



# Uig Harbour Redevelopment



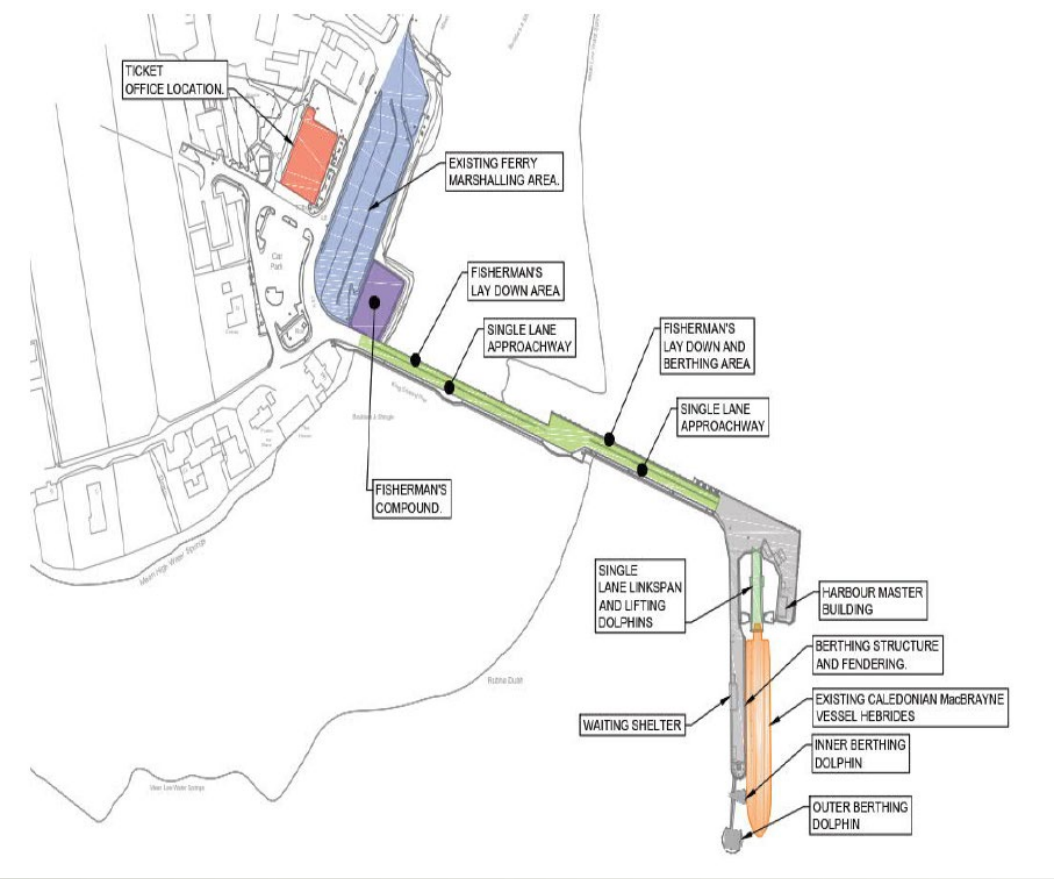
Community Liaison Meeting



Project Manager : Steve Scott BEng CEng MICE



# Existing Pier





## Project Summary

- **Foreshore reclamation to provide a larger marshalling, parking and storage area**
- **New Terminal Building ( by others )**
- **6 metre widening of approach structures**
- **New 16m wide breakwater structure and waiting room**
- **Demolition of existing and installation of new dolphins, bankseat and Linkspan**
- **New fenderline piles, fender units and pier furniture**
- **Extensive concrete repairs**
- **Dredging**
- **LNG Infrastructure**







