

Management and Maintenance Plan with Costings

Client: Views

Project: Cringle Playing Fields

Report date: 25/04/2025

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Revision: B

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ISSUE INFORMATION

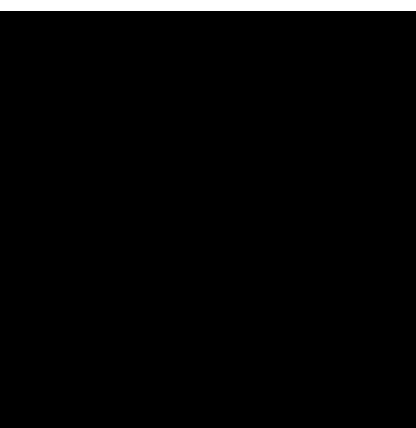
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Project:	Cringle Playing Fields
Location:	Burnage, Manchester
STRI Ref:	J007581
Doc Title:	10-Year Management and Maintenance Plan with costings

REVISION RECORD

Revision record (Revision '0' being the original)

Revision Record			
Revision Number	Date of Issue	Reason for Revision and Comments	
C	29/09/2025	Updated cost estimates table	
Author	Joe Woodcock	Checked By	Greg Whately
Date	29/09/2025	Date	29/09/2025



1) INTRODUCTION

STRI has been engaged by Views to prepare an indicative management and maintenance plan, inclusive of indicative associated costs, for a 10-year period. The plan pertains to the proposed adult cricket wicket and outfield to be situated at Cringle Playing Fields. This initiative forms part of a proposed mitigation strategy to offset the loss of playing fields at the former Burnage Cricket Club, resulting from a planned residential development.

- 1 x full size natural turf Cricket pitch and natural turf Cricket wicket
- 1 x artificial ECB approved Cricket wicket

2) MANAGEMENT AND MAINTENANCE PLAN

a) Management and maintenance of the cricket wicket and outfield area

The following recommended works are applicable to one full size natural turf cricket wicket and one artificial wicket proposed at Cringle Playing Fields. Cost estimates are included in Section 3 below.

Maintenance of Cricket Outfield Areas

Mowing

This is the most basic but important aspect of turf maintenance. Ensure that the grass is cut frequently to maintain the height of cut within a reasonable height range, generally 25 – 50 mm for the cricket outfield area. It is essential that the mowers used are correctly set, with well sharpened blades, adjusted to the correct height across the full width of the mower to achieve a uniform cut and particularly to avoid scalping the grass.

Under no circumstances should the grass be allowed to grow beyond 60 mm and ideally be cut at no longer than 50 mm. During the close season, the grass could be allowed to grow to 60 mm and cut once the sward reaches no higher than 70 mm.

Whilst there is good growth, mowing should be carried out at least once a week, ground and weather conditions permitting.

Grass clippings should be allowed to fly which will return some nutrients to the sward, particularly potash. Any accumulated clippings should be removed from the outfield surfaces to prevent the underlying grass being smothered and killed off.

Routine mowing could be undertaken using tractor mounted cylinder or rotary mowers. During the playing season the use of a ride-on cylinder or rotary mower may be required, should ground conditions become too soft for tractor operations.

Fertiliser application

It is recommended that nutrient levels in the soils are maintained by the implementation of a balanced fertiliser programme. It is recommended that soil samples are collected for routine nutrient analysis every 2 – 3 years to inform the fertiliser programme.

A minimum of three controlled-release granular fertiliser applications is recommended per year with two during the spring and summer months and a single winter/autumn application.

It is essential that the fertiliser is applied evenly over the whole of the surface with an appropriate spreader, preferably during showery weather to break down and wash the fertiliser into the soil.

Soil Aeration

Soil compaction relief measures will be important to help maintain surface porosity using a Verti-drain or an equivalent machine on at least two occasions each year.

Ideally one Verti-draining operation should be combined with any renovation work at the end of the season, just prior to applying fertiliser, sand dressing and seeding any bare ground.

This operation should be aimed at fracturing the soil by setting the Verti-drain to heave and lift the soil. The soil should be sufficiently moist to allow the tines to penetrate the soil but dry enough to allow for some loosening without excessive damage to the turf roots.

Use 18 mm diameter solid tines working to a minimum depth of 200 mm, depending on the soil type and condition. Verti-draining must not be carried out if ground conditions are too wet and soft, during frost or in very dry conditions. Damage to the turf roots in dry weather can result in greater susceptibility to drought stress during summer.

Additional aeration treatments (e.g. slitting or spiking) during the playing season can be beneficial to maintain surface drainage rates, but these treatments should only be undertaken when ground conditions are suitable.

