Clifton Scannell Emerson Associates

Volume C – Pricing Document

Lissenhall Park & Ride Facility

NTA
Údarás Náisiúnta Iompair
National Transport Authority

Client: National Transport Authority

Date: August 2026

Job Number: 20_008D

CONSULTING ENGINEERS

Civil Engineering | Structural Engineering | Transport Engineering | Environmental Engineering | Project Management | Health and Safety

Clifton Scannell Emerson Associates

Clifton Scannell Emerson Associates Limited,
Consulting Engineers, 3rd Floor The Highline, Bakers Point,
Dun Laoghaire, Co. Dublin, Ireland A96 KW29
T. +353 1 2885006 E. info@csea.ie W. www.csea.ie

Document Control Sheet

Project Name: Lissenhall Park & Ride Facility

Project Number: 20_008D

Report Title: Volume C – Pricing Document

Filename: RPT-20_008D-007

Issue No.	Issue Status	Date	Prepared by	Checked by
1st	Draft	April 2026	YML	BD
2nd	Draft	June 2026	MC/YML	BD
3rd	Draft	July 2026	MC/YML	BD
4th	Final	August 2026	MC/YML	BD

Table of Contents

Document Control Sheet 2
Table of Contents 3
PREAMBLE TO THE BILL OF QUANTITIES 4
AMENDMENTS TO THE REQUIREMENTS FOR MEASURING AND PRICING 8
CC-RMP-00100 PRELIMINARIES 8
CC-RMP-00500 DRAINAGE AND SERVICE DUCTS 22
CC-RMP-00600 EARTHWORKS 25
CC-RMP-00700 PAVEMENTS 26
CC-RMP-01100 KERBS, FOOTWAYS AND PAVED AREAS 26
CC-RMP-01200 TRAFFIC SIGNS AND ROAD MARKINGS 26
CC-RMP-01300 ROAD LIGHTING COLUMNS AND BRACKETS 29
CC-RMP-01400 ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS 29
CC-RMP-01700 STRUCTURAL CONCRETE 32
CC-RMP-02700 WATERMAIN, UTILITIES AND ACCOMMODATION WORKS 32
S3000 LANDSCAPING AND ECOLOGY (Additional Series) 35
BILL OF QUANTITIES 41
1. PRELIMINARIES .....
2. ROADWORKS .....
3. LANDSCAPING WORKS .....
6. GRAND SUMMARY .....

PREAMBLE TO THE BILL OF QUANTITIES

General Directions

1 The Requirements for Measuring and Pricing (RMP) in TII Publications (Standards) is published as a collective group of documents under the Construction and Commissioning activity within the TII Publications system. The Bill of Quantities has been prepared in accordance with the RMP.

2 In the Bill of Quantities the sub-headings and item descriptions identify the work covered by the respective items, read in conjunction with the matters listed against the relevant marginal headings "Item Coverage" in the different parts of the RMP, these Preambles and the amendments to the RMP immediately following these Preambles. The nature and extent of the work is to be ascertained by reference to the Works Requirements and Contract Conditions. The rates and prices entered in the Bill of Quantities shall be deemed to be the full inclusive value of the work covered by the several items including the following, unless expressly stated otherwise.

(i) Labour and costs in connection therewith.

(ii) The supply of materials, goods, storage and costs in connection therewith including delivery to Site. Taking delivery of materials and goods supplied by others, unloading, storage, and costs in connection therewith.

(iii) Plant and costs in connection therewith.

(iv) Fixing, erecting and installing or placing of materials and goods in position.

(v) Temporary Works.

(vi) The effect on the phasing of the Works or any element of the Works to the extent set forth or reasonably implied in the documents on which the tender is based.

(vii) General obligations, liabilities and risks involved in the execution of the Works set forth or reasonably implied in the documents on which the tender is based (The provision of insurances and bonds are deemed to be general obligations).

(viii) Establishment charges, overheads and profit.

(ix) Waste.

(x) Attendance and transport for sampling and testing carried out by the Employer's Representative, tests carried out by the Contractor in accordance with the particular requirements of Appendix 1/5, supplying results of tests carried out by the Contractor and providing test certificates.

(xi) Supply and delivery of samples to the Employers Representative in accordance with the particular requirements of Appendix 1/6.

(xii) Complying with Quality Assurance schemes and providing certificates of conformity.

(xiii) Preparation and supply of detailed working drawings.

(xiv) Awaiting approvals and or consents.

(xv) Complying with all Legal Requirements and ensure that the Contractor's Personnel comply with all Legal Requirements, including but not limited to those environmental, archaeological and health and safety requirements as set out in the Works Requirements and Contract Conditions.

Measurement

3 (i) The measurement of work shall be computed net from the dimensions stated in the Contract unless otherwise stated in the RMP.

(ii) Where the tender documents provide for the Contractor to select the type of buried structure (where the structure is not within Designated Outlines) to be constructed then the measurement of all work in each area so affected shall be based upon the thinnest pavement construction and surfacing over structures permitted by the Contract in that area for the particular type of buried structure the Contractor has elected to construct.

Pricing of Items

4 Each individual item shall have a rate or price entered against it. Rates and prices shall be expressed to two decimal places.

Reserved Sums and Contract Sums for Specialists will be provided by the Contracting Authority. Prices entered for attendances and management of specialist works will remain as tendered, even after the Reserved Sums are replaced with actual sums following tendering of the specialist works. These prices may not be less than zero.

Alternative Specified Materials, Designs and Options Within Types of Pavement

5 *Not used*

Privately and Publicly Owned Services or Supplies

6 The information in the Contract as to the whereabouts of existing services and mains is believed to be correct, but the Contractor shall not be relieved thereby of his obligations under the Contract. The Contractor shall include in his rates and prices for locating and taking measures for the support and full protection of pipes, cables and other apparatus during the progress of the Works, obtaining the written consent of the appropriate authority to interrupt the service or supply and for keeping the Employer's Representative informed of all arrangements he makes with the owners of privately owned services or supplies, Statutory Undertakers and Public Authorities as appropriate.

Labours

7 *Not used*

Roadworks Overall Requirements

8 The Contractor shall allow in his rates and prices for complying with requirements in respect of pavement construction, horizontal alignments, surface levels and surface regularity of pavement courses, cold weather working, use of surfaces by traffic and construction plant, and general requirements for sub-bases and road bases.

Work Within and below any Water Condition

9 The Contractor shall allow in his prices for any items of structures designed by the Contractor provided under CC-RMP-02500, for taking measures required to execute work in any condition where there is a present of any type of water.

Dealing with Flow

10 The Contractor shall allow in his rates and prices for taking measures to deal with the existing flow of water, sewage and the like.

11 *Not used*

Site Limitations and Constraints

12 The Contractor shall allow in his rates and prices for complying with any limitations and constraints on the use of the Site.

Hard Material

13 For the purposes of the Contract the following are designated as Hard Material in accordance with Section 2 Definitions, paragraph 1(h)(i):

(a) Hard strata which requires the use of blasting, breakers or splitters for its removal but excluding individual masses less than 0.2 cubic metres;

(b) those deposits designated by limits shown on the Drawings;

(c) existing pavements, footways, paved areas (but excluding unbound materials) and foundations in masses in excess of 0.20 cubic metres.

Equivalent Products and Materials

14 (i) Where the Contractor offers an equivalent product or material in place of the one identified or specified, which is accepted for incorporation into the Works by the Employer's Representative, then the rates and prices in the Bill of Quantities shall be deemed to include for all the obligations and costs associated with the incorporation of the equivalent into the Works, including design, provision of data and drawings, certificates, awaiting approvals, resubmissions and modifications and amendments to the Works.

(ii) Unless specifically stated to the contrary in the Contract the measurement of the Works affected by the incorporation of the equivalent products and materials shall be based on the Tender documents and not on the Works as amended and completed to incorporate the equivalent products and materials.

Permanent Works Designed by the Contractor

15 Where the Contract requires part(s) of the Permanent Works to be designed by the Contractor, the rates and prices in the Bill of Quantities shall include for all the obligations and costs associated with the incorporation of the Contractor's design into the Works, including design, provision of data and drawings, certificates, awaiting approvals, resubmissions and modifications and amendments to the Works.

Structure Designed by the Contractor

16 Earthwork within the Designated Outlines shall not be included by the Employer's Representative in the earthwork's schedules.

Alterations for Road Authorities

17 *Not used*

Amendments to the Requirements for Measuring and Pricing	18	For the purposes of the Contract, the Requirements for Measuring and Pricing is in accordance with the text immediately following.

AMENDMENTS TO THE REQUIREMENTS FOR MEASURING AND PRICING

CC-RMP-00100 PRELIMINARIES

Add additional items to the original paragraph 4:

Erection of Temporary Accommodation	**4**	(ii) In the case of accommodation for the Employer's Representative: k) Purchase, supply and guarantee until issue of maintenance certificate, all equipment as outlined in Appendix 1/1, Section A Temporary Accommodation and Equipment for the Employer's Representative and Section B - Accommodation and Equipment which shall become the property of the Employer's Representative on issue of the maintenance certificate.

Add additional items to the paragraph 9:

Erection of Permanent Accommodation	**9**	(j) Contractor's design obligations for Petrol/Oil Interceptors, Hydro Brake Manholes and Gate Valve Manholes in accordance with Appendix 1/11, including design submissions, calculations, certification, reviews, revisions and all associated requirements.

Add additional items to the paragraph 18:

Communications Systems for the Employers Representative	**18**	j) Payment of all mobile phone bills for calls and data bundles for each mobile phone as outlined in appendix 1/3. k) Purchase, supply and guarantee until issue of maintenance certificate, all equipment as outlined in Appendix 1/3, and for the transfer of equipment ownership to the Client upon issue of maintenance certificate.

Add additional items to the paragraph 30:

Traffic Safety and Management	**30**	t) Traffic Safety and Management Requirements as per Appendix 1/17 For the avoidance of doubt, the foregoing includes, but is not limited to: u) All costs associated with securing Road Opening Licences for the works. v) All Traffic Safety and Management measures required for the installation of all Temporary Traffic Signal Arrangements. w) Traffic Management Notification Requirements, Review and Consultation as per Appendix 1/17. x) Traffic Safety and Control Officer in accordance with the requirements of Appendix 1/17, including the wages and other emolument paid including payment for overtime; working outside the Contractor's normal working hours if so required by the Employer's Representative and the costs and expenses incurred consequent upon the employment or hiring. y) Traffic Operations Supervisor in accordance with the requirements of Appendix 1/17, including the wages and other emolument paid including payment for overtime; working outside the Contractor's normal working hours if so required by the

Employer's Representative and the costs and expenses incurred consequent upon the employment or hiring.

z) Maintenance Requirements as per Appendix 1/17.

aa) Procurement, installation, management, maintenance and redeployments as required of Variable Message Signage as per Appendix 1/17.

bb) Management of Existing Traffic Signals as per Appendix 1/17.

Add additional items to the paragraph 65:

Acceptance of Appointment as Project Supervisor for the Construction Stage	**65**	d) Ensuring that all guidance set out in *CIF Construction Sector C-19 Pandemic Standard Operating Procedures* is implemented throughout the works. e) Appointment by the Project Supervisor for the Construction Stage of a suitably qualified and competent person(s) to act as C-19 Compliance Officer(s) in accordance with the above CIF document. f) Ensuring social distancing requirements during all work practices are capable of being met in compliance with Irish Government Public Health Measures and Relevant Guidance and in accordance with the Safety, Health and Welfare at work (construction) Regulations 2013. If a conflict of information exists then precedence shall be given to the Irish Government Public Health Measures and Relevant Guidance. g) Additional measures introduced to protect employees and minimise the spread of Covid-19 Virus in compliance with Irish Government Public Health Measures and Relevant Guidance. h) Provision to maintain adequate and proper welfare facilities to deal with Covid-19 whilst complying with Covid-19 social distancing requirements. i) Provision to provide adequate breaks and mealtimes for Contractor and Sub-Contractor employees whilst complying with Covid-19 social distancing requirements. j) Ensuring all employees of the Contractor have completed the relevant Health and Safety courses attributed to Covid-19. k) Ensuring all employees of any sub-contractors have completed the relevant Health and Safety courses attributed to Covid-19.

Add additional items to the paragraph 73:

As Built Records	**73**	d) In accordance with CC-CMG-04001 and as per Appendix 1/60 issue to the Employers representative, on a weekly basis, of as-built information of all existing utilities encountered and of all elements constructed on site within the weekly reporting period, including positions and levels for all structural foundations, plinths, beams, slabs, pipes, utility ducts, kerbs and pavements. e) Compilation of monthly as-built information, on clear and legible layout drawings, with legend to explain elements being presented, for inclusion in each monthly progress report.

Add the following sections and its respective paragraphs:

Noise and Vibration Monitoring		
Units	**82**	The units of measurement shall be: (i) Noise and Vibration Monitoring …item.
Measurement	**83**	Noise and Vibration Monitoring shall be measured once only.
Itemisation	**84**	Separate items shall be provided for Noise and Vibration Monitoring in accordance with Section 3 of CC-RMP-00010 paragraphs 3 and 4 and the following: Group Feature I 1 Noise and Vibration Monitoring
Noise and Vibration Monitoring **Item Coverage**	**85**	The items for Noise and Vibration Monitoring shall in accordance with the Preambles to Bill of Quantities General Directions include for: (a) Setup as required in Appendix 1/9 (b) Recording of Noise & Vibration Levels as required in Appendix 1/9 (c) Reporting as outlined in Appendix 1/9
Waste Management Plan		
Units	**86**	The units of measurement shall be: (i) Waste Management Plan …item.
Measurement	**87**	Waste Management Plan shall be measured once only.
Itemisation	**88**	Separate items shall be provided for Waste Management Plan in accordance with Section 3 of CC-RMP-00010 paragraphs 3 and 4 and the following: Group Feature I 1 Prepare Waste Management Plan
Waste Management Plan **Item Coverage**	**89**	The items for Waste Management Plan shall in accordance with the Preambles to Bill of Quantities General Directions include for: (a) prepare and submit Waste Management Plan in accordance with all relevant legislation for Employer's Representative's approval (b) Update and resubmit plan as the need arises.

Setting Out and Existing Ground Level Surveys

Units	**90**	The units of measurement shall be: (i) Setting Out and Original Ground Level Surveys …item
Measurement	**91**	Setting Out and Original Ground Level Surveys shall be measured once only.

Itemisation	**92**	Separate items shall be provided for Setting Out and Original Ground Level Surveys in accordance with Section 3 of CC-RMP-00010 paragraphs 3 and 4 and the following: Group Feature I 1 Setting Out and Original Ground Level Surveys
Setting Out and Original Ground Level Surveys	**93**	The items for Setting Out and Existing Ground Level Surveys shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(a) Surveying equipment, consumables and operation staff (b) Depreciation, maintenance and repairs (c) Replacement equipment (d) Traffic Management (e) Access Provisions (f) Comply with all the requirements of Appendix 1/12, including the preparation, implementation and provision of all plans, records, surveys, as-constructed information, reports, GPS datums and any other submissions specified therein.

Archaeological Requirements

Units	**94**	The units of measurement shall be: (i) Archaeological Requirements …item
Measurement	**95**	Archaeological Requirements shall be measured once only.
Itemisation	**96**	Separate items shall be provided for Archaeological Requirements in accordance with Section 3 of CC-RMP-00010 paragraphs 3 and 4 and the following: Group Feature I 1 Archaeological Requirements II 2 Different Stages
General Archaeological Requirements Item Coverage	**97**	The items for Archaeological Requirements shall, in accordance with the Preambles to Bill of Quantities General Directions, include for: (a) all work in connection with the preparation of method statements and licence number applications, liaison with the Employer's Representative, Client and DHLGH and/or NMS; (b) Archaeological staff and Specialists (i.e. 'labour') and all costs in connection therewith including appointment, training and the administration of wages, holidays, sick leave and pensions (c) materials, goods, storage and costs in connection therewith including delivery to site (d) plant, tools and equipment and costs in connection therewith (e) fixing, erecting and installing or placing of materials and goods in position (f) temporary works

(g) Standing time

(h) the effect on the sequencing of the required archaeological stage services or any element of the archaeological contract to the extent set forth or reasonably implied in the documents on which the Tender is based, including the provisions with regard to fact that Stage services may be carried out in whole, in part or not at all at the sole discretion of the Client

(i) mobilisation and remobilisation of vehicles, accommodation, plant and machinery between individual sites or areas of work and any associated standing time for accommodation, plant, vehicles and personnel

(j) complying with the obligations under the Contract with regard to liabilities, indemnities and insurances

(k) establishment charges, overheads and profit

(l) procurement, management and supervision of the archaeological contract

(m) waste

(n) awaiting approvals and or consents

(o) all liaison as required by the Contract, including progress reports & meetings

(p) complying with the requirements/instruction of the Employer's Representative

(q) General obligations, statutory obligations, liabilities, and risks involved in the execution of the archaeological services set forth or reasonably implied in the documents on which the Tender is based to the extent not otherwise referred to above.

(r) providing the Employer's Representative with one (1 No.) digital copy of all required method statements.

(s) attendance at meetings with the Client, Employer's Representative and/or DHLGH/NMS, if necessary

(t) setting out of the Stage (ii) Areas using the co-ordinates provided and existing control stations

(u) topographical survey of all Stage (ii) Areas including obtaining the necessary co-ordinates of control points, calculation of setting out data, establishment of additional TBMs and control points as required

(v) awaiting approvals and or consents

(w) Topsoil excavation

(x) Subsoil excavation

(y) Keeping excavations free of water

(z) careful removal of soils from areas to be excavated, separation of the topsoil and any subsoils, deposition to adjacent and separate stockpiles, taking precautions to avoid damage to lands over which access is taken to the site of the excavations, property, structures, drains, sewers, services and the like, and if necessary, loading into transport, haulage and multiple handling

of material

(aa) keeping the excavations free of surface water loading into transport

(bb) removal of geotextile membranes and/or plastic sheeting and careful cleaning by hand of Stage (ii) Areas in order to expose fully all archaeological features and deposits in accordance with the Works Requirements

(cc) protection of the archaeological sites including canopies or the like for working in wet weather;

(dd) preparation of a pre-excavation survey of each Stage (ii) Area in accordance with the Works Requirement

(ee) packaging, secure storage and temporary conservation/stabilisation (as required) of any artefacts discovered

(ff) test excavation of any features/deposits/objects identified during Stage (ii) that were not identified during testing

(gg) supply and installation of secure temporary covering to adequately protect the Stage (ii) Areas following completion of hand cleaning.

(hh) regular inspection of the Stage (ii) Areas following hand cleaning and covering to ensure that protective covering is in place

(ii) bringing plant and equipment to the specific location(s)

(jj) erecting and setting up plant and equipment including site preparation, levelling and access ramps

(kk) moving and setting up plant and equipment at each position including site preparation, levelling and access ramps

(ll) dismantling and removing plant and equipment from site on completion. insurances, deposits and hire costs associated with the additional plant.

(mm) procurement of services from appropriate approved specialist

(nn) all costs and charges of specialist sub-consultants, including fees, travel & subsistence and materials

(oo) overheads and profit of archaeological consultant attendance of archaeological consultant or sub-consultant

(pp) all relevant conservation, processing or analytical materials or equipment obtaining of licences or consents required for specialist work

(qq) all reporting or contributions to relevant reports

(rr) production of all draft and final Stage (ii) reporting requirements/outputs and submission to the Client. These include Method Statements & licence number applications and preparation of a detailed pre-excavation plan of each Stage (ii) Area and preparation of a detailed list and description of features and deposits in each Stage (ii) Area.

(ss) miscellaneous materials;

(tt) tools and equipment including PPE

(uu) all identification, cleaning, examination, recording, excavation and sampling of features or deposits as required to complete the Stage (iii) Services to the standard required and as set out in the Services Requirements;

(vv) progress reports and meetings;

(ww) secure storage and temporary conservation (as required) of all artefacts and samples including sympathetic packaging materials in conformity with the NMI and NMS guidance/standards;

(xx) all identification, sieving, drying, processing, sorting, cleaning, labelling, packaging or repackaging, examination, analysis, recording and reporting on samples or artefacts or other archaeological materials in the course of analysis and reporting in this Stage (iii) of the work;

(yy) general obligations, statutory obligations, liabilities, and risks involved in the execution of the archaeological services set forth or reasonably implied in the Schedules on which the Tender is based to the extent not referred to in (a) to (w) above.

