
Meeting of Executive Members for City Strategy and Advisory Panel

14 January 2008

Report of the Director of City Strategy

HIGHWAY MAINTENANCE, ADVANCED DESIGN ON PROGRAMMES FOR 2008-2009

Summary

1. This report discusses how the provisional highway maintenance surfaces programmes have been prepared. It recommends and seeks approval to begin advanced design for a list of schemes in each category of work.

Background

2. By Members agreeing a programme early we can begin to carry out advanced design of some of the schemes and minimise any delay at the start of the year in implementing same. This has proved very successful over the last ten years and this report proposes to continue with these arrangements.

Surveys

3. In order to produce the programmes of highway works for the next year information is drawn from a number of surveys which are carried out throughout the year.
 - Visual safety survey of all our roads and footways.
 - Detailed condition survey of all our roads and footways.
 - United Kingdom Pavement Management System (UKPMS) visual and machine surveys of all roads and approximately 22% of the highway, footway network.
4. In June 2007 we again carried out a full coarse visual condition survey of all our roads and footways. This allows us to grade them into three categories, grade 1 (good), grade 2 (average), and grade 3 (poor). By comparing with previous year's survey results the survey tells us whether the condition of the city's infrastructure is improving or deteriorating and identifies those streets which need to be looked at more closely with regards to a future resurfacing scheme. The results of the 2007 visual survey of the highway network are shown in Annex 1. Comments on trends for each category of road and footway are shown in Annex 2 and a full copy of the survey results is available in the

Members library and will also be available at the meeting. It is intended to continue this survey next year in order that we can continue to monitor trends in improvement and deterioration and as an aid to identifying which streets should be resurfaced.

5. In October and November of 2007 a detailed condition survey was undertaken of all the following highways.
 - Streets listed in our Local Transport Plan (LTP) 5 year programme of structural maintenance
 - Streets identified as grade 3 by June 2007 survey
 - Streets where the UKPMS survey showed that sections of them breached national intervention levels
 - Requests by Members
 - Requests by customers
 - Recommendations of the Council's Safety and Area Highway Reactive Inspectors along with other officers of the Council.
6. Each road and footway is assessed and given a condition rating (score) based on engineering criteria and experience, with a treatment solution determined. The detailed condition survey was compiled into a listing, a copy of which will be available at the meeting.
7. To compliment all those other surveys and also identify areas for treatment, machine surveys to identify the skid resistance value of all principal roads are undertaken on an annual basis to produce a three year rolling average to identify the pavement resistance to skidding.
8. With all this condition information we are in a better position to identify where we should direct our maintenance activities and develop the programmes of work.

Programme Development

9. When considering roads and footways for inclusion in the programmes we have to consider a number of issues. These are:-
 - The standards to be adopted
 - The priorities for selection
 - The approach to take
 - The choices to be made
10. The standards we have adopted when improving the footway or road are that even though economic designs are required they should be to the highest

possible standard of quality in terms of materials, surface evenness and value for money consistent with a whole life costing approach. We would expect that full thickness surfacing of the footways should last for at least 20 - 30 years depending on whether it is a bituminous surface or cementitious and that renewal of binder course and running course for roads should last around 20 years with only minimal repair work necessary provided they have not suffered damage from third parties in the intervening period.

11. The priorities for selection are based on a number of weighting factors:-

- Condition – we try to achieve a reasonable balance between dealing with those roads and footways in the worst condition, i.e. structural maintenance and those where early preventative work will save more costly work in the future, i.e. preventative maintenance.
- Safety – is the road or footway safe to use and will it deteriorate within the next twelve months to make it such that it becomes unsafe?
- Location – is it near a school, elderly persons accommodation, public buildings, shops, post offices etc.?
- Usage – is there a heavy use by pedestrians, cyclists, public transport?
- Accident record – is there a history of pedestrian/vehicular traffic accidents, has there been a high level of third party highway insurance claims?
- Hierarchy – the importance of the road and/or footway to the traffic management, public transport and the pedestrian priority route.
- Affordability – the cost of carrying out the scheme when balanced against other potential schemes and the maintenance liability if left.
- Structural and preventative – obtaining the right balance to extend the life of the asset. Achieving the right balance is difficult when the choices are so wide and there is insufficient funding to bring the whole infrastructure up to the desired standard in one year.

