MANCHESTER
CITY COUNCIL

Heaton Park -

Tree Top Trek

Specification

June 2017

REPORT ISSUE CONTROL SHEET

CLIENT: Manchester City Council

PROJECT: 209623H Tree Top Trek

ISSUE: A

STATUS: For Tender

Issue	Date	Status	Prepared by	Checked by	Authorised for Issue by
A	June 17	For Tender	W Roper	G Christmas	G Christmas

Works Information - Specification

Preamble to the Specification

1 The Specification referred to in the Tender shall be the 'Specification for Highway Works', published by the Stationery Office as modified and extended by the following:

(i) Appendix 0/1: Contract-specific Additional, Substitute and Cancelled Clauses and Tables included in the contract;

2 The relevant publication date of each page of the 'Specification for Highway Works' is given in the Schedule of Pages and Relevant Publication Dates.

3 An Additional Clause as indicated by a suffix 'AR' in Appendix 0/1 is a Contract-specific alteration.

4 A substituted Clause as indicated by a suffix 'SR' in Appendix 0/1 is a Contract-specific alteration.

5 A cancelled Clause as indicated by a suffix 'CR' in Appendix 0/1 is a Contract-specific alteration.

6 Insofar as any of the Numbered Appendices may conflict or be inconsistent with any provision of the 'Specification for Highway Works' the Numbered Appendices shall always prevail.

7 Any reference in the Contract to a Clause number of Appendix shall be deemed to refer to the corresponding Substitute Clause number or Appendix listed in Appendix 0/1.

8 Where a Clause is altered any original Tender referred to in the Clause shall apply unless the Table is also altered. Where a Table is altered any reference in a Clause to the original Table shall apply to the altered Table.

9 Where a Clause in the Specification relates to work, goods or material which are not required for the Works it shall be deemed not to apply.

10 Any Appendix referred to in the Specification which is not used shall be deemed not to apply.

11 Where the specification refers to Contractor this shall mean *Contractor*.

12 Where the specification refers to Overseeing Organisation this shall mean *Project Manager*.

13 Where the specification refers to Employer this shall mean *Employer*.

Specification for Highway Works
Schedule of Pages and Relevant Publication Dates

Series/Appendix	Page Number	Publication Date
000	1 to 3	May 2014
000	4 to 8F	December 2014
100	1 to 2, 4 to 9, 12 to 29F, WF1, N2 to N11F	May 2014
100	3, 10 to 11, N1	December 2014
200	1, 3F	May 2001
200	2	May 2004
300	1	May 2001
300	4	November 2002
300	2 to 3, 5 to 6F	May 2008
400	1 to 6, 8, 10 to 13F	November 2007
400	7, 9	November 2008
500	23 to 24, 26	November 2004
500	28F	May 2005
500	3, 22, N1F	May 2006
500	2, 5, 27	November 2006
500	6, 25	November 2007
500	1, 4, 7 to 21	November 2009
600	33	November 2003
600	2, 27 to 28, 30 to 32, 34 to 36, N1	November 2005
600	25 to 26	November 2006
600	42 to 49, 51 to 68F	November 2007
600	37, 50	November 2008
600	1, 3 to 24, 29, 38 to 41, S1 to S3F, N2 to N4F	November 2009
700	2 to 3, 5 to 6, N1, N3 to N5F	November 2006
700	33 to 34F	November 2007
700	4, N2	August 2008
700	1, 7 to 32F	November 2009
800	1 to 25F	November 2009
900	2 to 5, 9 to 22, 24 to 26, 28 to 67F	August 2008
900	1, 6 to 8, S1F	November 2008
900	23, 27	May 2009
1000	3, 5 to 6	November 2005
1000	1 to 2, 4, 7 to 15, 19 to 33F	May 2006
1000	16 to 18	November 2006
1100	1, 4F	November 2004
1100	2, N1F	November 2006
1100	3	August 2008
1200	5	May 2001
1200	2 to 3, W1F	August 2003
1200	1, 14 to 16F	May 2004
1200	4, 9 to 11, 13	May 2005
1200	12	November 2006
1200	6 to 7, N1 to N4F	November 2007
1200	8	May 2008

