

5.3 The method of calculating the current level of the Caerphilly Basin Strategic Highway Network Obligation is set out in Appendix E.

Outline Planning Applications

5.4 Where an outline planning application is submitted that does not identify the proposed mix or total number of units then as a starting point for negotiation the presumption will be that the development would be all for 2+ bed houses, and that development will be at a gross density of 35 dwellings per hectare (or pro rata).

Highway Improvements Funded by the Contributions

5.5 A general requirement for obligations is that they are dedicated to specific items and not a contribution towards a general pot. Appendix D provides details of the schemes to be funded by the obligation and the cost of the improvements. The order in which the schemes outlined in Appendix D are to
be progressed will be identified through further feasibility work. This will involve a more detailed assessment of issues such as deliverability and best value. As such, the costs of the identified schemes may change as further feasibility work is undertaken.

6. REVIEW OF THE PLANNING OBLIGATION

6.1 The level of the planning obligation is calculated as a best estimate given the facts known at the current time (see Appendices). The individual elements that make up the calculation may change over time, particularly the cost of necessary transport improvements. As such, the level of the planning obligation will be subject to an annual review and may be changed if appropriate.

7. THE COUNCIL’S OBLIGATIONS

7.1 When negotiating with the Council, the developer can expect Agreements to address the following:

- The projects to which their contributions will be put.
- The timing/phasing of the agreed contributions.
- When contributions will be spent. This will normally be within 7 years of receipt. This deadline will commence at the date the contribution is received by the council (not the date of the legal agreement). If, within this period, an identified scheme for the contributions has not, at the very least, commenced on site with a completion date known, then the unspent contributions will be returned to the developer.
- The procedure by which contributions will be repaid to the developer if not spent by the Council in accordance with the Agreement.
Appendix A – Caerphilly Basin Strategic Highway Network Obligation area
Appendix B – Highway justification for the obligation

Justification for the use of the obligation
The justification for the Caerphilly Basin Strategic Highway Network Obligation was outlined and accepted through the previous DDG18 (adopted April 2006). This updated SPG makes provision for a change in the level of the obligation taking into account potential new developments identified in the LDP. However the same overall justification for the use of the obligation, as outlined in detail in the previous DDG18, continues to be applicable. As such the detailed justification for the obligation has previously been accepted and has not been revisited in this current SPG.

This SPG is entirely consistent with current transport policy as defined by the Welsh Assembly Government and is in line with TAN18 (paragraph 9.20), which states that:

Planning authorities may use planning obligations to secure improvements in roads, walking, cycling and public transport, whether as a result of a proposal on its own or cumulatively with other proposals and where such improvements would be likely to influence travel patterns, either on their own or as part of a package of measures. Development plans or SPG should identify the likely nature and scope of transport contributions that would be expected as part of the development of key sites in the plan, linked to the transport priorities of the area and referring to the RTP where appropriate. Pooled contributions towards infrastructure capacity issues may be appropriate when a number of individual developments create a combined need or an unacceptable cumulative impact. Such requirements should be set out in advance through the development plan.’

In addition, the previous DDG18 outlined additional links to national transport policy and the Traffic Management Act 2004, which continue to be applicable to the current SPG.

Justification for the level of contribution
Capita Symonds has carried out a traffic modelling exercise to quantify the economic impact of the housing development proposed by the LDP. A traffic model update report has been produced, which describes the work needed to update the Caerphilly traffic model first produced in 1997 and subsequently updated in 2004 for the original Caerphilly Basin Strategic Highway Planning Obligation work.

The model has been updated to 2007 for the purposes of this current SPG and has incorporated recent traffic count data, including a 2007 vehicle registration survey. The area covered by the 1997 model and the structure of the model zoning system was considered sufficient to model the LDP development sites. Alterations to the modelled highway network were made during the update where necessary. The model operates for the pm peak hour and a typical interpeak hour. Capita Symonds’ report includes model validation statistics that show the model provides a satisfactory basis for estimating the economic traffic cost of additional LDP housing development.