12. Our approach to preparing the programmes has been as follows:-

- LTP funding is mainly restricted to the structural maintenance of the Council's classified roads and footways network and some of its important local roads.
- CYC funding is primarily targeted at local and residential roads and footways including the city centre.
- Over the last ten years the split in budget between footways and roads has been in the proportions of 70/30 towards footways and more recently 60/40, which reflected the wishes of Members and residents. However, the survey trends in Annex 2 and the Asset Management Plan indicate that we need to invest more in our road network if we are to halt the deteriorating

trend therefore, it is proposed to alter the funding split to 50/50 on footways and carriageways so that we can address this deteriorating trend and still meet the aspirations of Members and residents. Members are recommended to approve this split in the funding of footway and road schemes. The provisional programme of works has been compiled on this basis, however, should Members approve an alternative split in the funding, this will be reflected in a revised programme of works that will be brought to Members in March 2008 as part of the Annual Highway Maintenance report.

BVPI 187 for important footways York is in the top quartile of Unitary authorities for 2005/6 which are the latest comparable results available.

- We have identified areas for forward planning so that we target areas of work both on an area basis and on key radial routes.
 - We also believe that the city centre, because of the high pedestrian use, should continue to receive special attention in the form of its own maintenance budget. However, this has had to be reduced due to budget pressures across the board.
13. In terms of surface material choices the programmes are developed in accordance with the Council's current Paving Policy for footways. Although there is no similar approved policy for road surfaces materials, common practice has been developed which uses nationally recognised materials and techniques as follows:-
- surface dressing on rural roads where turning movements and event sections are minimal
 - heavy duty slurry sealing on minor residential roads, mainly culs de sac where traffic movements are low
 - thin overlays on minor residential roads and junctions where turning movements are more numerous and severe
 - bituminous macadam on more heavily trafficked roads
 - asphalt on urban principal and urban classified roads
14. The choice of asphalt will very much depend on the scope of the work we are doing but in the main if there is a good foundation we will continue with the use of stone mastic asphalt as this does not require a chipping spreader and therefore means resurfacing can be done quicker with less disruption and in more safety. However, where the base is not considered adequate for stone mastic asphalt then hot rolled asphalt will be the material of choice either 30% with pre-coated chippings or high stone content, 55% aggregate.

Proposals

15. Taking account of all the policies and procedures, the provisional programme

and schemes are being developed and listed in Annexes 3 – 12.

16. Over the remaining part of this year the Council's Engineering consultancy and Neighbourhood Services will begin work preparing some schemes so that an early start on construction can be made in the new financial year.
17. Members will be aware that as from last year Neighbourhood Services have undertaken the design and build of all footway schemes and that this has worked well bringing efficiency savings to the Council in the region of £75,000 which has been ploughed back in to carrying out additional schemes.
18. Any adjustments to the programme for next year as a result of changes in the budget, particularly the CYC funding element which at the time of writing is not known, will be reported to Members in the March Annual Highway Maintenance report.

Consultation

19. The Council's finance manager has read the report and is satisfied with its contents.

Options

20. There are no options applicable to this report as it only seeks approval for a programme of works.

Analysis

21. Due to paragraph 20 no analysis is required.

Corporate Priorities

22. Maintenance of the cities highways has a direct impact on several of the Council's corporate aims and priorities:
 - Decrease the tonnage of biodegradable waste and recyclable products going to landfill
 - Increase the use of public and other environmentally friendly modes of transport
 - Improve the actual and perceived condition and appearance of city's streets, housing estates and publicly accessible spaces
 - Improve the health and lifestyles of the people who live in York, in particular among groups whose levels of health are the poorest

Implications

Financial

23. The report has been prepared using the latest indications for the highway maintenance budget for 2008/09. However, there may be changes prior to the budget finally being approved at the Budget Council on 21 January 2008. The Annexes can therefore only be classed as an indicative list only. Any adjustments to the budget for the next financial year will be reflected in the programme of work and reported to Members in the March 2008 Annual Highway Maintenance report.