Specification for Highway Works
Schedule of Pages and Relevant Publication Dates

Series/Appendix	Page Number	Publication Date
1300	N2F	November 2003
1300	3 to 4	November 2004
1300	1, 5 to 10, 12F	November 2005
1300	2, 11 and N1	May 2006
1400	2, N1F	May 2001
1400	1, 3 to 9F	May 2006
1500	7	May 2001
1500	2	February 2003
1500	3 to 4, 8 to 11, 13	November 2004
1500	1, 5 to 6, 12, 14 to 17F	November 2006
1600	1, 4 to 5, 9, 15, 17 to 18, 24 to 26, 29 to 31, 35, 38, 49F	March 1998
1600	2, 6 to 8, 10 to 14, 16, 19, 27 to 28, 32 to 34, 36 to 37, 39 to 42, 44 to 48	November 2003
1600	3, 20 to 23, 43	November 2005
1700	1 to 27F	December 2014
1800	1 to 35F	August 2014
1900	1 to 35F, S1 to S2F	August 2014
2000	1, 3 to 4F	May 2001
2000	2	November 2004
2100	1, 4F	March 1998
2100	2	November 2003
2100	3	November 2005
2300	1	March 1998
2300	2 to 3F	May 2001
2400	1, 4, 7F	May 2005
2400	2	May 2006
2400	3, 5 to 6	May 2008
2500	1	May 2001
2500	2, 8, 11F	November 2003
2500	10	November 2004
2500	6 to 7, 9	May 2005
2500	5	May 2006
2500	3 to 4	November 2006
2600	1	March 1998
2600	2 to 4	November 2003
2600	5	November 2004
2600	6	May 2005
2600	7F	November 2006
3000	4 to 7, 10, 12 to 17, 19, 22 to 27F	May 2001
3000	20	November 2004
3000	2 to 3	May 2006
3000	8 to 9, 11, 18, 21	May 2008

Specification for Highway Works
Schedule of Pages and Relevant Publication Dates

Series/Appendix	Page Number	Publication Date
5000 5000	1, 4 to 19F, S1F 2 to 3	May 2005 November 2008
Appendix A	1 to 4F	May 2014
Appendix B	1 to 3F	May 2014
Appendix C	1 to 2F	May 2014
#Appendix D Appendix D (NI)	1F N1F	May 2014 May 2014
Appendix E	1F	May 2014
Appendix F	1 to 52F	December 2014
Appendix G	Not used	
Appendix H Appendix H Appendix H Appendix H	1 2 3 4 to 9F	May 2004 November 2005 November 2006 November 2008

APPENDIX 0/1: CONTRACT SPECIFIC ADDITIONAL, SUBSTITUTE AND CANCELLED CLAUSES AND TABLES INCLUDED IN THE CONTRACT

List of Additional Clauses and Tables

Clause No.	**Title**

NONE

List of Substitute Clauses and Tables

NONE

List of Cancelled Clauses and Tables

NONE

APPENDIX 0/2: CONTRACT SPECIFIC MINOR ALTERATIONS TO EXISTING CLAUSES AND TABLES INCLUDED IN THE CONTRACT

None

APPENDIX 0/3 : LIST OF NUMBERED APPENDICES REFERRED TO IN THE SPECIFICATION AND INCLUDED IN THE CONTRACT

Appendix 0/3 is comprised of two lists, A and B, of Numbered Appendices as follows:

LIST 'A' is a selective list of the Numbered Appendices referred to in the Specification for Highway Works

APPENDIX 0/3 : LIST OF NUMBERED APPENDICES REFERRED TO IN THE SPECIFICATION AND INCLUDED IN THE CONTRACT

LIST A.

