SITE COPY

Basingstoke Canal

Deepcut, Lock 17

Project Plan

Waterway Recovery Group

July 2010

Site Location:

opp. Goal Farm Golf Club,

B3012, Gole road,

Pirbright,

### GU24 0PZ

OS Grid Reference: SU936567

Site mobile phone: 07850 422 156Construction Health and Safety Plan

**1) General**

1.1) This Plan has been prepared in conjunction with the WRG Practical Restoration Handbook (PRH) and HSG150 and should be read alongside them.

Waterway Recovery Group volunteers will work to the standards outlined below. All documents (Project Plan, PRH, HSG150, etc.) shall be freely available on site at all times. They will be stored in the flight case taken on site every day. Volunteer details (next of kin, medical details, etc.) will also be kept on site in the flight case in case of any emergency.

In addition to the points made below each task will be detailed separately with a separate risk assessment and a resulting method statement to be followed. Particular care must be paid to any comments regarding the timing of other associated works. If in doubt the Site Leader must be consulted.

1.2) The site is abutted by a tow path. To reduce the risk to visitors all works must be contained within the perimeter fencing. This should be stressed during the volunteer induction.

**2) Management**

2.1) For the purposes of CDM the defined roles are filled by:

1. **Client/Promoter:** Basingstoke Canal Authority

**Planning Supervisor:** Surrey & Hants Canal Society (Pete Redway)

**Contractor:** Waterway Recovery Group (Ed Walker 07887 568 029)

WRG, Island House, Moor Road, Chesham, HP5 1WA. (01494 783 453)

**Subcontractors:** None

2.2) No subcontractors are expected at this stage.

**3) Standards for Health and Safety**

3.1) All work will be carried out to the standards described in the method statements.

The Site Leader shall assess any volunteers competence before assigning them to a job.

Careful attention will be paid to the ratio of volunteers to supervisor for each task.

Any other safety signage arising from the Method Statements will be displayed at the entrance to the site.

A register of volunteers competent to inspect or assess various items will be kept with the Project Plan.

All WRG volunteers will only be allowed to enter site once they have completed an induction comprising of:

* reading of the WRG “Volunteers Health and Safety Guide”.
* the WRG safety video.
* a site specific talk from the Site Leader outlining the management structure, on site hazards, emergency procedures to be followed and any other information required to work safely.
* signing a form saying they agree to abide by the site leaders instructions at all times.

Where appropriate "toolbox talks" will also be given to improve the safe operation of the site.

All documents (Project Plan, PRH, HSG150, etc.) shall be freely available on site at all times.

3.2) The PRH will be available on site.

**4) Selection Procedures**

4.1) There are no subcontractors expected at this stage.

4.2) Specific training will be given to all volunteers before they come into contact with any hazardous materials. All COSHH data sheets will be available in the PRH and only materials specified in the Project Plan can be used. All necessary PPE will be available.

Materials will be stored in the site compound or at Deepcut lock 28 compound.

Fuel will be stored safely in the Compound. Petrol and Diesel for small items will be stored in a suitable container, 5 gallons max. All fuelling will be done via funnels from approved containers.

4.3) WRG Driver Authorisation scheme will operate at all times on site and only when authorised and requested by the Site Leader will plant and equipment be used.

Banksman and hi-viz vests will be used when vehicles are moving along the tow path or in restricted areas.

**5) Site Organisation**

* 1. Towpath will be kept clear at all times, if any vehicle movements are required on the path then banksmen will attend both sides of the plant to assist walkers and cyclists in safely passing.
  2. There is a known fibre optic cable duct running down the towpath, the location of this will be determined by CAT scan before work commences. There are no other known services (power lines, water mains etc.) passing through site.
  3. An emergency WRG vehicle will be available on site at all times while work is undertaken.
  4. Areas of unloading - at all times the towpath must be kept clear therefore it will most likely take place within the compound. Any unloading will either be done manually or by the transports lifting equipment. This must be supervised by a competent person.
  5. Materials will be stored in the site compound. Fuel will be stored safely in the compound. Petrol for the stone saws and generator and diesel for the mixer will be stored in a suitable container 5 gallons max. At all times the site will be kept tidy.
  6. Permits to work will not be required.
  7. The majority of the site will be fenced off by temporary fences. This will enclose all additional dangers due to the ongoing works. This fencing must not be modified in any way without the Site Leaders permission. All volunteers will be briefed to contact the Site Leader if a visitor arrives on site.
  8. Welfare facilities will comprise: a site hut will be available on site for rest, toilet, shelter, refreshments and washing down. All of these will be kept clean. Additionally hand wipes will be available on site. Drinking water will be taken on site every day.
  9. Domestic waste will be taken away from site and disposed of at the accommodation. Disposal of arisings and excavated spoil is dealt with in each method statement.

**6 Site Rules (to be communicated to all persons on site and read in conjunction with the Method Statements)**

6.1) An 'on site' register will be kept with the project plan for both volunteers and visitors.

In the event of an accident or emergency the Site Leader should be informed immediately. All work on site should be stopped and all volunteers should assemble at the site hut. If necessary, emergency services and/or the Environment Agency should be summoned. Only once the situation has been inspected and agreed safe by the Site Leader should work recommence.

|  |  |  |
| --- | --- | --- |
| **Name** | **Location** | **Telephone** |
| Fire | Woking | 999 |
| Police | Woking | 999 |
| Ambulance/Hospital | Frimley Park Hospital  Portsmouth Road, Frimley, Surrey, GU16 7UJ | 999  01276604604 |
| Walk-in Centre | Woking Community Hospital, Heathside Road, Woking, Surrey, GU22 7HS | 01483 846209  Mon - Fri 7am - 7.30pm  Weekends 9am - 7pm |
| Doctor's surgery | The Old Vicarage The Green Pirbright Nr.Woking, Surrey GU240JE | 01483 474473 |
| Site First Aider | Register to kept on site |  |

First Aid First Aid provision on site will include:

* one HSE First Aid Kit for up to 50 employees
* additional eyewash facilities
* welfare kit.

