General

Materials stored within aBV Site Compound and not in harbour area

Access will be from support barge moored against quayside

Spill kits to be available adjacent to Works Area and on support barge

Aberdeen Harbour Permit to Work to be obtained prior to starting on site

1. **Create Accesses in Sheet Pile Wall**

Engineer mark out position of pipe penetration through sheet piles

Area of sheet pile wall 1.55m wide x 3.7m high to be cut away using burning/cutting gear and removed from site. Works below water level to be carried out by trained and competent divers

Secondary access hole 1.5m wide x 2m high to be cut in sheet pile wall for use once pipe and new steelwork is installed. Steel to be set aside for reinstatement upon completion

1. **Support Steelwork Installation**

Install support brackets on bearing piles as per detail

Use barge crane to lift first 6m long transverse beam through hole in sheet pile wall

Use chain blocks attached to bearing piles to progressively manoeuvre beam into location and bolt/weld into position as per details

Repeat procedure for remaining transverse beams

Use barge crane to lift longitudinal members through hole in sheet pile wall

Use chain blocks attached to bearing piles to pull longitudinal beams into position and bolt/weld as per detail

Fix short transverse pipe supports as per detail

1. **Install Pipe**

On a high tide float pipe into position using buoyancy aids

Use falling tide to drop pipe onto supports

Once tide has receded install pipe fixings above and around pipe to prevent flotation

1. **Baffle Plate**

Interior Face

As far as is practicable pre-fabricate steel plate off site

Lift pre-fabricated plate sections into position using barge crane and support as necessary using chain blocks attached to bearing piles.

Measure and fix any fill-in pieces to ensure pipe is fully surrounded and weld completed

Stiffener Columns

Lift columns into position using barge crane and support until fully welded into position

Exterior Plate

Lift exterior plates into position using barge crane and support until fully welded into position

1. **Scour Protection**

Scour protection will be lifted into position using long-reach excavator sitting on quayside

1. **Reinstatement of Access Hole**

Once all checks have been carried out and pipe has demonstrated ability to remain fixed during a succession of tides the access hole will be closed. Lift previously set aside sheet pile sections into position using crane barge and support fully until fully welded into position