

| DS / SP / JJ        | N |
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| 3.10.23             |   |
| No.: 23-015         |   |
| e:                  |   |
| a No.: Sheet 1 of 5 |   |

### NORTHCOTE GOLF COURSE TRAIL ALIGNMENT – CONCEPT DESIGN AND DOCUMENTATION

#### Opinion of probable costs

#### 19<sup>th</sup> July 2023

Below is the opinion of probable costs for the proposed walking and cycling trail linking the Warrk Warrk Bridge, Beavers Road to Woolton Avenue near Mayer Park.

- 1 Abbreviations:
  - Sq.m denotes square metres
  - Cu.m denotes cubic metres
  - L.m denotes linear metres
  - Ea. denotes numbered amount
  - Kg. denotes kilograms
  - Item denotes all-inclusive amount
  - Quantities shown in the Quotation Schedule are indicative only  $(\pm 5\%)$ .
  - All rates shall be inclusive of the supply of all materials, labour and mechanical equipment costs, including installation and construction, profit and overhead costs.

Note: Impost on cost due accessibility and tree protection zone.

#### 1. Preliminaries

2

- i. Contractor's site setup, attendance at client meetings during the construction and planting works \$3,500
- ii. Council's Project Team to monitor and manage progress of the contractor's implementation. Attendance at site meetings, processing progress payment claims **\$3,000**
- iii. Protection of existing trees along the trail alignment and shrubs along the fence line and trail to be fenced off. Fencing to tree protection zones (TPZs) close to the proposed alignment. Grid fence on concrete blocks approximately 20 trees \$4,000
- Pedestrian fencing barriers/signage to prevent the public accessing the trail during earthworks and construction. Paraweb fencing on star pickets with sign \$2,500
  Alternative to paraweb is grid mesh to secure the site over progressive stages of construction including moving fences \$20,000

Subtotal Preliminaries - \$33,000

#### 2. Earthworks (common to all path types irrespective of path type)

i. Scalping surface material,100% of area of the trail alignment including 600 mm shoulders scalped and disposed offsite to a point of disposal (85% of trail will be on filled surface) compact existing trimmed soil. Removal of organic thatch layer irrespective of depth of fill.

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2,412 m<sup>2</sup> @ $10/m<sup>2</sup> = $24,120
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This material will be contaminated Category D Class. Careful removal and loading to trucks and disposal to a legal tip that receives Category D material.

185 tonnes @ \$250/tonne including cartage and disposal = \$46,250

Supply and spread imported top soil to regraded areas – (79.95 X 3)

240 m³ @ \$90/m³ = \$21,600

ii.

- Garden bed preparation including cultivation to 200mm depth by machine –
  2,960 m<sup>2</sup>@ \$8/m<sup>2</sup> = \$23,664
- iv. Scalp the existing to cultivated the soil, supply and spread top soil imported (local) to 150mm depth to garden beds –

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443 m<sup>3</sup> @ $90/m<sup>3</sup>= $39,870
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v. Supply and spread top soil imported (local) to 150mm depth to the grassed shoulder either side of the path –

145 m<sup>3</sup> @ \$90/m<sup>3</sup> = \$13,050

vi. Project arborist on site during the trimming of grass thatch and soil to 100mm depth, including minor root pruning and branch trimming along the section of River Red Gum approximately 200 metres in length - 24 hours @ \$160/ hour = \$3,840

Subtotal Earthworks- \$172,394

#### 3. Path and Hard Surfaces

- i. Option 1 Construct a concrete path 1.8 wide 1,445 m<sup>2</sup>
  - 100% of area strip and prepared surface.
  - 150mm Class 3 FCR compacted crushed rock x 2 layers to SDD compaction 1,445 m<sup>2</sup>@ \$22.5/m<sup>2</sup> = \$32,512
  - Concrete path 150 thick 25 MPa concrete, SL82 mesh -1,445 m<sup>2</sup> @ \$130/m<sup>2</sup> = \$187,850

Subtotal Option 1- Concrete path- \$220,362

- ii. Option 2 Construct a cement stabilised granitic sand 1.8 wide 1,445 m<sup>2</sup>
  - 150mm Class 3 FCR compacted crushed rock x 2 layers to SMDD compaction –
    1,445 m<sup>2</sup> @ \$22.5/m<sup>2</sup> = \$32,512
  - Compacted granitic sand path 1,445 m<sup>2</sup> @ \$80/m<sup>2</sup> = \$115,600 Subtotal Option 2- Cement stabilised granitic sand path = \$148,112
- iii. Option 3 Construct a sealed surface 1.8 wide 1,445 m<sup>2</sup>
  - 150mm Class 3 FCR compacted crushed rock as one layer
  - 100mm compacted selected gravel path sealed with primer coat –
    1,445 m<sup>2</sup> @ \$80/m<sup>2</sup> = \$115,600

Subtotal Option 3- Sealed path-\$115,600

#### 4. Planting

- i. Indigenous Shrub planting area, average 2 plants/m<sup>2</sup> 2,958 m<sup>2</sup> @ \$20/m<sup>2</sup> = \$59,160
- ii. Indigenous tree planting quantity 70 no. @ \$100/no = \$7,000