For very compacted areas there are other machines that may be considered including the Earthquake or Imants Shockwave which work with rotary blades displacing the soil laterally to relieve soil compaction. There are also machines which inject compressed air into the soil such as the tractor mounted Gwazae or the pedestrian operated Air2G2 Soil Injector. These machines must be used in appropriate circumstances and advice should be sought if they are being considered. In many cases dealing with severe compaction may need a combination of machines to achieve the optimum results.

Sand Top Dressing

It is important to implement a sand top dressing routine to optimise the breakdown of organic matter and provide a free draining sand layer over a of period time. The sand should have a particle size grading within the central range of the graph shown in Appendix 1.

Ideally this should be achieved by applying the sand to the surface of the pitch after the Verti-drain treatment. The sand should be brushed into the surface using a dragmat or turf brush. The sand should be applied at a rate of approximately 100-120 t/ha.

Sand dressing can be used to assist in maintaining the smoothness of the surface where there are slight discrepancies in levels by applying the sand to low areas and gradually building up the level. Care is needed to avoid smothering the turf.

Additional sand may be required for localised top dressing and repairs.

In areas where the grass is heavily worn and the surface has been eroded this may involve levelling the surface with soil or using a sand/soil mixture, preparing a seedbed, applying fertiliser and sowing perennial ryegrass cultivars to re-establish the grass cover.

The aeration and sand dressing work described above should form part of the renovation programme to restore the condition of the turf at a time when growth rates are at a maximum.

Overseeding

Depending on the condition of the turf, it may be necessary to carry out overseeding on an annual basis if grass cover has been reduced because of wear. This can either be carried out to isolated areas or to the entire outfield.

It is recommended that any overseeding is carried out with Perennial Ryegrass for the outfield area.

The seed mix should be comprised of cultivars with a mean rating of not less than 7.2 for live ground cover and visual merit as published in Tables L2, L3, L4 and L7 of the current Turfgrass Seed Booklet published by STRI/BSBP.

Seeding in the summer months is not recommended without an irrigation system. Overseeding would be best carried out at the end of the cricket season in September.

Weed control

If required, apply selective herbicide to control weeds in accordance with the manufacturer's instructions and COSHH regulations according to the type of weed present by suitably qualified personnel. This should be applied at least two weeks after the first fertiliser treatment (April) and at a time when grass growth is strong and healthy.

Herbicides should only be applied in dry weather conditions to avoid surface runoff or infiltration into drainage systems.

Maintenance of Cricket Square (Spring and Summer)

Pre-season rolling is a critical part of the maintenance programme to ensure suitable playing performance and player safety. A good quality cricket square to be used for club level cricket requires a firm, even surface. Pre-season rolling should commence in the Spring when surface conditions allow.

The aim of pre-season rolling is to slowly consolidate the top 100 mm of the profile. This should be carried out over a period of several weeks before the start of the season. Sufficient time should be allowed in the maintenance programme to ensure suitable rolling can be undertaken. Ideally, pre-season rolling should commence at the end of February or beginning of March, if possible, ahead of the season starting in mid-April.

The weight of the roller should be gradually increased over time, with the weight increasing to a fully ballasted cricket roller of 3-4t depending on width of the roller.

Rolling weights

Light Roller: up to 254 kg (5 cwt)

Medium Roller: up to 508 kg (10 cwt)

Heavy Roller: 1014 kg (1 ton) or more

It is critical that the square is rolled in multiple directions over the course of pre-season rolling. The emphasis should be on cross rolling (across the width of the square) in the early stages but finishing along the line of the pitch (along the length of the square).

The general aim is to consolidate the square to a depth of 100 mm (4 inches) before the commencement of the season. The proposed construction would be with a 100 mm depth of imported cricket loam (Boughton Club). The aim is to consolidate this loam layer.

Scarifying

It may be necessary to lightly scarify the square in early spring to remove excess organic matter from the immediate surface. If carrying out scarification in early spring, care should be taken to ensure there is minimal damage to the desirable grass species present. Typically, a scarifying unit with a brush attachment is recommended.

End of season renovations would typically use a deep scarifier capable of penetrating at least 20 mm into the surface. The machine is used to bring existing loam to the surface with 2 passes and to work in applied loam and seed (following application) with a final one or two passes.

If the surface of the square is to be heavily fraise mown or removed using specialist equipment such as a Koro Field Top Maker, this should be carried out at the end of the season in September to allow sufficient time for reestablishment in advance of the next season.

