

# QUOTATION



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Stephen Morris

20/04/2016  
Our Ref:00000978

Dear Stephen,

This document comprises our quotation for the mobile 3D laser mapping of your survey project – **Isle of Man circuit.**

Based upon our detailed understanding of your requirements, we are delighted to offer you our services as summarised below:

- Survey description → page 2
- Survey particulars, including the specified data deliverables → page 2
- Our Method Statement → page 2
- Any special arrangements, including Health & Safety and Risk Assessment, if applicable → page 3
- Payment terms → page 4
- Our Terms & Conditions → page 5

If you have any questions or wish to clarify any aspect of this quotation, please do not hesitate to contact me as follows:

- [Valdis.vanags@3dlasermapping.com](mailto:Valdis.vanags@3dlasermapping.com)
- +44 (0) 1949 838004, extension 215

Thanks for your interest in 3D Laser Mapping.

With best regards,

A handwritten signature in black ink, appearing to read "Valdis Vanags".

Survey manager – Mobile mapping  
3D Laser Mapping Ltd.

# SURVEY INFORMATION

## Survey Description

Topographical 3D laser survey of Isle of Man circuit (37 miles of public roads).

The survey to include the full carriage width in both directions with one data capture pass in each direction.

Data deliverables to include a coloured geo-referenced 3D pointcloud and geo-referenced digital imagery.

<b>Survey date</b>	To be advised (possibly during races in June or August)
<b>Point cloud format</b>	LAS 1.2
<b>Cameras required?</b>	Yes
<b>Camera orientation</b>	1 panoramic ladybug3 camera
<b>Coloured points</b>	Required
<b>Geo-referenced images</b>	Required

<b>Survey vehicle</b>	3DLM vehicle
<b>Co-ordinate system</b>	UK National grid OSGB36
<b>Data delivery method</b>	Data posted on DVD or hard disk
<b>Export licence*</b>	None

*\* Note: When shipping to country which requires export documentation, we cannot ship without such documentation in place. This is a legal requirement under UK law. Export documentation typically takes 4 weeks to arrange.*

## Method statement

### Pre-survey

1. Conduct weather check at survey area prior to survey and seek 3DLM Project Manager's approval to proceed.
2. Conduct GPS visibility check at survey area prior to survey and seek 3DLM Project Manager's approval to proceed.
3. Create route plan including "escape" areas to with good GPS visibility.
4. Ensure adequate storage space on laser scanner and INS data loggers.
5. Agree permissible GPS quality criteria with 3DLM's Project Manager.
6. Agree the GCP spacing with 3DLM's Project Manager
7. Agree the survey speed with the 3DLM's Project Manager
8. Set the laser scanner scanning rates to provide optimal point spacing

### During survey

9. Ensure INS is initiated in good GPS visibility
10. Conduct survey whilst continuously monitoring scanner output and GPS quality
11. "Escape" to areas of high GPS visibility when permissible GPS quality criteria rules are exceeded.

### Post-survey

12. Download laser data and INS data onto a separate laptop
13. Create backup copy of raw data on server
14. Process INS data and seek 3DLM Project Manager's approval
15. Process laser data to a point cloud
16. QA check laser data against known ground control points
17. Delete raw data from data loggers

### Additional notes

None

<b>Accuracy</b>	<b>Conditions</b>	<b>Example</b>	<b>Without GCPs*</b>	<b>With GCPs*</b>
The accuracy of the data depends on a number of variables including time of day, latitude of survey, solar conditions, ionospheric conditions and GPS obstructions. However, here are some typical accuracies:	<i>Good</i>	Open highway	<3cm	<1cm
	<i>Average</i>	Urban environment with occasional tall buildings	<6cm	<2cm
	<i>Bad</i>	City environment with tall buildings	<100cm	<10cm

\*GCPs = ground control points

## Field Control

Ground Control Points (GCPs) should be surveyed on hard, distinctive ground features such as painted white lines. GCPs should be supplied in space-delimited ASCII format (point\_id x y z). For good GPS conditions, a GCP should be placed every 200m; for bad GPS conditions, every 100m. The co-ordinates must be supplied by the customer.

To be supplied by client

## Base station

A static GPS base station is required within 20km of the survey area, logging at 2Hz if possible. Data format should be RINEX (or RINEX compatible). Coordinates of the bottom of the antenna and the antenna model must be provided. The DGPS is post-processed, so RTK data is not suitable.

3DLM to provide temporary base station

# OTHER INFORMATION

Our company takes employee health and safety issues very seriously. We hereby agree to strictly adhere to any special requirements or circumstances associated with your survey project.