(zz) procurement of services from appropriate approved specialist

(aaa) all costs and charges of specialist sub-consultants, including fees, travel & subsistence and materials

(bbb) overheads and profit of archaeological consultant

(ccc) attendance of archaeological consultant or sub-consultant

(ddd) all relevant conservation, processing or analytical materials or equipment

(eee) licences or consents required for specialist work

(fff) all reporting or contributions to relevant reports

(ggg) preparation and submission of all Stage (iii) draft reports to the Employer's Representative in accordance with the Services Requirements

(hhh) illustrated summary account in the Stage (iii) reports of the results of all Stage (iii) Services

(iii) preparation of Environmental Registers as part of Stage (iii) Post-excavation Assessment Reports

(jjj) preparation of Finds Registers as part of Stage (iii) Post-excavation Assessment Reports

(kkk) preparation of Publication & Dissemination Plans as part of Stage (iii) Post-excavation Assessment Reports

(lll) amending all Stage (iii) reports to the satisfaction of the Employer's Representative as may be required

(mmm) liaison associated with the above including meeting with the Employer's Representative and DHLGH/NMS as may be required

(nnn) archaeological staff, plant, equipment, stationery, printing

and binding

(ooo) carrying out of all tasks associated with Stage (iii) reporting requirements as set out in the Works Requirements

(ppp) preparation of a brief summary account of the Stage (iii) excavation results for each archaeological excavation site in the required format for uploading the summaries to the online Excavations gazetteer in the required format and by the required annual deadline

(qqq) supplying in addition to the text summary at least one labelled general plan (i.e. line drawing) of the excavated features and one photograph of the excavation site in its setting in formats suitable for publication in the online Excavations gazetteer

(rrr) Processing of bulk soil samples and identification and extraction of any archaeological or environmental material in accordance with Services Requirements and TII Guidelines for the retrieval, analysis and reporting of plant macro-remains, wood, charcoal and pollen from archaeological excavations Draft 1 Rev 1

(sss) All processing of bulk soil samples and extraction of any archaeological or environmental material, including flotation, sieving, identification, drying, processing, sorting, cleaning, labelling, registering, packaging or repackaging of samples or the material

(ttt) Input of approved Environmental Specialist including on-site attendance as required, including training of field staff as required to process bulk soil samples

(uuu) procurement of any required services from approved Environmental Specialist

(vvv) all costs and charges of Environmental Specialist, including fees, travel & subsistence and materials

(www) carrying out of all necessary post-excavation analyses as detailed as a minimum requirement in the Services Requirements and to the standards as detailed in the approved Stage (iii) Post-Excavation Assessment Report(s)

(xxx) preparation and submission of all Stage (iv) draft Excavation Reports and Stage (iv) Environmental Reports to the Employer's Representative

(yyy) amending all Stage (iv) draft Excavation Reports and Stage (iv) Environmental Reports to the satisfaction of the Employer's Representative as may be required

(zzz) one (1 No.) digital version of each approved Stage (iv) Excavation Report and Stage (iv) Environmental Report

(aaaa) supplying of high resolution, print quality digital files of all images in Stage (iv) Excavation Reports

(bbbb) preparation of a brief summary account of the Stage (iii) excavation results for each archaeological excavation site in the required format for

(cccc) uploading the summaries to the online Excavations gazetteer in the required format and by the required annual deadline

(dddd) supplying in addition to the text summary at least one labelled

general plan (i.e. line drawing) of the excavated features and one photograph of the excavation site in its setting in formats suitable for publication in the online Excavations gazetteer

(eeee) supplying the Employer's Representative with copies of each of the summaries in digital and printed format

Radiocarbon Dating

Units **98** The units of measurement shall be:
(i) Radiocarbon Dating …Number

Measurement **99** Radiocarbon Dating shall be measured once only.

Itemisation **100** Separate items shall be provided for Radiocarbon Dating in accordance with Section 3 of CC-RMP-00010 paragraphs 3 and 4 and the following:

Group	Feature	
I	1	Radiocarbon Dating

Radiocarbon Dating **101** The items for Setting Out and Existing Ground Level Surveys shall, in accordance with the Preambles to Bill of Quantities General Directions, include for:

Item Coverage

(a) the assessment of the suitability of samples for radiocarbon dating and the submission of the assessments and proposals for radiocarbon dating for approval

(b) procurement of services from appropriate approved radiocarbon dating laboratory

(c) selection of samples suitable for radiocarbon dating, including the selection of duplicate/alternative samples where dating of the initially submitted sample has failed

(d) identification of samples selected for radiocarbon dating by specialist sub-consultants, including the identification of duplicate/alternative samples where dating of the initially submitted sample has failed

(e) all costs and charges of specialist sub-consultants, including fees, delivery charges, travel & subsistence and materials

(f) overheads and profit of the archaeological consultant attendance of archaeological consultant or sub-consultant

(g) delivery of samples for radiocarbon dating to approved radiocarbon dating laboratory provision of copies of radiocarbon dating and calibration certificates for each radiocarbon date

(h) all relevant conservation, processing or analytical materials or equipment

(i) obtaining all necessary licences and/or consents samples selected for radiocarbon dating, including those required for duplicate/alternative samples where dating of the initially submitted sample has failed

(j) the incorporation of radiocarbon dates into excavation and other reports and where necessary the statistically based

chronological modelling of radiocarbon dates creation, maintenance and delivery at conclusion of Stage (iv) of Radiocarbon Dating Catalogue, as detailed in Services Requirements and all reporting or contributions to relevant reports

Archiving and Delivery/Storage of Archaeological Records and Materials

Units	**102**	The units of measurement shall be: (i) Archiving and Delivery/Storage of Archaeological Records and Materials …item
Measurement	**103**	Archiving and Delivery/Storage of Archaeological Records and Materials shall be measured once only.
Itemisation	**104**	Separate items shall be provided for Archiving and Delivery/Storage of Archaeological Records and Materials in accordance with Section 3 of CC-RMP-00010 paragraphs 3 and 4 and the following: Group Feature I 1 Archiving and Delivery/Storage of Archaeological Records and Materials
Archiving and Delivery/Storage of Archaeological Records and Materials **Item Coverage**	**101**	The items for Archiving and Delivery/Storage of Archaeological Records and Materials shall, in accordance with the Preambles to Bill of Quantities General Directions, include for: (a) preparation of an orderly archive and catalogue of all records and materials – including consents, method statements, correspondence, drawings, notebooks, diaries, reports, registers, lists, photographs, samples and artefacts or other archaeological objects – relating to the archaeological services required by this Contract. (b) completion of all consents and database entries for transfer of excavation archives to National Monuments Service Archive in accordance with Services requirements (c) packaging of excavation archives in accordance with NMS Guidelines and Forms for the Transfer of Excavation Archives to National Monuments Service Archive (2012) or any subsequent amendment thereof (d) any necessary “first aid” conservation/packaging for finds or records (e) provision of suitable packaging materials for all archaeological objects and materials including (f) i) robust, custom-made archive boxes for the paper records and ii) museum boxes in conformity with the Advice Notes for Excavators (2010) of the National Museum of Ireland or any subsequent amendments thereof (g) delivery of all archives to the Client at end of contractual Stage Services in an orderly manner as per Specifications (or to National Museum of Ireland and the Department of Arts, Heritage, Regional, Rural & Gaeltacht Affairs or such other archives within the Republic of Ireland as shall be nominated by

the Client and Project Archaeologist)

(h) entering of artefact details in National Museum of Ireland finds database registry

(i) entering of excavation archive details onto National Monuments Service Excavations Archive database in accordance with DRAFT Guidelines for producing database record for Archaeological Archives presented to National Monuments Service Archive (2012) or any subsequent amendment thereof

(j) all administration and archaeological staff costs, transport and travel expenses, including mileage, accommodation and subsistence

(k) liaison with the Employer's Representative on a schedule for the delivery of the archives

Setting Out Engineer and Associated Equipment

Units

102 The units of measurement shall be:
(i) setting out engineer for the employer's representative.…day.

Measurement

103 The measurement of setting out engineer's for the Employer's Representative shall be a continuous period of four hours or more within any one day during which the setting out services are supplied in accordance with the written direction of the Employer's Representative.

Itemisation

104 Separate items shall be provided for setting out engineer's for the Employer's Representative in accordance with Section 3 of CC-RMP-00010 paragraphs 3 and 4 and the following:

Group	Feature	
I	1	Each type of operative for the Employer's Representative
II	1	Until completion of the Works
	2	After completion of the Works

Setting Out Engineer's for the Employer's Representative

105 The items for setting out engineers for the Employer's Representative shall in accordance with the Preambles to Bill of Quantities General Directions include for:

Item Coverage

(a) the wages and other emoluments paid including payment for overtime;

(b) working outside the Contractor's normal working hours if so required by the Employer's Representative;

(c) costs and expenses incurred consequent upon the employment or hiring;

(d) periods of less than four hours;

(e) transportation costs.

Construction Environmental Manager

Units	**106**	The units of measurement shall be: (i) construction environmental manager for the employer's representative.…day.
Measurement	**107**	The measurement of construction environmental manager for the Employer's Representative shall be a continuous period of four hours or more within any one day during which the setting out services are supplied in accordance with the written direction of the Employer's Representative.
Itemisation	**108**	Separate items shall be provided for construction environmental manager for the Employer's Representative in accordance with Section 3 of CC-RMP-00010 paragraphs 3 and 4 and the following: Group Feature I 1 Each type of operative for the Employer's Representative II 1 Until completion of the Works 2 After completion of the Works
Construction Environmental Manager for the Employer's Representative Item Coverage	**109**	The items for construction environmental manager for the Employer's Representative shall in accordance with the Preambles to Bill of Quantities General Directions include for: (a) the wages and other emoluments paid including payment for overtime; (b) working outside the Contractor's normal working hours if so required by the Employer's Representative; (c) costs and expenses incurred consequent upon the employment or hiring; (d) periods of less than four hours; (e) transportation costs.

Construction Environmental Management Plan (CEMP)

Units	**110**	The units of measurement shall be: construction environmental management plan (CEMP).…item.
Measurement	**111**	The Construction Environmental Management Plan (CEMP) shall be measured once only.
Group Feature	**112**	I 1 Construction Environmental Management Plan
Construction Environmental Management Plan **Item Coverage**	**113**	The items for construction environmental management plan for the Employer's Representative shall in accordance with the Preambles to Bill of Quantities General Directions include for: (a) Preparation and submission of the CEMP prior to commencement of the Site Works; (b) Liaison with the Employer's Representative and relevant

authorities in relation to the CEMP;

(c) Review, amendment, updating and resubmission of the CEMP as required throughout the Contract Period;

(d) Implementation, monitoring and maintenance of the CEMP during execution of the Works;

(e) Provision of all records, reports and documentation required to demonstrate compliance with the CEMP;

(f) Training, awareness and supervision of personnel in relation to environmental requirements under the CEMP; and

(g) All costs associated with compliance with the environmental requirements of the Contract.

Site Environmental Manager

Units **114** The units of measurement shall be:
(ii) site environmental manager for the employer's representative.…day.

Measurement **115** The measurement of site environmental manager for the Employer's Representative shall be a continuous period of four hours or more within any one day during which the setting out services are supplied in accordance with the written direction of the Employer's Representative.

Itemisation **116**

Separate items shall be provided for site environmental manager for the Employer's Representative in accordance with Section 3 of CC-RMP-00010 paragraphs 3 and 4 and the following:

Group	Feature	
I	1	Each type of operative for the Employer's Representative
II	1	Until completion of the Works
	2	After completion of the Works

Site Environmental Manager for the Employer's Representative Item Coverage **117** The items for site environmental manager for the Employer's Representative shall in accordance with the Preambles to Bill of Quantities General Directions include for:

(a) the wages and other emoluments paid including payment for overtime;

(b) working outside the Contractor's normal working hours if so required by the Employer's Representative;

(c) costs and expenses incurred consequent upon the employment or hiring;

(d) periods of less than four hours;

(e) transportation cost

Control Measures for Invasive Species

Units **118** The units of measurement shall be:
(i) Control Measures for Invasive Species ..... Item

Measurement	**119**	Control Measures for Invasive Species shall be measured only once.
Itemisation	**120**	A single item shall be provided for Control Measures for Invasive Species in accordance with Section 3 of CC-RMP-00010 paragraphs 3 and 4.
Control Measures for Invasive Species	**121**	The items for site environmental manager for the Employer's Representative shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(a) Preparation and implementation of the Invasive Species Management Plan in accordance with the Works Requirements. (b) Establishment, maintenance and removal of exclusion zones, fencing, signage and biosecurity measures. (c) Training of personnel and supervision of invasive species control measures. (d) Monitoring, inspection and record keeping throughout the Works. (e) All associated temporary works, documentation and liaison required to comply with the Works Requirements.

CC-RMP-00400 ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)

Add additional items to the following paragraphs:

Safety Barrier	**12**	The items for safety barriers, shall in accordance with the Preambles to Bill of Quantities General Direction include for:
Item Coverage		(k) special structures designed by the Contractor (as per paragraph 5 of CC-RMP-002500)

Add additional items to the following paragraphs:

Transitions	**16**	The items for transitions shall in accordance with the Preambles to Bill of Quantities General Direction include for:
Item Coverage		(i) special structures designed by the Contractor (as per paragraph 5 of CC-RMP-002500)

Add additional items to the following paragraphs:

Terminals	**20**	The items for terminals shall in accordance with the Preambles to Bill of Quantities General Direction include for:
Item Coverage		(b) special structures designed by the Contractor (as per paragraph 5 of CC-RMP-002500)

CC-RMP-00500 DRAINAGE AND SERVICE DUCTS

Drains, Sewers, Pipe Culverts and Service Ducts (Excluding Filter Drains, Narrow Filter Drains & Fin Drains)

Omit the note at the end of paragraph 11 and 17 which reads as follows:

Note: For each item which includes Group III Feature 1 or 2, an associated rate shall be provided for adjustment of the rate for each 25mm of difference in excess of 150mm where the average depth to invert calculated from site measurement varies from that stated in the Bill of Quantities. The foregoing shall apply to both increases and decreases of average in excess of 150mm and will result in either a positive or negative adjustment of the rate.

Add additional items to the following paragraphs:

Drains, Sewers, Pipe Culverts and Service Ducts	12	The items for drains, sewers, piped culverts and service ducts shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(j) Variation in average depth to invert level of up to 500mm (increase or decrease) (k) Excavation of existing trench material (As CC-RMP-00600 paragraph 17, 18 & 19) and backfilling and compaction with stated material to formation level; (l) Backfilling and compaction with stated material to formation level; (m) Location of adjacent underground services by detection equipment, liaison with Statutory Authorities or the excavation of trial pits; (n) Hand excavation where necessary to avoid damage to services; (o) Due allowance for working alongside, crossing over or under services and the provision of temporary supports where necessary; (p) Maintenance or repair of existing services damaged or affected by the Contractor's operations; (q) Provide appropriate marker tape or procure appropriate marker tape from relevant Statutory Undertakers and place to Statutory Undertakers details; (r) All damming, pumping, diversions and all other measures to control water in existing channels including all difficulties, disruption and delays due to water flows; (s) Grading and clearing the existing channel upstream and downstream of the Drains, Sewers, Piped Culverts and Service Ducts within the land-take to suit the pipe levels; (t) Consultation and liaison with the relevant Local Authority, Public or Private Utility Undertakers as necessary, particularly in respect of the timing or phasing of the works and furnishing such details as the Employer's Representative may require; (u) Restrictions and hindrances to the works arising from the requirements and activities of Local Authority, Public or Private Utility Undertakers; (v) Restrictions to construction and hindrances to the construction of the Works arising from the activities of other contractors who

are engaged in alterations, renewals, provisions for future requirements of other Works authorised by the Employer's Representative in respect of the services of Undertakings belonging to the Local Authority, Public or Private Utility Undertakers either on or in the vicinity of the site;

(w) Ascertainment of and compliance with all requirements of the Local Authority, Public or Private Utility Undertaker in respect of accommodation works involving or affecting their services of Undertakings;

(x) All losses arising from the activities of the Local Authority, Public or Private Utility Undertaker;

(y) Excavations to ascertain the locations of underground services including excavations by hand and provision of working space;

(z) Attendance, including working outside normal working hours, lighting, traffic control, signing and backfilling with approved material for the Local Authority, Public or Private Utility Undertaker services or facilities;

(aa) Support and protection of pipes, cables, ducts and other apparatus during the progress of the works;

(bb) Taking measures to ensure that no existing services are interrupted without the written consent of the relevant local authority, public or private utility undertakers or private owners;

(cc) Awaiting Employer's Representatives consent to proposals;

(dd) Restrictions and hindrances to the works from the activities of other contractors of the employer;

Add additional items to the following paragraphs:

Filter Drains	**18**	The items for filter drains shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(p) variation in depth to invert level of up to 500mm (increase or decrease)

Connections

Note: This entire item is also to apply to service ducts and the like.

Connections to Existing Drains, Sewers, Piped Culverts, Chambers, Permanently Severed Land and Mole Drains	**28**	The items for connection to existing drains, sewers, piped culverts, chambers, permanently severed land or mole drains shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(n) Flow monitoring for minimum one month in advance of connections, including presenting results to Employer's Representative; (o) Locating existing manholes, sewers or ducts; (p) Excavation, including workspace, upholding of the sides and dealing with water by pumping or other means and taking precautions to avoid damage to existing manholes, sewers, drains and services including providing temporary supports.

(q) Contingency planning and provision additional equipment as backup for potential failure of pumps, generators, macerators, etc. for managing flows during connections.

(r) Consultation and liaison with the relevant Local Authority, Public or Private Utility Undertakers as necessary, particularly in respect of the timing or phasing of the works and furnishing such details as the Employer Representative may require;

(s) Ascertainment of and compliance with all requirements of the Local Authority, Public or Private Utility Undertaker in respect of accommodation works involving or affecting their services of Undertakings;

(t) Excavations to ascertain the locations of underground services including excavations by hand and provision of working space;

(u) Attendance, including working outside normal working hours, lighting, traffic control, signing and backfilling with approved material for the Local Authority, Public or Private Utility Undertaker services or facilities;

(v) Support and protection of pipes, cables and other apparatus during the progress of the works;

(w) Taking measures to ensure that no existing services are interrupted without the written consent of the relevant local authority, public or private utility undertakers or private owners;

Chamber and Gullies

Chambers	**33**	The items for chambers shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(x) Working alongside, protecting and supporting adjacent services;

Renewal, Raising or Lowering Covers and Gratings on Existing Chambers and Gullies

Renewal, Raising or Lowering Covers and Gratings on Existing Chambers and Gullies	**59**	The items for Raising or Lowering Covers and Gratings on Existing Chambers and Gullies shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(t) Working alongside, protecting and supporting adjacent services; (u) Reinstatement of existing cover or grating including frame. (v) Installation of new cover and frame to existing chamber (w) Supply and install of 200mm wide in-situ concrete apron to surround frame when in landscaped areas.

Petrol/Oil Interceptor Hydro Brake Manhole Gate Valve Manhole

Petrol/Oil Interceptor Hydro Brake Manhole Gate Valve Manhole	**80**	The item for Petrol/Oil Interceptor, Hydro Brake Manhole and Gate Valve Manhole shall be in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(u) design;

(v) certificates;

(w) provision of data and drawings;

(x) resubmissions and modifications;

(y) amendments to the Works;

(z) special structures designed by the Contractor (as per paragraph 5 of CC-RMP-002500)

CC-RMP-00600 EARTHWORKS

Add additional items to the following paragraphs:

Extra Over Excavation for Excavation in Hard Material	**23**	The items for Extra Over Excavation for Excavation in Hard Material shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(j) Dewatering.
Geotextile	**60**	The items for geotextiles shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(i) Biodegradable weed control mat for planted areas.

