



Collaboration, Innovation and Resilience: Championing a Digital Generation

Brisbane, Australia 6-10 April

Sustainable Management of the Road Corridor

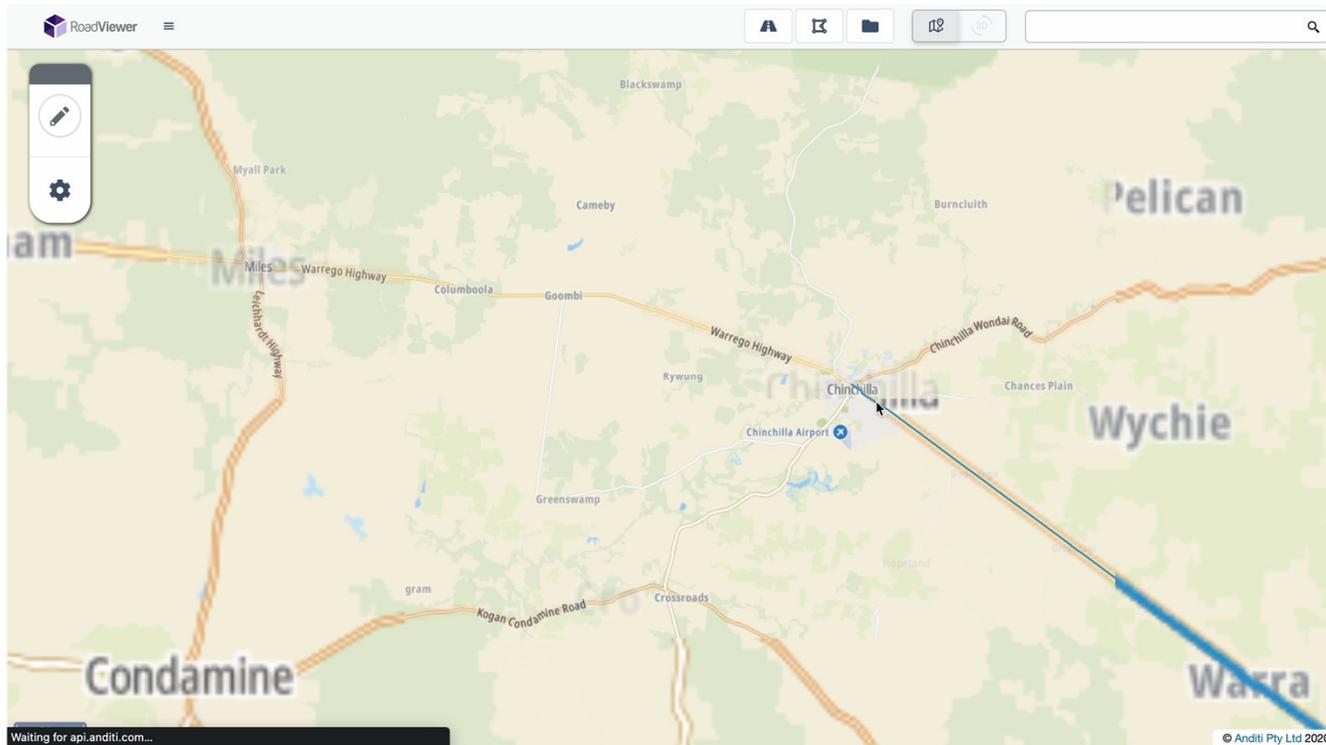
Addressing safety, assets, condition, and environment with a single mobile LiDAR and imagery survey capture