Fertiliser application

It is recommended that nutrient levels in the cricket square soils are maintained by the implementation of a balanced fertiliser programme. It is recommended that soil samples are collected for routine nutrient analysis every 2 – 3 years to inform the fertiliser programme.

Due to the high clay content the nutritional needs will be relatively low. Depending on the health of the square an Autumn/Winter fertiliser may be used, typically these are up to 4% Nitrogen and would be applied at 35 g/m². In the Spring, pre-season, a medium level nitrogen (up to 8% Nitrogen) should be applied. Ideally following each use of a wicket, a liquid feed delivering around 5-10 kg/ha of applied Nitrogen should be used. Following renovation, an Autumn/Winter controlled release fertiliser should be applied. It should be noted that recently built squares may require higher levels of fertility and the health and growth of a square should determine the need to apply additional fertiliser above that suggested.

Dew removal

It is recommended that the surface of the square is brushed or dragmatted on a regular basis, particularly when there is dew accumulation on the surface. Removing dew in this way will help to reduce turfgrass disease pressure.

Mowing

In advance of the season in April, the height of cut on the square should be gradually reduced to a target height of 12 mm. This should be done in a gradual manner, with care taken not to remove more than a quarter of the leaf blade in a single mowing operation.

It is recommended that a height of cut of 12 mm is maintained throughout the season. Typically, this would require mowing twice per week during the height of the growing season and once per week outside the main growing season.

Pitch management

It is recommended that the ECB approved non-turf match pitch adjacent to the adult cricket square is utilised for training matches to preserve the fine turf wickets for match play.

Maintenance of an ECB approved artificial Cricket wicket

Daily maintenance should take place for the ECB approved artificial Cricket wicket to make sure that the condition is optimal during the playing season. Daily maintenance tasks should include brushing of the artificial wicket to ensure that any loose debris is removed from the wicket and fibres are realigned. Any brushing should take place in multiple directions to avoid consistent wear patterns. Any loose debris such as branches or litter should be removed by hand picking or by use of a leaf blower.

During the daily maintenance tasks, any observations should be made across the carpet area to highlight any loose edges or tears within the carpet. If these are noted, any tears or loose edges should be fixed immediately to avoid any future issues.

Seasonal/annual maintenance should also take place for the ECB approved wicket which would include

- Power cleaning
- Wear check
- Check for bald patches
- Any areas with uneven bounce
- Any areas that show a loss of grip
- Any infill top up (if required)
- Artificial wickets should be covered during the off-season when not in use

3) INDICATIVE COST ESTIMATES

Figure 1 below illustrates indicative 10-year cost estimates for the works summarised in Section 2 above.

