

REPORT TO: CITY DEVELOPMENT DEPARTMENT – 27 SEPTEMBER 2010

REPORT ON: ROAD MAINTENANCE PARTNERSHIP PERFORMANCE FOR 2009/10

REPORT BY: DIRECTOR OF CITY DEVELOPMENT

REPORT NO: 329-2010

1 PURPOSE OF REPORT

- 1.1 This report provides an update on progress and performance of the Road Maintenance Partnership between Dundee City Council and Tayside Contracts on the delivery of Road Maintenance and Minor Works Services to 31 March 2010.

2 RECOMMENDATION

- 2.1 It is recommended that the Committee notes the content of this report and agree that the Director of City Development be remitted to report back annually to the Committee with the ongoing progress and performance of the Partnership.

3 FINANCIAL IMPLICATIONS

- 3.1 There are no direct financial implications arising from this report.

4 BACKGROUND

- 4.1 Reference is made to Article VI of the Planning and Transport Committee of 9 March 2009 when approval was given to establish a formal Partnership with Tayside Contracts for a 3 year period to 31 March 2012.
- 4.2 An Executive group comprising two senior officers from each Council and Tayside Contracts meet on a quarterly basis to review performance of the Partnership against a number of agreed criteria. The following provides a summary of performance against agreed criteria and the Department's Service Plan 2007-2011.
- 4.3 The approved Service Plan 2007-2011 details three overarching service objectives which are listed below. Priorities identified by the Executive Board and the Road Maintenance Partnership (RMP) Manager to assist in meeting these objectives have been developed through various working groups within the partnership and progress in each of these areas is noted as follows:

'Improve the overall management and maintenance of the road asset'.

Service Integration: Review duplication of processes, look at current processes and map what happens to establish better systems:

A Public Sector Improvement Framework (PSIF) review of the Partnership was carried out in 2009/10 as part of the Dundee City Council Pathway to Improvement process. The review was reported to the Improvement and Efficiency Board in April 2010. The overall score achieved by the Roads Maintenance Partnership was 321 which indicates that it is an improving service with some best practice evident. This has now enabled the service to set a baseline in the Public Sector Improvement Framework on which it can set targets to improve further.

A process of Lean Service Reviews is currently underway within the Partnership in particular looking at the resourcing, programming and quality elements of projects. The aim is to effect change based on facts rather than assumptions within a reduced period of time compared to natural progressive change. This process should reduce waste, eliminate remedial works, which in turn improves efficiency and reduces costs.

Service Improvement: Identification of areas of potential improvement and implement as appropriate.

Gully cleaning operations: The use of GPS on gully emptying vehicles has been introduced to help monitor the service, obtain a clear record of how many and where the gullies are and to develop an improved emptying regime based on need rather than frequency. Information gathered from the GPS is being used in the development of the asset management plan and system.

Grit bins: The trial to leave the grit bins out all year has saved an estimated £60k per annum and there have been very few complaints received over the past 12 months. As such it is proposed to implement this change permanently.

In order to assist with enquiries and as part of the asset management process, all grit bins within Dundee have been entered on to the corporate GIS system. This information is available for members of the public and elected members to readily locate grit bins within their area. Over the coming 2 years this system will be reviewed and developed to meet customer needs.

Quality: Ensure all works are carried out to an agreed level of quality, with measures put in place to collate and analyse information.

An overall focus on quality has been identified as a critical area for development over the agreed 3 year period of the partnership, this with a view to providing a right first time high quality service. No statistics have been produced yet from the quality check sheets developed through the recent Business Improvement Techniques (BIT) group. It is the intention to continue gathering this information for structural works and also expand out to cyclic works. Once sufficient information has been gathered this will be analysed to establish trends and measures will be put in place to rectify any issues where necessary.

Pothole Repairs: These continue to be an important focus for the Partnership both in terms the quality of the repair and the speed of the repair depending on its category and location.

In 2009/10, there was a 75% increase in the number of potholes repaired compared to 2008/09. In 2008/09, 8,291 potholes were filled compared to 14,552 in 2009/10 (this includes find and fix rhino). This can be largely attributed to the severe winter experienced in 2009/10 and the adverse affect this has on the road condition, however, there is also improved performance by the Partnership.