PLATINUM SPONSORS

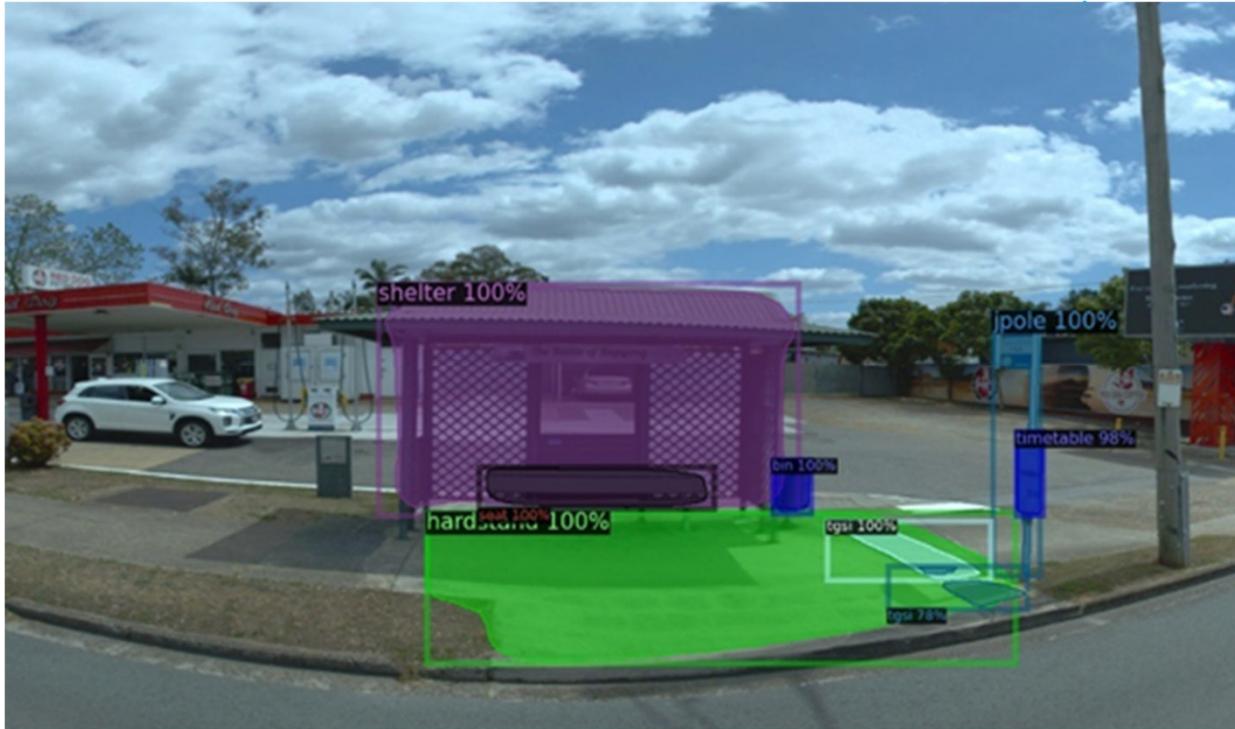


Road Safety (AiRAP) using LiDAR – Unrivalled Accuracy



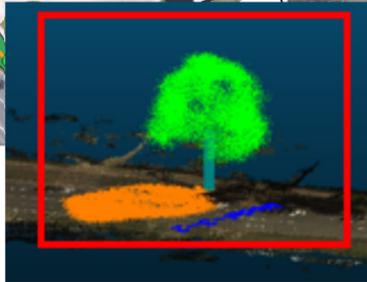
- Main Roads Western Australia 20,000km of roads safety rated.
- Traditionally the process has been done manually
- Understanding of the use of lidar & imagery allows safety analysis to be automated and give exact measurements, rather than best visual guess.
- Understanding lidar allows many more potential solutions.
- Accurate measurements need features identified.

Bus Stop Accessibility



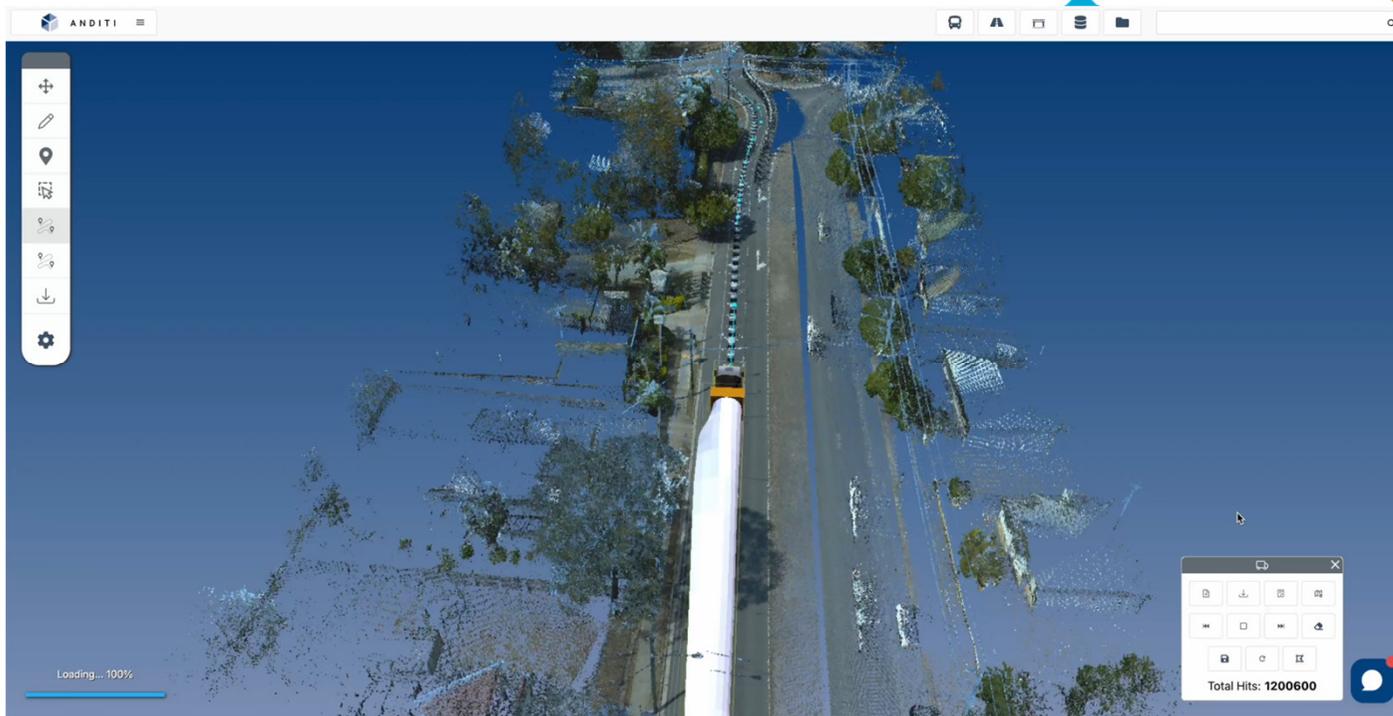
- Same equipment - Automated detection of bus stop assets including shelters, signs, and TGSIs
- Calculate measurements of kerb heights, boarding point slope and dimensions
- Report on accessibility compliance for every bus stop
- Made available in web portal for additional desktop analysis

