

# Ela Motors PNG – Lae Malaita Street Show Room

**KA PROJECT REFERENCE:** 19166P  
**INDUSTRY:** Commercial  
**DISCIPLINES:** Building Services, Civil and Structural Engineering Services

## PROJECT SUMMARY

### CLIENT

Ela Motors

### LOCATION

Malaita Street, Lae, Morobe Province,  
Papua New Guinea

### PROJECT TYPE

Design and Documentation and  
Inspections, Early Contractor  
Involvement (ECI)

### YEAR COMPLETED

2021



## PROJECT DESCRIPTION

The history of Ela Motors in Papua New Guinea dates back 57 years to its initial humble beginnings on 9th February 1963. From a single operation based in Badili, Port Moresby to now being the largest automotive and marine distributor in PNG. Ela Motors investment into the infrastructure and people development of PNG has developed immensely over the fifty-five-year commitment to the country (2022). With fifteen branches strategically placed throughout the country, Ela Motors accessibility has contributed to the prosperity in all regions of PNG. These include the establishment of our state of the art Waigani Showroom and the logistics facility in Lae and a dedicated Hino truck shop in Badili. In addition Ela Motors has developed a technical training centre called Ela Academy dedicated to developing our very own specialized mechanics.

Kramer Ausenco was engaged by Ela Motors to provide the Building Services (Mechanical, Electrical and Hydraulics) design and inspections services in conjunction with Civil and Structural Engineering Inspection support for the new Ela Motors Show Room in Lae, Morobe Province, Papua New Guinea. This development includes a Show room, Parts Store, Service & Workshop area and the Wash Bay.

Our scope of works included the following;

- assisting the Client in ensuring the project budget is met by adopting innovative and fit for purpose design;
- providing design that is environmentally sustainable providing both longterm operational running costs with thermal efficient construction techniques;
- documentation of building services design by ensuring that the design is compliant to AS/NZS Standards;
- performed building services, structural and civil engineering inspections by ensuring the installations are compliant to AS/NZS Standards and industrial practises;

## PROJECT ROLE

Kramer Ausenco's role on the project included:

- Building Services Design and Engineering Compliance Inspections, Civil and Structural Engineering Inspection Services
- Provision of assistance to the client with technical clarifications to the project construction scope for the Early Contractor Involvement (ECI) price to be refined over the Concept, Developed and Detailed design phases
- Liaised with Client closely, the contractor and its subcontractors during the ECI process.

**Ela Motors PNG****Lae Malaita Street Show Room****PROJECT DATASHEET**

Project Reference: 19166P

Industry: Commercial

<b>ASSIGNMENT NAME:</b>	<b>APPROX. VALUE OF THE CONTRACT:</b>
Ela Motors PNG New Lae Show Room	USD6.3m approx.
<b>LOCATION &amp; COUNTRY:</b>	<b>DURATION OF ASSIGNMENT (MONTHS):</b>
Lae, Papua New Guinea	7 Months design + 13 months Construction Period
<b>NAME OF FUNDING AGENCY:</b>	<b>TOTAL NO. OF STAFF-MONTHS OF THE ASSIGNMENT:</b>
Ela Motors	11.6 Person-Months
<b>ADDRESS OF AGENCY:</b>	<b>APPROX. VALUE OF THE SERVICES PROVIDED BY YOUR FIRM UNDER THE CONTRACT:</b>
Hides St, Port Moresby, Papua New Guinea	US \$155,000
<b>START DATE (MONTH/YEAR): COMPLETION DATE (MONTH/YEAR):</b>	<b>NUMBER OF PROFESSIONAL STAFF-MONTHS PROVIDED BY ASSOCIATED CONSULTANTS:</b>
Start date: November, 2019 Completion date: May, 2021	N.A
<b>NAME OF ASSOCIATED CONSULTANTS, IF ANY:</b>	<b>NAME OF SENIOR PROFESSIONAL STAFF OF YOUR FIRM INVOLVED AND FUNCTIONS PERFORMED:</b>
N.A	Rovaly Sike (Project Manager/Structural Engineer) Mark Zerike (Civil Engineer) Paul Lauya (Building Services Engineer) Marylouise Noruka (Graduate Building Services Engineer) Ricardo Apigo (Building Services Engineer) Manoa Vave (Senior Building Services Engineer)

**NARRATIVE DESCRIPTION OF PROJECT:**

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**DESCRIPTION OF ACTUAL SERVICES PROVIDED BY YOUR STAFF WITHIN THE ASSIGNMENT:**

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Kramer Ausenco provided Building Services, Civil and Structural Engineering Services.

Our building services scope included the design and documentation of the new facility and also undertaking the compliance inspections to ensure the design intent is captured in the construction as per the construction issue drawings and specifications.

The Client's 3<sup>rd</sup> party Civil & Structural consultants were experiencing difficulties for construction phase site inspections, so KA was ready on the ground and were engaged to take over Civil and Structural Engineers periodic compliance inspections during the construction phase.

As the building services design engineers KA was also responsible for the effective assistance to the support the client project manager by providing the relevant clarifications to the Contractor at the Concept, Developed and Detailed design phases of the project. This is an Early Contract Involvement (ECI) project where the contractor worked closely with KA, the Client and other consulting engineers to define, refine and confirm the construction cost prior to the construction phase.

KA was also instrumental in liaising with subcontractors in clarifying the scope and specifications.

Detailed Engineering Scope of Services included:

**1 Mechanical Engineering Services**

- i. Concept Design based on floor area rate estimates;
- ii. Air conditioning system as required (VRF system has been allowed for this project);
- iii. Ventilation systems including ablution exhaust systems as required;
- iv. Specialist ventilation systems, Fire pump room ventilation;
- v. Input into passive and natural ventilation system designs by architect;
- vi. Coordination with architectural, structural, civil, electrical, hydraulics and fire services designs.

**2 Electrical Engineering Services**

- i. Concept design based on floor area rate estimates;
- ii. Checking of spatial limitations;
- iii. Standard lighting and power reticulation (as required);
- iv. Switchboard schematics;
- v. Emergency lighting and exit signage;
- vi. Power reticulation;
- vii. Emergency power UPS and generator back up;
- viii. Access Control and CCTV System (Security Systems);
- ix. Data and voice cabling (telecommunication);
- x. Coordination with architectural, structural, civil, hydraulics, mechanical and fire services designs;

**3 Hydraulic Engineering Services**

- i. Concept design based on floor area rate estimates;
- ii. Cold and hot water reticulation as required;
- iii. Water storage, filtration, pump and reticulation;
- iv. Rainwater harvesting storage, filtration and reticulation;
- v. Stormwater, sewer and sanitary drainage for the building (external by civils);
- vi. Trade waste drainage for the services workshop;
- vii. Spatial for hydraulic services;
- viii. Technical specifications;
- ix. Coordination with architectural, structural, civil, electrical, mechanical and fire services designs;