



Democratic Services

Location: Phase II
Ext: 0693
DDI: 01895 250693
CMD No: 792

**To: COUNCILLOR JONATHAN BIANCO
CABINET MEMBER FOR PROPERTY, HIGHWAYS
AND TRANSPORT**

**COUNCILLOR MARTIN GODDARD
CABINET MEMBER FOR FINANCE**

c.c. All Members of the Property, Highways and
Transport Select Committee
c.c. Poonam Pathak – Place Directorate
c.c. Perry Scott – Corporate Director of Place

Date: 02 May 2023

Non-Key Decision request

Form D

CAPITAL RELEASE REPORT (May 2022)
DEPARTMENT: Residents Services
**SERVICE AREA/ PROGRAMME: Highways Purchase of New
Reactive Maintenance Machine**
RELEASE NO: 1

Dear Cabinet Member

Attached is a report requesting that a decision be made by you as an individual Cabinet Member. Democratic Services confirm that this is not a key decision, as such, the Local Authorities (Executive Arrangements) (Meetings and Access to Information) (England) Regulations 2012 notice period does not apply.

You should take a decision **on or after Thursday 11 May 2023** in order to meet Constitutional requirements about publication of decisions that are to be made. You may wish to discuss the report with the Corporate Director before it is made. Please indicate your decision on the duplicate memo supplied, and return it to me when you have made your decision. I will then arrange for the formal notice of decision to be published.

Steve Clarke
Democratic Services Officer

Title of Report: Highways Purchase of New Reactive Maintenance Machine - Release No:1

Decision made:

Reasons for your decision: (e.g. as stated in report)

Alternatives considered and rejected: (e.g. as stated in report)

Signed Date.....

Cabinet Member for Property, Highways and Transport / Cabinet Member for Finance

CAPITAL RELEASE REPORT (May 2022)
DEPARTMENT: Residents Services
SERVICE AREA/ PROGRAMME: Highways Purchase of New Reactive Maintenance Machine
RELEASE NO: 1

Cabinet Member(s)	Councillor Jonathan Bianco Councillor Martin Goddard
Cabinet Portfolio(s)	Cabinet Member for Property, Highways & Transport Cabinet Member for Finance
Officer Contact(s)	Poonam Pathak, Place Directorate
Papers with report	Appendix A - Capital Release Requests for Approval Appendix B - Photos

HEADLINES

Summary	To seek Cabinet Member approval for the release of funds to progress the purchase of new machine for highway reactive maintenance from Roadmender Asphalt.
Putting our Residents First Delivering on the Council Strategy 2022-2026	This report supports our ambition for residents / the Council of: Live in a sustainable borough that is carbon neutral. This report supports our commitments to residents of: A Green and Sustainable Borough.
Financial Cost	The report seeks the release approval of £44,000 from the 2023/24 Purchase of Vehicles capital budget for purchase of a new machine package deal from Roadmender Asphalt for the delivery of highways reactive maintenance work undertaken by the Highways Department's in-house crew.
Relevant Select Committee	Property, Highways & Transport Select Committee
Relevant Ward(s)	All

RECOMMENDATION

That the Cabinet Member for Property, Highways & Transport and the Cabinet Member for Finance agree to the following capital release request of £44,000 from the Purchase of Vehicles capital budget for the purchase of a machine package deal provided by Roadmender Asphalt which includes a trailer mounted mastic boiler with tool heater and tools and two KM2-18X infrared heaters for the delivery of highways reactive maintenance work undertaken by the Highways Department's in-house crew (Table 1).

Reasons for recommendation

The Highways Act 1980 Section 41 requires the Council to maintain highway for which they are responsible. Section 58 of the act provides a statutory defence to a claim for breach of the Section 41 duty to maintain. The Highway Inspection Policy adopted by the Highways team assists the Council in ensuring compliance with the Highways Act, which was developed using The Well Managed Highway Infrastructure - A Code of Practice 2016 (The Code). The policy requires the Council to have a reactive maintenance regime in place to repair all defects identified during routine inspections by highway safety inspectors.

The Council has a Rhino Patch vehicle which is used for the permanent repair. This system uses sustainable infra-red carriageway heating technology which uses machinery to heat the existing road surface in order to recycle the existing road surface material to be reused in the repair. This is both more sustainable and cost effective than traditional road patching. Last year, the team identified that some of the pods and jets needed to be replaced, causing the machine to operate at a reduced capacity. The suppliers have informed us that these parts are no longer manufactured and are therefore no longer available.

The team conducted extensive market research and tested two environmentally friendly machines. The recommendation enables the release of resources in order to progress the purchase of a new machine for the delivery of highways reactive maintenance work undertaken by Highways in-house crew while also complying with the Highways Act by repairing the identified defects within the deadline.

Alternative options considered / risk management.

Continue reactive maintenance work with one Rhino Patch machine that has limited capacity and contains that, should they require replacement, are now absolute, making it unable to repair the machine to restored functionality. The work takes longer to complete, which is inefficient and ineffective. This will result in more work being allocated to the Highways Term Service Contractor, affecting the budget.

Select Committee comments

The Property, Highways and Transport Select Committee have been undertaking a review during 2022/23 on "Attaining Best Practice and Value for the Council's Highways Resurfacing Programme" and have heard about the different types of machinery available as part of their review. Their findings will come to Cabinet later in 2023.

SUPPORTING INFORMATION

Following the market search, the team trialled two types of machines, which are listed below and photos are also shown in Appendix B.