Add the following sections and its respective paragraphs:

Sterilization of Excavation Plant

Units	**185**	The units of measurement shall be (i) Sterilization of Excavation Plant …… Item
Measurement	**186**	Sterilization of Excavation Plant shall be measure only once
Itemisation	**187**	A single item shall be provided for Sterilization of Excavation Plants in accordance with Chapter II – paragraphs 3 and 4 and the following: **Group** **Feature** **I** 1 Sterilization of Excavation Plant
Sterilization of Excavation Plant	**188**	The items for Sterilization of Excavation Plant shall, in accordance with the Preambles to Bill of Quantities General Directions, include for:
Item Coverage		(a) Sterilization of Excavation Plants used in invasive species excavation, removal, transportation and deposition. (b) Sterilization of baths for ground crews (c) Sterilization of all tolls used on the excavation, removal, deposition and transportation

CC-RMP-00700 PAVEMENTS

Add additional items to the paragraph 9:

Base, Lower Base, Upper Base, Binder Course, Surface Course and Concrete Slab	**9**	The items Base, Lower Base, Upper Base, Binder Course, Surface Course and Concrete Slab shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(kk) Joining between new and existing surfaces. Reinstatement of existing cover or grating including frame.

CC-RMP-01100 KERBS, FOOTWAYS AND PAVED AREAS

Add additional items to the paragraph 4:

Kerbs, Channels, Edgings, Combined Drainage, Kerb Blocks and Linear Drainage Channel Systems	**4**	The items Kerbs, Channels, Edgings, Combined Drainage, Kerb Blocks and Linear Drainage Channel System shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(cc) Joining between new and existing kerbs. (dd) Working alongside, protecting and supporting adjacent services. (ee) Reinstatement and reshaping of verge material to incorporate channel.

CC-RMP-01200 TRAFFIC SIGNS AND ROAD MARKINGS

Add additional items to the paragraph 4:

Permanent Traffic Signs	**4**	The items permanent traffic signs shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(bb)Supply and installation of posts or supports.

Add additional items to the paragraph 29:

Traffic Signal Poles	**29**	The items Traffic Signal Poles shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(j) Supply and installation of pole retention sockets.

Add additional items to the paragraph 57:

Permanent Bollards	**57**	The items Permanent Bollards shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(c) Supply and installation of bollard retention socket.

Add the following sections and its respective paragraphs:

Signs other than traffic signs

Units **65** The units of measurement shall be:

(i) Signs other than traffic signs ……Item

Measurement **66** Signs other than traffic signs shall be measured once only

Itemisation **67** Separate items shall be provided for Signs other than traffic signs in accordance with Section 3 of CC-RMP-00010 paragraphs 3 and 4 and the following:

Group	Feature
I	1 Signs other than traffic signs
II	1 Type sign
III	1 Size of sign
III	1 Type of foundation or support

Signs other than traffic signs

Item Coverage **68** The items for Signs other than traffic signs shall, in accordance with the Preambles to Bill of Quantities General Directions, include for:

(a) Excavation of acceptable material (CC-RMP-00600 paragraphs 17 and 18);

(b) Excavation of hard material (CC-RMP-00600 paragraph 23);

(c) backfilling and compaction;

(d) In Situ Concrete (CC-RMP-01700 paragraph 4);

(e) Formwork (CC-RMP-01700 paragraph 14);

(f) Reinforcement (CC-RMP-01700 paragraph 25);

(g) Ducts in bases;

(h) Pole retention socket;

(i) Reinstatement of surfaces;

(j) Disposal of material;

(k) Bedding and grouting;

(l) Protective system (CC-RMP-01900 paragraph 4);

(m) Notices and recording;

(n) Preparation and supply of record drawings;

(o) Fixing to structures and foundations including attachment systems.

Disposed from Store and Re-erect Signs other than Traffic Signs

Units

69 The units of measurement shall be:

(i) Disposed from store and re-erect signs other than traffic signs ……Item

Measurement

70 Disposed from store and re-erect signs other than traffic signs shall be measured once only

Itemisation

71 Separate items shall be provided Disposed from store and re-erect signs other than traffic signs in accordance with Section 3 of CC-RMP-00010 paragraphs 3 and 4 and the following:

Group	Feature
I	1 Disposed from store and re-erect signs other than traffic signs
II	1 Type sign
III	1 Type of foundation or support

Disposed from Store and Re-erect Signs other than Traffic Signs

Item Coverage

72 The items for Signs other than traffic signs shall, in accordance with the Preambles to Bill of Quantities General Directions, include for:

(a) Loading, transporting from store, unloading and positioning for re-erection;

(b) Replacing items damaged during the foregoing operations;

(c) Modification and new materials;

(d) Signs other than traffic signs (paragraph 65 of this document (CC-RMP-01200);

Street Furniture

73 The items for street furniture shall in accordance with the Preambles to Bill of Quantities General Directions include for:

Item Coverage

(a) excavation of acceptable material (as CC-RMP-00600 paragraphs 17 & 18)
(b) excavation of unacceptable material (as CC-RMP-00600 paragraph 19)
(c) excavation in hard material (as CC-RMP-00600 paragraph 23)
(d) in situ concrete (as CC-RMP-01700 paragraph 4)
(e) formwork (as CC-RMP-01700 paragraph 14)
(f) reinforcement (as CC-RMP-01700 paragraph 25)
(g) backfill and compaction
(h) disposal of material (as CC-RMP-00600 paragraph 39)
(i) footways and paved areas
(j) special structures designed by the Contractor (as per paragraph 5 of CC-RMP-002500)

CC-RMP-01300 ROAD LIGHTING COLUMNS AND BRACKETS

Add additional items to the paragraph 4:

Road Lighting Columns Brackets and Wall Mountings	**4**	The items permanent for road lighting columns, brackets and wall mounting shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(ii) Provision of temporary power supply to public lighting as per Appendix 14/3 (jj) Provision of temporary lighting as per Appendix 14/3 (kk) special structures designed by the Contractor (as per paragraph 5 of CC-RMP-002500)

CC-RMP-01400 ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS

Add the following sections and its respective paragraphs:

Liaise with and Facilitate ESB

Measurement **32** Liaise with and facilitate ESB shall be measured once only.

Itemisation **33** A single item shall be provided for liaise with and facilitate ESB as necessary to provide public lighting electrical supply connections in accordance with Chapter II – paragraphs 3 and 4 and the following:

Group	Feature	
I	1	Liaise with and facilitate ESB

Liaise with and Facilitate ESB **34**

Item Coverage

The items to liaise with and facilitate ESB shall, in accordance with the Preambles to Bill of Quantities General Directions, include for:

(a) Consultation and liaison with the relevant ESB staff as necessary, particularly in respect of the timing or phasing of the Works and furnishing such details as the Employer's Representative may require;

(b) Restrictions to construction and hindrances to the construction of the Works arising from the requirements and activities of the ESB, its staff or contractors;

(c) Restrictions to construction and hindrances to the construction of the Works arising from the activities of other contractors who are engaged in alterations, renewals, provisions for future requirements of other Works authorised by the Employer's Representative in respect of the services of Undertakings belonging to the ESB either on or in the vicinity of the site;

(d) Ascertainment of and compliance with all requirements of the ESB in respect of accommodation works involving or affecting their services of Undertakings;

(e) All losses arising from the activities of the ESB;

(f) Excavations to ascertain the locations of underground services including excavations by hand and provision of working space;

(g) Attendance, including working outside normal working hours, lighting, traffic control, signing and backfilling with approved material for ESB services or facilities;

(h) Support and protection of pipes, cables and other apparatus during the progress of the works;

(i) Taking measures to ensure that no existing services are interrupted without the written consent of the relevant local authority, public or private utility undertakers or private owners;

(j) Awaiting Employer's Representatives consent to proposals;

(k) Restrictions and hindrances to the works from the activities of other contractors of the employer;

(l) Excavation of acceptable material (as CC-RMP-00600 paragraphs 17 & 18);

(m) Excavation of unacceptable material (as CC-RMP-00600 paragraph 19);

(n) Disposal of material (as CC-RMP-00600 – paragraph 39);

(o) Attendance to the Employer's Representative and others for inspection and investigation purposes;

(p) Locating, working around and supporting pipes, cables, service apparatus and the like;

(q) Bedding, haunching and surrounding;

(r) Backfilling and compaction;

(s) Reinstatement of paved areas;

(t) Reinstatement of unpaved areas;

(u) Keeping the Employer's Representative informed of arrangements made with the owners of publicly and privately owned services.

Electrical Equipment

Units **35** The units of measurement shall be:

(i) Electrical Equipment ……Item

Measurement **36** Electrical equipment shall be measured once only.

Itemisation **37** Separate items shall be provided for electrical equipment in accordance with Chapter II – paragraphs 3 and 4 and the following:

Group	Feature	
I	1	Electric Equipment
II	1	Different Types

Electrical Equipment **38** The items for electrical equipment shall, in accordance with the Preambles to Bill of Quantities General Directions, include for:

Item Coverage

(a) Supplying of the equipment

(b) All materials related to its complete installation and operation

(c) Clamps, cables and making connections;

(d) Cover and frames

(e) Conductor cable all purpose-made screwed and threaded connections, bends, tees, and like and draw wires

(f) Switch, circuit breaker, power break and the like

(g) Complying with wiring regulations

(h) Markers, notices and recording

(i) Preparation and supply of record drawings

(j) Driving

(k) Conductor cable including preparing, stripping and cleaning ends and connections

(l) Threading cable through ducts, sleeves, conduit and the like

(m) Doors, lock and key

(n) Removing knock-outs, drilling or forming holes and pockets and casting in bar, sockets, base plates, plinths and anchorage assemblies

(o) Supports to vertical and horizontal cables

(p) Twisting and snaking

(q) Extra length of cable required for connection into a unit, future retermination and tying in

(r) Disposal of material

(s) Certificates

(t) Amendments to the work

(u) Obtaining aesthetic approval

(v) Rivets, nuts, bolts, shims, washers, welds, clamps and the like

(w) Drilling and forming holes and pockets in structures or foundations

(x) Bedding, grouting and filling

(y) Backfilling and compaction

(z) Reinstatement of surface

(aa) Plugging cable entry slots

(bb) Ducts in bases

(cc) Protective treatment

(dd) Fixing to structures and foundations including attachments systems

CC-RMP-01700 STRUCTURAL CONCRETE

Add additional items to the paragraph 4:

Structural Concrete	**4**	The items permanent for structural concrete shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(r) special structures designed by the Contractor (as per paragraph 5 of CC-RMP-002500)

CC-RMP-02700 WATERMAIN, UTILITIES AND ACCOMMODATION WORKS

Watermains

Omit the note at the end of paragraph 4 which reads as follows:

Note: For each item which includes Group IV Feature 1 or 2, an associated item shall be provided for adjustment of the rate for each 25mm of difference in excess of 150mm where the average depth to invert calculated from site measurement varies from that stated in the Bill of Quantities. The forgoing shall apply to both increases and decreases of average in excess of 150mm and will result in either a positive or negative adjustment of the rate.

Add additional items to the following paragraphs:

Watermains	**5**	The items for watermains shall in accordance with the Preambles to Bill of Quantities General Directions include for:
Item Coverage		(x) Variation in average depth to invert level of up to 500mm (increase or decrease)

Add the following sections and its respective paragraphs:

Others Equipment

Units	**32**	The unit of measurement for others equipment shall be: (i) Others equipment ……Number
Measurement	**33**	The measurement of others equipment shall be the plan units
Itemisation	**34**	Separate items shall be provided for others equipment in accordance with Chapter II – paragraphs 3 and 4 and the following:

Group	Feature	
I	1	Other equipment
II	1	Type of equipment

Others Equipment	**35**	The items for ground preparation and cultivation shall, in accordance with the Preambles to Bill of Quantities General Directions, include for:
Item Coverage		(a) Complete installation of the equipment's (b) Supply of any related materials for the full installation of the equipment (c) Any other work that it is required for the complete operation of the equipment shall be included on the rate for it. (d) Testing (e) obtaining aesthetic approval;

(f) excavation of acceptable material (as CC-RMP-00600 paragraphs

17 and 18);

(g) excavation of unacceptable material (as CC-RMP-00600

paragraph 19);

(h) excavation in Hard Material (as CC-RMP-00600 paragraph 23);

(i) rivets, nuts, bolts, shims, washers, welds, clamps and the like;

(j) blinding concrete and paving slab;

(k) in situ concrete (as CC-RMP-01700 paragraph 4);

(l) formwork (as CC-RMP-01700 paragraph 14);

(m) reinforcement (as CC-RMP-01700 paragraph 25);

(o) Supplying of the equipment

(p) All materials related to its complete installation and operation

(q) Clamps, cables and making connections;

(r) Cover and frames

(s) Conductor cable all purpose-made screwed and threaded connections, bends, tees, and like and draw wires

(t) Switch, circuit breaker, power break and the like

(u) Complying with wiring regulations

(v) Markers, notices and recording

(w) Preparation and supply of record drawings

(x) Driving

(y) Conductor cable including preparing, stripping and cleaning ends and connections

(z) Threading cable through ducts, sleeves, conduit and the like

(aa) Doors, lock and key

(bb) Removing knock-outs, drilling or forming holes and pockets and casting in bar, sockets, base plates, plinths and anchorage assemblies

(cc) Supports to vertical and horizontal cables

(dd) Twisting and snaking

(ee) Extra length of cable required for connection into a unit, future retermination and tying in

(ff) Disposal of material

(gg) Certificates

(hh) Amendments to the work

(ii) Obtaining aesthetic approval

(jj) Rivets, nuts, bolts, shims, washers, welds, clamps and the like

(kk) Drilling and forming holes and pockets in structures or foundations

(ll) Bedding, grouting and filling

(mm) Backfilling and compaction

(nn) Reinstatement of surface

(oo) Plugging cable entry slots

(pp) Ducts in bases

(qq) Protective treatment

Fixing to structures and foundations including attachments systems

Utilities (other than Watermains) and Accommodation Works

Add the following sections and its respective paragraphs:

Wastewater Treatment System

Units **36** The unit of measurement for Wastewater Treatment System shall be:

(ii) Wastewater Treatment System ……Number

Measurement **37** The measurement of Wastewater Treatment System shall be the unit.

Itemisation **38** Separate items shall be provided for Wastewater Treatment System in accordance with Section 3 of CC-RMP-00010 paragraphs 3 and 4 and the following:

Group	Feature	
I	1	Wastewater Treatment System

Wastewater Treatment System

Item Coverage **39** The items for Wastewater Treatment System shall, in accordance with the Preambles to Bill of Quantities General Directions, include for:

(a) Supply

(b) Installation

(c) Couplers

(d) Joints

(e) Fitting

(f) Commissioning

(g) Any cabling if required

(h) Transportation of the system

(i) Testing

(j) Associated strainers

(k) Control Valves

(l) Non returns

(o) obtaining aesthetic approval;

(p) excavation of acceptable material (as CC-RMP-00600 paragraphs

17 and 18);

(q) excavation of unacceptable material (as CC-RMP-00600

paragraph 19);

(r) excavation in Hard Material (as CC-RMP-00600 paragraph 23);

(s) rivets, nuts, bolts, shims, washers, welds, clamps and the like;

(t) blinding concrete and paving slab;

(u) in situ concrete (as CC-RMP-01700 paragraph 4);

(v) formwork (as CC-RMP-01700 paragraph 14);

(x) reinforcement (as CC-RMP-01700 paragraph 25);

S3000 LANDSCAPING AND ECOLOGY (Additional Series)

Definition: Landscape works in this Series shall comprise new works and maintenance of existing areas.

Ground Preparations and Planting Operations

Units **189** The unit of measurement for Ground Preparations and Cultivation shall be:

(i) Vegetation clearance, subsoil treatment, final preparation of soils, final cultivation ……Square metre

(ii) Planting operations for hedgerows, shrub beds, or other linear planting features ..... Linear metre

(iii) Timber post and rail fence with wire mesh and plastic ties to hedge planting ..... Linear metre

Measurement **190** The measurement of ground preparation and cultivation shall be the plan area.

Vegetation clearance shall be measured in addition to any items of general site clearance measured in accordance with CC-RMP-00200.

Itemisation **191** Separate items shall be provided for ground preparation and cultivation in accordance with Chapter II – paragraphs 3 and 4 and the following:

Group	Feature
I	1 Vegetation clearance. 2 Subsoil treatment 3 Final Preparation of soils 4 Final cultivations

Item Coverage **192** The items for ground preparation and cultivation shall, in accordance with the Preambles to Bill of Quantities General Directions, include for:

(a) Cutting;

(b) Removal of weeds;

(c) Ripping and Ploughing;

(d) Herbicide;

(e) fertilizer, soil ameliorants;

(f) Achieving tilth;

(g) Grading and re-grading to contours and levels;

(h) Removal of stones, undesirable and deleterious material;

(i) Disposal of material (as CC-RMP-00600 paragraph 39);

(j) Notices.

Litter Removal

Units **193** The unit of measurement for litter removal shall be:

(i) General litter removal from landscape, planting and grassed areas .....item

Measurement **194** Where measured as an Item, the work shall be deemed to cover the entire area shown on the Drawings and described in the Specification.

Itemisation **195** Separate items shall be provided for litter removal in accordance with the following:

Group	Feature
I	1 Removal of litter from landscape areas
	2 Removal of litter from planting areas
	3 Removal of litter from grassed areas
	4 Collection and disposal of litter off Site

Item Coverage **196** The items for litter removal shall, in accordance with the Preambles to the Bill of Quantities General Directions, include for:

(a) Collection and removal of all litter, debris and windblown material from the designated areas;

(b) Hand picking and mechanical collection where appropriate;

(c) Removal of organic and inorganic waste materials not forming part of the permanent Works;

(d) Loading, handling, transport and disposal of collected material at an approved licensed facility;

(e) Temporary storage and segregation of recyclable materials where specified;

(f) Cleaning and leaving the affected areas in a neat and tidy condition;

(g) All labour, plant, equipment and incidental operations necessary to complete the work;

(h) Compliance with all environmental requirements and waste management regulations;

(i) Disposal of materials in accordance with the Specification and relevant legislation;

(j) All notices, permits and statutory obligations associated with the work.

Planting Works

Units **197** The unit of measurement for Planting shall be:

(i) Trees, shrubs and plants …….. Number
RB = Root Ball
BR = Bare Root
CG = Container Grown

Measurement **198** The measurement of trees, shrubs and plant shall be the number of plants.

Itemisation **199** Separate items shall be provided for planting in accordance with Chapter II – paragraphs 3 and 4 and the following:

Group	Feature	
I	1	Planting
II	1	Trees
	2	Shrubs
	3	Wildflower plants
	4	Hedges
	5	Emergent, marginal and aquatic plants
	6	Bulbs
III	1	Species and type
IV	1	Different sizes

Item Coverage **200** The items for planting shall, in accordance with the Preambles to Bill of Quantities General Directions, include for:

(a) Notices, inspections, provenance and reporting;

(b) Transportation, packing and unpacking;

(c) Storage, handling and distribution;

(d) Making arrangements for selection;

(e) Treatment of nursery stock;

(f) Protection;

(g) Stakes, labelling, ties, strapping, spacers, anchors, timber frames, root barriers, cables and the like;

(h) Marker posts;

(i) Tubes, guards and ties;

(j) Excavation, breaking up subsoil, backfilling, compaction and firming;

(k) Topsoil;

(l) Reinstatement;

(m) Multiple handling;

(n) Compost, fertiliser and mixing;

(o) Cultivation;

(p) Sprays, dips and additives;

(q) Drainage layers;
(r) Ameliorants;
(s) Root spreading and other measures;
(t) Measures to avoid root disturbance of adjacent plants;
(u) Support;
(v) Pruning roots;
(w) Planting through turf and mulch mats;
(x) Disposal of material (as CC-RMP-00600 paragraph 39);
(y) Anchors;
(z) Irrigation pipes;
(aa) Measures for planting in or adjacent to water areas;
(bb) Protective posts;
(cc) Additional ground preparation for wildflower planting;
(dd) Establishment maintenance of new planting;
(ee) Marking out and awaiting approval;
(ff) Anti-desiccant measures;
(gg) Notch planting;
(hh) Watering including water supply;
(ii) Weed control (as this Series paragraph 20);
(jj) Pruning shrubs and climbers (as this Series paragraph 24);
(kk) Scrub control (as this Series paragraph 26);
(ll) Hedge cutting, hedge laying (as this Series paragraph 27);
(mm) Maintenance of trees (as this Series paragraph 28);
(nn) Maintenance of grassed areas (as this Series paragraph 34);
(oo) Maintenance of wildflower areas (as this Series paragraph 38);
(pp) Management of waterbodies (as this Series paragraph 45);
(qq) Planting through biodegradable weed control mats.

