



Environment & Transport Select Committee  
10<sup>th</sup> November

## Surrey Highways – Design Services Review Part A

### **Purpose of the report:** Scrutiny of Services

This report provides an overview of how Surrey Highways currently delivers new road designs, existing performance constraints and a recommended Improvement Action plan

### **Surrey Highways – Overview of Design Function**

1. The Highways Design Team is responsible for delivering an annual programme composed of three specific activities:
  - (1) Local Transport Schemes**
2. Outside of major maintenance to the Surrey highway network, Surrey County Council allocates £2m per annum to local transport improvements. At the start of the financial year, funds are allocated on pro rata basis to Local Committees, who determine, based on needs assessment, what schemes should be progressed for their local area.
3. Local Schemes can be supported through additional 3<sup>rd</sup> party funding, for example, Drive SMART campaign.
4. Local transport schemes are primarily responsible for positively impacting road safety; reducing congestion or improving sustainable transport options. Schemes are categorised into nine categories:

	Scheme Type	Estimated total design hours per scheme
1	Anti-skid	7 Hours
2	Minor Signage	7 hours

3	Casualty Reduction	30 hours
4	Traffic Management	30 hours
5	Cycleway Schemes	50 hours
6	Speed Reduction	50 hours
7	Junction Improvements / Road width amendments	50 hours
8	Bus Corridors	150 hours
9	Pedestrian Crossing	150 hours

## (2) 3<sup>rd</sup> Party Funded Schemes

5. As part of the approval of new planning developments, the Planning Authority may determine that private developers should fund new transport schemes to mitigate impact of the new development. Following funding approval, the design team is responsible for delivering final road design. In 2011/12 the Section 106/278 programme represents £3m in value.

## (3) Strategic Transport Schemes

6. The Design Team will lead on strategic projects to support the Council's strategic direction. In 2011/12 the following projects were prioritised:
- **Hindhead Tunnel** – supporting the Highways Agency to return surrounding area to natural and rural community use.
  - **Olympics** – redesigning roads signage and markings to accommodate cycle race and working with Olympic Delivery Authority to temporary re-design highway to enable Olympic delegates based in Surrey to reach Olympic Park.
  - **Guildford Roundabout** – working with Surrey University to re-design Guildford network hub with £4m funding.
  - **Section 106 Review** – Rapid Improvement Event identified large number of failures in planning process, dedicated design resource to support process re-engineering project.
7. The design of each highway schemes is segmented into eight distinct activities:
- I. **Site Visit**  
Following brief from Local Maintenance Engineer, Design Engineer attends site to take photographs, take measurements and determine initial site constraints.
  - II. **Outline Design**  
Using on-site measurements, a design is developed using computer aided design (CAD) enabled software; the previous history of the site is investigated and underground surveys

confirm presence of utility pipes etc. A final Outline Design is produced for consultation

**III. Statutory Consultation**

Any changes to the road speed or design, which will have significant impact on the local environment are subject to statutory planning regulations. The Design team is required to publish "Notice of Proposals" in local press giving information on changes and to consult specific persons and organisations such as Emergency Services. Statutory Consultation must last a minimum of 28 days but can be extended to 90 days. Statutory Consultation results may also require Local Committee Approval before progressing.

**IV. Community Consultation**

In addition to Statutory Consultation, the Design Team will hold public exhibits in libraries and will meet key interested local stakeholders to ensure all views are incorporated into final design.

**V. Detailed Design**

Following the conclusion of the consultation period, any amendments will be incorporated into final design. Design will be reviewed with designers from Surrey County Council's Highways Contractor (May Gurney) to identify any value engineering solutions and final CAD Design is agreed.

**VI. Final Price & Programming**

A price will be agreed with May Gurney and programme date agreed. This must include agreement of any road diversions created by work, consultation with utility companies to prevent clashes and the issue of formal Temporary Traffic Orders to enable work.

**VII. Construction**

The scheme will then be constructed by May Gurney with any required design changes caused by onsite circumstances approved in advance with the Design Engineer.

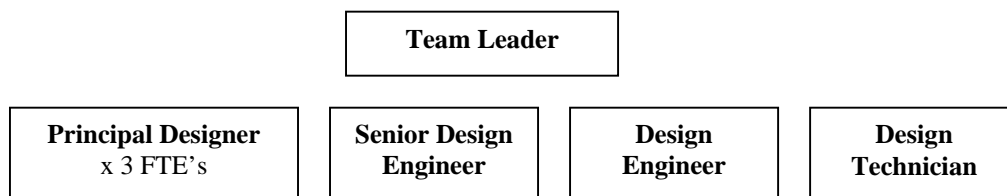
**VIII. Quality Control**

Following scheme construction, the Design Engineer will inspect the site to ensure the scheme meets the original design and to approve the final payment. A report to the Local Committee is produced providing summary of scheme outcome.