Human Resources (HR)

24. Staff from Consultancy Services and Neighbourhood Services will be engaged in the detail design and management of the programme of works. The quantity of work, particularly a reduction on previous years, may have a negative impact on staffing levels.

Equalities

25. There are no equalities implications.

Legal

26. The Council in its capacity as the Highway Authority has a duty under Section 41 of the 1980 Highways Act to maintain the public highway.

Crime and Disorder

27. There are no crime and disorder implications.

Information Technology (IT)

28. There are no IT implications in this report.

Property

29. There are no property implications.

Other

30. There are no other implications in this report.

Risk Management

31. In compliance with the Council's risk management strategy, the main risks that have been identified in this report are:
 - Strategic Risk, arising from judgements in relation to medium term goals for the service

- Physical Risks, arising from potential underinvestment in assets
- Financial Risk, from pressures on budgets
- People Risks, affecting staff if budgets decline

Measured in terms of impact and likelihood the risk score for all of the above has been assessed at less than 16. This means that at this point the risks need only to be monitored as they do not provide a real threat to the achievement of the objectives of this report.

Recommendations

32. That the Advisory Panel advise the Executive Member to:

- note the results of the June and October 2007 condition surveys on the city's roads and footways.
- approve the split in funding between footways and roads on a 50/50 basis.
- approve the provisional programme of work listed in Annexes 3 – 12 of this report.

Reason: To ensure the Highway Maintenance budget is expended in the most cost effective way based on the Council's assessed priorities and approved policies.

Contact Details

Author:

Fred Isles
Maintenance Manager
Highway Infrastructure
Tel No.01904 551444

Chief Officer responsible for the report:

Damon Copperthwaite
Assistant Director (City Development and Transport)

Report Approved



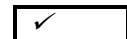
Date 18 Dec 2007

Specialist Implications Officer(s)

Financial – Patrick Looker, Finance Manager
HR – Report Author
Legal – Report Author

Wards Affected:

All



For further information please contact the author of the report

Background Papers:

There are no background papers

Annexes

Annex 1 – Condition Assessment of the Highway

Annex 2 – Results of the June 2007 Survey of Highway Surfaces

Annex 3 – LTP Allocation 2008/09

Annex 4 – Detrunked Roads Advanced Programme 2008/09

Annex 5 – LTP Principal Roads Advanced Programme 2008/09

Annex 6 – LTP Non Principal Roads Advanced Programme 2008/09

Annex 7 – LTP Local roads Advanced Programme 2008/09

Annex 8 – LTP Minor Urban Surfacing Advanced Programme 2008/09

Annex 9 – CYC Advanced Footway Capital Programme 2008/09

Annex 10 – CYC Advanced Drainage Capital Programme 2008/09

Annex 11 – CYC advanced Surface Dressing Revenue Programme 2008/09

Annex 12 – CYC Advanced Footway Slurry Sealing Revenue Programme 2008/09

4 January 2008

emap/city strategy/140108 Highway Maintenance Advanced Design

fi/lt

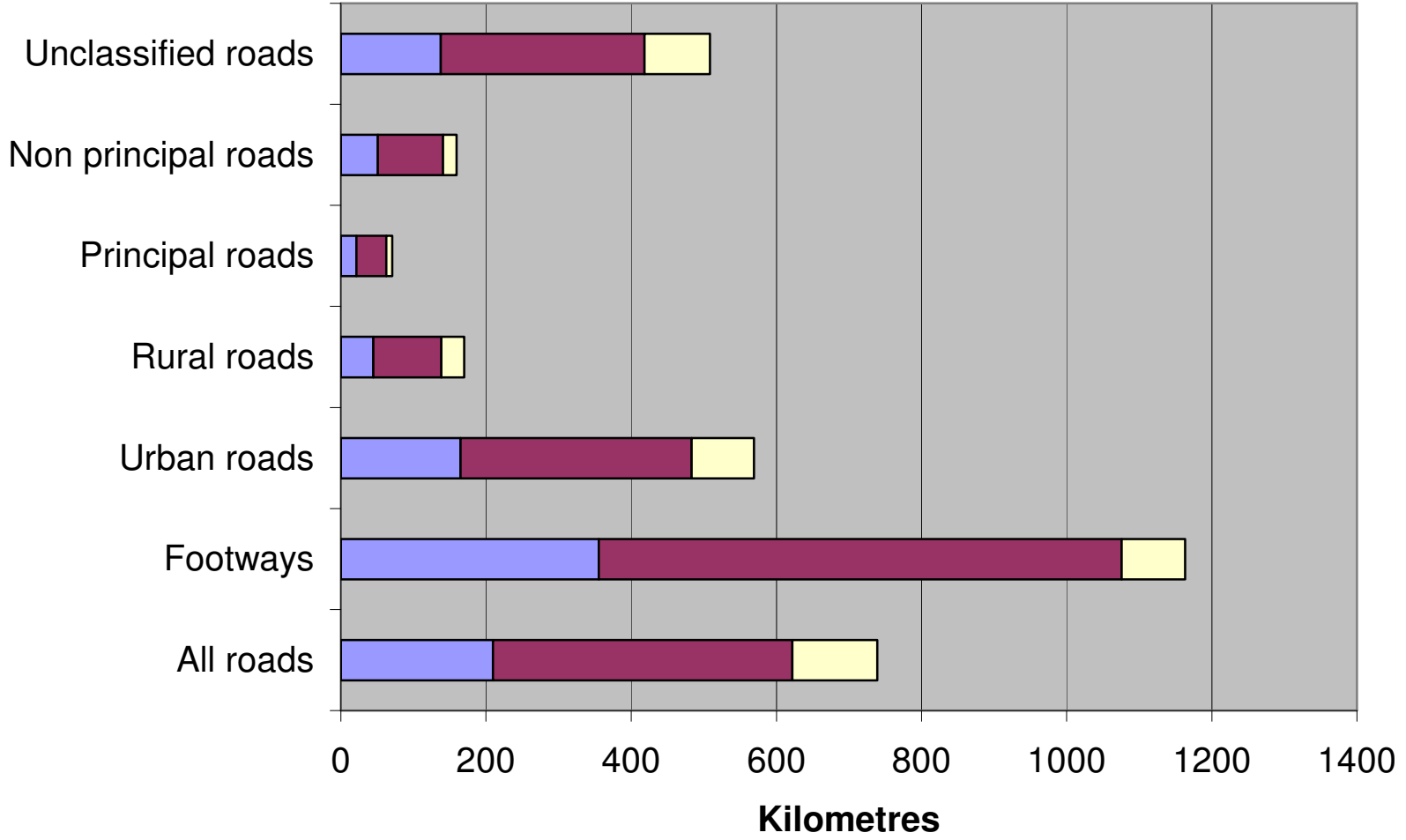
CITY OF YORK COUNCIL

Condition Assessment of the Highway

	% Grade 1 - Condition Good						% Grade 2 - Condition Average						% Grade 3 - Condition Poor					
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007
All roads	32	32	31	29	26	28	52	51	50	52	57	56	16	17	19	19	17	16
All footways	34	36	38	30	31	31	55	53	54	62	62	62	11	11	8	8	7	7
Urban roads	33	32	31	29	28	29	52	53	56	54	57	56	15	15	13	17	15	15
Rural roads	30	31	31	28	22	26	50	46	53	47	55	55	20	23	16	25	23	19
Principal roads	44	50	47	35	34	30	44	36	37	49	51	59	12	14	16	16	15	11
Non-principal roads	28	29	32	35	28	32	49	53	52	48	58	56	23	18	16	17	14	12
Unclassified roads	33	30	27	26	25	27	53	52	52	54	57	55	14	18	21	20	18	18