	Appendix No	**Title**
		Introduction
Inc.	0/ 1	Contract Specific Additional, Substitute and Cancelled Clauses, Tables and Figures Included in the Contract
Inc.	0/ 2	Contract Specific Minor Alterations to Existing Clauses, Tables and Figures included in the Contract
Inc.	0/ 3	List of Numbered Appendices
Inc.	0/ 4	List of Drawings Included in the Contract
		Preliminaries
Inc.	1/ 1	Temporary Accommodation and Equipment for the Overseeing Organisation
Inc.	1/12	Setting Out and Existing Ground Levels
Inc.	1/70	Disposal of materials
		Fencing
Inc.	3/ 1	Fences, Gates and Stiles
		Earthworks
Inc.	6/ 5	Geotextiles Used to Separate Earthworks Materials
		Pavements
Inc.	7/ 1	Permitted Pavement Options
Inc.	7/ 2	Excavation, Trimming and Reinstatement of Existing Surfaces
Inc.	7/ 4	Bond Coats, Tack Coats and Other Bituminous Sprays
		Kerbs, Footways And Paved Areas
Inc.	11/ 1	Kerbs, Footways and Paved Areas
		Landscape and Ecology
Inc.	30/ 1	General
Inc.	30/ 2	Weed Control
Inc.	30/ 4	Ground Preparation

APPENDIX 0/4: LIST OF DRAWINGS INCLUDED IN THE CONTRACT

Drawing No. **Title**

A3 209623H-0000-001-Site Location Plan
A1 209623H-0000-002 Enabling Works
A1 209623H-200-001 Site Clearance Plan
A1 206382H-700-001 Construction Layout

Additional Scheme Details
A3 209623H-SD-01 Scheme Detail No dig footpath
A3 209623H-SD-02 Scheme Detail Resin Bound footpath adjacent to existing playground
A3 209623H-SD-03 Scheme Detail Entrance to existing park footpath
A3 209623H-SD-04 Scheme Detail Tree Top Trek Entrance
A3 209623H-SD-05 Scheme Detail Footpath Tie into Existing Estate Road
A3 209623H-SD-06 Scheme Detail Honeycomb containment system

A4 Standard detail K2 Drop Kerb

Highway Construction Details (HCD) published by The Stationary Office as Volume 3 of the Manual of Contract Document for Highway Works is brought into the Contract by reference.

APPENDIX 1/7: SITE EXTENT AND LIMITATIONS ON USE

Extent of the Site.

1. The extent of the site is shown on the contract drawings listed in Appendix 0/4.

Limitations on the Use of the Site.

2. The site shall not be used for any purpose other than carrying out the works.

3. The Contractor shall ensure that his insurances adequately include for implementation of any works undertaken outside the site boundary, e.g. the erection of signing.

4. Access to areas outside the site boundary is by arrangement with the Overseeing Organisation.

5. The exact location and size of the site compound shall be confirmed and agreed with the Local Authority. If the Contractor wishes to find an alternative location for any site offices, etc. he shall obtain written approval from the Local Authority if required for the siting of such offices.

6. The Contractor shall ensure that the Local Authority has granted any necessary planning consent for land to be used for tipping.

7. On completion of the Contract and prior to the issue of the Certificate of Completion, the offices, equipment, etc. shall be removed and the area reinstated to its prior condition

8. Any excavations left overnight must be secured

APPENDIX 1/70: DISPOSAL OF MATERIALS

1. All unacceptable and surplus materials to be removed from the site shall be classified as controlled waste and the Contractor will be required to dispose of such materials in accordance with the Environmental Protection Act 1990. The Duty of Care imposed by the Act shall apply to the Contractor as producer of the waste. This shall also apply to any Subcontractor employed by the Contractor.

2. All waste material haulage must be undertaken by a carrier registered to Transport Controlled Waste and each load must be accompanied by a transfer note and transported in sheeted wagons.

