

Value Engineering Options

Savings Categories

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| Ref | Item | idverde Potential Saving | Millgrove Potential Saving | C J Thorne Potential Saving | Item Description | Impact of VE | EEBC VE Preference Category | EEBC Comments (VE Workshop comments & subsequent Tony Foxwell comments) | idverde Confirmed Savings | Millgrove Confirmed Savings | C J Thorne Confirmed Savings |
|------|---|--------------------------|----------------------------|-----------------------------|---|--|-----------------------------|---|---------------------------|-----------------------------|------------------------------|
| VE1 | Hedgerow facing | £ 1,392 | £ 2,750 | £ 1,360 | Face up existing vegetation/hedgerows by up to 1m to allow for works and works access | High rate submitted in Tender. If required, these works could be undertaken by the cemetery team? (Item 2.1.3) | A | If required to come out of contingency or be completed by Cemetery | £ 1,391.50 | £ 2,750.00 | £ 1,359.71 |
| VE2 | Downs Road boundary wall | £ 85,368 | £ 47,520 | £ 144,471 | Supply and install random rubble stone wall to match that of the original cemetery | The wall is part of the planning permission requirements so would need to be delivered in some approved form. Tender costs are high. Could look to either omit the boundary wall works now and commission separately, or omit and redesign for a value engineered wall (add a provisional sum to a value to be discussed with the Contractor). The boundary with Downs Road would also need to be secured in the interim (Item 5.1.1). <i>Millgrove cost included updated cost of 21.05.19</i> | B | Only omit if required. If omitted the value of works would need to come under the contract sufficiently to be undertaken by another contractor & come within budget | £ - | £ - | £ - |
| VE3 | Downs Road boundary piers | £ 59,324 | £ 13,500 | £ 67,190 | Supply and install stone piers to match that of the original cemetery | The piers are part of the planning permission requirements so would need to be delivered in some approved form. Tender costs are high. Could look to either omit the pier works now and commission separately, or omit and redesign for a value engineered version implemented by the Contractor (add a provisional sum to a value to be discussed with the Contractor). Would need to get a cost fro steel posts to hang the gate on (saving would be reduced). (Item 5.1.2) | B | Retain wall and all 3nr piers | £ - | £ - | £ - |
| VE4 | Attenuation tanks | £ 4,061 | £ 3,600 | £ 4,270 | Supply and install permavoids(300mm depth) wrapped in permafilter geotextile to form infiltration tanks | Substitute permavoid attenuation tanks for an equivalent product. Would need to discuss with the contractor the proposed alternative and the actual cost saving - Suggested 20% saving, although this may not be fulfilled (Item 4.1.5) | B | If required , consult with lowest tenderer to see if savings are achievable | £ - | £ - | £ - |
| VE5 | Internal road edgings (Option A) | £ 6,185 | £ - | £ 3,303 | Supply and install bullnose kerbs to internal roads | Reduce the size of the bullnose kerbs (255mm to a 150mm) where required for a 50mm upstand. No visual impact (Items 5.2.3 & 5.2.4) | C | Preference for VE 5 over VE6 | £ - | £ - | £ - |
| VE6 | Internal road edgings (Option B) | £ 17,987 | £ 10,721 | £ 10,031 | Supply and install bullnose kerbs to internal roads | Replace all bullnose kerbs (255mm & 150mm depth) with 150x50mm concrete edgings. The kerbs would be thinner and less robust, but would be in keeping with the rest of the cemetery (Items 5.2.3 to 5.2.6) | B | Acceptable if required. Retain kerbs as drawn | £ - | £ - | £ - |
| VE7 | Highway access road | £ 117 | £ - | £ - | Supply and install 6f2 capping fill | Replace 6f2 with Type 1. No above ground visual variation. This may be a saving in any case if ground is solid enough & capping is not required. Not relevant to Millgrove & Thorne (Item 5.3.3) | A | Accepted if idverde the winning contractor | £ - | £ - | £ - |