Pothole KPIs

| Potholes | Cat 1 | Cat 2 | Cat 3 | Total Cat 1, 2 & 3 | Find & Fix Rhino | Total of All Potholes |
|----------|-------|-------|-------|--------------------|------------------|-----------------------|
| 2008/09 | 57 | 2081 | 4138 | 6276 | 2015 | 8291 |
| 2009/10 | 104 | 6719 | 6131 | 12954 | 1598 | 14552 |

Further information in relation to the pothole process is contained within Appendix 1.

Asset Management: Establish a computerised asset management system and the production of a Roads Asset Management Plan.

This has progressed well over the past year in line with the SCOTS Asset Management project and a first draft Roads Asset Management Plan and Life Cycle Plan has been developed in relation to the carriageway asset. The computerised asset management system is also under development and inspection processes are soon to be recorded electronically.

'Achieve Best Value in the procurement of road maintenance works'

Payment Mechanism: In April 2008, the partnership moved from contract rated work to an open book actual cost reimbursable arrangement. In 2009/10 all works including winter maintenance were managed through the cost plus arrangement, therefore sharing risk through all elements of the partnership. This approach to shared risk resulted in a direct saving on winter maintenance for 2009/10 of £200k.

Payment process: The payment processes between Dundee City Council and Tayside Contracts have been reviewed and adjusted accordingly. This has enabled the partnership to keep a better control of expenditure and management of budgets and ensures the cash flow to Tayside Contracts is maintained reducing any unnecessary overdraft payments. Over the period 2009/10 a positive cash flow was maintained for 10 of the 12 financial periods, although difficult to put in exact monetary terms this has been a very positive move forward.

Procurement: Tayside Contracts are actively working with Scotland Excel on the regional procurement of construction plant, materials, goods and services. Tayside Contracts procure through the Scotland Excel contracts as appropriate with the associated savings in time and cost.

Performance Indicators: The Partnership is working with other Council's through SCOTS (The Society of Chief Officers of Transportation in Scotland) to develop PIs that can be used to measure performance consistently across local authorities. The Partnership is also a Member of APSE (the Association of Public Sector Excellence).

'Minimise the adverse impact road maintenance has on the environment'

Recycled aggregates: These are used in all road and footway sub-base layers within works carried out by the Partnership. Recycled aggregates from bituminous planings are recycled back into bituminous mixes manufactured by Tayside Contracts.

Tayset: This cold mixed bituminous bound material using recycled materials was developed by Tayside Contracts and is being utilised by the Partnership in appropriate situations.

Baldovie Ash: Recycling of ash waste from the Baldovie Waste to Energy Plant in bituminous mixes will be introduced in August/September 2010 bringing savings in waste disposal costs. The amount of savings will be dependent upon the quantities of bituminous material laid.

Gully waste: A successful full scale site trial was completed involving composting waste products from the reed bed recycling system for gully waste. A business case is currently being developed to consider the construction of a purpose made facility within Dundee.

Performance - Key Performance Indicators

- 4.4 KPI's relating to the approved Service Plan 2007–2011 have been monitored and financial KPI's have been established for various structural maintenance works and minor works. Overall performance has generally been good. The KPIs are discussed in more detail in Appendix 1.
- 4.5 The Partnership is a member of the Scottish Construction Centre Highway Works Benchmarking Club and a member of APSE (the Association of Public Sector Excellence). As yet it has not been possible to compare against external markets, however through the development of KPIs the Society of Chief Officers Transport Scotland (SCOTS) it is the intention to benchmark through this process.

Future Areas to be Developed

- 4.6 A number of further areas of potential development have been identified and will be actively pursued:
- Continue the review of the current procedures for pothole repairs with a view to using alternative repair materials and expanding the use of the Rapid Rhino first time 'permanent' repair system and other proprietary methods.
 - Continue to work together to establish further KPI's and drive down the unit cost of repairs, reinvesting efficiency savings back into the road network.
 - Consider extending the Partnership to other Council areas as part of the shared services agenda.
 - Gain national recognition for the Partnership's levels of service and service approach to Road Maintenance provision.
 - Continue to establish a computerised asset management system and produce a comprehensive Roads Asset Management Plan.