Landscape Maintenance

Units **201** The unit of measurement shall be:

Trees and Shrubs:

(i) Ring spray to trees …….. item.
(ii) Mulch base of tree …….. item.
(iii) Fertilise …….. item.
(iv) Pruning …….. item.
(v) Herbicide application …….. item.
(vi) Hand weed …….. item.
(vii) Litter removal …….. item.
(viii) Hedge./Climber trimming …….. item.

(ix) Watering …….. item.
(x) Crown lifting …….. item.
(xi) Check stakes and ties …….. item.
(xii) Leaf/debris removal …….. item.

Fine cutting of grassed areas:

(i) Fine cutting of grassed areas …….. m^2.
(ii) Stone and litter removal …….. item.
(iii) Trim edges …….. item.
(iv) Selective herbicide application …….. item.
(v) Clover control herbicide application …….. item.
(vi) Grass reinstatement …….. item.
(vii) Fertiliser application …….. item.
(viii) Spot treatment of weeds …….. item.
(ix) Pull all weeds ..... item.

Measurement **202** Out in connection with grassed areas that have been established prior to the commencement of the Contract. Grass cutting shall be measured once only for each feature in Group II irrespective of the total number of cuts required to be carried out during the contract period. The measurement of grass cutting shall be the plan area.

Itemisation **203** Separate items shall be provided for maintenance in accordance with Chapter 11 paragraphs 3 and 4 and the following:

Group	Feature	
I	1	Maintenance
II	1	Ring spray to trees
	2	Mulch base of tree
	3	Fertilise
	4	Pruning
	5	Herbicide application
	6	Hand weed
	7	Litter removal
	8	Hedge./Climber trimming
	9	Watering
	10	Crown lifting
	11	Check stakes and ties
	12	Leaf/debris removal
	13	Fine cutting of grassed areas
	14	Stone and litter removal
	15	Trim edges
	16	Selective herbicide application
	17	Clover control herbicide application
	18	Grass reinstatement
	19	Fertiliser application
	20	Spot treatment of weeds
	21	Pull all weeds

Item Coverage **204** The items for the maintenance shall in accordance with the Preambles to Bill of Quantities General Directions include for:

(a) Temporary removal and replacement of seats, litter bins and the like;

(b) Removal of stones, litter, undesirable and deleterious material;

(c) Cutting around obstacles and between plants;

(d) Strimming;

(e) Sweeping;

(f) Cutting edges;

(g) Re-forming edges;

(h) Raking;

(i) Dispersal;

(j) Protective measures;

(k) Destruction;

(l) Herbicides;

(m) Disposal of material (as CC-RMP-00600 paragraph 39);

(n) Inspections and reports.

(o) Destruction

(p) Furrowing and frilling;

(q) Coppicing;

(r) Removal of suckers

(s) Repairs or replacement of supports;

(t) Re-attaching;

(u) Chipping;

(v) Windrowing;

(w) Processing for mulch;

(x) Dealing with infected prunings or timber arisings;

(y) Temporary removal and replacement of seats, litter bins and the like;

(z) Cutting around obstacles and between plants;

Clifton Scannell Emerson Associates

BILL OF QUANTITIES

1. PRELIMINARIES

LISSENHALL PARK RIDE TENDER

SERIES 100 PRELIMINARIES

Ref	Description	Qty	Unit	Rate	Amount
	Temporary Accommodation				
1	Erection of temporary accommodation; Principal Offices for the Employer's Representative; Provided by the Employer; Until completion of the Works.	1.00	item		
2	Erection of temporary accommodation; Offices and messes for the Contractor; Provided by the Employer; Until completion of the Works.	1.00	item		
3	Erection of temporary accommodation; Stores and workshops for the Contractor; Provided by the Employer; Until completion of the Works.	1.00	item		
4	Servicing of temporary accommodation; Principal Offices for the Employer's Representative; Provided by the Employer; Until completion of the Works.	1.00	item		
5	Servicing of temporary accommodation; Offices and messes for the Contractor; Provided by the Employer; Until completion of the Works.	1.00	item		
6	Servicing of temporary accommodation; Stores and workshops for the Contractor; Provided by the Employer; Until completion of the Works.	1.00	item		
7	Dismantling of temporary accommodation; Principal Offices for the Employer's Representative; Provided by the Employer; Until completion of the Works.	1.00	item		
8	Dismantling of temporary accommodation; Offices and messes for the Contractor; Provided by the Employer; Until completion of the Works.	1.00	item		
9	Dismantling of temporary accommodation; Stores and workshops for the Contractor; Provided by the Employer; Until completion of the Works.	1.00	item		
	Communication System for the Employer's Representative				
10	Communication System for the Employer's Representative; Until completion of the Works to specification Appendix 1/3.	1.00	item		
11	Communication System for the Employer's Representative; After completion of the works to specification Appendix 1/3.	1.00	item		

Ref	Description	Qty	Unit	Rate	Amount
	Operatives for the Employer's Representative				
12	Chainman for part-time use by the Employer's Representative; Until completion of the Works to specification Appendix 1/8.	5.00	day		
13	General Operative for part-time use by the Employer's Representative; Until completion of the Works to specification Appendix 1/8.	5.00	day		
14	Setting Out Engineer and surveying equipment for part-time use by the Employer's Representative; Until completion of the Works to specification Appendix 1/8.	5.00	day		
	Information Board				
15	Information Board; Refer to specification Appendix 1/21 and drawing 20 008D-CSE-GEN-XX-DR-C-3901.	1.00	No.		
	Traffic Safety and Management				
16	Traffic safety and management; Refer to specification Appendix 1/17.	1.00	item		
	Temporary Diversion for Traffic				
17	Taking measures for or construction of temporary diversion for traffic; At locations proposed by the Contractor; Refer to specification Appendix 1/18.	1.00	item		
18	Maintenance of measures for or construction of temporary diversion for traffic; At locations proposed by the Contractor; Refer to specification Appendix 1/18.	1.00	item		
19	Removal of measures for or construction of temporary diversion for traffic; At locations proposed by the Contractor, Refer to specification Appendix 1/18.	1.00	item		
	Progress Photographs				
20	Set of Progress photographs colour prints, Drone footage, aerial, to the requirements of Appendix 1/22.	9.00	No.		
21	Set of Progress photographs colour prints, Ground, to the requirements of Appendix 1/22.	9.00	No.		

Ref	Description	Qty	Unit	Rate	Amount
	Road Sweeping and Cleaning				
22	Road sweeping and cleaning, including both the site and public roads approaching and departing from the site for the duration of the contract.	1.00	item		
	Emergency Services				
23	Emergency Services; Refer to specification Appendix 1/70.	1.00	item		
	Facilities for Local Authority, Public or Private Utility Undertakers and Other Contractors				
24	Facilities for Service Undertakers and other Contractors - ESB; Refer to specification Appendix 1/16.	1.00	item		
25	Facilities for Service Undertakers and other Contractors - Eir; Refer to specification Appendix 1/16.	1.00	item		
26	Facilities for Service Undertakers and other Contractors - Irish Water; Refer to specification Appendix 1/16.	1.00	item		
27	Facilities for Service Undertakers and other Contractors - Fingal City Council Public Lighting Department; Refer to specification Appendix 1/16.	1.00	item		
28	Facilities for Service Undertakers and other Contractors - Fingal City Council Traffic Department; Refer to specification Appendix 1/16.	1.00	item		
29	Facilities for Service Undertakers and other Contractors - Fingal City Council Water Services Department; Refer to specification Appendix 1/16.	1.00	item		
30	Facilities for Service Undertakers and other Contractors - TII; Refer to specification Appendix 1/16.	1.00	item		
31	Facilities for Service Undertakers and other Contractors - NTA; Refer to specification Appendix 1/16.	1.00	item		
32	Facilities for Service Undertakers and other Contractors - Bus Shelter Provider; Refer to specification Appendix 1/16.	1.00	item		
33	Facilities for Service Undertakers and other Contractors - Virgin Media and other communication companies; Refer to specification Appendix 1/16.	1.00	item		
	Property Condition Surveys				
34	Property condition survey; Refer to Work Requirements Appendix 1/73.	1.00	item		

Ref	Description	Qty	Unit	Rate	Amount
	Project Supervisor for the Construction Stage				
35	Acceptance of Appointment as Project Supervisor for the Construction Stage	1.00	item		
	Safety File				
36	Safety File; Refer to specification Appendix 1/71.	1.00	item		
	As Built Records				
37	As Built Records; Refer to specification Appendix 1/60.	1.00	item		
	Specialist works				
38	Specialist works; Novated Specialist Contract Sum; Traffic Solutions (FCC Traffic Signal Contractor).	1.00	item	70,184.00	70,184.00
39	Specialist works; Novated Specialist Contract Sum; General attendances to Traffic Solutions (FCC Traffic Signal Contractor).	1.00	item		
40	Specialist works; Novated Specialist Contract Sum; Special attendances to Traffic Solutions (FCC Traffic Signal Contractor).	1.00	item		
41	Specialist works; Novated Specialist Contract Sum; Management of Traffic Solutions (FCC Traffic Signal Contractor).	1.00	item		
42	Specialist works; Novated Specialist Contract Sum; Main contractor's profit on Traffic Solutions (FCC Traffic Signal Contractor).	1.00	item		
	Standing Conciliator				
43	Standing Conciliator	1.00	item		
	Noise and Vibration Monitoring				
44	Noise and vibration monitoring; Refer to specification Appendix 1/9.	1.00	item		
	Waste Management Plan				
45	Waste management plan; Refer to specification Appendix 1/72.	1.00	item		

Ref	Description	Qty	Unit	Rate	Amount
	Setting out existing ground level surveys				
46	Setting out existing ground level surveys	1.00	item		
	Archaelogical Requirements				
47	Stage (ii) Pre-Excavation Services; Refer to specification Appendix 1/76.	1.00	item		
48	Stage (iii) Excavation & Post Excavation Services; Refer to specification Appendix 1/76.	1.00	item		
49	Stage (iv) Post-Excavation & Dissemination Services; Refer to specification Appendix 1/76.	1.00	item		
50	Radiocarbon Dating; Refer to specification Appendix 1/76.	10.00	No.		
51	Archiving and Delivery/Storage of Archaeological Records and Materials; Refer to specification Appendix 1/76.	1.00	item		
	Environmental and Ecological				
52	Appointment of a Construction Enviromental Manager (CEM); Refer to specification Appendix 1/30.	1.00	item		
53	CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN Construction Environmental Management Plan (CEMP), to be prepared in advance of commencement of site works; Refer to specification Appendix 1/30.	1.00	item		
54	SITE ENVIRONMENTAL MANAGER Appointment of a Site Environmental Manager; Refer to specification Appendix 1/30.	1.00	item		
	Control Measures for Invasive Species				
55	Control Measures for Non-Native Invasive Plant Species; Refer to specification.	1.00	item		

LISSENHALL PARK RIDE TENDER

SERIES 100 PRELIMINARIES

	Description	Amount
	Page: S100 / 1	
	Page: S100 / 2	
	Page: S100 / 3	
	Page: S100 / 4	
	Page: S100 / 5	

2. ROADWORKS

LISSENHALL PARK RIDE TENDER

SERIES 200 SITE CLEARANCE

Ref	Description	Qty	Unit	Rate	Amount
	Site Clearance				
1	General Site Clearance	7.06	ha		
	Take Up or Down and Set Aside for Reuse or Remove to Store or Tip off Site				
2	Take up or down and set aside for reuse; Existing Manhole to be raised or lowered as required.	3.00	No.		
3	Take up or down and set aside for reuse; Existing Inspection cover to be raised or lowered as required.	6.00	No.		
4	Take up or down and remove to tip off site; Road lighting columns including bracket arm and lantern; Following coordination with FCC & TII/MMaRC Contractor.	2.00	No.		
5	Take up or down and remove to tip off site; Traffic sign including posts.	1.00	No.		
6	Take up or down and remove to tip off site; Timber post and rail fence (Indicatively 1.2m height).	438.00	m		
7	Take up or down and remove to tip off site; Bollards (Indicatively 1m height).	1.00	No.		
8	Take up or down and remove to tip off site; Trees to be excavated during advanced site clearance works.	6.00	No.		
9	Take up or down and remove to tip off site; Power Pole and Cable-Stay; Following ESB coordination.	15.00	No.		
10	Take up or down and remove to tip off site; Overhead power lines; Following ESB coordination.	823.00	m		

LISSENHALL PARK RIDE TENDER

SERIES 200 SITE CLEARANCE

	Description	Amount
	Page: S200 / 1	

Ref	Description	Qty	Unit	Rate	Amount
	Fencing, Gates and Stiles				
1	Fencing; Temporary Fencing; Tree protection.	1,030.00	m		
2	Fencing; Timber Post and Rail Fence (CC-SCD-00301).	690.00	m		
3	Fencing; Timber Post and Tension Mesh Fencing (CC-SCD-00320).	804.00	m		
4	Fencing; Timber Knee Rail Fencing; Car park area.	125.00	m		
5	Fencing; 600mm high Recycled Plastic Knee Rail Fencing; Attenuation pond edge.	152.00	m		
6	Fencing; Proposed 1.2m high post and rail fencing around the infiltration area.	40.00	m		
7	Concrete footing; Main posts; Timber Knee Rail Fencing.	70.00	No.		
8	Gates; Steel Single Field Gate (CC-SCD-00309) TYPE 2.	2.00	No.		
9	Gates; Proposed Facility Access / Egress Gate, 9.4m wide - double leaf c/w additional posts to lock in the open position.	1.00	No.		
10	Gates; Proposed Facility Access / Egress Gate, 5.2m wide - double leaf c/w additional posts to lock in the open position.	1.00	No.		
11	Gates; Proposed 2.5m height restrictor barrier c/w low level gates and additional posts to lock in the open position.	2.00	No.		

	Description	Amount
	Page: S300 / 1	

LISSENHALL PARK RIDE TENDER

SERIES 400 ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)

Ref	Description	Qty	Unit	Rate	Amount
	Safety Barrier System				
1	Safety barrier, SB1; Normal containment N2; Impact Severity Level A; Working width class W4; Designed to be impacted on one side only; Straight or curved exceeding 120 metres radius; As designed by the Contractor.	95.00	m		
2	Safety barrier, SB1; Higher containment H2; Impact Severity Level A; Working width class W2; Designed to be impacted on one side only; Curved exceeding 50 metres radius but not exceeding 120 metres radius; As designed by the Contractor.	60.00	m		
3	Safety barrier, SB1; Higher containment H2; Impact Severity Level A; Working width class W2; Designed to be impacted on one side only; Curved not exceeding 50 metres radius; As designed by the Contractor.	20.00	m		
4	Safety barrier, SB2; Normal containment N2; Impact Severity Level A; Working width class W4; Designed to be impacted on one side only; Straight or curved exceeding 120 metres radius; As designed by the Contractor.	55.00	m		
5	Safety barrier, SB2; Higher containment H2; Impact Severity Level A; Working width class W2; Designed to be impacted on one side only; Curved exceeding 50 metres radius but not exceeding 120 metres radius; As designed by the Contractor.	55.00	m		
6	Safety barrier, SB2; Normal containment H2; Impact Severity Level A; Working width class W2; Designed to be impacted on one side only; Curved not exceeding 50 metres radius; As designed by the Contractor.	28.00	m		
	Transitions				
7	Transitions from Higher containment H2, Working width class W2, to P1 Terminal; As designed by the Contractor.	4.00	No.		
	Terminals				
8	Terminals; Performance Class P1; Impact Severity Level A; Permanent Lateral Displacement Class: X1/Y1; Exit Box Class: za1/zd1; As designed by the Contractor.	4.00	No.		

Ref	Description	Qty	Unit	Rate	Amount
9	**Pedestrian Parapets, Pedestrian Guardrails and Handrails** Pedestrian guardrails, Pedestrian Guardrail (CC-SCD-00401); 1000mm in height; Straight or curved exceeding 50 metres radius.	51.00	m		

	Description	Amount
	Page: S400 / 1 Page: S400 / 2	

LISSENHALL PARK RIDE TENDER

SERIES 500 DRAINAGE AND SERVICE DUCTS

Ref	Description	Qty	Unit	Rate	Amount
	Drains, Sewers, Piped Culverts and Service Ducts (Excluding Filter Drains, Narrow Filter Drains & Fin Drains)				
1	Drains, 150mm internal diameter; Depths to invert not exceeding 2 metres. Average depth to invert 1.5 metres; Drainage - Surface Water Drains - Trench and Bedding Details - (CC-SCD-00521) Type F; Construction to trench.	49.00	m		
2	Drains, 150mm internal diameter, 150mm concrete surround, Pipe 19 (MH17 - MH16); Depths to invert not exceeding 2 metres. Average depth to invert 1.5 metres; Drainage - Surface Water Drains - Trench and Bedding Details - (CC-SCD-00521) Type Z; Construction to trench.	56.00	m		
3	Drains, 225mm internal diameter; Depths to invert not exceeding 2 metres. Average depth to invert 1.5m metres; Drainage - Surface Water Drains - Trench and Bedding Details - (CC-SCD-00521) Type Z; Construction to trench.	300.00	m		
4	Drains, 225mm internal diameter; Depths to invert not exceeding 2 metres. Average depth to invert 1.5m metres; Drainage - Surface Water Drains - Trench and Bedding Details - (CC-SCD-00521) Type T; Construction to trench.	235.00	m		
5	Drains, 300mm internal diameter; Depths to invert not exceeding 3.5 metres. Average depth to invert 3.25 metres; Drainage - Surface Water Drains - Trench and Bedding Details - (CC-SCD-00521) Type F; Construction to trench.	70.00	m		
6	Sewers, 110mm internal diameter; Depths to invert not exceeding 2 metres; Trench backfill and bedding details as per Irish Water Standard Detaill (STD-WW-07); Construction to trench.	7.00	m		
7	CCTV DUCTS Service ducts, CCTV duct; 1X110mm internal diameter; Depths to invert not exceeding 2 metres. The average depth to invert to be stated to the nearest 25 mm; Ducts - Trench Cross Sections Under Trafficked Areas- (CC-SCD-00561) Type A, UPVC; Construction to trench.	168.00	m		

Ref	Description	Qty	Unit	Rate	Amount
	Drains, Sewers, Piped Culverts and Service Ducts (Excluding Filter Drains, Narrow Filter Drains & Fin Drains) (Cont'd)				
8	Service ducts, CCTV duct; 1X110mm internal diameter; Depths to invert not exceeding 2 metres. The average depth to invert to be stated to the nearest 25 mm; Ducts - Trench Cross Sections Under Non-Trafficked Areas - (CC-SCD-00562) Type C, UPVC; Construction to trench.	200.00	m		
	EV DUCTS				
9	Service ducts, EV duct; 1X110mm internal diameter; Depths to invert not exceeding 2 metres. The average depth to invert to be stated to the nearest 25 mm; Ducts - Trench Cross Sections Under Trafficked Areas- (CC-SCD-00561) Type A, UPVC; Construction to trench.	70.00	m		
10	Service ducts, EV duct; 1X110mm internal diameter; Depths to invert not exceeding 2 metres. The average depth to invert to be stated to the nearest 25 mm; Ducts - Trench Cross Sections Under Non-Trafficked Areas - (CC-SCD-00562) Type C, UPVC; Construction to trench.	362.00	m		
	ESB MV/LV DUCTS				
11	Service ducts, ESB duct to ESB Standard Details; 2X125mm internal diameter; Depths to invert not exceeding 2 metres. The average depth to invert to be stated to the nearest 25 mm; Ducts - Trench Cross Sections Under Trafficked Areas- (CC-SCD-00561) Type A; Construction to trench.	165.00	m		
12	Service ducts, ESB duct to ESB Standard Details; 2X125mm internal diameter; Depths to invert not exceeding 2 metres. The average depth to invert to be stated to the nearest 25 mm; Ducts - Trench Cross Sections Under Non-Trafficked Areas - (CC-SCD-00562) Type C; Construction to trench.	810.00	m		
	PUBLIC LIGHTING DUCTS				
13	Service ducts, Public Lighting duct; 1X110mm internal diameter; Depths to invert not exceeding 2 metres. The average depth to invert 1.75 metres; Ducts - Trench Cross Sections Under Trafficked Areas- (CC-SCD-00561) Type A, UPVC; Construction to trench.	555.00	m		