3. All waste must be deposited at an approved or licensed site capable of taking the waste in question.

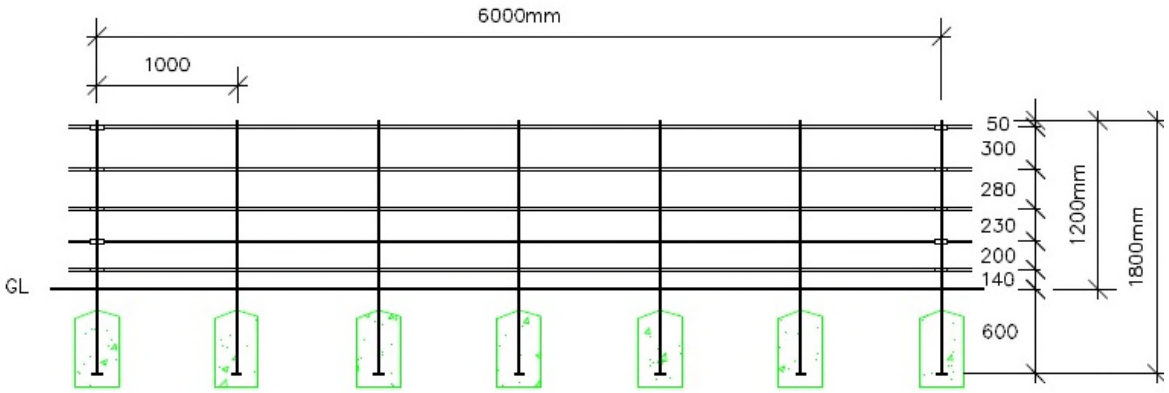
4. The tipping or burning of any unacceptable materials on site shall not be carried out.

APPENDIX 3/1: FENCING, GATES AND STILES

1. The Contractor will be required to install, and maintain until completion of the Works, temporary fencing around the working area including the site compound in accordance with Specification clauses 302 and 303.

2. All new fencing as indicated on the drawing will be an exact match as the rest of the 5 bar Estate fencing throughout Heaton Park as illustrated below.

3. This is known as: **Traditional Estate & Parkland Fencing** originally manufactured in wrought iron, the modern method uses mild steel. The fence and gates will be colour coated in dark green Hammerite paint to match the existing fencing and gates within Heaton Park.



Estate Rail Details
Scale 1:50 @ A3

Notes:

Intermediate posts 40 x 10mm flat steel bar 1800 long with baseplates and drilled for rails and welded at through points.

Connection posts 40 x 10mm flat steel bar 1800 long with baseplates and tube connectors for rails fixed with grub screws.

Top rail 20mm dia steel round bar.

Inner / Lower rails in 16mm dia steel round bar.

All steelwork to be hot dipped galavanised.

Post holes at 1m centres backfilled with Postcrete.

APPENDIX 6/5: GEOTEXTILES USED TO SEPARATE EARTHWORKS MATERIALS

1. Non-woven geotextile Terram 1000, UV stabilised or similar approved, to be installed under various depths of crushed stone as shown on contract drawings.

APPENDIX 6/8: TOPSOILING

1. Topsoil shall be deposited and spread at the locations and to the thickness of 150mm as described in the Works Information

2. Topsoil shall be loose tipped to give the required thickness. The method adopted must have the prior approval of the Overseeing Organisation. The use of tracked plant is likely to result in over-compaction and may not be approved. Any topsoil which in the opinion of the Overseeing Organisation has been subject to excessive compaction by the Contractor shall be rotavated to its full depth at the Contractor's expense and to the entire satisfaction of the Overseeing Organisation prior to the execution of any subsequent operations.

APPENDIX 7/2: EXCAVATION, TRIMMING AND REINSTATEMENT OF EXISTING SURFACES

Generally

Costs in respect of reinstatement of paved areas, must allow for the following in the tender :-

(a) sub-base, base, binder course and surface course all as described elsewhere in this Series; bituminous and cement bound regulating courses,

(b) imported granular filling material Class 6F1 and compaction

(c) tack coat, as described elsewhere in this Series

(d) kerbs, footways and paved areas, all as described in Series 1100

(e) bringing to correct levels and surface regularity following settlement

(f) making good or replacement of materials as appropriate, damaged by the execution of the Works

APPENDIX 7/4: BOND COATS, TACK COATS AND OTHER BITUMINOUS SPRAYS

In respect of bonding or tack coats, must allow for the following in the tender :-

