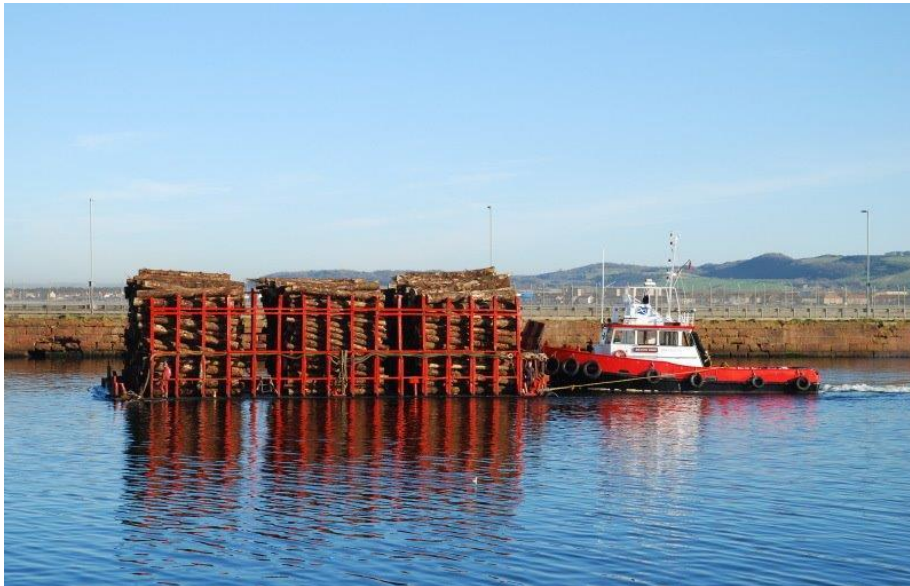




Landing Craft Timber Transport Project
Timber Transport Conference
Battleby 10th March 2016

What is the project?

- In 2013 Robin Taylor of Troon Tug Company identified a gap in the shipping market



- A landing craft could carry more than the barge but with less expenditure on shore.



