



Historical Concepts – Senoia City Hall

Integrated Documentation Services, LLC (DBA Multivista)

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CLIENT: City of Senoia c/o Harold Simmons

PROJECT: Senoia City Hall

LOCATION: 80 Main St, Senoia, GA 30276

PROJECT SIZE: 4,000 SQFT

START DATE: 5/1/2023

Integrated Documentation Services, LLC (MULTIVISTA) is pleased for the opportunity to provide City of Senoia (**CLIENT**) with a proposal for 3D Laser Scanning services under the following terms and conditions.

SCOPE OF WORK

Reality Capture and Scan Registration

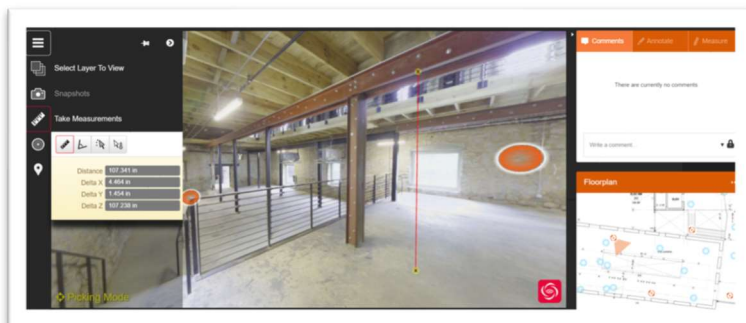
- Perform point cloud capture of project site as required leveraging Leica Geosystems laser scanning solutions. All accessible areas as defined below will be included in field capture – NTE 5,000 SQFT:
 - Building Exterior
 - Building Interior
 - Building Roof
 - Above Ceiling Conditions
- Post processing includes scan registration, point cloud decimation and integration into Multivista Database System. Service does not include the use of scan targets, control and/or alignment of processed data in a project coordinate system unless otherwise noted.

LASER SCAN DELIVERABLES

- Web Based Viewer
 - Leica TruView integration within Multivista Database System combines accurate 3D Laser Scan data and panorama imagery in a browser-based deliverable. Immersive/measurable TruView environment will be made available to unlimited users as requested by client.
- Registered Point Cloud
 - Offline copy of point cloud data will be provided in .LGS, .E57 and .RCP formats via Multivista file sharing dashboard or external storage (if required).
 - RTC360 Stated Instrument Accuracy: 1.9 mm @ 10 m
 - BLK360 G2 Stated Instrument Accuracy: 4 mm @ 10 m

Black & White

Full Color



AS-BUILT DELIVERABLES

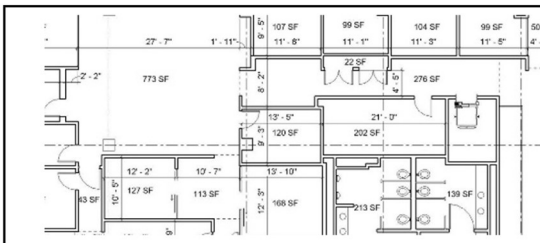
- Scan to Plan/BIM Services
 - Multivista will assess the registered point cloud to develop accurate as-built plans and/or a Building Information Model in accordance with the industry standard AIA/BIMForum and USIBD specifications. Please refer to Standard Notes and Assumptions AND Scan to BIM / Scan to Plan Checklists for project specific details.



3D Revit Model

Autodesk Revit model created from the point cloud in accordance with the AIA/BIMForum Level of Development (LOD) - 200/300 and the USIBD Level of Accuracy (LOA) – LOA20. Model will be delivered in industry standard formats IFC and RVT.

For more information on Multivista's standard modelling procedures and LODs please refer to Product Definition.



2D AutoCAD Drawings

Autodesk AutoCAD 2D drawings created from the point cloud in accordance with the USIBD Level of Accuracy (LOA) – LOA30 and the National CAD Standard. Drawings will be delivered in the industry standard format DWG, DXF or PDF.

PROJECT SCHEDULE

- Proposed project schedule will be to deliver all stated deliverables within approximately three weeks. Multivista will work to exceed stated schedule if possible. Client understands overall duration will be directly impacted by availability of areas required.
 - Start Date: Monday, May 1st (2023)
 - Point Cloud & TruView Delivery: Friday, May 5th (2023)
 - As-Built AutoCAD Drawing Delivery: Friday, May 19th (2023)

DOCUMENTATION FEES: The following Documentation Fee is inclusive of all the services set forth above:

TOTAL FEES AS PROPOSED: \$ 3,591.51

- Reality Capture and Scan Registration: **\$2,800.00**
- AutoCAD (.dwg) Architectural Floor Plan, Exterior Elevations, Building Sections: **\$791.51**

****Should actual square footage exceed estimated NTE amount by greater than 5%, additional fees will be invoiced at rate proportional to quoted \$/SQFT.***

****50% of Project Fees to be Invoiced upon delivery of Point Cloud; Balance to be invoiced upon project completion***

STANDARD NOTES AND ASSUMPTIONS:

To ensure the proposed project schedule and fee are met, it is the responsibility of the client to:

- Guarantee unoccupied access to all areas required for laser scanning

- If required remove objects, furniture, or equipment prior to work commencing that may obscure critical features required for laser scanning.