## **Project – Materials**

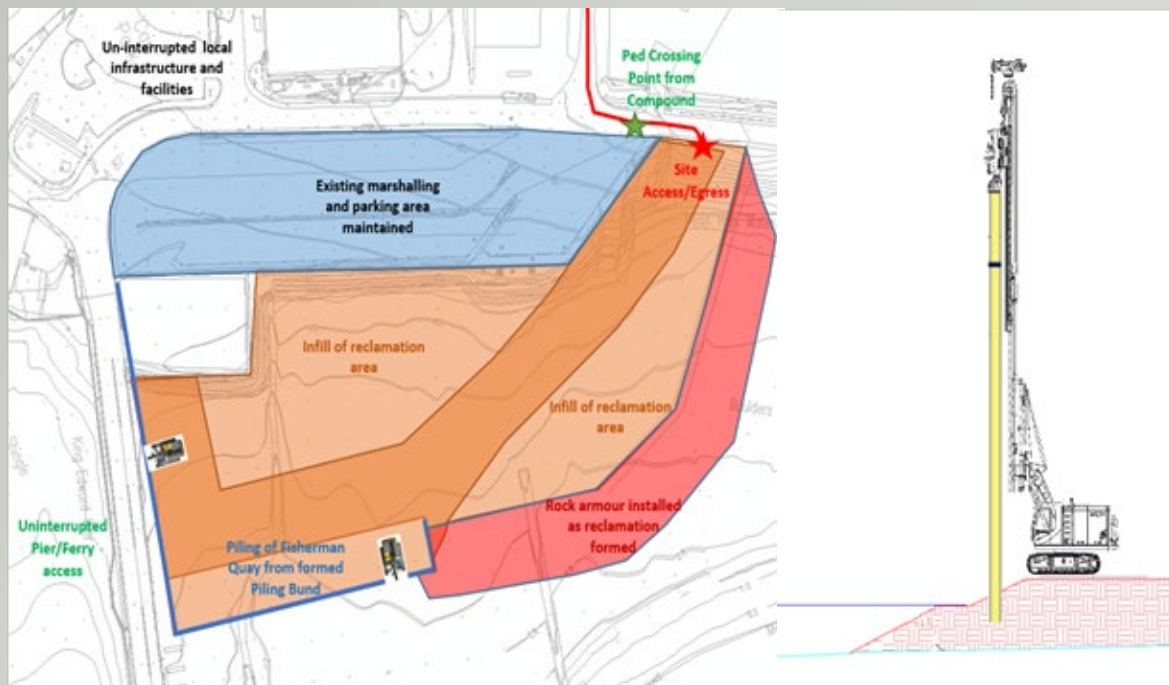
- **Fill Material – 130,000 tonnes**
- **Armour Material – 20,000 tonnes**
- **Concrete – 13,000 tonnes**
- **Steel Reinforcing – 1000 tonne**
- **Sheet Piles – 2,800 tonnes**
- **Drainage Pipes & Precast – 1000 tonnes**
- **Dredging – 30,000m<sup>3</sup>**

**Taking into consideration plant movements, fuel and incidental deliveries there will be over 15,000 HGV movements to the site.**





## Piling - Fisherman's Quay & Ticket Office

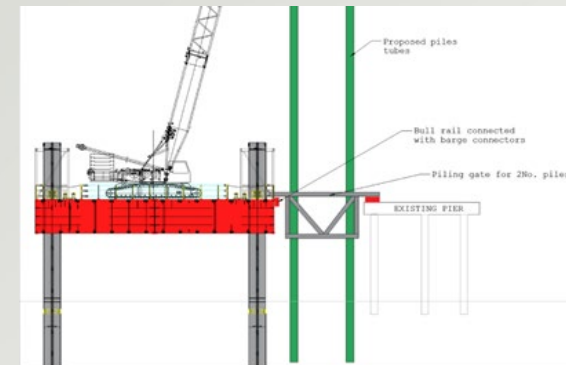
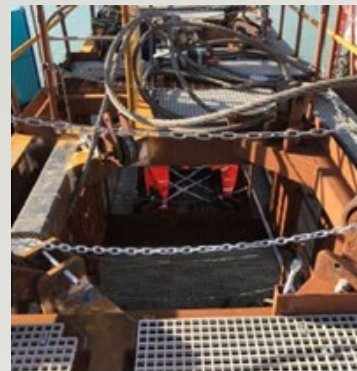


- Access shall be formed from a new access point on the A87 to permit construction of an access track and piling platform in reclamation area
- A piling rig shall be mobilised to install the piles for the ticket office. These shall be set out and subsequently driven to the designed levels
- The leader rig will be utilised for the fisherman's quay where it shall install the sheet piles of the quayside from piling platform bund. The sheets will be vibrated to the designated levels.
- On completion of the main wall, the leader rig shall install the anchor wall to permit the installation of ties.