These issues may include, but are not limited to, the following:

- The provision and use of special protective clothing; e.g. hard-hats, protective footwear, high visibility clothing, etc. This may be provided by 3DLM or the client as appropriate.
- The provision and use of security clearance passes. No entry into any unauthorised areas whether civilian or military concerns without prior arrangement by the client.
- The attendance to any pre-mission health and safety briefings.
- The adherence to any special instruction received from the client regarding the agreed pre-mission Risk Assessment document.
- The adherence to any traffic laws applicable to the region being surveyed. Includes adherence to any specific speed requirement conducted when subject to a rolling road block as set up by the client.
- The adherence to any travel advice from the UK government regarding behaviours in countries subject to special considerations regarding security and religion.

## Special security arrangements

None required

### Health & Safety Procedure

Completed by Valdis Vanags, LiDAR Systems Engineer 3DLM 20/04/2016

#### Details

Standard procedure.

### Risk Assessment

Completed by Valdis Vanags, LiDAR Systems Engineer 3DLM 20/04/2016

#### Details

Standard procedure.

# PAYMENT TERMS

Description	Payment Schedule
<p><b>Full Payment Settlement.</b></p> <p><b>100%</b> of the total sum for the survey project.</p> <p>Note: Payable within <b>30 days</b> of the processed data delivery.</p>	GBP 9,850

<p><b>Payment Terms</b></p> <p>All associated hire, travel and accomodation costs associated with installation, training and consulting are chargeable to the client at cost.</p> <p>All prices quoted are exclusive of any additional taxes and duties, including withholding tax, at the prevailing rates, unless otherwise stated on the quotation.</p> <p>The attached terms &amp; conditions form part of this Quotation.</p> <p>This quotation is only valid for 30 days from date of quotation.</p>	<p><b>Total</b></p> <p><b>GBP 9,850 + VAT</b></p>
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## TERMS & CONDITIONS OF CONTRACT FOR LAND SURVEYING SERVICES