	% Grades 1 and 2 - Satisfactory						% Grade 3 - Condition Poor					
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007
All roads	84	83	81	81	83	84	16	17	19	19	17	16
All footways	89	89	92	92	93	93	11	11	8	8	7	7
Urban roads	85	85	87	83	84	85	15	15	13	17	15	15
Rural roads	80	77	84	75	77	81	20	23	16	25	23	19
Principal roads	88	86	84	84	85	89	12	14	16	16	15	11
Non-principal roads	77	82	84	83	85	88	23	18	16	17	14	12
Unclassified roads	86	82	79	80	82	82	14	18	21	20	18	18

Highway Condition Survey 2007



Results of the June 2007 Survey of Highway Surfaces

Road Type	Condition	Change 2006 – 2007	Long term Trend 5yrs	Comment
Principal roads	Good 30% Average 59% Poor 11%	↓ 4% ↕ 8% ☹ ↓ 4%	↓ 14% ↕ 15% ☹ ↓ 1%	The principal network continues to be in a stable condition, in spite of the fact we have transferred investment from here to other parts of the network which were in more need. The long term trend is still stable but showing signs of deteriorating. Principal road treatments are expensive consisting of strengthening and high quality materials to give extended life.
Non Principal classified roads	Good 32% Average 56% Poor 12%	↑ 4% ↓ 2% ☺ ↓ 2%	↑ 5% ↑ 6% ☺ ↓ 11%	Both short and long term trends show continued improvement. This is as a direct result of targeting investment through LTP funding. Treatments are similar to Principal roads and expensive.
Unclassified roads	Good 27% Average 55% Poor 18%	↑ 2% ↓ 2% ☹ → 0%	↓ 6% ↑ 2% ☹ ↑ 4%	The current condition of this part of the network continues to be stable, but more worrying the long term trend continues to show deterioration, which reflects the current level of investment. This trend could be influenced by more extensive use of low cost maintenance techniques such as surface dressing, heavy duty slurry sealing and thin surfacing overlays.
Urban roads	Good 29% Average 56% Poor 15%	↑ 1% ↓ 1% ☹ → 0%	↓ 4% ↑ 4% ☹ → 0%	Both annual and long term trends are showing deterioration which reflects the current level of investment. More investment of in the use of low cost maintenance techniques such as thin surfacings, heavy duty slurry sealing and surface dressing could reverse this trend.
Rural roads	Good 26% Average 55% Poor 19%	↑ 4% → 0% ☺ ↓ 4%	↓ 4% ↑ 5% ☹ ↓ 1%	The annual trend shows a marked improvement as a result of the increased level of investment put into this part of the network the previous year. The long term trend is starting to deteriorate due to insufficient investment. Treatments are relatively expensive due to the need for road edge re-construction. Economic designs give moderate lifespan.
All roads	Good 28% Average 56% Poor 16%	↑ 2% ↓ 1% ☺ ↓ 1%	↓ 4% ↑ 4% ☹ → 0%	Whilst the annual trend shows an improvement in this part of the network, the long term trend is at best stable, but worryingly the good condition roads are showing a significant deterioration, which reflects the fact most of our investment goes into footways rather than roads.
All footways	Good 31% Average 62% Poor 7%	→ 0% → 0% ☹ → 0%	↓ 3% ↑ 7% ☹ ↓ 4%	Both annual and long term trends are showing stable conditions which shows that investment is keeping pace with the need to carry out works. Treatments vary from thin veneers to re-construction works.
All back lanes	Good 13% Average 67% Poor 20%	↑ 2% ↓ 3% ☹ ↑ 1%	↓ 10% ↑ 11% ☹ ↓ 1%	The investment in back lanes is keeping the annual trend stable, but not enough to stop the long term trend of deterioration. Back lane treatments are expensive due to access problems and the need for total re-construction of the setts using bituminous macadam.