The 2007 model was used to mirror a do-minimum situation, whereby it was assumed that LDP housing sites that already have planning permission are developed. The economic model compared this situation with a do-something
situation whereby all additional LDP housing sites are also developed. The additional housing sites are listed in Appendix C. The study concentrates only on the impact of this additional development and uses an economic approach to quantify the cost of congestion caused by the traffic generated by additional housing developments expected to take place during the LDP period. The economic analysis is based on a 60-year appraisal period and quantifies the cost of congestion, or economic disbenefit, caused by the proposed developments to existing users of the network. The economic disbenefit was calculated from the travel time and distance differences between the do-minimum and do-something models. The economic disbenefit of the development sites is quantified at £220,149,240 in 2008 prices over a 60-year period.

The study then looked at how the development sites can contribute towards relieving the economic disbenefit caused by the housing development in the Caerphilly Basin. The results of the traffic model were used to identify areas of congestion caused by the development sites, based upon changes in average junction delay. Areas with increased congestion included:

- Pwllypant Roundabout
- Bedwas Roundabout
- Tafwys Walk
- Trecenydd Roundabout
- Piccadilly Gyratory

Highway improvement schemes were developed and costed to target the congestion areas identified. Each improvement scheme was input to the traffic model to assess the impact of the scheme on relieving the economic disbenefit caused by the development sites. An incremental process of scheme assessment was used to identify the most cost effective combination of schemes to relieve the majority of the economic disbenefit caused by the development sites. The list of highway improvement schemes that are necessary to negate the economic disbenefit is included in Appendix D.

The total cost of the identified highway improvement schemes provides the basis for quantifying the level of the contribution needed from developers. An estimate of the total level of housing development that will take place during the LDP period (see Appendix C) enables the level of the contribution per dwelling to be calculated in order to fund the necessary highway improvements. The method of calculating the level of the contribution is included in Appendix E.
Appendix C – Housing capacity in the Caerphilly Basin

The obligation will apply to all housing development that takes place in the Caerphilly Basin. The largest of these housing developments will be the LDP candidate sites. The table below shows the capacity of the LDP candidate sites that are subject to the Caerphilly Basin Strategic Highway Network Obligation.

<table>
<thead>
<tr>
<th>Candidate Site</th>
<th>Dwelling Units</th>
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<tbody>
<tr>
<td>Cardiff Road/ Pentrebane St</td>
<td>127</td>
</tr>
<tr>
<td>Waterloo Works</td>
<td>545</td>
</tr>
<tr>
<td>Land bet. Van Road/ Maes Glas, and the Railway (Phase 2)</td>
<td>31</td>
</tr>
<tr>
<td>Gas Works Site, Mill Road</td>
<td>44</td>
</tr>
<tr>
<td>Land at Pontypandy Industrial Estate</td>
<td>199</td>
</tr>
<tr>
<td>Land at Pontypandy Industrial Estate</td>
<td>130</td>
</tr>
<tr>
<td>Bedwas Colliery</td>
<td>413</td>
</tr>
<tr>
<td>Land adj to Watford Rd, Watford Park</td>
<td>126</td>
</tr>
<tr>
<td>St Ilans Comprehensive</td>
<td>200</td>
</tr>
<tr>
<td>Cwm Ifor Primary School</td>
<td>46</td>
</tr>
<tr>
<td>St James Primary School</td>
<td>49</td>
</tr>
<tr>
<td>Hendre Infants School</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>1926</td>
</tr>
</tbody>
</table>

Finally, an estimate should be made of other, as yet unidentified, ‘windfall’ housing sites within settlement limits that may come forward for development. An allowance of 280 dwellings is made for this possibility.

The total number of dwellings that are subject to the obligation in the Caerphilly Basin is estimated at:

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<tbody>
<tr>
<td>LDP Candidate Sites</td>
<td>1926</td>
</tr>
<tr>
<td>Windfall sites</td>
<td>280</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2206</td>
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</tbody>
</table>
Appendix D – Strategic highway network improvement schemes

The traffic modelling work has shown that in order to relieve the cost of the majority of the disbenefits caused by the development sites listed in Appendix C, all the schemes in the table below would need to be implemented. The estimated total cost of the improvements needed is shown below.