| VE8 | Internal roads - Porous subbase | £ 6,467 | £ 4,499 | £ 8,604 | Supply & install sub-base granular filling modified open graded porous (min 30% porosity) compacted | High tendered rate. Work with contractor to find an alternative product that fulfills the drainage requirements - Suggested 8% saving, although this may not be fulfilled (Item 5.3.2) | B | If required , consult with lowest tenderer to see if savings are achievable | £ - | £ - | £ - |
| VE9 | Concrete rafts | £ 2,908 | £ 2,787 | £ 3,871 | Supply and install concrete rafts, 150mm depth reinforced C30 concrete | Work with contractor & cemetery to reduce the specification - say 100mm depth rather than 150mm depth? - Suggested 20% saving, although this may not be fulfilled (Item 5.4.1) | D | This is a standard specification and needs to be as designed | £ - | £ - | £ - |
| VE10 | Storage bays | £ 1,433 | £ 720 | £ 941 | Supply and install 152mm x 152mm x 37 universal columns (12 nr 2.25m length, 4nr at 1.75m length) with 2600mm x 250mm x 125mm and 2400 x 250mm x 125mm treated hardwood timber sleepers | Work with contractor to reduce the specification - Suggested 15% saving, although this may not be fulfilled (Item 5.6.2) | B | If required , consult with lowest tenderer to see if savings are achievable | £ - | £ - | £ - |
| VE11 | M&E Installations | £ 10,900 | £ 42,410 | £ 11,880 | Supply & install 4nr standpipes with water connections | Could look to omit. Impact is that the only water points would be in the existing cemetery. The planned works have the potential to increase in cost depending on the location of the existing water main (Items 6.1.1 to 6.1.7) | A | Omit connection to water main. Provide connections from standpipes to the south of the site (within the cemetery) and provide on the northern side of the southern hedge (3nr standpipes & say 20m of pipe each with sterilisation) | £ 8,015.12 | £ 34,988.00 | £ 8,508.00 |
| VE12 | Topsoil | £ 10,768 | £ 10,750 | £ 12,378 | Import and spread topsoil to BS 3882:2015 | This is a provisional item but it is likely that topsoil will be required. Could omit this item and any ground raising would be undertaken by the cemetery during grave excavations (Item 7.1.2) | A | Accepted | £ 10,767.50 | £ 10,750.00 | £ 12,377.50 |
| VE13 | Turfing | £ 4,644 | £ 5,581 | £ 6,055 | Supply and lay low maintenance turf | Lay turf to the lawn area for only the first 75nr graves (408m ²) and seed the remainder of the lawn (Item 7.2.4) | A | Retender all soft landscape works as a separate contract to run following completion of this main contract (see VE32) | £ - | £ - | £ - |
| VE14 | External planting - Trees | £ 20,032 | £ 44,029 | £ 49,167 | Supply and plant trees | Planting required to satisfy planning requirements. The tendered rates are quite high. Could omit and see if the cemetery team could plant the trees. Materials would need to be provided. Alternatively, the trees could be paid through sponsorship by loved ones - The price would need to be increased and include a memorial plaque (Items 7.3.10 to 7.3.19) | A | Retender all soft landscape works as a separate contract to run following completion of this main contract (see VE32) | £ - | £ - | £ - |
| VE15 | External planting - Hedgerows | £ 1,177 | £ 4,708 | £ 3,034 | Supply and plant hedgerows | Planting required to satisfy planning requirements. Could omit and see if the cemetery team (or local volunteer group) could plant the hedgerows. Materials would need to be provided (Items 7.3.2 to 7.3.9 & 7.3.44 to 7.3.46) | A | Retender all soft landscape works as a separate contract to run following completion of this main contract (see VE32) | £ - | £ - | £ - |
| VE16 | External planting - Ornamental planting | £ 1,655 | £ 3,247 | £ 3,597 | Supply and plant ornamental plants | Planting required to satisfy planning requirements. Could omit and see if the cemetery team (or local volunteer group) could plant the ornamental planting. Materials would need to be provided. (Item 7.3.20 to 7.3.43) | A | Retender all soft landscape works as a separate contract to run following completion of this main contract (see VE32) | £ - | £ - | £ - |

