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Godfrey-Hoffman Assoc. teams up with Benchmark Line & Grade to offer 3-D Laser Scanning services

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Laser scanning offers an alternative to traditional survey techniques. A high speed laser scanner can capture data of complex surfaces and often inaccessible environments much quicker than other methods of surveying.

Once the site survey has been carried out, the need for a return visit is rarely necessary due to the completeness and density of the data capture.

Due to the speed of the data capture, the amount of time spent on site is massively reduced, yet the information collected is far superior to that of traditional techniques.

The laser scanner produces a 'point cloud' from each individual scan which can then be pieced together to produce a full 3D model of the scanned object. This complete point cloud can then be traced around to produce accurate and very detailed 2D drawings.

And can turn building like this: to this, in a matter of hours.

Then we work with the cloud to produce the drawn 2D elevations you are familiar with.

So, if you are interested in laser scanning, or have a project where you think it might benefit from the use of a laser scanner, then please contact us and we would be happy to advise you on the best way forward.

Architectural Navigation

Architectural Navigation was designed to lend Quality Control to the overall construction process. It is "Surveying for the Next Generation". Currently we use cutting edge software that will bridge the gap between architectural and engineering design and Sub Contractor construction. This gap increases the amount of time, money and risk to the overall project. The software allows us to locate any space in real time creating a 3D wire frame model in a .dwg (AutoCad format) and send via email the same day. This service is designed to keep Dimensional Quality Control over the length of the entire construction process from existing conditions to the construction layout for all the trades as well as built locations. A wire BIM (Building Information Model) will be created and can be turned into a full Revit 3D Model upon request.

A typical three step process is as follows:

1) Quality Control Surveyors conduct an "Existing Conditions" study for the building or space, before the design plans are finalized. We will then send the data collected in the field electronically to the architect or engineer so that they may initiate, adjust or add to the proposed or existing design.

2) Quality Control Surveyors will "Lay-Out" for any trade by using the architect's drawing "In the Field" to mark the exact location of the proposed development. Our robotic instrument will turn to the exact location as designed so that it can be clearly defined for constructing by the sub-contractor. As the project is being constructed we will make numerous site visits to ensure that what has been installed is in the exact location and set at the correct elevation.

3) Quality Control Surveyors have collected data to this point will that lead up to the final forensic study a.k.a. final "as built". Throughout the construction process we will locate what has been built i.e.: foundation(s), anchor bolt(s), pile(s), etc. to ensure that the location is accurate with respect to the design. Errors or changes will be reflected in this process and recorded for final "as constructed" documents. We can make separate as built drawings for each trade or make one model that will have all the as built locations. This would be the start of BIM that we can expand to become a fully virtual 3D model.

This three step process will save the project time, money and risk by reducing costly mistakes as well as the numerous change orders that take place in today's work environment. This in turn, reduces the risk of a project from being shut down due to unsafe working conditions. The ability of recognizing a mistake as soon as it happens and have it rectified before it turns into a major setback is optimized. Architectural Navigation is a sure bet for the design build industry.

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