☹ = deteriorating

☺ = stable

☺ = improving

ANNEX 3

LTP Allocation 2008/09	£1,704,000
Clifton Bridge (replacement parapets)	£250,000
Street Lighting (heavy maintenance)	£80,000
Balance for Structural Maintenance	£1,374,000
Additional Detrunked allocation grant	£781,000
CYC Capital Programme	£1,000,000
CYC Revenue	£170,000

ANNEX 4**Detrunked Roads Advanced Programme 2008/09**

Allocation £781,000

	Road	Ward	Estimate
1.	A19 (south) (St Nicholas Ave/A64 for 850m)	Fulford/Wheldrake	£179,000
2	A1079 (York Road to café layby)	Derwent	£122,000
3	A1237 (Wigginton Road to Clifton Moor)	Skelton Rawcliffe & Clifton Without/Huntington & New Earswick	£232,000
4	A1237 (Wigginton Road to Haxby Road)	Huntington & New Earswick	£248,000
		Total	<hr/> £781,000

LTP Principal Roads Advanced Programme 2008/09

	Road	Ward	Estimate
1.	Bishopthorpe Road (part)	Micklegate	£76,500
2	Boroughbridge Road/Carr Lane	Holgate/Acomb	£50,000
3	Nunnery Lane	Micklegate	£98,000
		Total	<hr/> £224,500

LTP Non Principal Roads Advanced Programme 2008/09

	Road	Ward	Estimate
1.	Haxby Road (part)	Huntington/New Earswick	£98,000
2	Carr Lane (part)	Holgate/Acomb	£23,000
3	Huntington Road (part)	Clifton/Heworth	£79,000
4	Church Lane	Wheldrake	£83,000
5	Heslington Road (part)	Fishergate	£52,000
6	Osbalwick Lane	Hull Road	£36,000
7	Haxby Road (part)	Clifton	£57,000
8	Main Street	Wheldrake	£80,000
		Total	<hr/> £508,000

ANNEX 7**LTP Local Roads Advanced Programme 2008/09**

	Road	Ward	Estimate
1.	Alcuin Avenue (part)	Hull Road	£29,000
2	Halifax Way	Wheldrake	£7,000
3	Bramham Avenue	Westfield	£36,000
4	Skeldergate	Micklegate	£100,000
5	Maple Avenue	Bishopthorpe	£34,000
6	Grantham Drive	Holgate	£67,000
7	Bootham Crescent (part)	Clifton	£7,500
8	Airfield Road	Bishopthorpe	£37,000
9	Church Street	Derwent	£42,000
10	Beech Avenue	Bishopthorpe	£30,000
		Total	<hr/> £389,500

LTP Minor Urban Surfacing Advanced Programme 2008/09

	Carriageway	Ward	Estimate
1.	De Grey Place	Bishopthorpe	£3,000
2	Harcourt Close	Bishopthorpe	£2,500
3	Larch Way	Haxby & Wigginton	£6,900
4	Sixth Avenue (part)	Heworth	£3,000
5	Whitby Avenue	Heworth Without	£18,300
6	Whitby Drive	Heworth Without	£8,000
7	Caedmon Close	Heworth Without	£3,000
8	Stillingfleet Road	Wheldrake	£32,300
		Total	<u>£77,000</u>

	Footways	Ward	Estimate
1.	Howe Hill Close	Holgate	£59,000
2	Baile Hill Terrace	Micklegate	£22,000
3	Wood Street	Heworth	£27,400
4	Wetherby Road	Rural York West	£3,000
5	Heworth Village	Heworth	£23,300
6	Lady Road	Clifton	£4,200
7	Copmanthorpe PROW No 2	Rural York West	£36,100
		Total	<u>£175,000</u>