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| VE17 | Bark mulch | £ 1,127 | £ 566 | £ 2,293 | Supply and install bark mulch to all ornamental beds and individual trees | Could omit bark mulch and beds would subsequently need to be weeded by the cemetery team (Item 7.3.47) | A | Retender all soft landscape works as a separate contract to run following completion of this main contract (see VE32) | £ - | £ - | £ - |
| VE18 | Provisional sums - Vegetation clearance | £ 2,000 | £ 2,000 | £ 2,000 | Cutting back branches and facing hedgerows to facilitate works | If required, this work could be undertaken by the cemetery team? (Item 110) | A | Accepted | £ 2,000.00 | £ 2,000.00 | £ 2,000.00 |
| VE19 | Provisional sums - Signage | £ 5,000 | £ 5,000 | £ 5,000 | Supply and fix traffic signage | If required, this work could be undertaken by the cemetery team? (Item 110A) | A | Accepted | £ 5,000.00 | £ 5,000.00 | £ 5,000.00 |
| VE20 | Provisional sums - Litter bins | £ 3,000 | £ 3,000 | £ 3,000 | Supply and install new litter bins | If required, this work could be undertaken by the cemetery team? (Item 110B) | A | Accepted | £ 3,000.00 | £ 3,000.00 | £ 3,000.00 |
| VE21 | Seating | £ 9,558 | £ 9,600 | £ 10,056 | Supply and install Furnitubes STL RB 104 Stirling benches (2 benches forming 180 degree half circle) | Omit all benches apart from those in the first lawn. This was as per the drawings but quantity error in the schedule of works (Item 5.7.1) | A | Accepted. Seating could possibly be paid for by sponsors | £ 9,557.52 | £ 9,600.00 | £ 10,055.76 |
| VE22 | Internal roads - Western N/S road | £ 26,390 | £ 23,824 | £ 27,263 | Supply & install porous tarmac road with kerbs and drainage - Western north-south road | Omit western north-south road (saving currently excludes drainage items). This would be a change to approved planning information if never built, but could be constructed when funds allowed (Items 3.1.3 to 3.1.4, 3.1.13 to 3.1.14, 5.2.3 to 5.3.6, 5.3.2 & 5.5.1) | D | Road would be required in the long-term and would subsequently be more expensive. Install now | £ - | £ - | £ - |
| VE23 | Internal roads - excavation depth | £ 8,599 | £ 9,396 | £ 9,088 | Excavate internal roads to 460mm (based on roads set approx 40mm above existing levels) | Remove 50mm kerb upstands to road to say 6mm for drainage (road and grass areas to be set approx 90mm above existing levels) to reduce excavation of clay and subsequent disposal of material (Items 3.1.4 & 3.1.13) | B | It is undesirably to have flush kerbs as vehicles would traverse over grass margins/graves. Although some vehicles bump up the kerbs at least they provide a bit of a deterrent | £ - | £ - | £ - |
| VE24 | Porous tarmac | £ 7,603 | £ 6,430 | £ 6,893 | Supply and install 150mm depth of SuperDrain asphalt | Discuss with contractors alternative products or reducing the depth of tarmac - Suggested 5% saving, although this may not be fulfilled (Item 5.5.1) | C | If required, consult with lowest tenderer to see if savings are achievable | £ - | £ - | £ - |
| VE25 | Preparation of planting areas | £ 755 | £ 450 | £ 190 | Carry out cultivation for planting areas | High prices returned by two contractors. If the planting is undertaken by the Cemetery then this item can be omitted (Item 7.3.1) | B | Retender all soft landscape works as a separate contract to run following completion of this main contract (see VE32) | £ - | £ - | £ - |
| VE26 | Reduced programme - Planting | £ - | £ 8,000 | £ - | Preliminaries based on 20-week programme | Potential to reduce programme by omitting items. Idverde & Thorne suggest little scope for programme savings based on soft landscaping. Millgrove programme suggest the programme could be reduced by up to 6 weeks by omitting some of the soft landscaping - savings based on a 4 week saving (Item A10 to A55). Based on Millgrove prelims pro rata would be saving of £5,660/week, but Millgrove confirmed (21.05.19) only £2,000/week | B | Accepted. Would need agreement with the contractor that preliminary costs would be reduced in alignment with the reduced programme (15 weeks based on VE26 & VE31) | £ - | £ - | £ - |
| VE27 | Preparation of seeding areas | £ 2,359 | £ 18,461 | £ 2,974 | Carry out cultivation for all proposed grass areas | Seeding required to satisfy planning requirements. Could omit and see if the cemetery team could prepare & seed the soiled areas (Item 7.2.1) | | Retender all soft landscape works as a separate contract to run following completion of this main contract (see VE32) | £ - | £ - | £ - |
| VE28 | Amenity grass seeding | £ 1,187 | £ 4,452 | £ 4,219 | Supply and seed amenity grass | Seeding required to satisfy planning requirements. Could omit and see if the cemetery team could seed the soiled areas. Materials would need to be provided (Item 7.2.2) | | Retender all soft landscape works as a separate contract to run following completion of this main contract (see VE32) | £ - | £ - | £ - |
| VE29 | Meadow grass seeding | £ 3,138 | £ 14,022 | £ 12,486 | Supply and seed meadow grass | Seeding required to satisfy planning requirements. Could omit and see if the cemetery team could seed the soiled areas. Materials would need to be provided (Item 7.2.3) | | Retender all soft landscape works as a separate contract to run following completion of this main contract (see VE32) | £ - | £ - | £ - |
| VE30 | Amenity grass turfing | £ 2,256 | £ 3,876 | £ 3,970 | Supply and lay low maintenance turf | Seeding required to satisfy planning requirements. Could omit turf laying and see if it could be completed by the cemetery? Saving based on the remaining 408m ² after VE13 has been taken (Item 7.2.4) | | Retender all soft landscape works as a separate contract to run following completion of this main contract (see VE32) | £ - | £ - | £ - |
| VE31 | Reduced programme - Seeding | £ - | £ 2,000 | £ - | Preliminaries based on 20-week programme | Potential to reduce programme by omitting items. Idverde & Thorne suggest little scope for programme savings based on soft landscaping. Millgrove programme suggest the programme could be reduced by up to 6 weeks by omitting some of the soft landscaping - savings based on a further week saving from VE27 (Item A10 to A55). Based on Millgrove prelims pro rata would be saving of £5,660/week, but Millgrove confirmed (21.05.19) only £2,000/week | | Accepted. Would need agreement with the contractor that preliminary costs would be reduced in alignment with the reduced programme (15 weeks based on VE26 & VE31) | £ - | £ - | £ - |
| VE32 | All soft landscape works | £ 38,691 | £ 100,745 | £ 89,268 | Supply and implement all landscape works | Retender all soft landscape works as a separate contract to run following completion of this main contract (Item 7.2.1 to 7.3.47). This would only create a saving on the main contract value as costs would need to cover the subsequent contract | | Retender all soft landscape works as a separate contract to run following completion of this main contract | £ - | £ - | £ - |
| Contractor confirmed additional costs | | | | | | | | | | | |
| 5.1.1 - Revised cost for natural stone wall (no design change) £ - 21,600.00 £ - | | | | | | | | | | | |