To fully utilize the requested deliverables, it is the responsibility of the client to understand that:

- 3D point cloud data is typically large in file size, with projects ranging (dependent on the amount of scanning completed) from 5GBs to over 100GBs. To store and use effectively, it must be run on a high-performance computer. *Please enquire for more detailed specifications.*
- To view and use the completed 3D point cloud data (LGS, E57 & RCP,) software is required to open and view the applicable file formats. Typically, Leica TruView and Autodesk Recap.
- To view and use the completed 2D CAD Drawings (DWG/DXF) software is required to open and view the applicable file format. Typically, Autodesk AutoCAD.
- To view and use the completed 3D Revit Models (RVT) software is required to open and view the applicable file format. Typically, Autodesk Revit. RVT files are not backwards compatible [*files created with newer software versions are not compatible with older versions of the software*], so the correct software version must be specified and used.
- Recommended specification for Workstation:
 - Processor: Latest i7 quad core or equivalent at 3.5GHz or higher
 - RAM: 64 GB
 - Operating System: Windows 7 (64 bit) or Windows 10 (64 bit)
 - Graphics: NVIDIA GTX 900 or 1000 series with 8GB of video memory, or NVIDIA Quadro P5500 or equivalent
 - Hard Disk: Internal SSD drives. One for writing and one for reading.

Core Laser Scanning Services:

- It is the client's responsibility to provide access to all requested areas included in the project scope, which form the project deliverables (point cloud data, CAD drawings, 3D BIM models, floor flatness reports or mesh models).
- Multivista will require the area of interest to be free of material storage, equipment, and other trade subcontractors (within reason) during the survey so as not to obstruct lines of sight, block survey targets, or for a person to enter scan setups and obstruct data capture.
- Multivista will require a vibration free environment to perform proper and efficient work.
- Unless notified, Multivista assumes laser scanning will be performed on areas where access is granted under "normal" conditions where the necessary equipment does not require exceptional effort (beyond a tripod and laser scanner) to set up. If additional or special equipment is needed to use the scanner in non-accessible spaces, additional costs may be incurred. If no such arrangement can be made, then data will be collected utilizing traditional methods to the best of our ability.
- Multivista will execute the contracted work with appropriate safety protection gear.
- Equipment and features that cannot be seen by the scanner will not be included in the dataset and therefore cannot be shown in the end deliverables. (e.g., To capture data of windows and framing, curtains/blinds/screens must be opened prior to site work starting so that features are visible to the laser scanner).
- If a building's roof is required to be scanned, it must be made accessible and deemed safe by the scanning team.
- Multivista will strive to capture as much ceiling detail with scan data as possible when required, but it is the client's responsibility to remove ceiling tiles and other materials if a higher degree of capture is needed.
- Multivista is not a licensed land surveyor. We will subcontract with a qualified licensed professional to perform any work requiring a licensed surveyor – OR – the client may provide a licensed surveyor.
- Multivista will use non-invasive black and white surveying targets on site when contracted to do so – this aligns the 3D point cloud and subsequent deliverables to a project or real-world coordinate system. Multivista will require the ability to set targets inside and outside the project site that will remain in place and undisturbed for the entirety of the project.
- Multivista will endeavor to clean all substantial reflections, erroneous features, and non-necessary data from the 3D point cloud as thoroughly as possible. However, this will not eliminate all movement from people or traffic, window/mirror reflections, etc.
- Multivista will host 3D laser scanning data on our online platform for a period of 12-months. This pertains to all 3D laser scanning items; interactive TruView integrations, registered 3D point cloud files and scan to services deliverables. The 12-month period for TruView integrations begins when all associated plans are active on the platform. The 12-month period for hosted files begins from when the last project file has been uploaded.
- All online data can be hosted for an additional period, please speak to a Multivista salesperson for pricing and information.

Scan to Plan Services (2D):

- Multivista’s Scan to Services team will produce CAD drawings following the scope outlined in the PDF checklist for “Scan to Plan”. Additional instructions can be stated in the “Notes” section of the checklist form but must be agreed upon at the quoting and commencement of the project.
- Multivista’s standard is to provide all registered 3D point cloud data in a single file upon availability, followed later, by the delivery of all contracted 2D CAD drawings. Deliverables will be shared via the online MDS software unless another form of delivery is specified and requested prior to commencement of the project.
- Multivista will use, by default, its own CAD layering and drawing template unless otherwise specified by the client prior to the commencement of the project.
- All drawings will be based on the 3D point cloud only. No design drawing information will be added into Multivista’s CAD drawings (unless noted otherwise).
- Multivista will not make any design decisions regarding layout or sizes.
- Multivista will not develop any calculation according to code as to life safety, egress plan, etc.
- The current proposal has been estimated without access to the whole project documentation, point cloud, and pictures. Multivista reserves the right to adjust this proposal after reviewing the complete information on the areas of contracted scope.

General Exclusions:

- Items other than what are specified in the scope of work documented above
- Additional levels, areas, or square footage not stated in the scope
- All elements not visible to the scanner and therefore not in the point cloud
- Model elements NOT specifically referenced on project Scan to BIM and/or Scan to Plan Checklist
- Cabinetry/Furniture modeling (loose furniture, millwork, signals, wayfinding)
- Misc. Steel (plates, bolts, rebar, etc)
- Construction details
- Schedules, Isometric views, Bill of Materials, etc
- Renderings and Visualization
- Multivista does not complete additional ‘manual’ field inspection for items not clearly visible in the 3D point cloud.
- Typical inaccessible areas, such as elevator shafts, confined spaces, etc., will not be included unless otherwise stated.

Multivista will perform all work per the selected option for scope of services, standard terms and conditions, and shall be reimbursed for its expenses in accordance with Multivista's Documentation Fees. Upon acceptance of this Proposal Multivista will work diligently to pursue its work until the completion of this project, consistent with the above referenced Scope of Services. Your acceptance of this Proposal constitutes your authorization and direction to Multivista to proceed with this project. Multivista reserves the right to revoke or modify this Proposal at any time before its acceptance.

The foregoing proposal is accepted by:

Integrated Documentation Services, LLC

Client

Signature_____

Signature_____

Printed_____

Printed_____

Title_____

Title_____

Date_____

Date_____