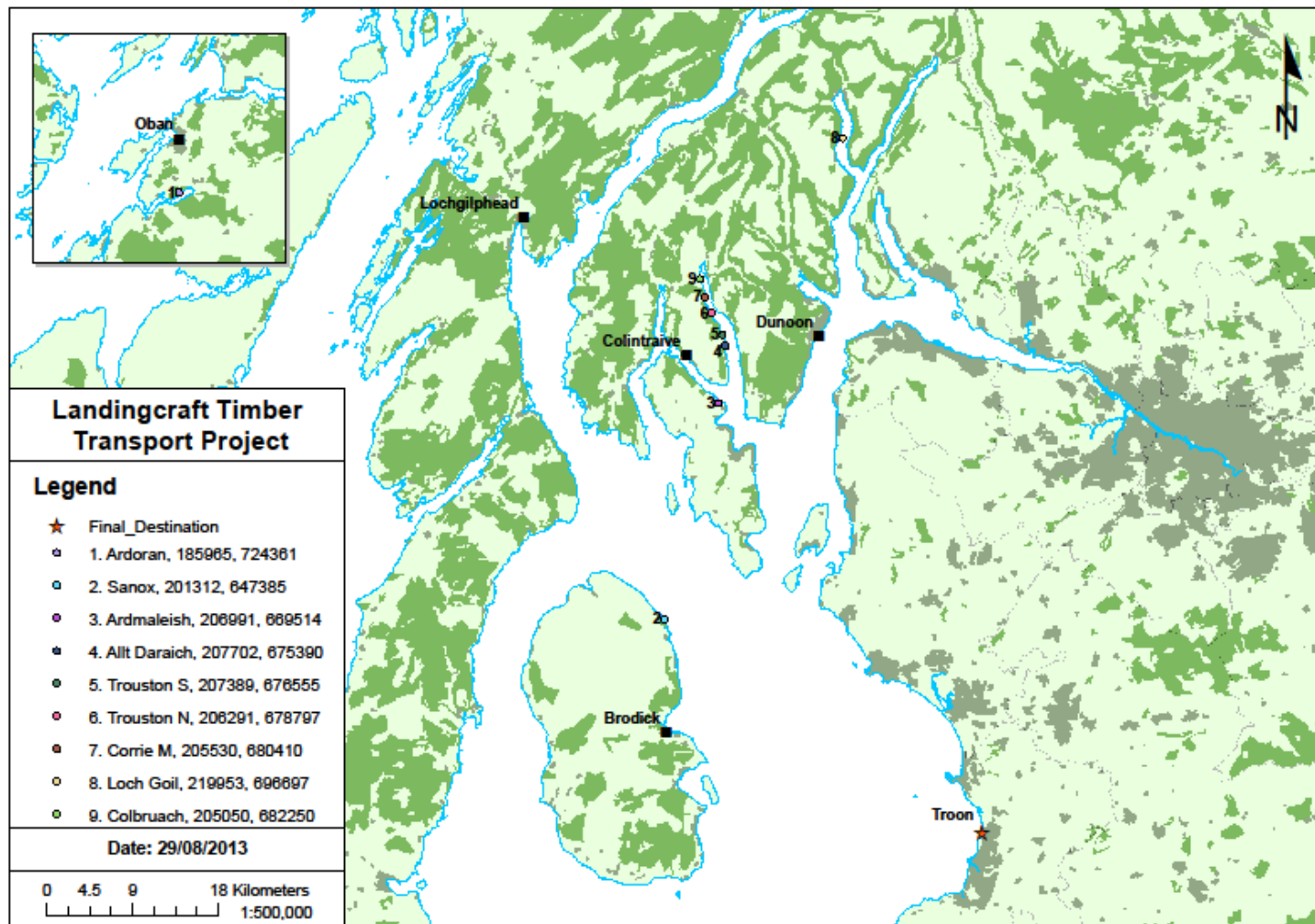
The Initial proposal

- A low impact, sea based solution to transport timber from forests with access constraints from the west coast of Scotland.
- The project evolved to provide an innovative solution of accessing landlocked timber, or forests with access issues where the construction of roads is rendered impractical and / or uneconomical.
- A joint industry initiative formed between the forest owners, timber processors and the vessel operator to provide a solution that works for all of the stakeholders.
- Viewed and proposed as a 2 year “pilot” with volume and sites included to fulfil a minimum 2 year programme for the vessel
- It involves the construction of temporary “bunds” made up of gabion cages which provides support for the Landing Craft ramp to enable the transfer, by wheeled timber loader, from a shore based timber storage area.
- The tangible benefits are:
 - ✓ Environmental
 - ✓ Economic sustainability
 - ✓ Positive for local communities
 - ✓ Taking timber off the roads
 - ✓ Improved Health and Safety (RTAs)

Project partners

- Initial project team was formed involving UPM Tilhill, A.Wilson & Sons of Troon , Troon Tug Co and Egger Forestry.
- Egger withdrew in August 2013 due to a lack of sites.
- Eight forest owners (including Forestry Commission Scotland) were involved
- This was for 10 landing craft bunds.
- Between July and August 2013 detailed surveys were carried out of the sea bed by Campbell Marine Contract as part of a feasibility survey.
- An application was made for funding from round 15 of the STTS. This was for construction of the onshore facilities.

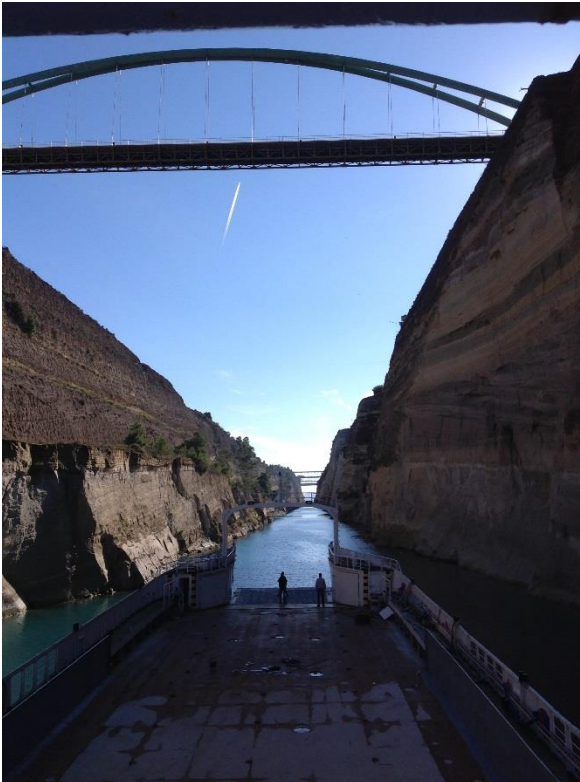
Landing craft sites





The vessel

- An investment over £1.2 million by Troon Tug Co.
- Before –The Aspasia , sailed through the Corinthian Canal for a refit in a Greek shipyard.



The vessel

- After- The Red Princess 750 tonne capacity





The Loading Concept

- Timber extracted / transported to a stacking area near to the shore landing site.
- Vessel comes in on a high tide, butting onto the landing bund and tying up
- Grapple loader commences loading of vessel
- Tide recedes, and vessel sits on the bottom.
- Vessel re-floats at high tide having completed loading.
- Loader departs on board vessel.
- Estimated at circa 3 cargo's per week.