Street Tree Planting Analysis



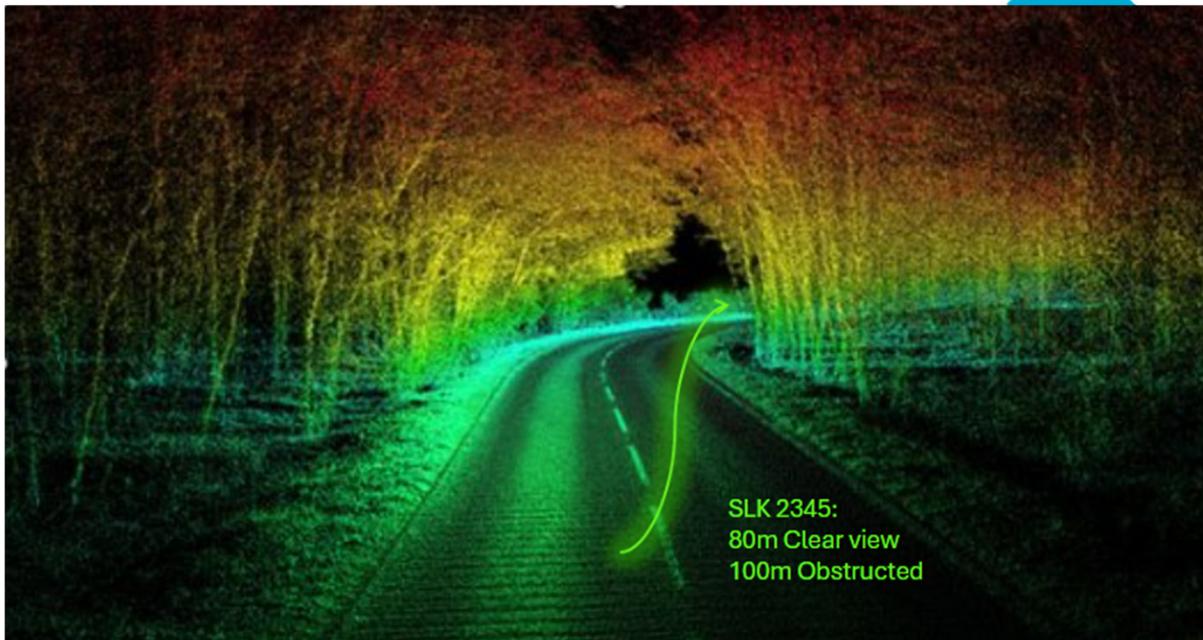
- Blacktown Council Urban Heat problem
- Need more trees without negatively affecting road safety
- Identify locations for roadside tree plantings
- Insert trees into point cloud
- Model impact on road shading and AiRAP Star Ratings

Bridge Clearance and Route Modelling



- Ability to build vehicle model simply and drop into the point cloud- with dimensions, number of trailers, front/rear drive etc
- Create and edit journeys for oversized vehicles
- Ability to pause journey and view 360-degree imagery to examine areas of concern

Resurfacing calculations & Sight Distance



- MRWA identified requirements early for resurfacing and driver sight distance modelling.
- Identifying pavement edge allows accurate estimation of chip seal or asphalt requirements
- Sight Distance traditionally done manually whilst driving or with design data.
- This method gives you both the accuracy of as-built road surface plus real-world integration of vegetation and structures.

Environmental Assessment



- Identify and analyse road corridor trees and vegetation
- Base diameter, breast diameter, canopy area, structural root zone
- Biodiversity and habitat attributes, calculation of carbon storage
- Extrapolate carbon storage accurately to much larger area.

**Data is a high value resource.
Vendors and Experts have an important role to play**

1st relevant SDG

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



2nd relevant SDG

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



3rd relevant SDG

11 SUSTAINABLE CITIES AND COMMUNITIES



SUSTAINABLE DEVELOPMENT GOALS

International Federation of Surveyors supports the Sustainable Development Goals