Ref	Description	Qty	Unit	Rate	Amount
	Drains, Sewers, Piped Culverts and Service Ducts (Excluding Filter Drains, Narrow Filter Drains & Fin Drains) (Cont'd)				
14	Service ducts, Public Lighting Duct; 1X110mm internal diameter; Depths to invert not exceeding 2 metres. The average depth to invert 1.75 metres; Ducts - Trench Cross Sections Under Non-Trafficked Areas - (CC-SCD-00562) Type C, UPVC; Construction to trench.	1,703.00	m		
	TRAFFIC LIGHT DUCTS				
15	Service ducts, Traffic Light duct; 1X110mm internal diameter; Depths to invert not exceeding 2 metres. The average depth to invert to be stated to the nearest 25 mm; Ducts - Trench Cross Sections Under Non-Trafficked Areas - (CC-SCD-00562) Type C; Construction to trench.	263.00	m		
16	Service ducts, Red Power Supply Duct; 1X125mm internal diameter; Depths to invert not exceeding 2 metres. The average depth to invert to be stated to the nearest 25 mm; Ducts - Trench Cross Sections Under Non-Trafficked Areas - (CC-SCD-00562) Type C; Construction to trench.	5.00	m		
17	Service ducts, Traffic Light duct; 4X110mm internal diameter laid in 2X2 arrangement; Depths to invert not exceeding 2 metres. The average depth to invert to be stated to the nearest 25 mm; Ducts - Trench Cross Sections Under Trafficked Areas- (CC-SCD-00561) Type A; Construction to trench.	49.00	m		
18	Service ducts, Traffic Light duct; 4X110mm internal diameter laid in 2X2 arrangement; Depths to invert not exceeding 2 metres. The average depth to invert to be stated to the nearest 25 mm; Ducts - Trench Cross Sections Under Non-Trafficked Areas - (CC-SCD-00562) Type C; Construction to trench.	106.00	m		
	TELECOM DUCTS				
19	Service ducts, Telecom duct; 2X110mm internal diameter; Depths to invert not exceeding 2 metres. The average depth to invert to be stated to the nearest 25 mm; Ducts - Trench Cross Sections Under Trafficked Areas- (CC-SCD-00561) Type A; Construction to trench.	6.00	m		

Ref	Description	Qty	Unit	Rate	Amount
	Drains, Sewers, Piped Culverts and Service Ducts (Excluding Filter Drains, Narrow Filter Drains & Fin Drains) (Cont'd)				
20	Service ducts, Telecom duct; 2X110mm internal diameter; Depths to invert not exceeding 2 metres. The average depth to invert to be stated to the nearest 25 mm; Ducts - Trench Cross Sections Under Non-Trafficked Areas - (CC-SCD-00562) Type C; Construction to trench	354.00	m		
	Filter Drains				
21	Filter Drains, 150mm internal diameter Twinfall Perforated Filter Drain Pipe; Depths to invert not exceeding 2 metres; Drainage - Filter Drains Trench and Bedding Details - (CC-SCD-00520) TYPE H.	1,085.00	m		
22	Filter Drains, 225mm internal diameter Twinfall Perforated Filter Drain Pipe; Depths to invert not exceeding 2 metres; Drainage - Filter Drains Trench and Bedding Details - (CC-SCD-00520) TYPE H.	836.00	m		
23	Filter Drains, 300mm internal diameter Twinfall Perforated Filter Drain Pipe; Depths to invert not exceeding 2 metres; Drainage - Filter Drains Trench and Bedding Details - (CC-SCD-00520) TYPE H.	260.00	m		
24	Filter Drains, 450mm internal diameter Twinfall Perforated Filter Drain Pipe; Depths to invert not exceeding 2 metres; Drainage - Filter Drains Trench and Bedding Details - (CC-SCD-00520) TYPE H.	132.00	m		
	Connections				
25	Connection to existing drain, sewer or piped culvert, EIR; 2X110mm internal diameter; Depths to invert not exceeding 2 metres.	1.00	No.		
26	Connection to existing drain, sewer or piped culvert, ESB; 2X125mm internal diameter; Depths to invert not exceeding 2 metres.	2.00	No.		
	Chambers and Gullies				
27	Chamber Drainage; Chamber Type A (Block or In Situ Concrete Manhole) - (CC-SCD-00502); With D400 Cover and Frame; Depths to invert not exceeding 2 metres.	8.00	No.		

Ref	Description	Qty	Unit	Rate	Amount
	Chambers and Gullies (Cont'd)				
28	Chamber Drainage; Chamber Type C (Precast Concrete Manhole) - (CC-SCD-00504); With D400 Cover and Frame; Depths to invert not exceeding 2 metres. Internal Diameter 1.05m.	9.00	No.		
29	Chamber Drainage; Chamber Type D (Precast Concrete Manhole) - (CC-SCD-00505); With D400 Cover and Frame; Depths to invert not exceeding 2 metres. Internal Diameter 1.05m.	1.00	No.		
30	Chamber Drainage; Chamber Type F (Precast Catchpit) (CC-SCD-00509); With D400 Cover and Frame; DN600 Catchpit Chamber with 450 mm Deep Sump and D400 Cover.	24.00	No.		
31	Chamber Drainage; DN600 Inspection Chamber with D400 Cover and Frame.	52.00	No.		
32	Chamber Drainage; DN1050 Precast Manhole for swale; With D400 Cover and Frame.	3.00	No.		
33	Chamber Drainage; Proposed Infiltraton Trench Outlet (Type: Orifice Plate), 200mm dia.	2.00	No.		
34	PUBLIC LIGHTING CHAMBERS Chamber, Public Lighting Chamber with Cover and Frame; Proposed PL/CCTV/SPARE chamber FJ 60/45; Depth to invert exceeding 1m but not exceeding 2m.	9.00	No.		
35	TRAFFIC LIGHT CHAMBERS Chamber, JB4 Traffic Chamber with Cover and Frame; Size: 980mm X 1450mm X min 750mm (W x L x H); Depths to invert exceeding 1 metre but not exceeding 2 metres.	8.00	No.		
36	Chamber, JB2 Traffic Chamber with Cover and Frame; Size: 790mm X 1260mm X min 750mm (W x L x H); Depths to invert exceeding 1 metre but not exceeding 2 metres.	6.00	No.		
37	TELECOM CHAMBERS Chamber, JB4 EIR Chamber with Cover and Frame; Size: 1110mm X 640mm X800mm (L x W x H); Depths to invert exceeding 1 metre but not exceeding 2 metres.	11.00	No.		
	GULLIES				

Ref	Description	Qty	Unit	Rate	Amount
	Chambers and Gullies (Cont'd)				
38	Gully Drainage, Cycle Friendly Gully Details (CC-SCD-05144) with Cover and Frame; Depths to invert exceeding 1 metre but not exceeding 2 metres and so in steps of 1 metre.	4.00	No.		
	Headwalls and Revetments				
39	Headwalls to CC-SCD-00553; Pipe exceeding 100 mm but not exceeding 300mm internal diameter; Precast Concrete to detail CC-SCD-00553; Located at outfalls to stream.	2.00	No.		
40	Headwalls, Mitred Headwalls; Pipe exceeding 100 mm but not exceeding 300mm internal diameter; Precast Concrete to detail CC-SCD-00553; Located at attenuation pond.	4.00	No.		
	Soft Spots and Other Voids				
41	Excavation of soft spots and other voids	250.00	m3		
42	Filling of soft spots and other voids with filling 6F2	150.00	m3		
43	Filling of soft spots and other voids In situ ST2 concrete	100.00	m3		
	Renewal, Raising or Lowering Covers and Gratings on Existing Chambers and Gullies				
44	Raising the level of precast concrete chamber, not exceeding 150mm.	1.00	No.		
45	Lowering the level of precast concrete chamber, not exceeding 150mm.	2.00	No.		
	Petrol/Oil Interceptors, Hydro Brake Manhole and Gate Valve Manhole				
46	Hydro Brake Manhole for swale; Type C, 1500mm dia.; Contractor designed and accordance with Appendix 1/11.	1.00	No.		
47	Flow Control Devices; Contractor designed and accordance with Appendix 1/11.	2.00	No.		

Ref	Description	Qty	Unit	Rate	Amount
	NISA Cable Route Works				
48	NISA Cable Route Trench to Standard Details ED14142-C-1075 Rev P01. Including 3no. 200mm OD HDPE SDR21 ducts for HV Cable and 2no. 125mm OD HDPE SDR 17.6 ducts for Communications Cable. All ducts roped. Marker Strips, tape and backfill as per detail provided.	570.00	m		
49	NISA Cable Crossing Under other Services, to detail provided on Drawing ED14142-C-1076 Rev P01.	12.00	No.		
50	NISA Cable Crossing Over other Services, to detail provided on Drawing ED14142-C-1077 Rev P01.	2.00	No.		

	Description	Amount
	Page: S500 / 1	
	Page: S500 / 2	
	Page: S500 / 3	
	Page: S500 / 4	
	Page: S500 / 5	
	Page: S500 / 6	
	Page: S500 / 7	

LISSENHALL PARK RIDE TENDER

SERIES 600 EARTHWORKS

Ref	Description	Qty	Unit	Rate	Amount
	Excavation				
1	Excavation of acceptable material 5A; Under supervision of the Contractor's Consultant Archaelogist; 0 metres to 3 metres in depth.	13,525.00	m3		
2	Excavation of acceptable material excluding class 5; Cutting and other excavation; 0 metres to 3 metres in depth.	26,074.00	m3		
3	Excavation of unacceptable material Class U1; Cutting and other excavation; 0 metres to 3 metres in depth.	85.00	m3		
	Excavation in Hard Material				
4	Extra over excavation for excavation in hard material; Cutting and other excavation.	521.00	m3		
	Deposition of Fill				
5	Deposition of acceptable material Class 2; Embankments and other areas of fill.	19,402.00	m3		
6	Deposition of acceptable material Class 4; Landscape areas and screening mounds.	6,672.00	m3		
	Disposal of Material				
7	Disposal of acceptable material excluding Class 5A	412.00	m3		
8	Disposal of acceptable material Class 5A	6,900.00	m3		
9	Disposal of unacceptable material Class U1	85.00	m3		
	Imported Fill				
10	Imported acceptable material fill; Embankments and other areas of fill.	3,456.00	m3		
11	Imported acceptable material fill; Fill on structures, structural foundations, ESB Substation and Staff Toilet.	10.00	m3		
12	Imported acceptable material Class 6F2 fill; Fill on capping, sub-base material and roadbase.	8,638.00	m3		
	Compaction of Fill				
13	Compaction of acceptable material 6F2; Embankments and other areas of fill.	8,638.00	m3		
14	Compaction of acceptable material; Embankments and other areas of fill.	29,530.00	m3		

Ref	Description	Qty	Unit	Rate	Amount
	Soft Spots and Other Voids				
15	Excavation of soft spots and other voids; Below cuttings or under embankments.	300.00	m3		
16	Filling of soft spots and other voids; with Class 6F2 material; Below cuttings or under embankments.	300.00	m3		
	Disused Sewers, Drains, Cables, Ducts, Pipelines and the Like Occurring at Formation or Sub-formation Level; Disused Basements, Cellars and the Like and Gullies				
17	Removal of Duct; Existing ESB duct to be decomissioned once new ESB supply is installed and tested.	65.00	m		
18	Removal of disused gullies, manholes and chambers	3.00	No.		
19	Backfilling disused basement, cellar and the like and Gullies; with ST4 concrete.	45.00	m3		
	Topsoiling and Storage of Topsoil				
20	Topsoiling of different thicknesses; Surfaces sloping at 10° or less to the horizontal.	15,721.00	m2		
	Completion of Formation and Sub-Formation				
21	Completion of sub-formation on acceptable material	32,653.00	m2		
	Lining of Watercourses				
22	Lining of new watercourse; Lining of pond forebay.	568.00	m2		
23	Lining of new watercourse; Permeable Geotextile layer for Pond 2 areas	864.00	m2		
24	Forebay Rip Rap Cover; 450mm deep 10-25mm screened river run gravel.	11.00	m3		
25	Forebay Rip Rap Cover; 150mm deep 10mm washed pea gravel.	4.00	m3		
26	Weathered/waterworn limestone karst boulders; Min. size 300mm dia., Max. size 1000mm dia.	28.00	No.		
27	Soil; 200mm covering gently sloping bank, max gradient 1:4.	300.00	m2		
28	Gravel Mulch; 50mm at Pond 1 surface.	173.00	m2		
29	Growing Medium; 400mm for wetland planting at Pond 1 and Pond 2.	1,250.00	m2		

Ref	Description	Qty	Unit	Rate	Amount
	Lining of Watercourses (Cont'd)				
30	Anchor Trench; 300mm deep X 300mm wide.	108.00	m		
31	Enka Mat erosion control mat; At slopes steeper than 1:5, fixed to ground with pegs to attenuation areas.	30.00	m		
	Clearing of Existing Ditches				
32	Clearing of Existing Ditches	60.00	m		
	Trial Pits				
33	Move equipment to trial pit location	5.00	No.		
34	Trial Pits	40.00	m3		

	Description	Amount
	Page: S600 / 1	
	Page: S600 / 2	
	Page: S600 / 3	

LISSENHALL PARK RIDE TENDER

SERIES 700 PAVEMENTS

Ref	Description	Qty	Unit	Rate	Amount
	Sub-base				
1	Permeable Sub base, Pavement Type 1; 300mm, 100mm (5-20mm) Clean Crushed Permeable Sub base Stone to IS EN 13242 with 30-40% voids; On 200mm (10-63mm) Clean Crushed Permeable Sub base Stone to IS EN13242 with 30-40% voids; On layer of geotextile laid; In carriageway, hardshoulder and hardstrip.	5,380.00	m3		
2	Sub base, Pavement Type 2; 150mm thick Granular Material UGM Ac, as per CC-SPW-00800 Cl.808; In carriageway, hardshoulder and hardstrip.	720.00	m3		
3	Sub-base, Pavement Type 3; 150mm thick Cement Bound Granular Material B; In lay-by and bus bay.	155.00	m3		
	Pavement				
4	Pavement base, Pavement Type 2; 150mm thick AC32 dense base 40/60 des base per CC-SPW-00900 3.1.1; In carriageway, hardshoulder and hardstrip.	4,800.00	m2		
5	BINDER COURSE & BINDER DRAINAGE Pavement binder course, Pavement Type 1; 80mm thick PA20 bin PMB 65-105/70 per CC-SPW-00900 6.2.1; In carriageway, hardshoulder and hardstrip.	17,923.00	m2		
6	Pavement binder drainage, Pavement Type 1; 30mm thick Permeable Choker Course 6.3/10 Clean Hard Aggregate to EN13242 (40% voids); In carriageway, hardshoulder and hardstrip.	17,923.00	m2		
7	Pavement binder course, Pavement Type 2; 60mm thick AC20 dense bin 40/60 des per C-SPW-00900 3.1.4; In carriageway, hardshoulder and hardstrip.	4,800.00	m2		
8	Pavement binder course, Speed Table; 130mm thick PA20 bin PMB 65-105/70 per CC-SPW-00900 6.2.1; In carriageway, hardshoulder and hardstrip, Car Park.	565.00	m2		
9	Pavement binder course, Speed Table; 110mm thick AC20 dense bin 40/60 des per CC-SPW-00900 3.1.4; In carriageway, hardshoulder and hardstrip, Internal Road Ramp.	214.00	m2		
10	SURFACE COURSE Pavement surface course, Pavement Type 1; 40mm thick PA 14 surf PMB 65/105-70 des per CC-SPW-00900 6.1; In carriageway, hardshoulder and hardstrip.	17,923.00	m2		

Ref	Description	Qty	Unit	Rate	Amount
	Pavement (Cont'd)				
11	Pavement surface course, Pavement Type 2; 40mm thick SMA 14 surf PMB 65/105-60 des course per CC-SPW-00900 5.1.3; In carriageway, hardshoulder and hardstrip.	4,800.00	m2		
12	Pavement surface course, Pavement Type 3; 200mm thick C40/50 concrete with A393 mesh reinforcement top and bottom; In lay-by and bus bay.	1,017.00	m2		
13	Pavement surface course, Pavement Type 7; 40mm thick SMA 14 SURF PMB 65/105-60 des per CC-SPW-00900 5.1.3; Overlay, in carriageway, hardshoulder and hardstrip.	535.00	m2		
14	WATERPROOFING PROTECTION LAYER Pavement Type 2; 20mm thick Red Sand Asphalt Waterproofing protection layer.	80.00	m2		
15	SEPARATION MEMBRANE (MICRON) 0.125mm Separation membrane to Clause 1007	1,017.00	m2		
16	SELF BINDING GRAVEL Proposed self binding gravel	419.00	m2		
	Regulating Course				
17	Bituminous regulating material, Pavememt Type 7; Min. 15mm Regulating SMA 10 bin per CC-SPW-00900 Table 16; Lower base.	19.23	t		
	Bond Coat				
18	Cationic bitumen emulsion bond coat	46,331.00	m2		
	Cold Milling				
19	Cold milling of existing road pavement (Not exceeding 60mm) for Pavement Type 7	554.00	m2		
	Reinstatement of Paved Areas				
20	Reinstatement of paved area	60.00	m2		
	Geotextiles and Geotextile-related Products				
21	Geotextile and geotextile-related products; Permeable geotextile layer (Car park area, and Bioretention area)	28,742.00	m2		

	Description	Amount
	Page: S700 / 1	
	Page: S700 / 2	

LISSENHALL PARK RIDE TENDER

SERIES 1100 KERBS, FOOTWAYS AND PAVED AREAS

Ref	Description	Qty	Unit	Rate	Amount
	Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems				
1	Kerbs; Kerbs, Footways and Paved Areas - In Situ Concrete Kerb (CC-SCD-01102); Concrete Kerb Straight or curved exceeding 12 metres radius.	2,394.00	m		
2	Kerbs; Kerbs, Footways and Paved Areas - In Situ Concrete Kerb (CC-SCD-01102); Concrete Kerb Curved not exceeding 12 metres radius.	192.00	m		
3	Kerbs; Kerbs, Footways and Paved Areas - In Situ Concrete Kerb (CC-SCD-01102); Drop Kerb Straight or curved exceeding 12 metres radius.	45.00	m		
4	Kerbs; Kerbs, Footways and Paved Areas - Proposed slip from kerbing 125mm upstand with 150mm drainage gaps at 6-8m intervals; Straight or curved exceeding 12 metres radius.	1,525.00	m		
5	Kerbs; Kerbs, Footways and Paved Areas - Proposed slip from kerbing 125mm upstand with 150mm drainage gaps at 6-8m intervals; Curved not exceeding 12 metres radius.	63.00	m		
6	Kerbs; Kerbs, Footways and Paved Areas - Proposed 60mm Chamfered In Situ Kerb (NTA-TCD-1100-001 Kerb Profile D); Straight or curved exceeding 12 metres radius.	6.00	m		
7	Kerbs; Kerbs, Footways and Paved Areas - Proposed 60mm Chamfered In Situ Kerb (NTA-TCD-1100-001 Kerb Profile D); Curved not exceeding 12 metres radius.	10.00	m		
8	Kerbs; Kerbs, Footways and Paved Areas - Bus Stop Kerb (NTA-TCD-1100-012); Straight or curved exceeding 12 metres radius.	54.00	m		
9	Kerbs; Kerbs, Footways and Paved Areas - Edge Kerb Construction (NTA-TCD-1100-013); Straight or curved exceeding 12 metres radius.	3,753.00	m		
10	Kerbs; Kerbs, Footways and Paved Areas - Edge Kerb Construction (NTA-TCD-1100-013); Curved not exceeding 12 metres radius.	80.00	m		
11	Kerbs; Kerbs, Footways and Paved Areas - Proposed 0-6mm Upstand Kerb at raised crossing (approx. 75mm above surrounding road level); Straight or curved exceeding 12 metres radius.	130.00	m		
12	Kerbs; Kerbs, Footways and Paved Areas - Proposed Transition Kerb; Straight or curved exceeding 12 metres radius.	115.00	m		
13	Kerbs; Kerbs, Footways and Paved Areas - Proposed Transition Kerb; Curved not exceeding 12 metres radius.	6.00	m		