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|-------------------------|------|--------------------------|----------------------------|-----------------------------|--|--------------|--|---|---------------------------|-----------------------------|------------------------------|
| | | | | | | | | 5.5.1 - Revised cost for porous asphalt surface (no design change) | £ - | -£ 34,700.00 | £ - |
| Potential Savings Total | | £ 346,079 | £ 408,643 | £ 508,850 | Note: Potential savings total includes double counting | | Total Accepted Savings | £ 39,732 | £ 11,788 | £ 42,301 | |
| Remaining contingencies | | £ 77,069.60 | £ 74,199.00 | £ 75,165.00 | | | Updated Tender Sum | £ 802,037.38 | £ 865,329.66 | £ 938,464.03 | |
| | | | | | | | Cost if soft landscaping works carried out by another (excludes cost of soft landscaping works): | £763,346.34 | £ 754,584.52 | £ 849,195.98 | |

KEY

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| Option accepted |
| Option accepted, if required |
| Option not accepted unless absolutely necessary |
| Option rejected |

NOTES

1. All potential savings are approximate only
2. Any accepted saving opportunities are subject to drawing amendments and subsequent recalculation of the Bills of Quantities
3. Changes to the final scheme may be subject to further planning approval
4. Costs do not allow for the supply of the grave markers and studs, or the supply and installation of the storage container. These items are to be provided by EEBC
5. Costs do not allow for application fees associated with mini Section 278 agreement