Subtotal Planting-\$66,160

#### 5. Grass

i. Seeded grasscover over shoulder per \$2/m - 723 m @ \$2/m = \$1,440

Subtotal Grasscover over shoulder-\$1,440

#### 6. Handrails

i. Length of Handrail required – 18 Lm @ \$500/Lm = \$9,000

Subtotal Handrails- \$9,000

#### 7. WSUD – Rain Garden Area

- Scalping existing grass and disposal to legal point of disposal, cultivation of site soil 256 m<sup>2</sup> @ \$15/m<sup>2</sup> = \$3,840
- ii. Fill soil of special mix of course river sand and top soil 38 m<sup>3</sup> @ \$120/m<sup>3</sup> = \$4,608
- iii. Pebble/mulch over following planting **256 m<sup>2</sup> @ \$10/m<sup>2</sup> = \$2,560**

Subtotal WSUD- Raingarden area – \$11,008

#### 8. Retaining walls

- i. Two sleeper high retaining wall (not exceeding 500mm high) –
  52 Lm @ \$300/Lm = \$15,600
- ii. Total length of retaining walls required 18 Lm @ \$450/Lm = \$8,100

Subtotal Retaining walls - \$23,700

|   |   | Subtotal  |
|---|---|-----------|
| 1 | Preliminaries - setup, fencing, project administration.         | \$33,000  |
| 2 | Earthworks  | \$172,394 |
| 3 | Path and Hard Surfaces  |           |
|   | Option 1 - Construct a concrete path 1.8 wide                   | \$220,362 |
|   | Option 2 - Construct a cement stabilised granitic sand 1.8 wide | \$148,112 |
|   | Option 3 - Construct a sealed surface 1.8 wide                  | \$115,600 |
| 4 | Planting  | \$66,160  |
| 5 | Grass – seeding only  | \$1,440   |
| 6 | Handrails   | \$9,000   |
| 7 | WSUD – Rain Garden Area   | \$11,008  |
| 8 | Retaining walls   | \$23,700  |

#### TOTAL COST INCLUDING 10% CONTINGENCY FOR:

Option 1 (Concrete path)– \$ 537,064 + 10% contingency = **\$590,770** Option 2 (Stabilised granitic sand path) – \$ 464,814 + 10% contingency = **\$511,295** Option 3 (Sealed surface path) – \$ 432,302 + 10% contingency = **\$475,532** 



## APPENDIX H



# Red-1:250 at A1 Scale Blue-1:500 at A1 Scale





SURFCOAST Survey & Drafting Services P/L PO BOX 881 TORQUAY VIC 3228 Mobile : 0402 024 011 Email : peter@surfcoastsurvey.com.au http://www.surfcoastsurvey.com.au ABN 80 101 114 363

| SITE BENCHMARK DETAILS |  |                        |  | CLIENT |                            |                                       |          |  |
|------------------------|--|------------------------|--|--------|----------------------------|---------------------------------------|----------|--|
|                        | POINT  | EASTING                | NORTHING   | R.L.   | MICHAEL SMITH & ASSOCIATES |                                       |          |  |
|                        | BM1  | 322566 246             | 5818 498 530   | 43.786 |                            |                                       |          |  |
|                        | BM2  | 322539 834             | 5818509,935  | 42.871 |                            |                                       |          |  |
|                        | BM3  | 322507.891             | 5818543 078  | 36 482 | NORTHCOT                   | ICOTE GOLF COURSE<br>POSED TRAIL SITE |          |  |
|                        | BM4  | 322485 512             | 5818739424   | 32,906 | DDODOS                     |                                       |          |  |
|                        | BM5  | 322508 206             | 5818768.254  | 34 782 | FILOFOC                    |                                       |          |  |
|                        | BM6  | 322552 517             | 5818624.441  | 38.677 |                            |                                       |          |  |
|                        | BM7  | 322637.239             | 5818850 370  | 40 019 |                            |                                       |          |  |
|                        | BM8  | 322672 625             | 5818897.136  | 40 492 |                            |                                       |          |  |
|                        | BM9  | 322659 642             | 5818933.856  | 41 176 | EXISTING C                 | ONDITIONS P                           | AN       |  |
|                        | BM10   | 322705 674             | 5818923.293  | 41,950 | EXICITING                  |                                       |          |  |
|                        | GAS HETER<br>ANNOW (PERIT TURN)                              | 25<br>5<br>0<br>↑<br>4 | TRAFFE EDUAL BOX<br>PARES METER<br>TICKET NACHE<br>PARESE SION | -egend | HORTH POINT                | SURFCOAST                             | SURFCOAS |  |
| A                      | ANNOW (THEOLEG<br>BRE SYNELL<br>NETHIN<br>LINETOWN GENVER (1 |                        | 5101 POST<br><u>ori</u><br>11002                               | _      |                            |                                       |          |  |
| Sewer<br>On<br>Oran    | 22V61 (2V61<br>22V61 (2V61                                   | •                      | THEE (DAG)<br>Palai Thee                                       |        |                            | SCALE (AT)                            |          |  |
| Tax Color              |  |                        |  |        |                            | 1.1.200                               | 1.2400   |  |
| Survey                 |  |                        | SUPLING<br>MICE PLUIS<br>WATER VALVE                           |        |                            | 1:1200                                | 1:2400   |  |
| T                      | EBCHWR<br>FTATION  | Noter Vibler           |  |        | OATE<br>APRIL 2023         |                                       |          |  |