Ref	Description	Qty	Unit	Rate	Amount
	Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems (Cont'd)				
14	Kerbs; Kerbs, Footways and Paved Areas - Precast Concrete Kerb and backfill for underpass (CC-SCD-01101 Type A) ; Straight or curved exceeding 12 metres radius.	60.00	m		
	Additional Concrete for Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems				
15	Additional C25/30 Concrete for in situ concrete kerbs and edging	13.00	m3		
16	Additional ST2 Concrete for in situ concrete kerbs and edging	128.00	m3		
17	Additional ST4 Concrete for in situ concrete kerbs and edging	130.00	m3		
	Footways and Paved Areas				
18	Paved Areas; Blister tactile paving slabs buff in colour laid on 100mm thick bed of ST2 concrete; Surfaces sloping at 10 degrees or less to the horizontal; Uncontrolled pedestrian crossings.	36.00	m2		
19	Paved Areas; Blister tactile paving slabs red in colour laid on 100mm thick bed of ST2 concrete; Surfaces sloping at 10 degrees or less to the horizontal; Controlled pedestrian crossings.	282.00	m2		
20	Paved Areas; Cycleway tactile paving slabs buff in colour laid on 100mm thick bed of ST2 concrete; Surfaces sloping at 10 degrees or less to the horizontal; Uncontrolled pedestrian crossings.	32.00	m2		
21	FOOTWAYS Footways, Pavement Type 4; Surface Course, 50mm thick AC10 Open Surf 70/100 des per CC-SPW-01100 on; Sub base, 150mm thick Granular Material UGM Ac, as per CC-SPW-00800 Cl.804; Asphalt surfacing footway	2,110.00	m2		
22	Footways, Pavement Type 5; Surface Course, 100mm thick In-Situ C40/50 Concrete to IS EN 206-1 and Cl.1106, XF4 exposure class to IS EN 206-1 on; Unbound Sub base, 150mm thick Granular Material UGM Ac; In situ concrete footpath	3,803.00	m2		

Ref	Description	Qty	Unit	Rate	Amount
	Footways and Paved Areas (Cont'd)				
	Cycleway, Pavement Type 6; Surface Course, 25mm thick SMA 6 SURF PMB 65/100-60 DES (Red Colour RAL3013) per CC-SPW-00900 5.1.3 on;				
23	Binder Course, 50mm thick AC20 dense bin 70/100 des per CC-SPW-00900 3.1.4 on; Sub base, 150mm thick Granular Material UGM Ac, as per CC-SPW-00800 Cl.808; Min 150mm UGM A or 175mm UGM B sub base;	1,364.00	m2		
	WATERPROOFING PROTECTION LAYER Pavement Type 5;				
24	20mm thick Red Sand Asphalt Waterproofing protection layer.	66.00	m2		

	Description	Amount
	Page: S1100 / 1	
	Page: S1100 / 2	
	Page: S1100 / 3	

LISSENHALL PARK RIDE TENDER

SERIES 1200 TRAFFIC SIGNS AND ROAD MARKINGS

Ref	Description	Qty	Unit	Rate	Amount
	Traffic Signs				
1	Permanent traffic sign with sign face; F202L Parking Direction (Left) with facilities for Disabled Persons; To be mounted on one tubular galvanised steel post.	2.00	No.		
2	Permanent traffic sign with sign face; F204 Disabled Parking Bay Sign, 600mmX800mm; To be mounted on one tubular galvanised steel post.	33.00	No.		
3	Permanent traffic sign with sign face; RUS005 Turn Right Sign, 450mm DIA.; To be mounted on one tubular galvanised steel post.	4.00	No.		
4	Permanent traffic sign with sign face; RUS006 With Sign, 450mm DIA.; To be mounted on one tubular galvanised steel post. #2	1.00	No.		
5	Permanent traffic sign with sign face; RUS009 With Flow Cycle Track Sign, 450mm DIA.; To be mounted on one tubular galvanised steel post.	1.00	No.		
6	Permanent traffic sign with sign face; RUS011 No Straight Ahead Sign & P050 Exceptions Sign; To be mounted on one tubular galvanised steel post.	2.00	No.		
7	Permanent traffic sign with sign face; RUS013 No Left Turn Sign, 450mm DIA.; To be mounted on one tubular galvanised steel post.	1.00	No.		
8	Permanent traffic sign with sign face; RUS020A E-Charging Parking Bay Sign, 300mm DIA.; To be mounted on one tubular galvanised steel post.	79.00	No.		
9	Permanent traffic sign with sign face; RUS026 Yield Sign, 600mm DIA.; To be mounted on one tubular galvanised steel post.	2.00	No.		
10	Permanent traffic sign with sign face; RUS027 Stop Sign, 750mm DIA.; To be mounted on one tubular galvanised steel post.	14.00	No.		
11	Permanent traffic sign with sign face; RUS042 60km/h Speed Limit, 600mm DIA.; To be mounted on one tubular galvanised steel post.	2.00	No.		
12	Permanent traffic sign with sign face; RUS044 30km/h Speed Limit, 600mm DIA.; To be mounted on one tubular galvanised steel post.	2.00	No.		
13	Permanent traffic sign with sign face; RUS050 No Entry Sign, 450mm DIA.; To be mounted on one tubular galvanised steel post.	8.00	No.		
14	Permanent traffic sign with sign face; RUS058 Shared Track for Pedal Cycles and Pedestrians, 450mm DIA.; To be mounted on one tubular galvanised steel post.	4.00	No.		

Ref	Description	Qty	Unit	Rate	Amount
	Traffic Signs (Cont'd)				
15	Permanent traffic sign with sign face; RUS066 Zebra Pedestrian Crossing Signs with fluorescent yellow surround (RGB 251,255,0); 2no. Sign Plates per pole; To be mounted on one tubular galvanised steel post with black and white sleeves	36.00	No.		
16	Permanent traffic sign with sign face; F207R P&R Direction Sign; To be mounted on one tubular galvanised steel post.	1.00	No.		
17	Permanent traffic sign with sign face; F361 Start Of Offside With-FLow Bus Lane Sign & P055 24-Hour Operation Sign; To be mounted on one tubular galvanised steel post.	1.00	No.		
18	Permanent traffic sign with sign face; Age-Friendly Sign, 600mmX450mm, mounting height of 2.2m; To be mounted on one tubular galvanised steel post.	27.00	No.		
19	Permanent traffic sign with sign face; Parking T's & C's Sign (by Others); To be mounted on two tubular galvanised steel post(s).	5.00	No.		
20	Employer's temporary traffic sign with sign face; Scheme Infomation Signs; To be mounted on tubular steel post(s).	1.00	No.		
21	DIRECTIONAL SIGNS DS ES-01 (2585X4985mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3201.	1.00	No.		
22	DS ES-02 (2750X2840mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3202.	1.00	No.		
23	DS ES-03 (3630X3805mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3203.	1.00	No.		
24	DS ES-04 (2750X2840mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3204.	1.00	No.		
25	DS ES-05 (3495X2080mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3205.	1.00	No.		
26	DS ES-06 (3495X2080mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3206.	1.00	No.		
27	DS ES-07 (2480X3750mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3207.	1.00	No.		
28	DS ES-08 (2590X2040mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3208.	1.00	No.		
29	DS ES-09 (2915X3225mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3209.	1.00	No.		
30	DS ES-10 (3105X3720mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3210.	1.00	No.		

Ref	Description	Qty	Unit	Rate	Amount
	Traffic Signs (Cont'd)				
31	DS ES-11 (2990X2535mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3211.	1.00	No.		
32	DS ES-12 (2990X2535mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3212.	1.00	No.		
33	DS ES-13 (3400X2315mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3213.	1.00	No.		
34	DS ES-14 (4005X3865mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3214.	1.00	No.		
35	DS ES-15 (3705X5260mm, Class RA2 12899-1:2007); Refer to drawing 20_008D-CSE-GEN-XX-DR-C-3215.	1.00	No.		
	Road Markings				
36	Marking of Continuous lines; Thermoplastic extrusion with applied ballotini; RRM 001 Continuous Single Centre Line; White Reflectorized. 100mm wide.	2,117.00	m		
37	Marking of Continuous lines; Thermoplastic extrusion with applied ballotini; RRM 013 Parking Bays Perpendicular; White Reflectorized.	10,480.00	m		
38	Marking of Continuous lines; Thermoplastic extrusion with applied ballotini; RRM 017 Stop Line; White Reflectorized. 200mm wide.	56.00	m		
39	Marking of Continuous lines; Thermoplastic extrusion with applied ballotini; RRM 019 No Entry Line; White Reflectorized. 200mm wide.	40.00	m		
40	Marking of Continuous lines; Thermoplastic extrusion with applied ballotini; RRM 024 Bus Lane Line and LÁNA BUS Marking; White Reflectorized.	65.00	m		
41	Marking of Continuous lines; Thermoplastic extrusion with applied ballotini; RRM 035 Electrical Vehicle Recharging Bay Markings; White Reflectorized.	1,155.00	m		
42	Marking of Continuous lines; Thermoplastic extrusion with applied ballotini; M 131 Pedestrian Crossing Line; White Reflectorized. 100mm wide.	220.00	m		
43	Marking of Intermittent lines; Thermoplastic extrusion with applied ballotini; RRM 003B Broken Lane Line; White Reflectorized, 100mm wide, yield line. 2m mark, 2m gap	440.00	m		

Ref	Description	Qty	Unit	Rate	Amount
	Road Markings (Cont'd)				
44	Marking of Intermittent lines; Thermoplastic extrusion with applied ballotini; RRM 018 Yield Line; White Reflectorized, 200mm wide, yield line, 1m mark, 1m gap.	85.00	m		
45	Marking of Intermittent lines; Thermoplastic extrusion with applied ballotini; RRM 018C Cycle Track Yield Line; White Reflectorized, 100mm wide, 0.3m mark, 0.3m gap.	6.00	m		
46	Marking of Intermittent lines; Thermoplastic extrusion with applied ballotini; RRM 019 No Entry Line; White Reflectorized, 200mm wide, 1m mark, 1m gap.	34.00	m		
47	Marking of Intermittent lines; Thermoplastic extrusion with applied ballotini; RRM 023 Cycle Track Broken Edge Line; White Reflectorized, 100mm wide, 0.75m mark, 0.75m gap.	456.00	m		
48	Marking of Intermittent lines; Thermoplastic extrusion with applied ballotini; RRM 030 Bus Stop Marking; White Reflectorized, 100mm wide.	71.00	m		
49	Marking of Intermittent lines; Thermoplastic extrusion with applied ballotini; M 129 Broken Bus Lane Line; White Reflectorized, 250mm wide, 1m mark, 1m gap.	20.00	m		
50	Marking of Ancillary lines; Thermoplastic extrusion with applied ballotini; RRM 021 Hatch Marking (For speed less than 60kph); White Reflectorized, 150mm wide.	392.00	m		
51	Marking of Ancillary lines; Thermoplastic extrusion with applied ballotini; RPC001 White Zebra Crossing Transverse Lines; White Reflectorized, 500mm wide.	273.00	m		
52	Marking of Ancillary lines; Thermoplastic extrusion with applied ballotini; RRM 020 Yellow Box Marking; Yellow Reflectorized.	613.00	m		
53	Marking of Arrow; Thermoplastic extrusion with applied ballotini; RRM 004 Direction Arrow - Straight Ahead; White Reflectorized.	44.00	No.		
54	Marking of Arrow; Thermoplastic extrusion with applied ballotini; RRM 004C Direction Arrow - Straight Ahead on Cycle Track; White Reflectorized.	6.00	No.		

Ref	Description	Qty	Unit	Rate	Amount
	Road Markings (Cont'd)				
55	Marking of Arrow; Thermoplastic extrusion with applied ballotini; RRM 005 Direction Arrow - Left; White Reflectorized.	5.00	No.		
56	Marking of Arrow; Thermoplastic extrusion with applied ballotini; RRM 006 Direction Arrow - Right; White Reflectorized.	2.00	No.		
57	Marking of Arrow; Thermoplastic extrusion with applied ballotini; RRM 039 Direction Arrow - Straight Ahead and Left; White Reflectorized.	3.00	No.		
58	Marking of Arrow; Thermoplastic extrusion with applied ballotini; RRM 040 Direction Arrow - Straight Ahead and Right; White Reflectorized.	1.00	No.		
59	Marking of Triangle; Thermoplastic extrusion with applied ballotini; M 112 Traffic Calming Triangle; White Reflectorized.	44.00	No.		
60	Marking of Triangle; Thermoplastic extrusion with applied ballotini; M 115 Triangular Yield Marking; White Reflectorized, 3.75m long.	5.00	No.		
61	Marking of Triangle; Thermoplastic extrusion with applied ballotini; M 115C - 1.8 Cycle Track Triangular Yield Marking; White Reflectorized, 1800mm.	4.00	No.		
62	Marking of Letters and numerals; Thermoplastic extrusion with applied ballotini; P&R worded marking; White Reflectorized.	18.00	No.		
63	Marking of Letters and numerals; Thermoplastic extrusion with applied ballotini; AGE FRIENDLY worded marking; White Reflectorized.	30.00	No.		
64	Marking of Letters and numerals; Thermoplastic extrusion with applied ballotini; BUS worded marking; White Reflectorized.	6.00	No.		
65	Marking of Letters and numerals; Thermoplastic extrusion with applied ballotini; BUS ONLY worded marking; White Reflectorized.	1.00	No.		
66	Marking of Letters and numerals; Thermoplastic extrusion with applied ballotini; M 108 Speed Marking, 30km/h, 7.5m X 1.5m; White Reflectorized	1.00	No.		

Ref	Description	Qty	Unit	Rate	Amount
	Road Markings (Cont'd)				
67	Marking of Letters and numerals; Thermoplastic extrusion with applied ballotini; M 114 STOP worded marking; White Reflectorized.	7.00	No.		
68	Marking of Letters and numerals; Thermoplastic extrusion with applied ballotini; M1 (N) worded marking; White Reflectorized.	3.00	No.		
69	Marking of Letters and numerals; Thermoplastic extrusion with applied ballotini; N worded marking; White Reflectorized.	1.00	No.		
70	Marking of Letters and numerals; Thermoplastic extrusion with applied ballotini; R132 worded marking; White Reflectorized.	1.00	No.		
71	Marking of Letters and numerals; Thermoplastic extrusion with applied ballotini; RRM 024 LANA BUS worded marking; White Reflectorized.	1.00	No.		
72	Marking of Symbol; Thermoplastic extrusion in applied ballotini; M 111 Pedestrian Symbol; White Reflectorized.	92.00	No.		
73	Marking of Symbol; Thermoplastic extrusion in applied ballotini; M 116 Cycle Symbol; White Reflectorized.	14.00	No.		
74	Marking of Symbol; Thermoplastic extrusion in applied ballotini; RRM 015 Disabled Persons Symbol; White Reflectorized.	37.00	No.		
75	Marking of Symbol; Thermoplastic extrusion in applied ballotini; RRM 034 E-Charging Symbol; White Reflectorized.	75.00	No.		
	Street Furnitures				
76	Supply and install; Bicycle Shelters, each 5 units in length.	4.00	No.		
77	Supply and install; Sheffield Bicycle Stands, Regular.	72.00	No.		
78	Supply and install; Sheffield Bicycle Stands, Cargo Bikes.	4.00	No.		
79	Supply and install; Galvanised Steel Bike Repair Station; 1500mm (H) X 450mm (W top) X 650mm (W bottom) X 450mm (D).	1.00	No.		

Ref	Description	Qty	Unit	Rate	Amount
	Street Furnitures (Cont'd)				
80	Supply and install; Bike Lockers.	20.00	No.		
81	Supply and install; Litter Bins, Bigbelly High-Capacity Station (HC5), Smart; Solar Powered.	2.00	No.		
82	Supply and install; Permanent Bollards, 316 Marine grade stainless steel with a brushed finish, in retention socket to protection EV Charging Stations (2no. each).	84.00	No.		
83	Supply and install; Permanent Bollards, 316 Marine grade stainless steel with a brushed finish, in retention socket.	30.00	No.		

	Description	Amount
	Page: S1200 / 1	
	Page: S1200 / 2	
	Page: S1200 / 3	
	Page: S1200 / 4	
	Page: S1200 / 5	
	Page: S1200 / 6	
	Page: S1200 / 7	

LISSENHALL PARK RIDE TENDER

SERIES 1300 ROAD LIGHTING COLUMNS AND BRACKETS

Ref	Description	Qty	Unit	Rate	Amount
	Road Lighting Columns, Brackets and Wall Mountings				
1	Bosch MIC 7100i Series HD IP PTZ Camera 1080p Resolution; Including Bosch Hinged Deep Conduit Pole Adaptor, 60 PoE Iniector & Analvtics.	2.00	No.		
2	Bosch 4000i Series IP Fixed Camera 1080p Resolution; Including Pendant Mount, Pole Mount Adaptor & Analytics.	22.00	No.		
3	Steel road lighting column of 8m galvanised steel pole, rooted, stiffened, lockable door; Refer to specification appendix 30/1 and drawing 20_008D-CSE-GEN-XX-DR-C-2600. 2601.	41.00	No.		
4	Steel road lighting column of 6m galvanised steel pole, tilt down, rooted, lockable door; Refer to specification appendix 30/1 and drawing 20_008D-CSE-GEN-XX-DR-C-2600. 2601.	5.00	No.		
5	Steel combined CCTV and road lighting column of 8m galvanised steel pole, rooted, stiffened, twin lockable doors; Refer to specification appendix 30/1 and drawing 20_008D-CSE-GEN-XX-DR-C-2600. 2601.	6.00	No.		

	Description	Amount
	Page: S1300 / 1	

Ref	Description	Qty	Unit	Rate	Amount
	Locating Buried Road Lighting and Traffic Signs Cable				
1	Locating buried road lighting and traffic signs cable in footways.	60.00	m		
	Cabling				
2	Cable, CCTV Cabling; Including 19" Patch Panels, Cable Preparations, Fibre Fusions, Splice Protectors, Pigtails, Patch Leads and Integration.	620.00	m		
3	Cable; 3X6sqmm NYCY supply cable to Underpass public lighting.	410.00	m		
4	Cable, CCTV Cabling; 4X6sqmm NYCY supply cable from minipillar to pole mounted public lighting.	1,120.00	m		
5	Cable, CCTV Cabling; 4X10sqmm NYCY supply cable from minipillar to pole mounted public lighting.	1,350.00	m		
	Cable Joints and Terminations				
6	Cable termination; 3X6sqmm NYCY.	30.00	No.		
7	Cable termination; 4X6sqmm NYCY.	47.00	No.		
8	Cable termination; 4X10sqmm NYCY.	48.00	No.		
	Feeder Pillars				
9	Feeder pillar; Bus shelter service pillar.	1.00	No.		
10	Feeder pillar; ESB mini pillar with vault chamber 2 and cover.	7.00	No.		
11	Feeder pillar; CCTV service pillar (CCTVMP).	1.00	No.		
12	Feeder pillar; Public lighting service pillar (PLMP).	2.00	No.		
13	Feeder pillar; Wastewater treatment service pillar.	1.00	No.		
14	Feeder pillar; RTPI service pillar.	1.00	No.		
	Earth Electrodes				
15	Earth electrodes; Earth mat for ESB.	7.00	No.		