5 CONCLUSION

- 5.1 The Partnership has continued to develop and has progressed well over the past year. Performance has been good and there are many positive developments and improvements either taking place or identified for review offering opportunities for continued efficiency savings.
- 5.2 The present Road Maintenance Partnership arrangement meets the Scottish Government's objective to increase partnership working in line with its Efficient Government agenda.

6 POLICY IMPLICATIONS

- 6.1 This Report has been screened for any policy implications in respect of Sustainability, Strategic Environmental Assessment, Anti-Poverty, Equality Impact Assessment and Risk Management. There are no major issues.

7 CONSULTATIONS

- 7.1 The Chief Executive, Depute Chief Executive (Support Services), Director of Finance, Assistant Chief Executive and the Managing Director of Tayside Contracts have been consulted and are in agreement with the contents of this report.

8 BACKGROUND PAPERS

- 8.1 None.

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6 September 2010

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PROGRESS AND PERFORMANCE REPORT

1 Priority Areas Developed to Date

1.1 **Pothole Repairs – Review current procedure for pothole repairs**

The table below details the number of potholes that have been repaired between April 2009 and March 2010, with the targeted response and actual response information, this is compared against the same period in 2008/09. This information ties in with the approved Departmental Service Plan 2007–2011 key objective of *“Improving the overall management and maintenance of the road asset”*.