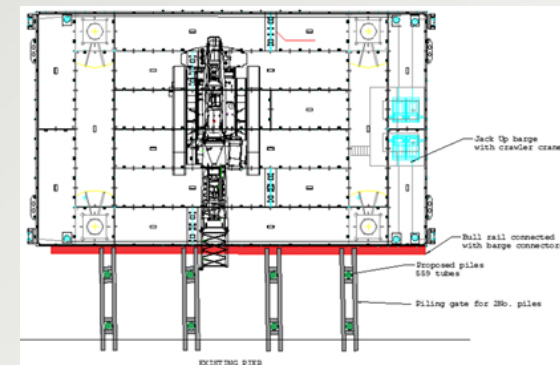


# Approachway

- A jack-up barge and 80t crawler crane will be mobilised to site and positioned adjacent to approachway using a multicat and GPS system.
- The jack up barge will lift itself to the same level as the existing deck and pile gates will be welded to the side of the barge. These will subsequently be fixed to the existing deck to ensure accurate setting out of the piles.
- Piles will be pitched from an adjacent “dumb” barge and entered into the pile gates. The crane mounted vibratory hammer will initially vibrate the piles the seabed.
- Piles will then be driven to design toe level using an impact drop hammer (pending driveability analysis).
- Each set up will permit driving of a set of 8 piles from the barge. On completion of each set, the crane will lift the precast cross heads onto the pile heads.
- Piles for the berthing steps shall be installed in a similar manner with them being lifted into place by the crane on the barge.



Typical Jack up Barge Section and Plan showing gates







## Marshalling Area - Reclamation

- Installation of the outfalls shall be carried out in conjunction with temporary connections to existing outfalls to maintain passage of water.
- The shore will be prepared and geotextile rolled out in advance of imported material being delivered and placed. Initially an access and bund adjacent to the fisherman's quay will be installed to permit piling to commence.
- Armour installation will run concurrently with the ongoing infill operation. Infill material will be compacted using a double drum roller.
- On completion of the piling and anchor installation works, the area behind the fisherman's quay will be infilled to formation level settlement monitoring point will be installed and the monitoring process commenced as agreed with the Project Manager.
- Following the required 3 month settlement period, the formation area will be upfilled, as required, to account for any settlement.
- Drainage, ducting and services (including SSE kiosk) will be installed in the new marshalling area with the concrete retaining walls being set out, formed and poured. Armour stone will be completed to the finished levels in front of the concrete retaining walls
- Kerbing shall be set out and installed along with foundations for street lighting and other street furniture. Pouring of the concrete surfacing for the lorry park shall be completed.
- Surfacing of the new marshalling area will be completed to permit transfer of traffic from the existing marshalling area.
- Following transfer of traffic, the existing marshalling area will be cleared and a similar process to above followed – drainage, ducting, services, kerbing and surfacing operations to construct the new parking area.

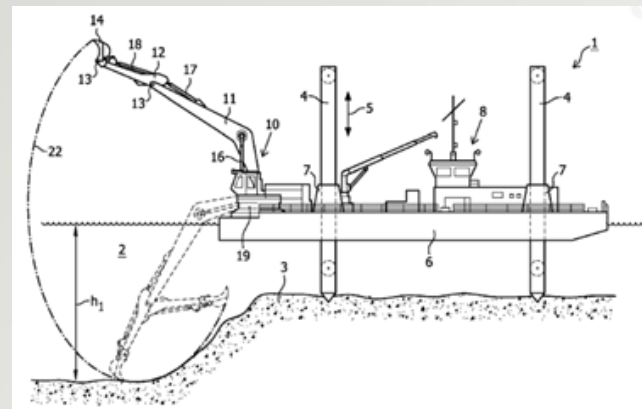






# Dredging

- Marine plant will be mobilised to site which will consist of a self loading/discharging back hoe dredger. This vessel has a large larger hold and crew quarters which means it can carry crew and permit 24hr operations.
- The marine plant will be coordinated with GPS and base stations calibrated from land to ensure dredge dimensional control. Calibration checks will be carried out on a pre-set benchmark to confirm level control and will be checked regularly as the marine dredge progresses.
- Material will be dredged onto the barge and subsequently disposed of at the licenced disposal site.
- Throughout the dredging process due cognisance will be taken of the ferry timetable with it being suspended or relocated to maintain uninterrupted ferry service. Continual consultation with the harbour master will be carried out.
- Bathymetric surveys will be carried out on completion of the dredging to ensure compliance with the Scope requirements.





## Replacement Linkspan – Bankseat & Dolphins

- A 250 tonne floating crane vessel will be mobilised to site to remove the existing linkspan, concrete dolphins and bankseat and their supporting piles.

- A jack up barge with 80t crawler crane will be utilised to install the tubular piles of the linkspan dolphins and the sheet piles for the bankseat. In a similar manner to the approachway the jack up barge will position itself adjacent to the existing quay and install the pile guides between the barge and quay (examples shown below). Tubes will be pitched from the adjacent “dumb” barge and inserted into the guides. A hammer will then drive the piles at the correct angle to the required depth.







## Outage Period Works







# Outage Period Works







## **Community Benefit**

- **Supplemented with employment of local personnel**
- **Contracting with local firms and supply chain**
- **Engagement with schools and colleges regarding site visits, presentations, training, work experience and placements**
- **Engaging with the job centre regarding future positions**



## Uig Harbour Redevelopment – Any Questions?