Ref	Description	Qty	Unit	Rate	Amount
	Electrical Work				
16	Proposed PARKSAVE 44W LED 4000K 5ft @3m Label: P44 Lum Lumens: 7000 MF: 0.840	15.00	No.		
17	Proposed Metro Street Light Size 2, 73W 48LED 500mA 4000K Street Optic R03 Label: MS73-R03 Lum Lumens: 10732 MF: 0.880	20.00	No.		
18	Proposed Metro Street Light, 19W 8LED 700mA 4000K Street Optic R03 Label: MS19-R03 Lum Lumens: 2450 MF: 0.880	5.00	No.		
19	Proposed Metro Street Light Size 1, 52W 24LED 700mA 4000K Street Optic R03 Label: MS52-R03 Lum Lumens: 7351 MF: 0.860	8.00	No.		
20	Proposed Solo Area Light 340W 160LED 700mA 4000K Symmetric Area Optic Label: S34-S Lum Lumens: 45038 MF: 0.860	19.00	No.		
21	Proposed Carriageway Loop Box	6.00	No.		
22	Proposed MOVA Loop Detectors	15.00	No.		
23	Electrical Testing	1.00	item		
	Traffic Signal Sockets				
24	Supply and install; Retention socker RS115df for traffic signals installation.	5.00	No.		
25	Supply and install; Retention socker RS168df for traffic signals installation.	1.00	No.		

	Description	Amount
	Page: S1400 / 1	
	Page: S1400 / 2	

Ref	Description	Qty	Unit	Rate	Amount
	Communications Equipment				
1	Communications equipment, CCTV camera; Bosch 4000i Series IP fixed camera 1080p resolution; To be mounted on proposed lighting columns.	22.00	No.		
2	Communications equipment, CCTV camera; Bosch MIC 7100i Series HD IP PTZ camera 1080p resolution, including Bosch hinged deep conduit pole adapter, 60 PoE injector and analytics; To be mounted on proposed lighting columns.	2.00	No.		
3	Communications equipment, Rittal Cabinet; Refer to specification appendix 15/1.	1.00	No.		
	Loop Detector Installations				
4	Loop detector installations; Access & Egress Detection system (includes detector loops at entry and exit roads); Including loop boxes, chambers ducting, installation, commissioning and all other associated works.	1.00	No.		

	Description	Amount
	Page: S1500 / 1	

LISSENHALL PARK RIDE TENDER

SERIES 1700 STRUCTURAL CONCRETE

Ref	Description	Qty	Unit	Rate	Amount
	In Situ Concrete				
1	In situ concrete; Bus Shelter Foundation; C30/37; In accordance with Bauer Media Outdoor's details and specification.	10.00	m3		
2	In situ concrete; Bike Shelter Foundation; 300mm depth concrete footing (C30/37); In accordance with specification.	40.00	m3		
	Precast Concrete				
3	Precast concrete slab; Watermain protection slab to STD-W-13, each 3.4m X 1.075m.	275.00	No.		
	Surface Finish of Concrete - Formwork				
4	Formwork; Vertical more than 300mm wide, ESB Kiosk.	13.00	m2		
5	Formwork; Vertical more than 300mm wide, to finsih for strip foundation.	85.00	m2		
	Steel Reinforcement for Structures				
6	Fabric reinforcement to B1131; Bus Shelter Foundation to the requirements to Bauer Media Outdoor's details and specification.	24.00	m2		
7	Fabric reinforcement, with two layers A393 Mesh (Top & Bottom); Bike Shelter Foundation to the specification.	120.00	m2		

	Description	Amount
	Page: S1700 / 1	

LISSENHALL PARK RIDE TENDER

SERIES 2500 SPECIAL STRUCTURES

Ref	Description	Qty	Unit	Rate	Amount
	Special Structures				
1	Special structure designed by the Contractor; Precast Concrete Box Culvert (Underpass) c/w Wingwalls, Headbeams, Waterproofing & All Associated Works.	1.00	item		
2	Special structure designed by the Contractor; ESB substation KIOSK foundation plinth.	1.00	item		
3	Special structure designed by the Contractor; ESB substation building.	1.00	item		
4	Supply and install; Staff Toilet.	1.00	item		
5	Supply and install; Car charger civil works in advance of, support during and following completion of the car charging contractor's installation works.	1.00	item		
	Foul/Wastewater Treatment				
6	Puraflo bio-filtration - secondary treatment units.	1.00	item		
7	Tricel TERO Tertiary Treatment System.	1.00	item		
	Surface Water Attenuation				
8	Attenuation pond (Hydro-brake chamber with head wall).	1.00	item		
9	Cellular Storage Units (90% void ratio) wrap in non-woven geotextile (all sides + top) for swale.	1.00	item		

	Description	Amount
	Page: S2500 / 1	

Ref	Description	Qty	Unit	Rate	Amount
	Watermains				
1	Watermains, Irish Water 25mm OD supply pipe; Watermain - Watermain Trench and Bedding Details for Untrafficked Areas - (CC-SCD-02701); Depths to invert not exceeding 2 metres; Construction in trench.	15.00	m		
2	Watermains, 110mm OD (PE-80) SDR 17 HDPE; Watermain - Watermain Trench and Bedding Details for New Roads - (CC-SCD-02703); Depths to invert not exceeding 2 metres, average depth to invert 1.6m; Construction in trench	18.00	m		
3	Watermains, 110mm OD (PE-80) SDR 17 HDPE; Watermain - Watermain Trench and Bedding Details for Untrafficked Areas - (CC-SCD-02701); Depths to invert not exceeding 2 metres, average depth to invert 1.4m; Construction in trench	537.00	m		
4	Irish water boundary box	1.00	m		
	Connections				
5	Connection to existing watermain; To existing 800mm dia. Ductile Iron watermain with proposed 125mm OD HDPE pipe; Depths to invert not exceeding 2 metres.	1.00	No.		
	Pipe Fittings				
6	Fitting; Bends, 125mm OD SDR 17 HDPE, 45 degree bend; Nominal bore : not exceeding 200mm; Until completion of the Works.	2.00	No.		
7	Fitting; Bends, 125mm OD SDR 17 HDPE, 90 degree bend; Nominal bore : not exceeding 200mm; Until completion of the Works.	5.00	No.		
8	Fitting; Junctions and branches, 100mm DN All flanged level invert DI tee; Nominal bore : not exceeding 200mm; Until completion of the Works	3.00	No.		
9	Fitting; Junctions and branches, 100mm to 75mm DN All flanged level invert DI tee; Nominal bore : not exceeding 200mm; Until completion of the Works	1.00	No.		

Ref	Description	Qty	Unit	Rate	Amount
	Pipe Fittings (Cont'd)				
10	Fitting; Junctions and branches, 800mm to 200mm DN All flanged DI tee; Nominal bore : 600 □900mm; Until completion of the Works.	1.00	No.		
11	Fitting; Tapers, Concentric taper 200mm DN to 125mm OD; Nominal bore : not exceeding 200mm; Until completion of the Works.	1.00	No.		
12	Fitting; Adaptors, Dismantling Joint DN100; Nominal bore : not exceeding 200mm; Until completion of the Works.	3.00	No.		
13	Fitting; Adaptors, Dismantling Joint DN200; Nominal bore : not exceeding 200mm; Until completion of the Works.	1.00	No.		
14	Fitting; Adaptors, Dismantling Joint DN800; Nominal bore : 600 □900mm; Until completion of the Works.	2.00	No.		
15	Fitting; Adaptors, Stub flange with backing ring 125mm OD HDPE; Nominal bore : not exceeding 200mm; Until completion of the Works.	6.00	No.		
16	Fitting; Adaptors, Stub flange with backing ring 90mm OD HDPE; Nominal bore : not exceeding 200mm; Until completion of the Works.	2.00	No.		
17	Fitting; Adaptors, Long body flexible coupling DN800; Nominal bore : 600 □900mm; Until completion of the Works.	2.00	No.		
18	Fitting; Straight Specials, Double flanged ductile iron riser pipe DN80 pipe (to suit hydrant arrangement); Nominal bore : not exceeding 200mm; Until completion of the Works.	2.00	No.		
19	Fitting; Straight Specials, Double flanged ductile iron separation DN100 pipe (to suit valve arrangement); Nominal bore : not exceeding 200mm; Until completion of the Works.	3.00	No.		

Ref	Description	Qty	Unit	Rate	Amount
	Pipe Fittings (Cont'd)				
20	Fitting; Straight Specials, Double flanged ductile iron separation DN200 pipe (to suit valve arrangement); Nominal bore : not exceeding 200mm; Until completion of the Works.	1.00	No.		
21	Fitting; Straight Specials, Double flanged ductile iron separation DN800 pipe (to suit valve arrangement); Nominal bore : 600 □900mm; Until completion of the Works.	2.00	No.		
22	Fitting; Straight Specials, Flanged plain ended DI pipe c/w thrust flange DN800; Nominal bore : 600 □900mm; Until completion of the Works.	2.00	No.		
	Valves and Penstocks				
23	Valves and Penstocks; Gate Valve - hand operated, Sluice Valve DN75; Nominal bore : not exceeding 200mm; Fitting without puddle flanges.	2.00	No.		
24	Valves and Penstocks; Gate Valve - hand operated, Sluice Valve DN100; Nominal bore : not exceeding 200mm; Fitting without puddle flanges.	1.00	No.		
25	Valves and Penstocks; Gate Valve - hand operated, Sluice Valve DN200; Nominal bore : not exceeding 200mm; Fitting without puddle flanges.	3.00	No.		
26	Valves and Penstocks; Gate Valve - hand operated, Sluice Valve DN800; Nominal bore : 600 -□900mm; Fitting without puddle flanges.	1.00	No.		
27	Valves and Penstocks; Air valve, DN100 to STD-W-22; Nominal bore : not exceeding 200mm; Fitting without puddle flanges.	2.00	No.		
28	Valves and Penstocks; On - line hydrant; As per Irish Water Standard Detaill On - line hydrant for polyethylene (P.E.) pipe - (STD-W-18).	2.00	No.		
29	Valves and Penstocks; Washout hydrant; As per Irish Water Standard Detaill Washout Hydrant - (STD-W-30A).	1.00	No.		

Ref	Description	Qty	Unit	Rate	Amount
	Chambers				
30	Chambers, Valve Chamber for 800mm DN pipe; As per Irish Water Standard Detaill Butterfly Valve Chamber (Mains 350mm Diameter or Over) - (CC-SCD-02706).	2.00	No.		
31	Chambers, Valve Chamber; As per Irish Water Standard Detaill Sluice Valve for polyethylene (P.E.) pipe (<350mm Dia.) - (STD-W-15).	5.00	No.		
32	Chambers, Hydrant Chamber; As per Irish Water Standard Detaill On - line hydrant for polyethylene (P.E.) pipe - (STD-W-18).	2.00	No.		
33	Chambers, Washout Hydrant Chamber; As per Irish Water Standard Detaill Washout Hydrant - (STD-W-30A).	1.00	No.		
	Thrust Blocks				
34	Thrust Block Volume : 0.2m³ - 0.5m³; As per Irish Water Standard Detaill Watermain Thrust and Support Blocks - (STD-W-28).	7.00	No.		
35	Thrust Block Volume : 0.5m³ - 1m³; As per Irish Water Standard Detaill Watermain Thrust and Support Blocks - (STD-W-28).	7.00	No.		
36	Thrust Block Volume : 2m³ - 4m³; As per Irish Water Standard Detaill Watermain Thrust and Support Blocks - (STD-W-28).	2.00	No.		
	Marker Post				
37	Air valve; Marker Posts / Plates - (STD-W-27).	2.00	No.		
38	Hydrants; Marker Posts / Plates - (STD-W-27).	2.00	No.		
39	Sluice Valves; Marker Posts / Plates - (STD-W-27).	7.00	No.		
40	Scour Valves; Marker Posts / Plates - (STD-W-27).	1.00	No.		

	Description	Amount
	Page: S2700 / 1	
	Page: S2700 / 2	
	Page: S2700 / 3	
	Page: S2700 / 4	

LISSENHALL PARK RIDE TENDER

SERIES 2900 CCTV SURVEY OF ROAD DRAINAGE SYSTEMS

Ref	Description	Qty	Unit	Rate	Amount
	CCTV Survey of Road Drainage Systems				
1	Site establishment	1.00	item		
2	Setting up at survey points	14.00	No.		
3	Provision of report	1.00	item		
4	Surveying of drains; Depth to invert not exceeding 6 metres.	2,580.00	m		
5	Surveying of gully connections	28.00	m		

	Description	Amount
	Page: S2900 / 1	

3. LANDSCAPING WORKS

Lissenhall Park & Ride

Swords, Co.Dublin

SOFTWORKS LANDSCAPE SCHEDULE OF OPERATIONS

PRICING DOCUMENT

GROUND PREPARATION/PLANTING OPERATIONS,
SUPPLY/PLANTING OF TREES, HEDGES, SHRUBS, BULBS;
SEEDING;
12 MONTHS DEFECT LIABILITY PERIOD/PLANTING ESTALISHMENT WORKS.

SCHEDULE OF OPERATIONS No.1

PRELIMINARIES

Item	Description	Unit	Qty	Rate €	Total €
a	Include for the collection and storage of a representative sample of all scheduled Plant Material and for transportation and accomodation of up to 2 members of the Design Team to inspect same prior to supply to site.	Item			
b	The contractor shall include in his rates all costs necessary for specialised machinary, working methods and health and safety methods, production of Health & Safety Plan.	Item			
c	Maintenance of temporary works, adopting, clearing away and making good are deemed to be included.	Item			
d	Any notices and fees to Local Authorities and Public undertaking related to these items shall be deemed to be included with these items.	Item			
e	Provide for transport to site.	Item			
f	Provide for testing in accordance with the specification.	Item			
g	Provide for all drawings, samples, mock-ups and reports required by the specification.	Item			
h	Protection during transit, handling, storage and installation.	Item			
j	Provide for the full cost implications of complying with the main contract volume A: General conditions and preliminary items. Issued separately as part of the overall WORKS REQUIREMENTS Item.	Item			
k	Provide for fixing the price of the works in accordance with the Conditions of Contract.	Item			
m	The contractor shall enter hereunder and carry forward any item from the Contract Documents against which he requires to cover any special risks, liabilities and obligations which are not included in his rates for other items.	Item			
	Total to COLLECTION				

PRELIMINARIES
COLLECTION

PRELIMINARIES
Carried to SUMMARY

Total to SUMMARY

Lissenhall Park & Ride

Swords, Co.Dublin

SCHEDULE OF OPERATIONS NO. 2

GROUND PREPARATION & PLANTING OPERATIONS

Item	Description	Unit	Qty	Rate €	Total €
	CULTIVATION **(Refer to Landscape Specification)**				
a	Weed, clean and tidy all general soil surfaces, removing debris and stones off site. Strim/spray off with approved herbicide existing vegetation as required from all tree, hedge and shrub planting areas. (Allow for slopes)	sq.m.	15,350		
b	Stone pick all stones of a diameter greater than 50mm to hedge and shrub areas.(Allow for slopes)	sq.m	6,615		
c	Cultivate all shrub planting areas 300mm deep incorporating 40gm/sq.m. of 0:10:20 fertiliser and soil conditioner spread over all planted areas at 1 cu m of PAS 100 organic material material per 10 sq m prior to cultivation, options are: 1. Composted bark 2. Manure: Well rotted horse or farmyard dung but not poultry or pig manure. 3. Mushroom compost: Spent mushroom beds containing only well rotted manure, peat, chalk and residual mushroom growth. 4. Leaf mould: Well rotted broad leaves from deciduous trees but not ash, poplar or sycamore leaves. 5. Other well rotted organic material, subject to approval.	sq.m	4,545		
	Note: Shrubs in Bioretention area are included in Bioretention planter soil				
d	Cultivate all hedge planting area 450mm deep incorporating 40gm/sq.m. of 0:10:20 fertiliser and soil conditioner spread over all planted areas at 1 cu m of PAS 100 organic material material per 10 sq m prior to cultivation, options are: 1. Composted bark. 2. Manure: Well rotted horse or farmyard dung but not poultry or pig manure. 3. Mushroom compost: Spent mushroom beds containing only well rotted manure, peat, chalk and residual mushroom growth. 4. Leaf mould: Well rotted broad leaves from deciduous trees but not ash, poplar or sycamore leaves. 5. Other well rotted organic material, subject to approval.	sq.m	2,070		
	Note: Hedge Planting in Bioretention area are included in Bioretention planter soil				
	Total to COLLECTION				

Item	Description	Unit	Qty	Rate €	Total €
	CULTIVATION cont.				
a	Bioretention planter soil - allow for minor regrading, cultivation in advance of planting	sq.m.	4,545		
b	Wetland planting and seeding in Atenuation and Detention Basins - allow for minor regrading, cultivation in advance of planting	sq.m.	1,197		
c	Final grading and tidying of all soil surfaces, removing any stones >30mm from surface.	sq.m.	15,350		
d	Rake off and leave tidy all shrub/hedgerow planting areas.	sq.m.	15,350		
	Removal of Litter				
a	Remove all litter from all landscape areas, planting and grass.	Item			
	Total to COLLECTION				

Item	Description	Unit	Qty	Rate €	Total €
	<u>Planting Operations</u> Refer to Planting Schedule 7139-BSM-ZZ-00-DR-L-4002 & Landscape Masterplan 7139-BSM-XX-00-DR-L-1003				
a	**Native Hedgerow to Boundary, Double line Rows Staggered (Refer to drawing 7139-BSM-ZZ-00-DR-L-4000)**				
	Excavate a trench ditch 1200 wide and 450mm deep,or to a sufficient size so as to easily accommodate the rootball of the plant,breaking up base 100mm. Backfill with topsoil from stockpile on site incorporating 'Enrich' or equivalent approved compost. Prepare the plants by pruning back any damaged roots to healthy growth; placing roots of waiting plants in water whilst planting; applying an approved mycorrhizal root-dip e.g Rootgrow. Place the plants in the trench in a double staggered row. 450mm between the rows, 350mm between the plants in each row. Backfill the trench to half its depth and firm by treading. Continue planting the trench. Once planted, backfill with the remaining soil and firm as before. Supply and install 50mm deep x 1m width, fine compost mulch to surface. Supply and fit rabbit guards with bamboo cane support to native hedgerow	lin.m.	282		
	Supply and install timber post and rail fence (as per xxx Detail xx),in the middle of hedge, with plastic wire ties for each hedge plant to attach to mesh.	lin.m.	282		
b	**Native hedge along Walkways, planted 1 row.(Refer to drawing 7139-BSM-ZZ-00-DR-L-4000)**				
	Excavate a trench ditch 1000 wide and 450mm deep,breaking up base 100mm. Backfill with topsoil from stockpile on site incorporating 'Enrich' or equivalent approved compost. Prepare the plants by pruning back any damaged roots to healthy growth; placing roots of waiting plants in water whilst planting; applying an approved mycorrhizal root-dip e.g Rootgrow. Place the plants in the trench in a double staggered row. 450mm between the rows, 300mm between the plants in each row. Backfill the trench to half its depth and firm by treading. Continue planting the trench. Once planted, backfill with the remaining soil and firm as before. Supply and install 50mm deep x 1m width, fine compost mulch to surface.	lin.m.	546		
	Supply and install timber post and rail fence, in the middle of hedge, with plastic wire ties for each hedge plant to attach to mesh.	lin.m.	546		
	Total to COLLECTION				