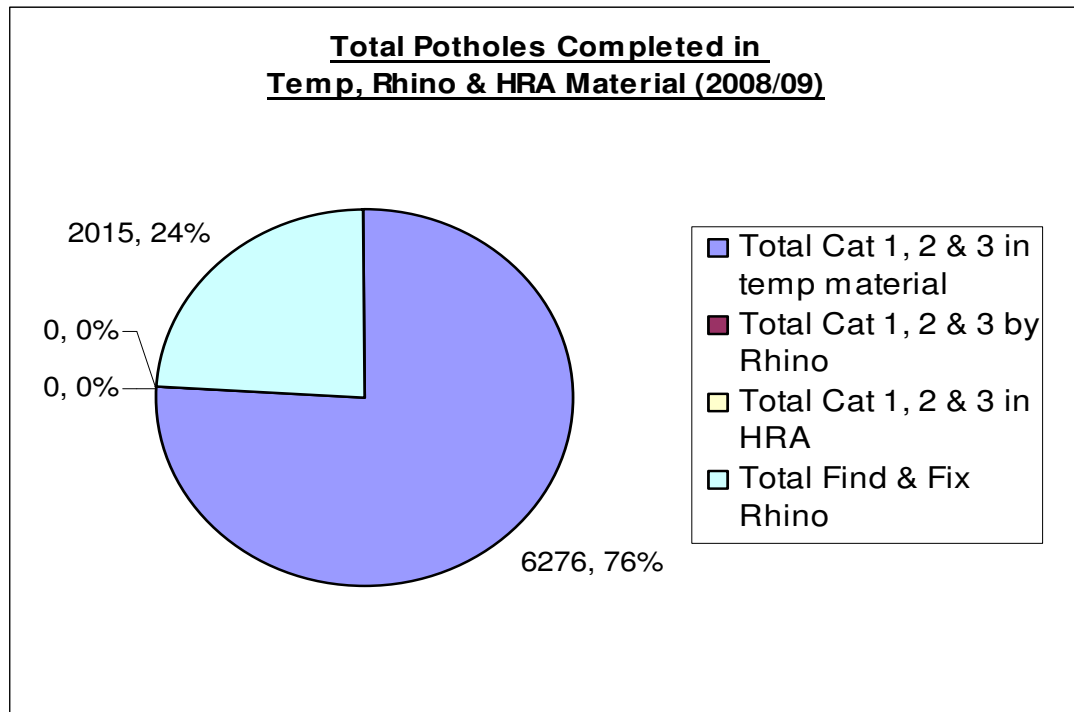
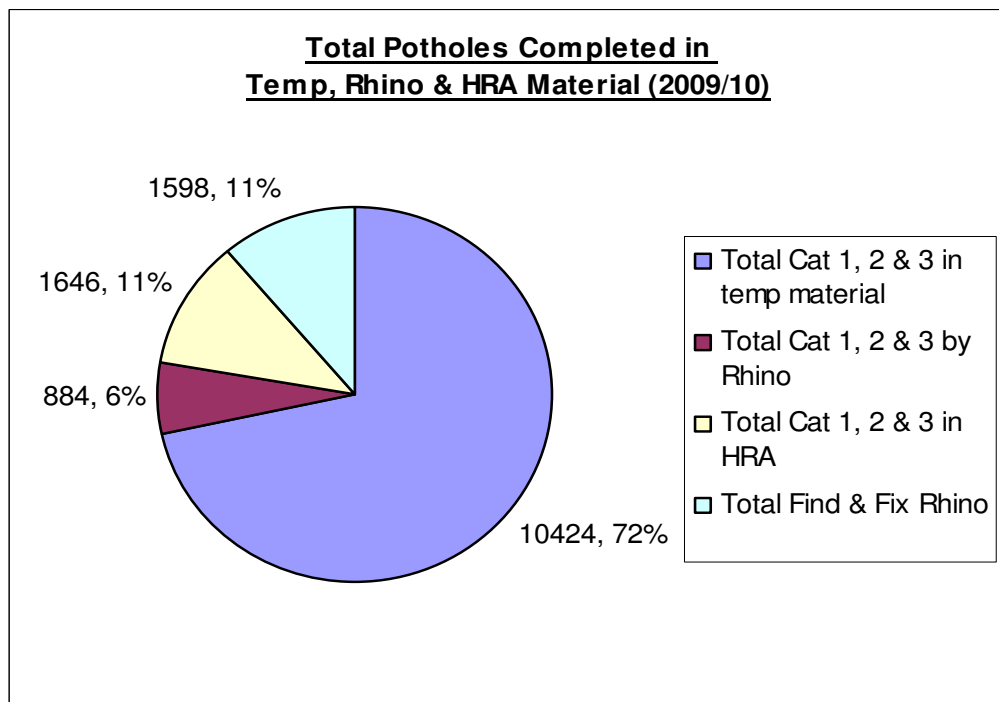
| 2008/09 | Target time taken to complete | Average time taken to repair | No. Repaired In Time | No Repaired Outwith Time | % Target Time | % Completed in Target Time | Total Completed |
|---------|-------------------------------|------------------------------|----------------------|--------------------------|---------------|----------------------------|-----------------|
| Cat 1 | 3 Hrs | N/A | 57 | 0 | 90.00% | 100% | 57 |
| Cat 2 | 3 Days | N/A | 1998 | 83 | 85.00% | 96% | 2081 |
| Cat 3 | 28 Days | N/A | 4055 | 83 | 80.00% | 98% | 4138 |
| | | Total | 6110 | 166 | 97% | N/A | 6276 |
| 2009/10 | Target time taken to complete | Average time taken to repair | No. Repaired In Time | No Repaired Outwith Time | % Target Time | % Completed in Target Time | Total Completed |
| Cat 1 | 3 Hrs | 0.36 Hrs | 104 | 0 | 90% | 100% | 104 |
| Cat 2 | 3 Days | 3.19 Days | 5446 | 1273 | 85% | 81% | 6719 |
| Cat 3 | 28 Days | 8.17 Days | 5927 | 204 | 80% | 97% | 6131 |
| | | Total | 11477 | 1477 | 89% | N/A | 12954 |

The number of potholes being repaired by the rhino process giving a permanent first time repair has increased on the previous year by 23%, although the percentage in relation to the number of potholes has not increased. The reason for this is down to the volume of potholes occurring following the recent bad weather and the physical amount of repairs the process can carry out in a day.

The process has been carried out on a find and fix basis working within specific areas and also to carry out first time permanent repairs on Cat 2 & 3 potholes. The reason for doing this is to maximise the productive working time of the apparatus.

Cat 1, 2 & 3 Combined use of Rhino process 2009/10

| Potholes | Total Cat 1, 2 & 3 in temp material | Total Cat 1, 2 & 3 by Rhino | Total Cat 1, 2 & 3 in HRA | Total Find & Fix Rhino | Total Potholes by Rhino | Total of All Potholes |
|----------|-------------------------------------|-----------------------------|---------------------------|------------------------|-------------------------|-----------------------|
| 2008/09 | 6276 | 0 | 0 | 2015 | 2015 | 8291 |
| 2009/10 | 10424 | 884 | 1646 | 1598 | 2482 | 14552 |

Summary of Rhino used on Cat 1, 2 & 3 potholes 2008/09Summary of Rhino used on Cat 1, 2 & 3 potholes 2009/10

Although it has not been possible to establish if the revised strategy of dealing with potholes has had a direct correlation in reducing public liability claims received, it is intended to monitor this closely with the Council's insurance team through team quarterly reviews.

