

# Dublin Bank - Historical Building Archival

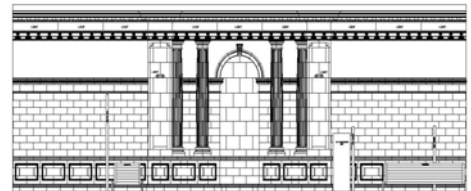
**Scope:** registered 3d point cloud of Historic Bank, 28 O'Connell St, Dublin, 2d AutoCAD plan, elevation and section drawings

**Client:** Irish Archaeological Consultants, Dublin

**Date:** January 2004

**Background:** The Historic Bank at 28 O'Connell St, Dublin with its neo-classical façade and highly ornate interior is well known as a local architectural landmark and as such is protected as a listed building. As a prerequisite for possible redevelopment, a detailed set of CAD drawings in plan, section and elevation needed to be provided to the project architect.

Irish Archaeological Consultants hired gridpoint solutions Ltd to supply a 3d laser scanning High Definition Survey (HDS) of the Banks façade and complex internal architectural detail. This allowed the project archaeologist quick access to a complete highly accurate and detailed survey of the Banks internal and external architectural detail, coupled with production of scale 2d section, elevation and plan drawings.



Internal CAD drawing

Back in the office the fully registered point cloud of the Bank was opened in AutoCAD™ using the 3d point-cloud analysis plug-in CloudWorx™. CloudWorx™ tools were used to "slice" the Post Office intelligently, anywhere along the X, Y and Z axes and provide detailed 2d views of each slice directly within AutoCAD.

## Project Facts

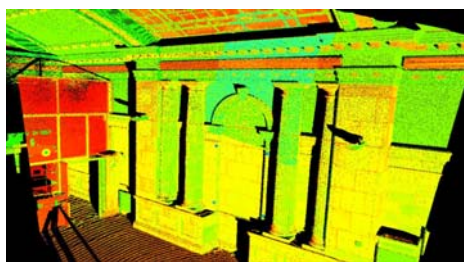
**Field:** 2 person scanner crew, 1 field day.

**Office:** 1 surveyor, 5 days using Cloudworx.

**Deliverable:** registered 3d point cloud, 2d CAD Section, elevation and plan drawings.

## Benefits

- Within budget
- Quick turnaround
- Laser scanning overcame restricted access for façade survey
- Reduced return visits for missed detail
- Survey quality and accuracy



**Workflow:** Gridpoint Solutions Ltd used the Leica Geosystems 2500 scanner to capture 10 separate high-detail, high-density internal and external scans. Scan data was viewed in real-time on the scanner laptop allowing areas of architectural significance to be quickly identified and rescanned at a greater resolution. As O'Connell St is one of the busiest streets in Dublin, combined with the building of the LUAS lite railway system directly in front of the building, surveying of the highly ornate façade by traditional techniques was virtually impossible.



Front elevation

AutoCAD's™ standard drafting tools (e.g. polygon tool, arch tool, spline tool, etc.) were used to trace and create sections, elevations and plans from the point cloud slices. Once finished the drawings were emailed to the project architect who added the necessary annotations.



Rendered front elevation detail



©Grid Point Solutions Limited · 7 Bathgate Drive Belfast BT4 2BA · T/F + 44 (0) 28 90287068  
info@gridpointsolutions.com · www.gridpointsolutions.com · Company Reg. No. NI046178



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