Item	Description	Unit	Qty	Rate €	Total €
	Planting Operations (cont.)				
C	**Select Standard Tree to Bioretention Areas - RB (10-12cm girth) (Refer to drawing 7139-BSM-ZZ-00-DR-L-4000)**				
	Excavate tree pits to the depth at which the root plate will site,remove excavated material and dispose of on site at a location to be agreed with the CA. Base of pit should remain undisturbed. Mound the pit slightly to help shed water away from the upper rootball. "Place D-MAN cells (3No) with wires on the base of tree pit. Backfill with lightweight soil to the depth of exisiting rootball and compact the soil. Place tree into position, position Plati-Mat onto the roorball, place rachet tensioner and thread wire. Place a 75mm dia. perforated plastic pipe around the rootball for irrigation/ feeding purposes. Ensure main stem remains in vertical position. Backfill with Enrich ligthweight intensive plant growing media. Supply install 75mm deep x 1m diam. fine compost mulch to surface.	nr	88		
	Tree anchor by Platipus Anchors System RF1PDMAN (o.s.e.a)D-MAN Cells, supply and install	nr	88		
	Total to COLLECTION				

Item	Description	Unit	Qty	Rate €	Total €
	Planting Operations (cont.)				
d	**Standard Trees in Open Space - RB (10-12cm girth) (Refer to drawing 7139-BSM-ZZ-00-DR-L-4000)**				
	Excavate tree pits to the depth at which the root plate will site,remove excavated material and dispose of on site at a location to be agreed with the CA. Base of pit should remain undisturbed. Mound the pit slightly to help shed water away from the upper rootball. Position tree, drive 1 no. 1500 x 75mm pressure treated timber stake to leave 600mm over ground. All stakes to be treated with min 2 no. coats Bondex Ebony opaque Paint or equivalent. Backfill with topsoil from stockpile on site incorporating Enrich organic compost and Rootgrow mycorrhizae. Trees are to be planted at the same depth as in nursery (as indicated by the soil mark on the stem of trees) and the soil is carefully firmed back up to existing ground level. Supply and fit, rabbit guard, biodegradable fabric composition tree tie,tie wrapped twice in an eight, twisted to give distance. Supply install 75mm deep x 1m diam. fine compost mulch to surface.	nr	68		
	Note: All stakes and rail for trees shall be sweet chestnut, peeled larch, or pressure treated fir free from projections and large/ edge knots and preservative treatment to BS 8417. All stakes to be painted with two coats of opaque Bondex Ebony or equivalent water based paint. Contractor to include this in the submitted pricing regime.				
	Total to COLLECTION				

Item	Description	Unit	Qty	Rate €	Total €
	Planting Operations (cont.)				
e	**Shrub Planting (Refer to drawing 7139-BSM-ZZ-00-DR-L-4000)**				
	Excavate planting pits 300 mm dia and 450mm deep or to a sufficient size so as to easily accommodate the rootball of the plant.Centre the shrub in the pit and backfill using excavated material, incorporating 50mm of moist pas 100 organic matter/sq.m. , e.g. 'Enrich' compost, together with innoculant of mycorrhizal fungi e.g. Rootgrow, into soil. Soil shall be lightly firmed to ensure good contact between plant roots and soil substrate. Mulch all ornamental shrub areas to a depth of 50mm min. Where applicable supply and fit rabbit guard to each plant.	nr	28,848		
f	**Wetland Planting (Refer to drawing 7139-BSM-ZZ-00-DR-L-4000)**				
	Excavate planting pits or to suit plant size and shape. Create a cleft at bottom of hole to improve rooting. Gently firm plant into hole to ensure good root hold into substrate.	nr	1,743		
	Total to COLLECTION				

GROUND PREPARATION WORKS
COLLECTION

TOTAL OF PAGE 7139/SO/5

TOTAL OF PAGE 7139/SoO/6

TOTAL OF PAGE 7139/SoO/7

TOTAL OF PAGE 7139/SoO/8

TOTAL OF PAGE 7139/SoO/9

TOTAL OF PAGE 7139/SoO/10

GROUND PREPARATION & PLANTING OPERATIONS
Carried to SUMMARY

Lissenhall Park & Ride
Swords, Co.Dublin

SCHEDULE OF OPERATIONS NO. 3
PLANTING WORKS

Item	Description	Unit	Qty	Rate	Total
	SUPPLY, PLANT AND PROTECT THE FOLLOWING				
	Trees to be sourced from Irish Supplier.				
	Standard Trees in Bioretention Areas				
	10-12cm girth, 2.5-3.5m height, 2m clearstem, RB				
a	Acer campestre 'Elsrikj'	nr	22		
b	Alnus cordara	nr	10		
c	Carpinus betulus 'Fastigiata'	nr	22		
d	Corylus colurna	nr	13		
e	Betula nigra	nr	24		
	Standard Trees in Open Space				
	10-12cm girth, 2.5-3.5m height, 2m clearstem, RB				
a	Sorbus aucuparia sheerwater seedling	nr	21		
b	Quercus petraea	nr	13		
c	Prunus avium 'Plena'	nr	20		
d	Pinus sylvestris, 2-2.5m height, feathered, bushy	nr	14		
	Native Hedge				
	30-40cm, Transplant, BR				
a	Green privet, Ligustrum ovalifolium	nr	1,640		
	Native Hedgerow Mix/ Woodland Whip Planting				
	Planted at spacing 1.5m centres				
a	Quercus robor, 60-90cm BR	nr	236		
b	Corylus avellana, 60-90cm BR	nr	71		
c	Crataegus monogyna, 60-90cm BR	nr	24		
d	Betulus pubescens, 60-90cm BR	nr	47		
e	Ilex aquifolium, 20-30cm p9 CG	nr	24		
f	Sorbus aucuparia, 60-90cm BR	nr	24		
g	Pinus sylvestris, 30-50cm p9 CG	nr	47		
	Marginal Native Shrub Mix to Pond Slopes				
	Planted at spacing of 3 plants per sqm				
a	Corylus avellana	nr	36		
b	Euonymus europaeus	nr	36		
c	Guelder rose	nr	36		
d	Alder buckthorn	nr	36		
e	Native dogwood	nr	36		
	Total to COLLECTION				

Item	Description	Unit	Qty	Rate €	Total €
	Rain Garden/ Biofiltration Area Planting				
	Planted at spacing of 0.4m centres				
a	Iris pseudacorus (plant close to inlet) p11	nr	2,841		
b	Juncus effusus spiralis (plant close to inlet) p11	nr	1,452		
c	Miscanthu sinensis 'Kleine Silberspinne' 1L	nr	2,841		
d	Calamagrostis 'Karl fosterii' 1L	nr	2,841		
e	Panicum virgatum 1L	nr	1,452		
f	Geranium ' Rozanne' p11	nr	1,452		
g	Euonymus fortunei ' Silver Queen' 1L	nr	2,903		
h	Vinca minor 1L	nr	1,452		
i	Helleborus lividus subsp. Corsicus p11	nr	1,452		
j	Hemerocallus 'Awesome Luck' p11	nr	1,452		
k	Persicaria affinis 'Superba' p11	nr	1,452		
l	Cornus sanguinea 'Midwinter Fire' br	nr	1,452		
m	Deschampsia cespitosa 1L	nr	2,903		
n	Rudbeckia ' Goldsturm' p11	nr	1,452		
o	Aster novi-belgii p11	nr	1,452		
	Marginal Planting to Attenuation Pond				
	Planted at spacing of 6.25 plants per sqm, 0.4m centres				
a	Sparganium erectum	nr	156		
b	Iris pseudacorus	nr	78		
c	Typha latifolia	nr	156		
d	Mentha aquatica	nr	39		
e	Filipendula ulmaria	nr	156		
f	Lythrum salicaria	nr	156		
g	Butomus umbellatus	nr	117		
h	Menyanthes trifoliata	nr	78		
i	Schoenplectus lacustris	nr	78		
j	Glyceria maxima	nr	117		
k	Caltha palustris	nr	78		
l	Veronica beccabunga	nr	78		
m	Comarum palustre	nr	78		
n	Juncus effusus	nr	78		
o	Persicaria amphibia	nr	39		
p	Myosotis scorpioides	nr	39		
q	Carex riparia	nr	39		
a	**Wetland Meadow Seed Mix**				
	1.5g/m meadow seed, 2-4g/m grass seed				
	Devils Bit Scabious Common Sorrel Cowslip, Fleabane*, Greater Trefoil*, Hemp Agrimony, Lesser Knapweed, Marsh Cinquefoil, Marsh Marigold, Meadow Buttercup, Meadowsweet, Meadow Rue, Oxeye Daisy, Purple Loosestrife, Ragged Robin, Red Clover, Red Rattle, Ribwort Plantain, Selfheal, Sneezewort*, Tufted Vetch, Water Avens*, Wild Angelica Wild Valerian, Yarrow, Yellow Flag Iris Yellow Rattle, Red Rattle*, Corn Marigold, Corn Poppy, Corncockle*, Cornflower*, Scentless Mayweed, Redshank may be added for very wet soils	sq.m	890		
	Total to COLLECTION				

Item	Description	Unit	Qty	Rate €	Total €
b	**Bioswale Wildflower & Grass Seed Mix** **1.5g/m meadow seed, 2-4g/m grass seed** Birdsfoot Trefoil, Black Meddick, Bush Vetch. Corn Marigold, Corn Poppy, Corncockle, Cowslip, Meadow Buttercup, Field Scabious, Kidney Vetch, Lady's Bedstraw, Lesser Knapweed, Marjoram, Eyebright, Mullein, Ox-eye Daisy, Hawksbit, Red Bartsia, Red Campion, Red Clover, St Johnswort, Wild Carrot, Yarrow, Yellow Rattle, Species in small quantities: White Campion, Feverfew, Cornflower, Scentless Mayweed, Birdsfoot Trefoil, Purple Loosestrife, White Bedstraw, Ragged Robin, Selfheal, Yellow Agrimony, 'Hastings' Strong creeping red fescue, Dumas 1' Hard fescue, 'Quatro' Sheep's fescue	sq.m	692		
c	**Landscape Hardwearing Grass Mix** **1.5g/m** Creepstar' creeping perennial ryegrass 15% Angelina' Perennial Ryegrass 15% Hastings' Strong creeping red fescue 40% Dumas 1' Hard fescue 15% Quatro' Sheep's fescue 15%	sq.m	5,260		
d	**Species Rich Grass Mix** 1.5g/m Fescue/bent. Birdsfoot Trefoil, Black Meddick, Burnet Saxifrage, Century, Wild Chamomile, Cowslip, Eyebright, Meadow Buttercup, Marjoram, Red Bartsia, Mallow, Forget-me-not, Broadleaf Plantain,, Kidney Vetch, Lady's Bedstraw, Ox-eye Daisy, Red Clover, Ribwort Plantain, Rough Hawksbit,St Johnswort, Wild Carrot, Sorrel, Yarrow, Quaking Grass, Lady's Smock, White Bedstraw, Selfheal, Smooth Hawksbit, Corn Marigold, Corn Poppy, Cornflower, Corncockle, Scentless Mayweed	sq.m	3,507		
e	**FIRST CUT** When grass has finished flowering, remove cuttings, debris, litter and all stones and clay balls larger than 40 mm in any dimension. In the first year for meadows sown 'with grass' always cut by the end of July if not sooner. All floras sown with grass and without annuals must be regularly cut and the grass removed when growth passes a height of 15-25cm in the first year. Cut down to 50-100mm. The grass must not 'lodge' (fall over). Top the grass with sickle bar/disc cutting/moving bars and remove all arisings off site.	sq.m	10,350		
f	**MISCELLANEOUS** Include for cleaning of hard surfaces soiled during maintenance operations	Item			
	Total to COLLECTION				

PLANTING WORKS
COLLECTION

TOTAL OF PAGE 7139/SoO/13

TOTAL OF PAGE 7139/SoO/14

TOTAL OF PAGE 7139/SoO/15

PLANTING
Carried to SUMMARY

Total to SUMMARY

Lissenhall Park & Ride
Swords, Co.Dublin

SCHEDULE OF OPERATIONS NO. 4
12 MONTHS DEFECTS LIABILITY PERIOD FROM SUBSTANTIAL COMPLETION (PRACTICAL COMPLETION)

Item	Description	Unit	Qty	Rate €	Total €
	Refer to Works Specification-Q35 Landscape Maintenance **To be carried out in accorandance with;** · BS 3998:2010 Tree work. Recommendations · BS 4428:1989 Code of practice for general landscape operations (excluding hard surfaces) · BS 7370-3:1991. Grounds maintenance. Recommendations for maintenance of amenity and functional turf · BS 7370-4:1993 Recommendations for maintenance of soft landscape				
	Trees				
a	Include for adjustments to ties as required, replacements of stakes, ties broken or loosened by wind.	Visits	1		
b	Formative pruning (**1 visits per year for all trees)**	Visits	1		
c	Slow release fertiliser 150 g. per tree	nr	156		
d	Maintain free of grass and weeds 100cm diameter circles around all trees in grass by approved weed control method application.	nr	68		
	Planting- Shrubs, Perennials, Hedge & Climbers				
e	Include for the supply and spread of slow release organic fertiliser in Autumn to planting areas (2 applications per year)	Visits	2		
f	Maintain all planting areas free of grass and weeds by hand and/or contact herbicide. At all times, weed cover less than 5% and no weed to exceed 100 mm high for the full length of the maintenane period.	sq.m	15,350		
g	Maintain a broken surface on all shrub planting areas using hoe. Remove stone debris over 35m diameter and tip off site	Item			
h	Delineate and maintain planting edge to paved and grass areas.	Item			
i	Trim and tidy plants as required to remove dead, damaged or diseased wood. (1 visit per year)	Visit	1		
	Total to COLLECTION				

Item	Description	Unit	Qty	Rate €	Total €
	General Tree and Hedgerow Maintenance				
a	Weed control: - Maintain weed free area around each tree and transplant to specification - Diameter (minimum): The larger of 1 m or the surface of original planting pit. - Keep planting beds clear of weeds: By cultivation and herbicide treatment. Planted areas: - Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch. - Ensure that sufficient water is applied to maintain healthy growth. Precautions: - Ensure that trees and transplants are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools. · Firming up: Gently firm loosened soil around trees/transplants. Straighten leaning trees and transplants. · Rabbit guards: Ensure correctly fitting. Replace damaged/missing guards	Item			
b	Formative pruning to shape Native Hedgerow (57 lin.m). Allow 2 cuts per year. Clean and remove all arisings.	Visit	2		
	Watering				
c	Include for watering all tree, shrub and hedge planted areas using water tanker as necessitated by dry weather. The contractor is responsible for informing the LA of the need to water (allow 4 per year)	nr.	4		
	Total to COLLECTION				

Item	Description	Unit	Qty	Rate €	Total €
	Miscellaneous				
a	Include for removal of all litter in planting and grass areas prior to mowing, weeding etc. Remove and dispose of off-site over 12 months.	Visit	12		
b	Removal of litter at all maintenance visits	Visit	12		
c	Gritting paths in frost	Visit	1		
d	Removal of leaves off paths and pavements	Visit	2		
	GRASS AREAS Refer to Works Specification-Q35/100-215				
	The Contractor shall keep a record of the number of grass cutting operations completed.				
	General Amenity Grass Areas (5260 sq.m - total area)				
a	Include for treatment of noxious weed species and control grass around obstacles, by one of the following methods;				
	Ensure weeds cover no more than 10% of the grounds in June	Item			
b	Cut to average 30mm high when sward reaches 35-50mm growth or as required to provide an even stand of grass. Use rotary type mower. If sward is light leave cutting spread evenly, otherwise remove off site. Avoid spreading cuttings to hard surfaces. (18 cuts expected per year).	Cuts	18		
c	Apply balanced fertiliser in Spring and low Nitrogen/high Phosphorous & Potassium fertiliser in Autumn (2 per year to 5260 sq.m)	nr.	2		
	Meadow areas (890 sq.m) - areas calculated per year. Refer to Landscape Works Specification-Q35-140				
	Total to COLLECTION				

Item	Description	Unit	Qty	Rate €	Total €
d	WILDFLOWER GRASSLAND MAINTENANCE : · Throughout the 12 months defects period carry out maintenance of the grass areas as follows: cut new wildflower grass with power flail, finger bar or sythe cutter once in early Spring.	Visits	1		
e	GENERAL MAINTENANCE: - Maintain edges where grassland abuts footpaths or other hard surfaces using strimmer. - Rake up and remove all arisings from site. - Repair damaged grass areas as required with seed to match existing. - Remove weeds by spot treatment with approved herbicide or by hand-pulling. - Collect and dispose of litter and arisings from all hardstanding paths, planting and grass areas from the site.	Visits	18		
f	Allow for overs seeding of meadow in areas which have not germinated.	Item			
g	Control noxious weeds species (e.g docks) in meadow areas, by one of the following methods; o Apply spot treatment with non chemical based method as per written specification o Remove weeds by hand weeding.	Item			
	Total to COLLECTION				

Item	Description	Unit	Qty	Rate €	Total €
	Shrub/ Perennial Planting	Item			
a	Plant supports: Stake and tie plants using bamboo canes, Length: 1000 mm, Maintain throughout the growing season. Gaps in planting: Refill by replanting. Watering: New plants-Before and after planting out. - Ongoing: As necessary for the continued thriving of all planting. · Operations at end of growing season: - Trim: Older flowering stems of herbaceous perennials. - Remove: Redundant plant supports, litter, debris and arisings. - Cultivate: Fork over the soil, taking care not to cause undue disturbance to plants. - Top dress: Apply PAS 100 compost top dressing, 'Enrich' or equivalent, 50mm deep.				
b	**Generally**	Item			
	Include for treatment of weeds, by one of the following methods; o Remove dead flower heads, fallen leaves, litter and debris.				
	o Thoroughly hand weed				
	o Thoroughly hand weed				
	o Lightly hoe				
	o Clip grass edges				
	Watering				
c	Include for watering all planted areas using water tanker as necessitated by dry weather. The contractor is responsibe for informing the LA of the need to water.	nr	3		
d	Include for watering all ornamental grass areas from water tanker as required by dry conditions	nr	3		
	Miscellaneous				
a	Include for cleaning of hard surfaces soiled during maintenance operations.	Item			
b	Include for removal of all litter in planting and grass areas prior to mowing, weeding etc. Remove and dispose of off-site.	Item			
c	Include for final tidying of site prior to handover at end of maintenance period.	Item			
d	Waste and Recycled Bins are located in the scheme. Include for bins to be emptied and contents disposed off site twice a month	Visits	24		
	Total to COLLECTION				

12 MONTHS MAINTENANCE TO SUBSTANTIAL COMPLETION (PRACTICAL COMPLETION)

TOTAL OF PAGE 7139/SoO/18

TOTAL OF PAGE 7139/SoO/19

TOTAL OF PAGE 7139/SoO/20

TOTAL OF PAGE 7139/SoO/21

TOTAL OF PAGE 7139/SoO/22

12 MONTHS MAINTENANCE TO SUBSTANTIAL COMPLETION (PRACTICAL COMPLETION)

Total to SUMMARY

SUMMARY TO BE CARRIED TO MAIN TENDER SCHEDULE

PRELIMINARIES 7139/SoO/3

GROUNDWORKS 7139/SoO/11

PLANTING 7139/SoO/16

12 MONTHS DEFECTS LIABILITY MAINTENANCE 7139/SoO/23

TOTAL AMOUNT CARRIED FORWARD TO LANDSCAPING ELEMENT
OF MAIN TENDER PRICING DOCUMENT

Total to SUMMARY

6. GRAND SUMMARY

GRAND SUMMARY			
Ref	**Description**		**Total**
1	**PRELIMINARIES**	**€**	
2	**ROADWORKS**	**€**	
3	**LANDSCAPING WORKS**	**€**	
	Sub Total	**€**	
	Adjustment Item +/-	**€**	
	Total Tender Price to Form of Tender (Excluding VAT)	**€**	

Tenderer :_____

Signed by: _____ **Date:**_____

Clifton Scannell Emerson Associates Limited, Civil & Structural Consulting Engineers
3rd Floor The Highline, Bakers Point, Pottery Road, Dun Laoghaire, Co Dublin, Ireland A96 KW29

T. +353 1 288 5006 E. info@csea.ie W. www.csea.ie