The average cost of a find and fix repair has reduced slightly confirming there has been an increase in productivity throughout the year.

Summary of Rapidrhino Find & Fix, Unit Cost per/patch

| JOB TYPE | 2007 08 Actual for all Jobs | 2008 09 Actual RMP Jobs | 2008 09 Completed Find & Fix | 2009 10 Actual RMP Jobs | 2009 10 Completed Find & Fix |
|---------------------------|-----------------------------|-------------------------|------------------------------|-------------------------|------------------------------|
| MONTHLY RAPIDRHINO ORDERS | £50.89 | £36.11 | 2,015 | £35.44 | 1,598 |

Gully Cleaning Operations

Following a review of the year end cleaning figures, in 2009/10 there were approximately 24,600 gullies cleaned within the year, 9,400 less than in 2008/09 and a further 12,500 less than in 2007/08. The reason for the reduction in cleaning is down to a number of factors i.e. retiral of experienced personnel, reduction in operating hours to meet 48 hour working week regulations and also the severe winter when the gully machines were out less than the previous year due to gritting priority. However, this is not the only reasons for the reduction in performance. It has been identified that there has been a significant reduction in productive periods of work and action has been taken to ensure this is addressed.

The introduction of KPIs to monitor the performance of gully cleaning operations has assisted in highlighting this issue allowing corrective action to be taken.

Gully Information

| Gully Cleaning | Gullies Cleaned 2007/08 | Gullies Cleaned 2008/09 | Gullies Cleaned 2009/10 |
|----------------|-------------------------|-------------------------|-------------------------|
| Total for Year | 37,133 | 34,182 | 24,563 |
| Cost Per/Gully | £4.24 | £4.35 | £5.67 |

The use of GPS on gully emptying vehicles has been introduced to help monitor the service, obtain a clear record of how many and where the gullies are and develop an improved emptying regime based on need rather than frequency. Information gathered from the GPS will be used in the development of the asset management system and plan. The GPS is also being utilised to ensure the gully cleaning performance returns to that of previous years.

The review of the existing process is still ongoing with some areas completed and it is intended to revise the current policy to meet the actual cleaning requirements, with the resource available and still maintaining a quality service.

2 **Progress Against Departmental Service Plan Objectives**

Detailed below are further KPI's measured which tie in with the approved Departmental Service Plan 2007–2011.

2.1 **Achieve Best Value in the procurement of road maintenance works**

- Average base cost of a pothole repair
- Average base cost per metre square of carriageway resurfacing

| Average Cost | 2007/08 (Actual) | 2008/09 (Actual) | 2009/10 (Actual) |
|---|------------------|------------------|------------------|
| Pothole patch repair (temporary Cat 1, 2,& 3) | £26.27 | £21.14 | £14.28 |
| Pothole patch repair (Permanent - Rapidrhino) | £50.89 | £36.11 | £35.44 |
| Square metre of carriageway resurfacing | £17.49m2 | £16.84m2 | £15.71m2 |

Although there has been a reduction in costs in these areas, comparison with other authorities is required, to obtain a true measure. Work is continuing to establish KPI's associated with the Highway Works Benchmarking Club, along with those measured by the Association of Public Sector Excellence (APSE) and the Society of Chief Officers Transport Scotland (SCOTS). It is evident that work is required to ensure KPIs are developed with these bodies that can be measured and compared consistently across authorities.

The significant reduction in cost per pothole repair can be attributed to the quantity and the general close proximity of potholes to one another, which allows more to be carried out in a day for the same fixed resource.

2.2 **Minimise the adverse impact road maintenance has on the environment**

The use of recycled materials is well established on Dundee City Council road maintenance schemes and this has continued to be driven forward throughout the Partnership. No virgin aggregates are used in footway or carriageway sub base layers with recycled materials being used instead.