8. The 2011/12 Design & Construct Programme equates to 96 schemes:

	<b>Local Transport Schemes</b>	<b>Section 106</b>	<b>Speed Reduction</b>	<b>Total</b>
Elmbridge	6	0	2	<b>8</b>
Epsom	4	2	0	<b>6</b>
Guildford	4	0	5	<b>9</b>
Mole Valley	5	0	5	<b>10</b>
R&B	6	0	0	<b>6</b>
Runnymede	9	2	3	<b>14</b>
Spelthorne	4	0	0	<b>4</b>
Surrey Heath	7	1	1	<b>9</b>
Tandridge	11	0	3	<b>14</b>
Waverley	4	5	0	<b>9</b>
Woking	5	<u>1</u>	<u>1</u>	<b>7</b>
<b>Total</b>	<b>65</b>	<b>11</b>	<b>20</b>	<b>96</b>

9. The Design Team is composed of 7 Full Time Employees (FTEs), delivered via structure below:



10. In planning the 11/12 Programme the delivery milestones below were agreed with Design Team Manager in August:

31 <sup>st</sup> Oct	30% of programme designed and constructed <i>(Milestone achieved)</i>
31 <sup>st</sup> Dec	50% of programme designed and constructed
28 <sup>th</sup> Feb	80% of programme designed and constructed
31 <sup>st</sup> Mar	100% of programme designed and constructed

<b>Highway Design Service – Internal Management Review</b>
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11. Following the implementation of the new Surrey Highways re-structure in 2010, an internal Management Review was undertaken by the Projects & Contracts Group Manager, with the two key objectives;
- To confirm if internal resources were sufficient to meets needs of Surrey Highways Design Programme.
  - To determine if Surrey Highways was meeting UK best practice in delivering highway design.

### **Time Management Study**

12. The review undertook a time management study to match the needs of the programme to the existing resource. This concluded 7 FTE's was capable in delivering 80-100 schemes per annum and was aligned to 2011/12 programme requirements.
13. However, long-term sickness was having an overall negative impact on performance. To resolve short-term resource issues, an external consultant was appointed to support 2011/12 programme delivery.

### **Best Practice**

14. An external review advised that best practice highway design agencies work to the objective of
- |            |                              |
|------------|------------------------------|
| ⇒ Year One | Scheme Design & Consultation |
| ⇒ Year Two | Scheme Construction          |

This creates a “pipeline” of work, where members and stakeholders have clear understanding of what will be delivered in their area 12 months prior to implementation.

In April each year, the Committee is informed of all schemes to be constructed (with dates) for that year, and a 12 month consultation timetable is concurrently produced allowing committee members to engage on schemes to be constructed in the following year.

15. This “pipeline” enables effective time for schemes to be fully assessed by key stakeholders, allowing joint value engineering to improve design cost and construction methodology.
16. A best practice design service should also contribute to the strategic outcomes of the local community, for example, working with Guildford Borough Council to implement designs which reflect wider political and community aspirations, rather than developing schemes in isolation.
17. In particular, the design function should work with the local community to improve the overall quality of the Street Scene in key urban town centres, ensuring road design and street furniture work in tandem to

improve appearance and accessibility to primary retail zones and local amenities.

18. A best practice design function will be part of the wider committee, which encourages proactive stakeholder engagement with members and residents.

## **Conclusion**

19. The Review concluded that although the Design Function was able to sufficiently meet design programme milestones it did not have the resource or skills capacity to provide added strategic value and therefore meet UK best practice or expectations of local committees. In particular five key issues were identified:

- Design function lacked resource capacity to effectively support local economy and wider community aspirations, with all energies spent on individual scheme construction;
- Design processes were not transparent or fully efficient
- Service was remote from Local Committee Members. There was poor transparency in the scheme programme and ineffective engagement with County Council Members to ensure schemes met original objectives.
- There was a lack of individual performance management & training plan, with the team measured as a collective rather than how individual designers contributed to overall delivery.
- Schemes were compressed into 9-month design and construction window, forcing construction to be delivered in Jan-Mar and thus increasing delivery risk due to inclement weather.

20. A 24 month Action Plan was therefore approved to support the transition from a tactical reactive design service to a Strategic Design Authority supporting the needs and requirements of the community, implementing designs which are fully tested for cost and quality.

### **Design Team – Improvement Action Plan**

21. The Improvement Action Plan focussed on delivering improvement in five key areas:

#### **1. Resource & Skills Management**

22. As proposals are still subject to formal consultation with trade unions and staff as part of the Environment and Infrastructure Phase 2 Restructure, proposed resource plans are included in a confidential annex to this report which is not for publication.