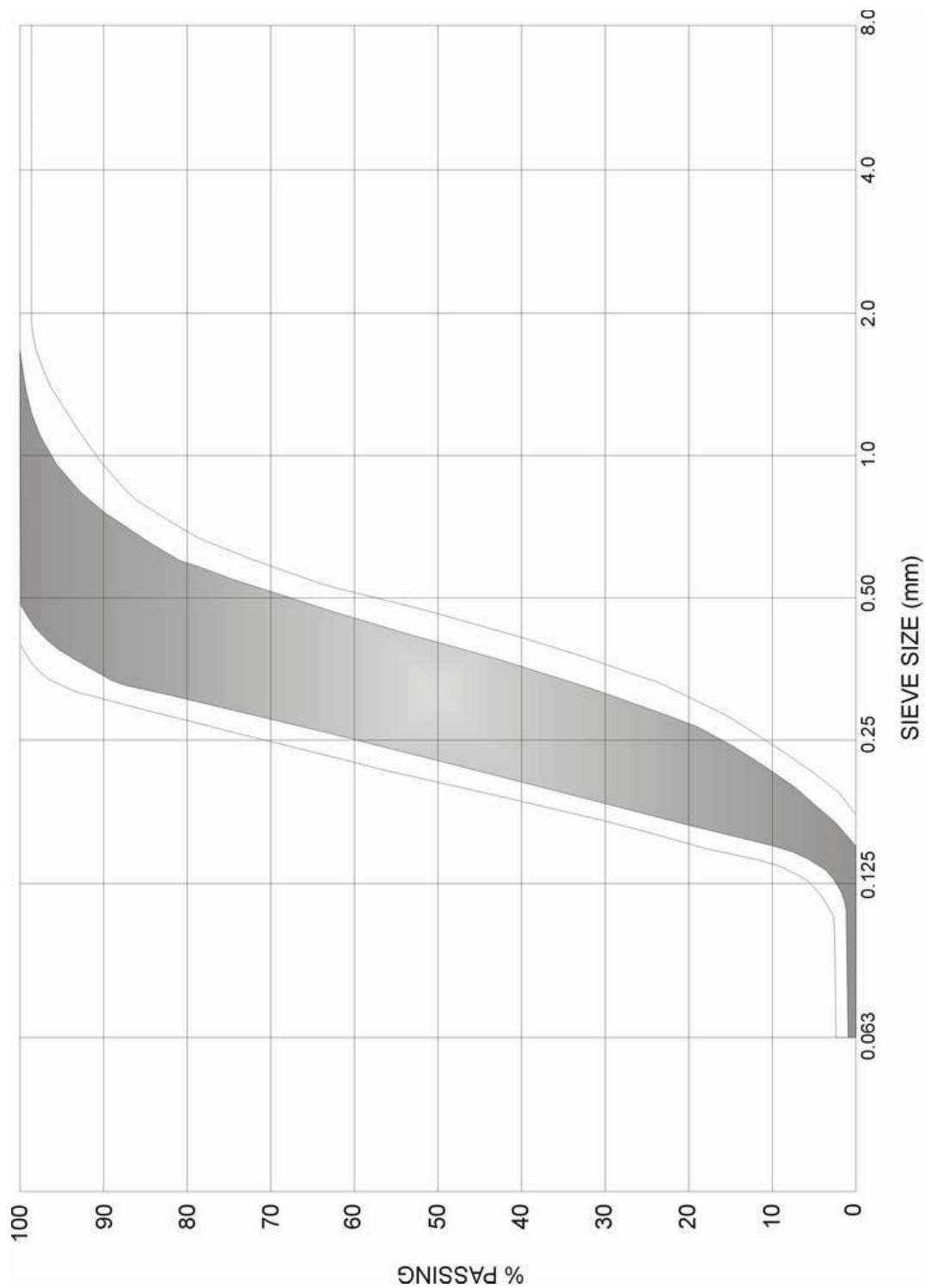
Cringle Cricket Ground - maintenance costs						
	unit cost	number	cost	vat	total	notes
Square						
Pre-season rolling - £1,200.00 + VAT	£1,200	1	£1,200	£240	£1,440	
Pre-season top dressing with loam £600.00 + VAT	£600	1	£600	£120	£720	
Mowing to 18mm twice a week £60.00 p/cut + VAT	£60	56	£3,360	£672	£4,032	28 weeks - 2 cuts per week
Mowing - off season	£60	12	£720	£144	£864	12 weeks - 1 cut per week
3 fertiliser applications –						
4-6-8 +fe £120.00 + VAT	£120	1	£120	£24	£144	
8-0-0 £120.00 + VAT	£120	1	£120	£24	£144	
4-6-8 £120.00 + VAT	£120	1	£120	£24	£144	
Provisional – mid season topdress if surface levels need addressing £600.00 + VAT	£600	1	£600	£120	£720	
End of season renovation – topdress with loam, scarify, overseed, aeration and selective herbicide treatment £3,500.00 + VAT	£3,500	1	£3,500	£700	£4,200	
subtotal			£10,340		£12,408	
Outfield						
2 slow-release fertiliser applications £1,200.00 + VAT	£600	2	£1,200	£240	£1,440	
End of season renovation – aeration and topdress with sand £5,500.00 +	£5,500	1	£5,500	£1,100	£6,600	
subtotal			£6,700		£8,040	
Total			£17,040		£20,448	
			5 Years - Managment & Maintenance		£102,240	
			10 Years - Managment & Maintenance		£204,480	

Figure 1 – Table showing 10-year management and maintenance costs

Notes

- 1) The total cost for the 10-year management and maintenance of the proposed Cricket square and outfield at Cringle playing fields is £204,480.
- 2) Maintenance costs are based on community level use however if a higher standard of Cricket is to be played at the proposed Cringle site, maintenance costs would increase to provide a higher standard of surface for players.
- 3) Costs exclude mowing of the outfield area as we understand that the council already mow the existing sports pitches at Cringle Playing Fields.
- 4) Costs exclude any irrigation maintenance with the final specification to be confirmed by the client for the exact type of irrigation system to be utilised. Due to the risk of vandalism of an installed irrigation pipe and quick coupler box, we understand the client has included an allowance for a heavy duty mobile hose sprinkler system, which would be stored within the pavilion building area at Cringle Playing Fields.
- 5) All annual maintenance costs are based on a contractor using equipment provided by the club.
- 6) All costs are indicative and may increase further dependent on inflation rates.

APPENDIX 1 – SAND GRADING CURVE



Grading curve defining recommended and acceptable limits of sand size for soil modification and top dressing of winter games pitches.