**Preliminary scheme costs**

<table>
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<tr>
<th>Scheme Description</th>
<th>Cost (£)</th>
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<tbody>
<tr>
<td>A468/A469 Pwllypant Roundabout (Network efficiency junction improvement)</td>
<td>1,815,000</td>
</tr>
<tr>
<td>A468/A469 Trecenydd Roundabout (Network efficiency junction improvement)</td>
<td>420,000</td>
</tr>
<tr>
<td>Tafwys Walk Junction Improvement</td>
<td>540,000</td>
</tr>
<tr>
<td>Piccadilly Gyratory Improvements</td>
<td>285,000</td>
</tr>
<tr>
<td>A468 Bedwas Bridge Roundabout (Network efficiency junction improvement)</td>
<td>7,245,000</td>
</tr>
<tr>
<td>A468 Pwllypant to Bedwas Bridge (Network efficiency improvements)</td>
<td>7,400,000</td>
</tr>
<tr>
<td><strong>Total (£)</strong></td>
<td><strong>17,705,000</strong></td>
</tr>
</tbody>
</table>

**Description of the improvement schemes**

The majority of the schemes identified are junction improvements that are required to maintain network efficiency. As with all highways congestion occurs at junctions, where the flow of traffic is interrupted and capacity is most at a premium. Consequently, while the road carriageways have a design capacity, it is usually the capacity of the junctions that influences the incidence of congestion. This is true of the Caerphilly northern bypass and Caerphilly town centre. A description of each of the necessary junction improvement schemes is as follows.

**A468/A469 Pwllypant Roundabout – Network efficiency junction improvement**

Pwllypant Roundabout is a key junction on the Caerphilly northern bypass. Improvements to this key six-arm junction are required to provide additional capacity at the junction in order to improve efficiency of the network and reduce congestion. The scheme will involve increasing the approach widths to the roundabout, reshaping the central island and signalising several arms of the roundabout.

**A468/A469 Trecenydd Roundabout - Network efficiency junction improvement**

Improvements to Trecenydd Roundabout on the Caerphilly northern bypass will involve redesigning the roundabout to a required standard in order to reduce congestion at the junction and improve network efficiency.
Tafwys Walk - Junction improvement
This scheme involves the provision of a signalised junction at Tafwys Walk/ Nantgarw Road, which will be important in managing traffic in the vicinity of the Piccadilly Gyratory.

Piccadilly Gyratory – Network efficiency junction improvement
Piccadilly Gyratory is a key junction in managing and distributing traffic travelling within and through Caerphilly town centre. The scheme will upgrade and improve the existing traffic signals, improving network efficiency and providing additional capacity at the junction.

A468 Bedwas Bridge Roundabout – Network efficiency junction improvement
Bedwas Bridge Roundabout is a key junction on the northern route around Caerphilly town centre. A major constraint in improving the operation of the roundabout is Bedwas Bridge and therefore network efficiency improvements will require the provision of a second river crossing.

A468 Pwllypant to Bedwas Bridge – Network efficiency improvement
This is the only carriageway improvement identified. The section of the A468 between Pwllypant and Bedwas Bridge is important in managing traffic and congestion in Caerphilly town centre as it completes the northern route around the town. Further development in Caerphilly Basin will put increased pressure on the route and network efficiency improvements will be required to maintain its attraction as a route for through traffic.
Appendix E – Calculation of the contribution

There are two main elements involved in calculating the appropriate level of the obligation in terms of cost per dwelling. These are:

A – The number of dwellings that are expected to be constructed on sites within settlement limits in the Caerphilly Basin.

B – A costed schedule of strategic highway improvements that are necessary to accommodate the traffic generated by these sites so that congestion is no worse than it would be without the extra development.

The appropriate level of the contribution can then be calculated as B divided by A.

A – Housing capacity for LDP period (as detailed in Appendix C):

2206 units

B – Estimated cost of strategic highway improvements (as detailed in Appendix D):

£17,705,000

Level of contribution (B divided by A) = £8,026 per dwelling

Therefore the current level for the Caerphilly Basin Strategic Highway Obligation is £8,026 per dwelling.