1. Thermal Road Repair Ltd (<https://www.thermalroadrepairs.com/>)
2. Roadmender Asphalt ([Roadmender Asphalt – Paving the road to Net Zero](#))

1. **Thermal Road Repair Ltd (<https://www.thermalroadrepairs.com/>)**

This is similar technology to the existing Rhino machine, which is a thermal heat process that uses specialised computer equipment to ensure roads are reformed to a very high standard. This is more modern. This is a sustainable method and material, with little impact on the environment and network. The process results in jointless repairs that use 80-90% recycled materials in situ, reducing landfill waste and carbon footprint.

The heater machine can be purchased separately, but it is recommended that to purchase the machine as well because it is a complete self-contained solution that enables best practise in all areas of the industry.

Cost

Multi Utility Vehicles with 2m x 1m Asphalt Repair

Total price Vehicle - £166,000

Total Price 2m x 1m Heater - £49,000

2. **Roadmender Asphalt ([Roadmender Asphalt – Paving the road to Net Zero](#))**

Roadmender Elastomac is the ultimate sustainable, cost effective, permanent solutions for patching, crack and joint repairs. Roadmender Elastomac is an eco-friendly, close to carbon negative road repair material that replaces fossil fuel bitumen with recycled rubber from end-of-life tyres otherwise destined for incineration or disposal. Unlike conventional repairs that require potholes to be saw cut and excavated purely to accommodate the compaction requirements of using asphalt, Elastomac is a flowable material that is simply poured into and over the top of defects in a fraction of the time.

Once applied, the adhesive, flexible material welds itself to the existing road surface, locking out any potential for the ingress of water while extending the life of the road for years to come. In addition to its sustainability credentials, the process is more efficient than conventional repairs, reducing material movement and waste by 90%, lowering costs, and avoiding unnecessary disruption. (<https://youtu.be/fhYSPmIIHmk>). Elastomac works on both asphalt and concrete roads and is designed for repairs to cracks, joints, potholes, patching, surrounds to iron work, fretting, wheel rutting, alligator cracking, kerb channels and speed ramps.

Roadmender Asphalt has also developed an infrared heater similar to the current Rhino Patch Machine. The quote provided by the supplier is a package if the Council purchases the entire set because the cost of purchasing an infrared machine on its own is much higher, so the package deal provides a cost savings.

Officers are therefore recommending option 2. The cost in Table 1 below have been calculated using the quote provided by the manufacturer:.

Table 1: Recommended Cost Plan from the supplier - Roadmender Asphalt

Item	Cost (£)
Trailer mounted mastic boiler with tool heater and tools	32,000
2x KM2-18X infrared heater (£6,000 each)	12,000
Total Cost	44,000

Because of the Rihno Patch Machine's reduced capacity, repairs are currently taking longer to complete. Although there is no current backlog of work, this is having an effect on completion. If this machine is not purchased soon, it will have an impact on service delivery as well as the highways budget because the team will have to assign more work to term service contractors in order to complete the defects within deadline.

Financial Implications

Purchase of Vehicles Budget 2023/24 £2,000k, Previously Released £nil, Release Requested £44k

A new highways reactive maintenance machine is required to replace the existing machinery which has aging parts resulting in below capacity performance. Following testing of two equipment providers, it is proposed to purchase the Roadmender Asphalt solution at a cost of £44k and this can be funded from the £2,000k 2023/24 Purchase of Vehicles capital programme budget, financed by Council resources.

The purchase of the new machine will protect service delivery in the maintenance of the Borough's highways.

RESIDENT BENEFIT & CONSULTATION

The benefit or impact upon Hillingdon residents, service users and communities

The maintenance of carriageways inevitably involves the ad hoc repair of road surface defects such as potholes, surface deterioration, edge failure, cracking, crazing, rutting, and subsidence. The machine recommended will assist the team to repair the defects quicker and efficiently as well as eco-friendly repair system that lowers the carbon footprint of patch repairs by 85%. This material is prepared using end-of-life waste tyres otherwise destined for incineration, with 9 end-of-life waste tyres recycled into each tonne. The infrared machine will also assist in lowering carbon emissions by recycling the existing tarmac surface for repair.

This will improve the serviceability of the highway network for the benefit of residents and other road users.

CORPORATE CONSIDERATIONS

Corporate Finance

Corporate finance notes that the proposed acquisition will be funded from the Purchase of Vehicles 2023/24 capital budget, financed by Council resources.

Legal

Legal Services confirm that the purchase of this equipment will assist the Council in complying with its duty to maintain highways pursuant to section 41 of the Highways Act 1980. Legal Services also confirm that the proposed purchase complies with the Council's Procurement Standing Orders and that there are no legal impediments to authorising the capital release.

Capital Release Protocol

The release of all capital funds, and certain revenue funds, held by the Council is to be made by a formal democratic decision (by the Cabinet Member for Finance and other relevant Cabinet Members). No expenditure can be placed or committed by officers until this formal approval is given by Democratic Services. Release of funds must be for identified projects only and strictly not for general release of funds for projects to be identified at a later date. No block releases of capital will be allowed, except if authorised by the Leader of the Council in advance to Corporate Finance. The release of funds will only be made if previous Council, Cabinet or Cabinet Member agreement has been given to the project and only if there is an approved budget. No contract should be signed until clearance is given to the release of capital funds by way of the formal decision-making process detailed below.

BACKGROUND PAPERS

NIL.

APPENDIX A - CAPITAL RELEASE REQUESTS FOR APPROVAL

Purchase of Vehicles 2023/24

Location	Project / Expenditure Title	Information	Funds Release Sought £000's	Approve	Hold	More Informati on Required
Borough wide	Purchase of new machine from Roadmender Asphalt.	Required for highway reactive maintenance	44			
Total seeking release			44			
Previously released			0			
Budget			2,000			
Remaining budget			1,956			

APPENDIX B - PHOTOS

Thermal Road Repair Ltd





Roadmender Asphalt