ANNEX 9**CITY OF YORK COUNCIL ADVANCED FOOTWAY CAPITAL PROGRAMME 2008/9**

Allocation £1,000,000

	Road	Ward	Estimate
1.	Queen Annes Road (part)	Clifton	£7,900
2	Harold Court	Westfield	£1,150
3	Bracken Road	Dringhouses and Woodthorpe	£2,300
4	Moorlea Avenue	Dringhouses and Woodthorpe	£1,150
5	Eastfield Court	Hull Road	£3,450
6	Willow Croft	Upper Poppleton	£3,450
7	Derwent Park	Wheldrake	£5,750
8	Carter Avenue	Heworth	£4,600
9	Melander Close	Acomb	£2,300
10	Turnberry Drive	Acomb	£6,900
11	Greenborough Avenue	Acomb	£2,300
12	Prestwick Court	Acomb	£1,150
13	Birkdale Grove	Acomb	£2,300
14	Lochrin Place	Acomb	£2,300
15	Carnoustie Place	Acomb	£1,150
16	Muirfield Way	Acomb	£1,150
17	Farrar Street	Fishergate	£4,600
18	Bridge Street	Bishopthorpe	£5,750
19	Haxby Road (part)	Clifton	£9,200
20	Lister Way	Clifton	£3,450
21	Hudson Crescent	Clifton	£2,300
22	Kirklands	Strensall	£8,050
23	Highlands Avenue	Strensall	£3,450
24	Oaklands	Strensall	£2,300
25	Hallard Way	Strensall	£1,150
26	Ash Walk	Strensall	£1,150
27	The Croft	Strensall	£1,150
28	Pasture Farm Close	Fulford	£2,300
29	Whin Close	Dringhouses and Woodthorpe	£1,150
30	Whin Garth	Dringhouses and Woodthorpe	£1,150
31	Heworth Village	Heworth	£6,900
32	School Lane	Copmanthorpe	£4,600
33	Ebor Way	Nether Poppleton	£4,600
34	Longridge Lane	Nether Poppleton	£10,350
35	Wains Road (part)	Dringhouses & Woodthorpe	£180,000
36	Jute Road	Acomb	£160,000
37	Cranbrook Road	Acomb	£97,000
38	Rowntree Avenue	Clifton	£107,000
39	Dane Avenue	Acomb	£53,000
40	New Lane (part)	Holgate	£33,000
41	Burton Stone Lane (part)	Clifton	£13,000
42	Haxby Road (part)	Clifton	£18,500
43	Yearsley Crescent	Clifton	£45,500
44	Leeman Road (part)	Guildhall	£4,000

45	Clarence Street (part)	Guildhall	£9,500
46	Eastern Terrace	Heworth	£24,500
47	Malton Avenue	Heworth	£34,600
Total			<hr/> £902,500

CITY OF YORK COUNCIL ADVANCED DRAINAGE CAPITAL PROGRAMME 2008/9

	Road	Ward	Estimate
1.	Flaxton Road	Strensall	£35,000
2.	Main Street	Askham Bryan	£20,000
3.	Various Issues	Various	£42,500
			Total <hr/> £97,500

**CITY OF YORK COUNCIL ADVANCED SURFACE DRESSING REVENUE
PROGRAMME 2008/9**

Allocation £120,000

	Road	Ward	Estimate
1.	Prepatching	Various	£50,000
2	Wheldrake Lane (part)	Wheldrake/Crockey Hill	£20,100
3	Wheldrake Lane (part)	Wheldrake/Crockey Hill	£17,100
4	Darling Lane	Bishopthorpe/Acaster Malbis	£5,800
5	Mill Lane	RYW/Rufforth	£20,700
6	Common Croft Lane	RYW/Nether Poppleton	£6,300
			<hr/> £120,000

CITY OF YORK COUNCIL ADVANCED FOOTWAY SLURRY SEALING REVENUE PROGRAMME 2008/9

Allocation £50,000

	Road	Ward	Estimate
1.	Heslington Lane Service Road	Fulford	£2,700
2	Heath Moor Drive	Fulford	£7,900
3	Heather Croft	Fulford	£3,000
4	Low Moor Avenue	Fulford	£4,000
5	Tilmore Close	Fulford	£3,400
6	Mattison Way	Holgate	£5,600
7	Eastlands Avenue	Holgate	£2,500
8	Stones Close	Holgate	£1,700
9	Allanson Grove	Holgate	£2,200
10	Elvington Park	Wheldrake	£9,000
11	St James Mount	Micklegate	£1,000
12	Burton Green	Clifton	£5,000
13	Otterwood Lane	Westfield	£2,000
		Total	<hr/> £50,000