Recycled Material Information 2007/08 to 2009/10

| Use of Recycled Material | April 07 to March 08 (2007/08) | April 08 to March 09 (2008/09) | April 09 to March 10 (2009/10) |
|---------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Material returned for Recycling | 6,663T | 7,577T | 12,598T |
| Recycled Sub Base Used | 2,909T | 3,145T | 2,934.5T |

Tayset is being used in all footway works and selected carriageway schemes, with trials being carried out in 2010/11 within patching works.

The information detailed below illustrates the amount of Tayset used in 2009/10 in the footway and carriageways and the appropriate environmental and financial benefits.

The proposed quantities for 2009/10 were identified before a final budget for 2009/10 was established. Due to the nature and timings of some projects it was not possible to use Tayset on a numbers of sites and therefore explains the reduction.

Tayset used in Footways in 2009/10

| | Quantity of material used in T | Environmental Saving @ 25Kg CO2 Per/t | Financial Saving @ £7 Per/T |
|--------------------------------------|--------------------------------|---------------------------------------|-----------------------------|
| Proposed Tayset In Footway (2009/10) | 1,920T | 48,000Kg CO2 | £13,440.00 |
| Actual Tayset In Footway (2009/10) | 379T | 9,475Kg CO2 | £2,653.00 |

Tayset used in carriageways in 2009/10

| | Quantity of material used in T | Environmental Saving @ 25Kg CO2 Per/t | Financial Saving @ £7 Per/T |
|--|--------------------------------|---------------------------------------|-----------------------------|
| Proposed Tayset In Carriageway (2009/10) | 3,628T | 90,700Kg CO2 | £25,396.00 |
| Actual Tayset In Carriageway (2009/10) | 2,643T | 66,0750Kg CO2 | £18,501.00 |

3 Other Key Performance Indicators

| Summary of Roads Maintenance Partnership Average Cost of Repair/sqm for Structural Works (based on cost with no % add on of 20%) | | | | | |
|---|--|--|---|--|---|
| Information for 2009/10 - April 09 to March 10 | | | | | |
| JOB TYPE | 2007 08 Actual for all Jobs | 2008 09 Actual RMP Jobs | 2008 09 Actual Completed Areas | 2009 10 Actual RMP Jobs | 2009 10 Actual Completed Areas |
| REMOTE FOOTPATH WORKS | £29.17 | £34.64 | 4,537 | £15.95 | 7,457 |
| FOOTWAY SLURRY SEAL | N/A | N/A | 0 | £6.46 | 4,036 |
| FOOTWAY WORKS | £29.12 | £35.99 | 19,574 | £37.45 | 16,492 |
| Total Footway Treatment m2 | | | 24,111 | | 27,985 |
| RECONSTRUCTION | N/A | N/A | 0 | £59.98 | 3,580 |
| RESURFACING | £17.49 | £16.84 | 49,578 | £15.71 | 60,476 |
| RETREAD | N/A | £9.80 | 12,471 | N/A | 0 |
| NIMPACTOCOTE* | N/A | £6.70 | 7,100 | £5.95 | 8,592 |
| RALUMAC** | N/A | £5.20 | 10,683 | £3.90 | 18,223 |
| STANDARD PATCHING | £49.37 | £36.18 | 6,540 | £33.46 | 9,164 |
| Total Carriageway Treatment m2 | | | 86,372 | | 100,035 |

Note:-

* - The difference in Nimpactocote rates from 2008/09 to 2009/10 is attributed to the fact that in 2008/09 the works were awarded direct to Kiely Bros, however in 2009/10, Kiely Bros won the works through a competitive tender process.

** - The difference in Ralumac rates from 2008/09 to 2009/10 is attributed to the fact that in 2008/09 the works were awarded direct to Colas, however In 2009/10, Kiely Bros won the works through a tender complete process.

The significant reduced cost per/m2 in the remote footway works is purely down to the location and the type of work being carried out.

The footway works have increased slightly by approximately 5% per/m2, however again this is attributed to there being more full reconstruction works, increase in material prices and type of materials being used.

In the main there has been a general improvement in the unit cost of works, although it will be necessary to establish base line figures over the next two years to ensure fair comparisons are being made.