

CASE STUDY

Telecoms tower build Isle of Mull

Elev8
Group Services 



www.elev8hire.com

0114-3210644
01324-463075



The site

The installation of a 25m high lattice tower on the Isle of Mull was needed to improve the communications network on the island. A remote and complicated site which was difficult to get equipment to meant conventional lifting equipment could not be used.

- Access to the island by ferry
- Road network with load limits as low as 13-tonne
- Small winding roads not suitable for longer vehicles
- Bridges with load limits on route to site
- Site on a hill exposed to high winds
- Build site on farm land, with fields to cross
- Tower to be transported as components & built on site

Index

The site

Planning

Getting to site

Lifting project

End result

Project planning

Experienced members of our Scottish lifting team went to the island to conduct a detailed survey. They planned a suitable route for lifting equipment to travel across the island and access the farm as well surveying the build location.



- ✓ **Detailed site survey**
- ✓ **Experienced lifting professionals with local knowledge**
- ✓ **Working closely with the client throughout the project**

Index

The site

Planning

Getting to site

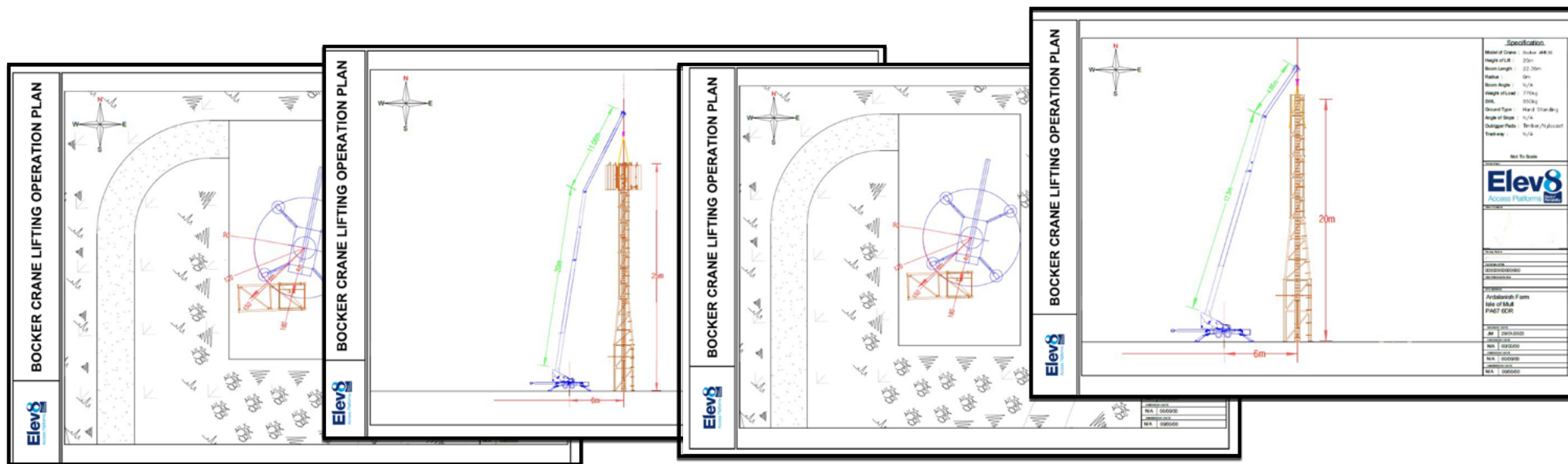
Lifting project

End result

Lift plan

The limitations of access to site meant **conventional lifting equipment could not be used**. Our lifting team sourced a specialist trailer mounted crane which could lift loads of up to 2.4-tonnes.

As part of the lift planning process Elev8's assigned Appointed Person liaised closely with the crane supplier. The crane's jib configuration had to be adjusted for all five sections of tower, and the lift plan included CAD drawn berthing plans & side elevations for each configuration.



Index

The site

Planning

Getting to site

Lifting project

End result

Getting to site

Small roads with tight corners and weight restrictions meant that both the crane and its transport had to be compact and lightweight.

An access track had to be constructed to get the crane to the top of the hill on the farm where the mast would be built.

Our Appointed Person selected a trailer crane for this project, which was towed onto the island and to site using a pickup.

Once on site the self-propelled trailer that the crane was mounted on was unhitched, then driven up the hill to site using it's petrol engine.



Index

The site

Planning

Getting to site

Lifting project

End result

The lifting project

Restrictions to the road network meant that the lattice tower had to be transported as individual components which were to be built into tower sections on site. Four days were assigned for the project team to install the tower.

One of Elev8's experienced lift supervisors and the crane arrived before scheduled start, and stayed in accommodation close to site, available to work whenever weather conditions permitted.



Index

The site

Planning

Getting to site

Lifting project

End result

The build got off to a great start and the first section of the tower was built, lifted into position and installed.

Index

The site

Planning

Getting to site

Lifting project

End result

Then the wind rose and the crane jib could not be extended to lift the upper sections of the tower. We knew the site was prone to high wind and extra time had been allowed for.

To ensure that the project did not slip behind time scale, the project team continued to build the sections of lattice tower. Our crane was configured to safely stand completed sections up ready to lift and install when conditions allowed.



Index

The site

Planning

Getting to site

Lifting project

End result

Project completion

Wind conditions improved, the crane jib was extended. The upper sections of the tower and the headframe were installed and the headframe lifted into place.



Index

The site

Planning

Getting to site

Lifting project

End result

End result

Collaborating closely with our client throughout, our lifting team safely delivered the lifting aspects of this tower build in a complicated location;

- ✓ **On time**
- ✓ **Within budget**
- ✓ **Safely - zero accidents or incidents**

“This project was a prime example of excellent team work from all parties involved. It highlights the need for excellent communication from start to finish, as well as the need to thoroughly understand every project.”

Phil Blackburn, Commercial Manager
Elev8 Group Services

Index

The site

Planning

Getting to site

Lifting project

End result

