

////// GPRS LASER SCANNING SERVICES

# CASE STUDY

## CASE STUDY: LASER SCANNING MANUFACTURING FACILITY FOR CAPITAL IMPROVEMENT PROJECT

### LOCATION

Boston, Massachusetts

### TASK:

Laser scan a manufacturing facility that is receiving upgrades to three of its lines, to capture point cloud data and generate a 3D Revit Model.



### PROBLEM

- A specialty compound manufacturer was upgrading three manufacturing lines at its plant as part of a larger capital improvement plan.
- The facility was originally built in the 1980s and has expanded several times over the years.
- Multiple levels in the facility needed scanned at a very high level of detail, capturing structural, architectural, MEP and civil elements, along with a site plan.



### SOLUTION

- The facility was 3D laser scanned on the weekend to minimize interruption to the manufacturing lines.
- 73 scans were performed in one day with the Leica P40 ScanStation and the Leica RTC360 laser scanner, acquiring very high detail and accuracy of the plant.
- Colorized point cloud, TruView Viewer files, and a Revit model were delivered to the client.

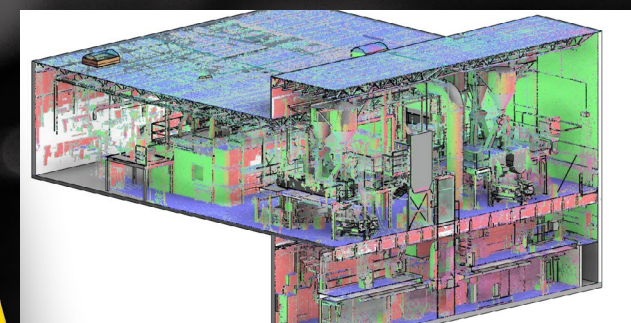


### BENEFITS

- 3D laser scanning and a Revit model will expedite design changes and fabrication of equipment to increase production capacity.
- The investment of laser scanning will reduce the project timeline, minimize downtime and change orders -- providing cost savings for the client.
- This client is pioneering innovation in its industry -- upgrading the lines with updated extruders will increase capacity for long-term growth while minimizing stoppages, set-up times and scrap material.

### ■ The following areas required 3D laser scanning services.

1. On the ground production level, GPRS captured extruder areas for lines 1-3 and process equipment.
2. On the mezzanine level, GPRS captured mixers for each extrusion line.
3. On the second floor, GPRS captured blender areas for lines 1-3, process equipment, air handling equipment, and additional rooms.
4. Outside tank farm and silo farm.



A REVIT MODEL WILL EXPEDITE DESIGN CHANGES AND FABRICATION OF EQUIPMENT TO INCREASE PRODUCTION CAPACITY.