(a) sampling and testing; preparing trial areas and carrying out trials; making good after sampling, testing and carrying out trials

(b) designing and verifying mixes; grading, measuring, mixing and depositing materials where required; admixtures and additives

(c) cleaning and preparing existing surfaces, cutting back, preparing and working on or up to adjacent surfaces and features; making joints

(d) protection and masking and unmasking of kerbs, drainage channels, chamber covers, gully gratings, expansion joints, road studs, road markings and the like and obtaining clean markings

Tack Coat

Apply tack coat, as described, to all areas of existing carriageways and footways which are to be overlain with new bituminous surfacing materials as required by the Contract.

APPENDIX 11/1: Kerbs, Footways and Paved Areas

Generally

Costs in respect of kerbs, channels, edgings, combined drainage and kerb blocks, and linear drainage channel systems must allow for the following in the tender :-

(a) sampling, testing and making good

(b) excavating as necessary, including hard materials, backfilling with approved materials and compaction, disposal of materials, including multiple handling as required; reinstatement of adjoining finishings

(c) all materials and fittings including cutting, laying to correct levels and alignment and jointing, including movement joints, joint sealants; bedding on and including concrete foundations, haunchings and backings, including formwork; mixing materials and extruding kerbs; keying of surfaces and tack coats; surface finishings, curing and protection

(d) quadrants, dropper kerbs, and other special kerb units

(e) additional pavement materials below channels

Concrete Kerbs, Channels and Edgings, etc

Lay conservation kerbs of the various types to straight or curved alignment as required, in the various locations indicated on the drawings and as required by the Contract.

Allow for constructing drop crossing and transition kerbs at pedestrian crossing points.

Footways and Paved Areas

Lay 10mm resin bound sandstone buff/golden gravel 25mm depth. Cellular honeycomb containment system (see detail A3/209623H/SD/06). MOT Type 3 to varying depth to achieve 1:4 embankment slope to all areas of footways and maintenance areas indicated on the drawings (A1/209623H/700/001 and A3/209623H/SD/01).

Lay 2-5mm resin bound sandstone buff/golden gravel 18mm depth. Lay AC 14 10mm open surface course asphalt 50mm depth, (AC14 open surf max 100/150 PEN to BS EN13108-1:2006). Lay 150mm MOT Type 3 well compacted granular sub base SHW Clause 805 to all areas of footways and maintenance areas indicated on the drawings (A1/209623H/700/001 and A3/209623H/SD/02).

Lay 2-5mm resin bound golden gravel 18mm depth. Lay AC 14 10mm open surface course asphalt 50mm depth, (AC14 open surf max 100/150 PEN to BS EN13108-1:2006). Lay 150mm MOT Type 3 well compacted granular sub base SHW Clause 805 to all areas of footways and maintenance areas indicated on the drawings (A1/209623H/700/001 and A3/209623H/SD/03).

Lay 0-10mm resin bound crusher run sandstone buff/ golden gravel 25mm depth. Lay AC 14 open surface course asphalt 40mm depth, (AC14 open surf max 100/150 PEN to BS EN13108-1:2006). Lay 100mm MOT Type 3 well compacted granular sub base SHW Clause 805 to all areas of footways and maintenance areas indicated on the drawings (A1/209623H/700/001 and A3/209623H/SD/04).

Lay 10mm sandstone buff/golden gravel 25mm depth. Lay MOT Type 3 to 200mm well compacted granular sub base SHW Clause 805 to all areas of footways and maintenance areas indicated on the drawings (A1/209623H/700/001 and A3/209623H/SD/05).

Allow for the design and construction of all drop crossings in the various footway and paving materials, at locations indicated on the drawings, to falls and crossfalls as required, including all cutting of materials at different gradients and inclines, in respect of all vehicular, pedestrian and cycle track crossings.

