Camddwr Bridge Methodology and Work Program

Methodology – Works Package 1

1. Setup compound at hard standing area.

 We shall install bilingual signage at entry to the site to notify public of the works and the fact that construction activities shall place beyond the cordoned area.
Welfare Van shall be delivered and parked at hard standing compound area, this welfare van shall act as base for the project duration to conduct meetings, toolbox talks and offer welfare provision such as hot and cold water, eating facilities and toilet facilities.

(All waste generated through duration of the project shall be removed by ourselves) 4. Liaison with NRW Project Officer prior to any works commencement ensuring all method statements and risk assessments are agreed and all surveys that are required are completed and the project is good to start. We shall place down bog mats to protect certain wetlands where required before any machinery is crossed over to the working area. We believe that they should not be utilised in areas where they are not required as they can be more detrimental to environmental habitats as they cover a large area.

6. Area marked out to indicate exactly where location of new bridge install shall be located.

7. We shall cut vegetation back in dedicated area to allow works to progress.

8. Place bog mats in strategic areas around river bank where new bridge shall be cited to accept spoil material from piling operations.

Spoil material shall be moved to an agreed area as designated by NRW Officer.
Piling rig shall be manoeuvred to position to commence works.

All piling machinery shall be tracked low ground pressure equipment to minimise disturbance moving over wetland bog area. Piling rig chosen shall not exceed 6 tonnes in weight as not to compromise crossings to the other side for enabling of works over existing bridge.

11. We shall utilise a low ground pressure tracked excavator and tracked dumper to take away spoil material from the locality of the river bank to allow piling operations to conclude.

12. New bridge shall be delivered to works compound in four sections of approximately 5 metres x 2 metres in size for ease of mobilisation to the required location.

13. Our tracked flatbed carrier shall transport each section of the bridge to the river bank prior to installation.

14. At the river bed location, where bog mats shall be employed the first two sections shall be put together to create half of the final structure at 10 metres x 2 metres.

15. A tandem lift shall be performed by two excavators to lift this section into position onto the piled capped foundation.

16. Once this section in place and bolted down, then the process can be duplicated to create the second 10 metre x 2 metre section.

17. Again by tandem lifting operation utilising the two excavators the second half of the bridge shall be lifted into position.

18. This section again shall be bolted down to the piled cap foundation and also bolted to the existing first section to create our 10 metre x 4 metre bridge.

Both sections are designed in such a way to be bolted at the river bank so that no access shall be required from the water.

19. We shall utilise our low ground pressure ATV to move personnel / tools and resources back and forth to the working area from the works compound to save on downtime for breaks and also mainly to preserve the habitats in the locality.

Methodology – Works Package 2

We shall only deconstruct elements of the old bridge, once the new bridge is in position.

1. Our plan for the removal shall be once bog mats situated at the river embankment area, two excavators can perform a tandem lift of the bridge to place down on the works compound side of the bank.

2. A full detailed lift pan and associated method statement together with a detailed risk assessment shall be conducted.

3. Our philosophy for lifting the bridge in one lift over to one side is that no works on dismantling removing any fasteners shall be needed to be done working over the watercourse adding additional risks to the work.

4. Once bridge is placed down on the mats on this side of the river bank, we shall immediately reduce the weight by removing side handrails on each side.

5. Our fist plan shall be to lighten the bridge substantially, by removing wooden element to make the structure approximately 1,300 Kg lighter.

6. Each handrail post is secured onto the steel bridge structure by two nuts and bolts.

7. Each timber plank across the decking shall compromise of taking off six nuts and bolts on each plank across 57 planks to remove the whole timber deck.

Additional items of steelwork shall be removed and whole structured items shall be moved to the works compound utilising our low ground pressure tracked flatbed carrier.

9. Once all items are moved to the works compound, we shall pass final works to the Works Package 3 phase.

Methodology – Works Package 3

Once all elements of old Camddwr Bridge have been dismantled and removed and taken back to the working compound as per Works Package 2, then our methodology shall be as follows:

1. Prior to any works regarding this package a full method statement and risk assessment shall be conducted together with a lift plan to cover the loading operations.

2. Load all elements of old bridge onto tractor and trailer utilising our wheeled backhoe loader situated at the works compound. The trailer shall be a plant trailer equipped to carrying heavy loads well in excess of any of the weights associated with this bridge. The wheeled backhoe loader shall be fitted with pallet forks and shall be operated by a competent operator together with necessary paperwork for the machine including LOLER certification.

3. Once all elements are loaded, we shall secure the load with straps and chains for heavier items such as universal beams.

4. We have allocated transporting the deconstructed elements of the old bridge to the NRW local yard on two transported loads, so not to compromise loads sizes and weights during loading and off-loading.

5. The old bridge shall be transported from the works compound to the NRW local depot at post code SY25 6JW - grid reference SN 66787 58090. This location is only 3.1 miles away from the works compound and the route shall take us through the town of Tregaron along the A485 and then down the B4343.

Works Planner for Camddwr Bridge Project

Week 1	Monday	16/08/2021	Contract Start Date
	Tuesday	17/08/2021	Site Meeting with NRW Officer all QEHS requirements verified
	Wednesday	18/08/2021	Signage / Bog Mats installed
	Thursday	19/08/2021	Piling Contractor Start Date
	Friday	20/08/2021	Fabrication Company starts bridge fabrication
	Saturday	21/08/2021	
	Sunday	22/08/2021	
Week 2	Monday	23/08/2021	Piling on site
	Tuesday	24/08/2021	Piling on site
	Wednesday	25/08/2021	Piling on site
	Thursday	26/08/2021	Piling on site
	Friday	27/08/2021	Piling Contractor End Date
	Saturday	28/08/2021	
	Sunday	29/08/2021	
Week 3	Monday	30/08/2021	Bridge fabrication in place
	Tuesday	31/08/2021	Bridge fabrication in place
	Wednesday	01/09/2021	Bridge fabrication in place
	Thursday	02/09/2021	Bridge fabrication in place
	Friday	03/09/2021	Bridge fabrication in place
	Saturday	04/09/2021	
	Sunday	05/09/2021	
Week 4	Monday	06/09/2021	Bridge fabrication in place
	Tuesday	07/09/2021	Bridge fabrication in place
	Wednesday	08/09/2021	Bridge fabrication in place
	Thursday	09/09/2021	Bridge fabrication in place
	Friday	10/09/2021	Bridge fabrication in place
	Saturday	11/09/2021	
	Sunday	12/09/2021	
Week 5	Monday	13/09/2021	Bridge fabrication in place
	Tuesday	14/09/2021	Bridge fabrication in place
	Wednesday	15/09/2021	Bridge fabrication in place
	Thursday	16/09/2021	Bridge fabrication in place
	Friday	17/09/2021	New Bridge delivered to site
	Saturday	18/09/2021	New Bridge installed on site
	Sunday	19/09/2021	New Bridge installed on site
Week 6	Monday	20/09/2021	New Bridge installed on site
	Tuesday	21/09/2021	New Bridge installed on site
	Wednesday	22/09/2021	New Bridge installed on site
	Thursday	23/09/2021	New Bridge installed on site
	Friday	24/09/2021	New Bridge installed on site
	Saturday	25/09/2021	
	Sunday	26/09/2021	
Week 7	Monday	27/09/2021	Old Bridge dismantled and removed - Works Package 2
	Tuesday	28/09/2021	Old Bridge dismantled and removed - Works Package 3
	Wednesday	29/09/2021	Old Bridge transported to NRW Depot - Works Package 3
	Thursday	30/09/2021	Work Completed