

# LIDAR

## COLLECTION

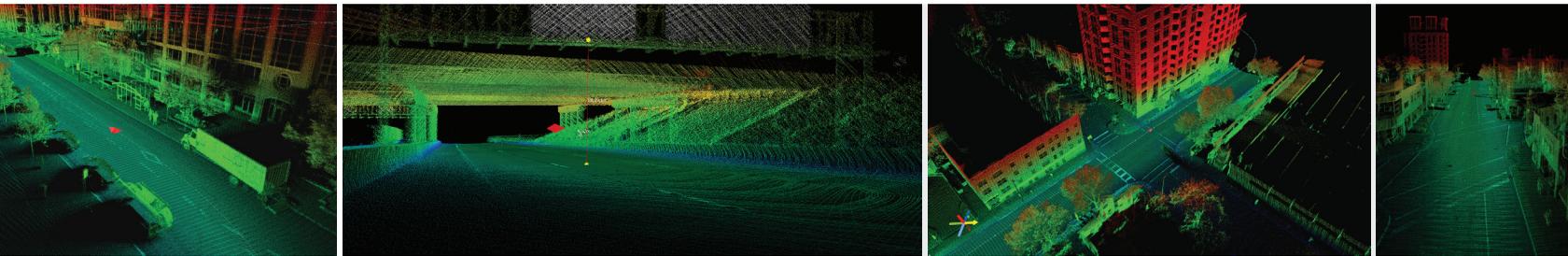
### THE STANDARD OF MOBILE MAPPING

Mandli's Mobile Mapping system integrates Velodyne HDL-32 LIDAR sensor technology to collect high-definition, 3D representations of the surrounding environment. With 100+ meters range and <2 cm at 25 m accuracy, this system uses lasers to gather both range and intensity information providing a more accurate, consistent, and repeatable inventory of roadway assets.



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# THE BENEFITS OF MOBILE MAPPING



## ANY TIME COLLECTION

LiDAR point cloud data is not affected by poor or minimal lighting conditions. This saves valuable collection time and ensures projects stay on schedule and within budget. Even in poor lighting, LiDAR point cloud data produces a fully visible, accurately represented, and geo-located dataset for you to analyze and inventory at any time and from anywhere.

## GEO-REFERENCED DATA

Within the LiDAR dataset each point has its own unique XYZ coordinate.

With the geo-referenced LiDAR dataset, Mandli identifies changes from previous point cloud inventories, saving staff the time from having to manually compare the data. The change analysis checks if an asset has changed or if a new asset was introduced.

## REAL-WORLD VIEW

Unlike Photogrammetry, LiDAR point clouds are not limited by the number of pixels per image and are not distorted by increased range, providing a real-world view that is unavailable with photogrammetry. Lidar point clouds provide more precise relative measurements than photogrammetry derived point clouds

Also unavailable with photogrammetry, Mandli provides a LiDAR dataset that enables the inspection of assets in an accurate 3D virtual environment and eliminates the need to travel to remote sites, saving staff time and money.

## UN-PARALLELED DETAIL

Collecting 1.4 million points of data per second, Mandli's Mobile Mapping System produces a point cloud density that accurately represents detailed features, beyond what is available with a simple photo. Examples of assets available with a LiDAR dataset include:

- ✓ Intersections
- ✓ Signs
- ✓ Pavement Markings
- ✓ Lighting
- ✓ Sidewalks
- ✓ Guardrails

*Additional deliverables only available with a LiDAR dataset:*

- ✓ Vertical and Horizontal Clearances of Overhead Structures
- ✓ Powerlines and Vegetation Encroachment on the Right-of-Way
- ✓ Linear and Polygon Asset Features (i.e., linear paint stripes or polygons of the asphalt surface area)
- ✓ Generate Digital Terrain Models

## FASTER DATA • EFFICIENT DELIVERY

Mandli processes the data and generates deliverable data layers so you don't have to, eliminating the need to store point cloud data or 3D models in a database.

- ✓ Create reference entries in the database to find the LiDAR files
- ✓ Generate Point Clouds
- ✓ Export Point Cloud as LAS files
- ✓ Ensure LAS file is readable in the customer's preferred software