1. In these Terms and Conditions the following words and expressions shall have the following meanings:
  - the 'Client' means the person or organisation awarding the Contract. An Agent acting for a Third Party shall be deemed to be the Client unless designated in writing by the Third Party;
  - the 'Contract Price' means the agreed fee or scale of charges for the Work, subject to such alterations as may be made under the provisions hereinafter contained;
  - the 'Contract' means the agreement concluded between the Client and the Surveyor, including these Terms and Conditions, all Specifications and other documents which are relevant to the Contract;
  - the 'Surveyor' means the business whose quotation for the Work is accepted by and on behalf of the Client and includes the Surveyor's successors and permitted assigns;
  - the 'Work' means the surveying, mapping, setting out or any other service to be executed and all supporting Plans to be produced and supplied by the Surveyor in accordance with the Specification and includes any additional work requested by the Client under clause 6;
  - the 'Purpose' means the use for the Work as stated in the Contract;
  - the 'Quotation Period' means the period of time between the Surveyor receiving an invitation from the Client to provide a quotation for the work and the date by which the Surveyor must submit his quotation;
  - the 'Plans' means the drawings, digital data, photographs, listings, reports or any other supporting documentation.
2. In so far as is reasonably possible during the Quotation Period, the Surveyor shall be deemed to be satisfied before submitting the quotation as to the nature and requirements of the Work, the conditions under which the Work will be completed and the correctness and sufficiency of the quotation. The several documents forming the Contract are to be taken as mutually explanatory of each other and in cases of discrepancy the Specification shall prevail. The Client warrants that all relevant information has been provided regarding the nature and scope of the Work and any unusual conditions which may apply.
3. The Surveyor shall not be obliged to commence the Work until requested in writing to do so by the Client. Once Work has commenced the Client shall not cancel the Contract without compensating the Surveyor in full for the Work done to notification of cancellation together with a payment of 20 per cent of the Contract Price remaining.
4. The Surveyor shall execute and complete the Work in conformity with the Specification and the delivery dates agreed. The Surveyor shall supply and provide for all matters necessary for the completion of the Work, at the expense of the Surveyor, except as specifically provided for in this Contract. Effective delivery shall be delivery to the Client or, by instruction, to a Third Party. Where delivery is refused or where the Surveyor is unable to deliver due to circumstances beyond his control, the Surveyor is entitled to treat the Contract as being fulfilled and invoice the Client accordingly. Work which the Client reasonably considers fails to meet the standards contained in the Specification shall be returned to the Surveyor within 60 days of receipt of receipt for correction at the Surveyor's own expense. If such Work is found, on being checked by the Surveyor, to be within the standards specified then the costs incurred by the Surveyor in checking shall be payable by the Client.
5. The Work shall be completed in accordance with the agreed programme and dates or within such time as may be agreed with the Client. Any request by the Surveyor for extension of time shall be made in writing to the Client within seven days of the Surveyor being aware of such need arising.
6. The Client may vary the Work either in form, quality or quantity provided that the total cost of the Contract is not affected by more than 10 percent. Such variations shall be valued at the rates set out in the Contract where applicable or failing this at new rates to be agreed between the parties. Where variations to the Work would affect the total cost by more than 10 percent, the Contract Price shall be renegotiated at the request of the Surveyor.
7. The Surveyor may sub-contract part of the Work, whilst accepting full responsibility for the Work as if it had not been sub-contracted.
8. Where it is necessary for the Surveyor to have access on to private property the Client will be responsible for obtaining any necessary permissions. The Client will also furnish the Surveyor with a list of the occupiers and any letters of identification which may be needed.
9. The Client may at any reasonable time examine or test any part of the Work or materials intended for use there in and the Surveyor shall give every reasonable facility and assistance necessary. The cost of making any test and of facilities and assistance provided shall be borne by the Client.
10. Invoices may be submitted by the Surveyor to the Client at not less than monthly intervals for completed stages of the Work. Payment will be made within 30 days of the date of invoice. The Surveyor may charge interest at a rate of 4 percent over Base Lending Rate per month, on a daily basis on overdue accounts. Only the final payment shall be taken as admission of the due performance of the Contract.
11. The Surveyor shall hold or effect policies of insurance to cover Public Liability for not less than (£1M), Employers Liability for not less than (£10M) and Professional Indemnity with cover to be in compliance with the regulations laid down for the time being by the national Professional Body. The Surveyor shall insure the Plans against all risks whilst in transit until effective delivery to the Client. The surveyor shall not be responsible for the insurance of Work installed in or on property under the control of the Client.
12. The Surveyor shall not be liable for any inaccuracy of the Plans beyond the specified scale or accuracy, or for any matters resulting from their use for purposes other than that stated in the Contract. No liability shall attach to the Surveyor in respect of any consequential loss or damages offered by the Client.
13. Should the Surveyor be in breach of the Contract the Client may serve written notice on the Surveyor specifying the breaches of Contract and requiring them to be remedied within 30 days. Failing such remedy the Client may terminate the Contract by serving written notice to that effect on the Surveyor. The Client may decide to use only so much of the Work, upon payment to the Surveyor of such fees as they shall agree. In the event of the Client failing to provide such matters as agreed in the Contract the Surveyor shall be entitled to an extension of the Contract period for any consequent delay and to payment for any additional costs that the Surveyor may reasonably incur. In the event of the Client failing to make payments by the due date the Surveyor shall have the right to suspend the Work until receipt of such payments and to receive payment for any additional cost arising from such suspension. If such period of suspension shall exceed 30 days the Surveyor may, on giving the Client 14 days notice, terminate the Contract without prejudice to any of his other rights under the Contract and be entitled to the compensation laid down in clause 3.
14. If either party commits an act of bankruptcy or has a Receiving Order made against them the Work may be suspended and the Contract terminated upon written notice being served.
15. The Surveyor shall not be liable for any failure to perform the Work either at all or within any particular time if performance is delayed, hindered or prevented by any circumstances beyond the Surveyor's control. After a period of seven days from the start of such circumstances either party may give notice to determine the Contract forthwith. The Client shall pay the Surveyor for the Work undertaken together with the such additional costs to which the Surveyor has been committed or might reasonably be incurred.
16. The copyright in the Plans shall remain vested in the Surveyor who will grant an irrevocable royalty free licence for use by the Client for any purpose related to the Purpose once payment has been received in full. Such licence may not be transferred to a Third Party without the written agreement of the Surveyor. The Surveyor may provide Plans prior to the issue of an invoice, under a temporary licence arrangement. The Client shall not remove any markings identifying the Surveyor as the owner of the Copyright.
17. The Surveyor shall respect any confidential documentation or information relating to the Work and make no unauthorised disclosure or use thereof.
18. The Contract shall be governed by and construed according to the law of the Country of Domicile of the party introducing these Conditions into the Contract. Surveyors who are partners or directors in firms providing surveying services must operate an internal complaints handling procedure, which applies to disputes less than £50,000, under the RICS Bye-Laws. The RICS also sets a minimum standard of complaints handling, as laid out in its Professional Conduct - Rules of Conduct and Disciplinary Procedures. If the complaint cannot be resolved internally by the firm then the matter must go to final resolution by a third party. Surveyors who are members of other professional bodies will be required to operate such procedures as may be laid down by those bodies.