Allow for AluExcel Aluminium edge restraints, pressure treated fine sawn softwood stakes, pegs and Hickson Tanalith E timber preservative treatment along the edgings of the footpath constructions at all new footways and paved area construction to existing surfaces and levels, including the taking up, removal and/or replacement of existing kerbs, edgings, pavings and any further additional materials, regulating materials, and the like, required as a result.

APPENDIX 26/1: Ancillary Concrete

1. The concrete mix for purposes additional to those listed in Table 26/1 shall be as described below and shall comply with the requirements of Clause 2602.

PURPOSE	**MIX**
Kerbs	ST1
Edging	ST3
Litter Bin	ST1

APPENDIX 30/1 : LANDSCAPE AND ECOLOGY, GENERAL

B.S. 4428 :
Unless otherwise specified herein after or indicated on the drawings , general landscape operations shall be executed in accordance with the recommendations of B.S. 4428: General Landscape Operations (Excluding Hard Areas)

Work by Machine or Hand :
All operations hereinafter described must be carried out by suitable machines or by hand. Any work around the base of trees, in confined space or where it is impractical to carry out by machine for any reason shall be excavated by hand and the Contractor must include this in his Rates and Programme.

Peat :
No peat based materials are to be used during planting operations.

Good Practice :
Where and to the extent that materials and workmanship are not fully specified, they are to be :
(i) Suitable for the purposes of the Works.

APPENDIX 30/2 : WEED CONTROL

Herbicides

Chemicals used for herbicide/ pesticide control must be chemicals approved by the Ministry of Agriculture, Food and Fisheries list of Approved Chemicals. The Contractor or his sub-Contractor must apply chemicals for herbicide/ pesticide control in accordance with the Control of Pesticides Regulations 1986, which require that anyone applying chemicals for herbicides/ pesticides control must have a Certificate of Competence in the use of herbicide/ pesticide control. If required by The overseeing organisation, copies of the Certificate shall be provided.

Prior to use, the herbicide and mode of action shall be notified to The overseeing organisation .

Approved Weedkillers

The following weedkilllers shall be stored and applied in accordance with the manufacturer's recommendations and shall comply with the Ministry of Agriculture, Fisheries and Food, Agricultural Chemicals Approved Scheme and the Pesticides Safety Precautions Scheme.

- Glyphosate – transcolated (Roundup) available from Monsanto Plc, Thames Tower, Burleys Way, Leicester, LE1 3TP (Tel: 0116 262 0864).

Visible weeds shall be removed by hand and an application of total weed control shall be applied seven days in advance of planting. Glyphosate shall be used for total weed control.

All weeds removed by hand shall be taken to tips off site.

Work must be programmed so as to allow for the necessary time period for the application to be effective prior to any cultivation taking place.

APPENDIX 30/4 : GROUND PREPARATION

GENERALLY

Prior to topsoiling the matter below the topsoil shall be thoroughly broken down to a depth of 150mm, or as specified, using a single tine subsoil ripper or other approved implement. Where proposed planting bed is over former carriageway or car park construction, subsoil matter to be broken to an appropriate depth to allow free drainage.

If topsoil is spread and allowed to lie fallow until the planting season all weed growth must be sprayed off using glyphosate in accordance with the manufacturer's recommendation.

Work must be programmed so as to allow for the necessary time period for the application to be effective prior to any cultivation taking place.

Minor Grading

The surface of the soil shall at all times be of open texture and allow for free passage of water thorough it. All depressions, humps and ruts shall be removed by hand working or by approved mechanical equipment to achieve an even surface. The final level of the soil shall be 50mm below adjacent paved areas, kerbs, etc., or shown on drawings, for shrub areas.

Cultivation

The soil shall be cultivated to full topsoil depth (taking care not to turn up subsoil when cultivating topsoil on subsoil) using tine cultivators and disc harrows or a rotavator to relieve any compaction and break up any large lumps of soil. The cultivation shall comprise of two passes at right angles to each other.

Final Preparation

All large stones and other debris over 20mm in size shall be removed from the surface to the Contractor's tip and the surface lightly raked to achieve an even surface.

Any minor irregularities and deficiencies in level to be rectified prior to planting.