## **2. Process & System Engineering**

23. The software systems used to support Detailed Design were found to be dated and requiring upgrading. For example, the systems are not web enabled with the consequence that designs could only be viewed on-site in hardcopy. Engineers are therefore required to travel back to office, spending large amounts of unproductive time to make any required design changes.
24. The new contract encourages Early Contractor Involvement through co-location and a mandatory step that May Gurney must approve all final designs before construction. However, the review identified that both parties were not working to effective timescales, with neither party having more than 48 hours to consider each other's comments, thus inhibiting any potential for effective debate to remove cost or waste from schemes.
25. The review identified that designers were not using standard documentation or terminology creating unnecessary work and confusion.
26. A formal project will therefore commence in April 2012 to create an end-to-end process with clear timescales and documentation. The project team will also develop a business case to upgrade design software. The recommendations will be implemented in September 2012.

## **3. Stakeholder Consultation & Engagement**

27. The review identified weaknesses in the management of the Informal Consultation process. Engagement was identified to be reactive and based upon email requests for updates rather than proactive engagement. There was no effective stakeholder map of interested parties resulting in large numbers of groups and individuals not feeling informed or consulted on key aspects of highway design.
28. Lack of resources was identified as a contributing factor, however, it is also recommended that from 1<sup>st</sup> April 2012, a Stakeholder Engagement Plan be agreed for all schemes, identifying all interested parties and how they will be consulted throughout the process.
29. A monthly Design Programme Status Report will also be published enabling Local Committee Members and senior officers to have full understanding of scheme status and any blockages affecting delivery.

## **4. Performance Management & Targets**

30. Schemes are currently measured by the total time it takes from project conception (Local Committee approval) to construction, and this is normally measured in total design hours per scheme.
31. There are no specific performance targets for individual designers, only a requirement that the department as a whole meet its obligations of constructing the annual design programme. This approach prevents

individual designers being effectively managed and does not allow senior management to identify “bottlenecks” in the design process.

32. It is therefore recommended that a Performance Target Regime be instigated for each step of the design process (see clause 7 above). Each Designer will be tasked with not only constructing the scheme on time, but ensuring that each part of the design process conforms with the agreed targets.
33. The department would then be set efficiency targets to reduce each step of the design process, encouraging a culture of performance management and continuous improvement.
34. The new Performance Management Regime will be implemented in September 2012, and following initial trials, be formally included in all design staff Personal Development Targets from 2013/14.

## **5. Create Local Strategic Plans**

35. One of the key barriers preventing the delivery of a strategic highway design function is the lack of forward strategic planning. With schemes only identified once funding is made available each April, thus preventing any effective design or consultation time.
36. It is therefore proposed to transition from an annual Scheme List to a Strategic Plan for each Local Committee. The Local Strategic Plan would mirror the 4-year lifecycle of the County Council. Following election councillors would approve any amendments to the Strategic Plan, with officers then responsible for delivery of the plan, with design and construction reflecting the “pipeline” of the best practice highway authorities.
37. The challenges (financial, political, resources) in developing the above proposal are not under estimated and it is thus not anticipated to be in place until election of the new County Council in 2013 at the earliest. Further review may also confirm unfeasibility of the proposal.

<b>Conclusions:</b>
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38. The Management Review has confirmed that the existing Design Team function can meet agreed design and construction milestones to deliver local committee requirements.
39. However, the review confirms design output is too focused on meeting operational targets, with lack of resources, processes and forward planning preventing a strategic delivery of schemes.
40. This lack of a strategic approach prevents value engineering opportunities from being fully exploited; prevents effective engagement with stakeholders and ultimately prevents a strategic vision to be created for highways in local communities.



41. A Performance Action Plan has therefore been approved to support the transition of the Surrey Highways Design function from an Operational function to Strategic Delivery unit.

**Financial and value for money implications**

42. The Action Plan will improve value for money in scheme delivery by encouraging value engineering and consultation in scheme delivery, preventing unnecessary construction costs.
43. Increased cost of staff resources will be met through efficiencies in other areas of the Environment & Infrastructure budget.
44. Costs will also be minimised by ensuring that designs costs incurred as a result of agreeing 3<sup>rd</sup> party developments, are fully recovered as part of original planning agreements.

**Equalities Implications**

45. There are no impacts on equality and diversity.

**Risk Management Implications**

46. A Risk Management Register and Review process has been instigated to ensure there are no adverse impacts on scheme delivery during the implementation of the Performance Improvement Action Plan

**Implications for the Council's Priorities or Community Strategy**

47. Improved strategic delivery of schemes will support the County Council's commitment to working with local partners and communities, improving stakeholder engagement and ownership of highway delivery.

<b>Recommendations:</b>
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48. The Select Committee is asked to support the Management Review recommendations in relation to new organisational structure; Stakeholder Engagement; Process Engineering and new culture of performance management to improve overall strategic delivery of the highways design function.
49. The Select Committee is asked to support in principle the need to move to longer term planning of local transport schemes and to work with officers to explore options in how the commissioning of local schemes could be improved.

**Next steps:**

1. Projects & Contracts Group Manager provide Project Report in May 2012, confirming progress to date in achieving transition to Strategic Design Authority.

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