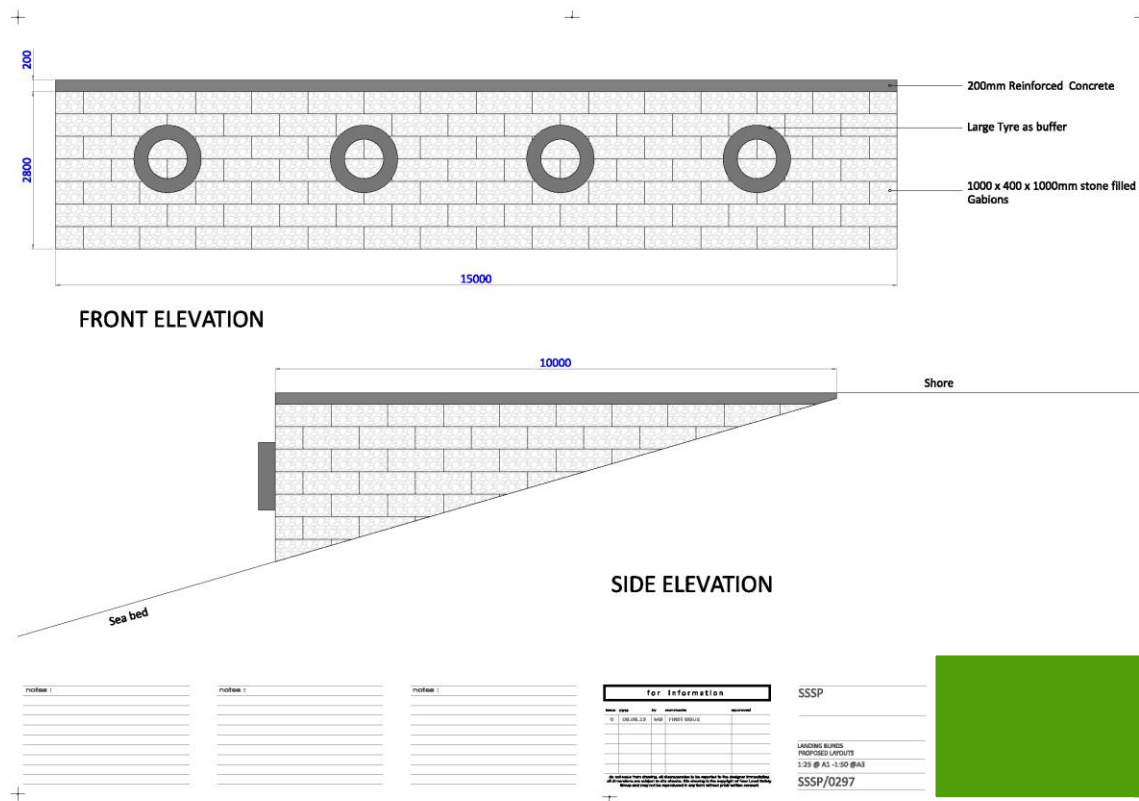
Reality

- The project stalled at design & consent stage.
- I joined the project in mid Jan 2014
- We had to engage a new consultant marine engineer
- Initial cost estimates were too low for construction & consent
- Consent process was taking longer than thought
- Re costed the project and reapplied to STTS for a more realistic 5 bunds rather than 10 ?
- Ran out of time and had to reapply for round 17 to complete



Initial design

- Bunds estimated at £37K to £47K depending on site exposure



Tender results

- The first 3 sites were tendered
- Only 50% of the contractors returned tenders
- Geotextile option was 2% to 9% higher than the gabion option
- Sannox ranged from £75K to £307K
- Colbruach ranged from £104K to £354K
- Ardoran ranged from £98K to £356K
- The tender process was deemed unsuccessful and negotiations were entered into with 2 contractors that had offered an out of spec solution.

The solution



Consents

- Sannox- the simple one
 - 1. Crown Estates
 - 2. Marine Scotland
 - 3. Clyde Port Authority (Peel Ports)
 - 4. North Ayrshire Council (no planning required within the forest , permitted development)
 - 5. Community Council
- Carrick- the complex one
 - 1. Crown Estates
 - 2. Marine Scotland
 - 3. Lomond & Trossachs National Park (2 planning applications)
 - 4. Queen's Harbour Master
 - 5. Argyll & Bute Council- Roads & Environment
 - 6. SNH
 - 7. Community Council
- Costs per bund range from £10K to over £16K

The operation

Sannox under construction



Operation -Sannox

Mooring



Loading



Operation

Ardoran



Carrick under construction





Community/Environmental Impact

- Example-Carrick site
- Saved 760 loaded lorry journeys passing through Carrick Castle & parts of Lochgoilhead. (under 30 ship loads)
- 58000 lorry miles , some on fragile single track roads
- Saving of approximately 180 tonnes of CO2 eq in emissions
- Reduced risk of road traffic accidents



Summary

- The concept works
- It was an innovative idea that had never been tried in the UK or to our knowledge anywhere else so it's not surprising there are issues with costs, planning & consents
- Over 50 K tonnes shifted by Mid December 2015 50% SRW 50% Sawlogs
- The design is still being refined
- The costs are going down
- The current market isn't helping
- Lead time is at least 18 months
- Difficulty with market fluctuations & price changes
- Owner's perceptions can be an issue
- Realistic sites

A perfect world