Particular care will be given to sunburn and dehydration.

6.2) The HSE accident book and the WRG near miss forms should be completed for any appropriate accident or incident.

6.3) No activities will require a permit to work. All activities will be continually supervised by the Task Leader appointed by the Site Leader.

**6.4) General Site Rules**

**PPE:** The entire site will be designated a “hard hat” site. Other PPE will be determined by the Risk Assessment/Method Statement for each task.

Each volunteer will be issued with appropriate PPE comprising:

* a safety helmet to BS 5240
* a 'WRG standard PPE pack' comprising:
* eye protection to BS2092
* hearing protection to BS 5108
* disposable respiration to EN149
* suitable gloves

High-viz waistcoats will be distributed as necessary. Other/additional supplies will be available on site

**Access/site conditions:**

No fences should be moved or removed without consulting the Site Leader.

In the event of a major change in site conditions due to weather all jobs should be reassessed by the Site Leader.

Minimal vehicles are to be brought to site and are to be parked out of the way of the towpath.

The towpath is to be kept clear as far as practically possible. If plant must be used on the path, then banksmen will be required to prevent hazard to the public.

**Lifting and handling**

This is dealt with in each job specification. However care should be taken to ensure the repetitive effects of handling on contiguous jobs do not build up to be a problem.

**6.5) Specific site hazards/rules**

1. Towpath is in constant use by walkers/cyclists. All volunteers must be aware of this and ensure that they contain all works within the site boundary and that no hazard is presented to the public.
2. Site access is via a bridge under the railway, check vehicle heights.
3. Site is on “wet” canal, deep mud likely, Weil’s disease warnings will be given.
4. Canal water levels may rise after severe rain, volunteers to be made aware of this and a watch to be kept on water levels.
5. Scaffolding tower to be used for lock pointing, tower to be checked for security every day.
6. Work is to be carried out in and near a lock chamber, edges to be safety fenced as appropriate.
7. Wash water from cleaning tools/plant NOT to be allowed to run off into canal.

No other hazards are known.

**7) Communications**

7.1) All land is owned by the Basingstoke Canal Authority. Any communications with adjoining landowners, etc. are to be undertaken via SHCS/BCA wherever possible. As part of the normal Camp procedures the leaders will ask for feedback from the volunteers on, amongst other things, Health and Safety.

7.2) No person will be allowed to work on site without having had a full induction as described in (section 3.1). All volunteers will read the relevant Method Statements before undertaking a task. Additionally toolbox talks will be given on an as required basis.

7.3) Any incomplete design work will be identified in the relevant Method Statement. This design work will only be implemented once it has been communicated to, and agreed by, the planning supervisor and the design leader. No other design work will occur.

**8) Monitoring and Liaison**

8.1) Any areas of concern identified during the works will be communicated to the Planning Supervisor and Client's Representative as soon as is possible.

8.2) Work will be continually supervised by a task leader and regularly reviewed by the leaders.

8.3) This project plan together with a electronic photo record of the works undertaken will be provide to SHCS/BCA after the Canal Camp. All volunteers will be encouraged to record any significant events and discoveries.

8.4) The project will be *reviewed on a daily basis*.

**9) Register of Competencies**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Excavator** | **Dumper** | **Road Manoeuvres** | **Scaffolding**  **Tower** |  | **Comments** |
| Ed Walker | X | X | X | X |  |  |
| Gordon Brown | X | X | X | X |  |  |
| Mark Richardson | X | X | X | X |  |  |
| Elanor Napier | X | X |  |  |  |  |
| Andy Helm | X | X | X | X |  |  |
| Gary Summers |  |  |  | X |  |  |
| Adrian Sturgess | X | X | X | X |  |  |
| Tony Unseld |  | X | X |  |  |  |

**Additional Contact Details:**

Incident Contact Centre

This will deal with any reportable H&S incident and direct your report to all the relevant authorities

0845 3009 923

Basingstoke Canal Authority: 01252 370073

Environment Agency Incident line: 0800 807 060

Surrey and Hants Canal Society

Pete Redway

Tel: 01483-721710 / 07889-015114

Volunteer Accommodation

Canal Centre, Mytchett Place Road, Mytchett, Surrey, GU16 6DP

Grid Ref. SU893550

Job Ref:1

**Job Description:** Excavate foundations for new construction

**Location:** Above Lock 17

**Risk Assessment/Safety measures to be taken** (see also Project Plan and consult the Practical Restoration Handbook for further guidance) **:**

Keep personnel out of reach of excavator, high vis to be worn.

Banksman to be used as necessary for machine movements.

Ground likely to be slippery/muddy.

Trench sheets heavy/awkward – 2 person lift, volunteers t obe briefed on safe lifiting.

**Mandatory PPE:** Hard hat, Safety Footwear, Gloves, high vis

**Schedule/Timing:** After demolition complete.

**Personnel requirements:** Excavator driver, 3 people.

**Equipment needed:** excavator with bucket, dumper, shovel/spade

**Materials:** trench sheets

**Details:** Site Rules, Hard Hat sign, etc to be displayed at site entrance.

Excavate trench line to required depth and width (850mm), hand neaten as necessary. Emplace trench sheets as necessary

Spoil to be dumpered to disposal point, confirm with camp leader before start of work.

**Work in progress notes:**

Job Ref:2

**Job Description:** Prepare reinforcement for foundations

**Location:** Above Lock 17

**Risk Assessment/Safety measures to be taken** (see also Project Plan and consult the Practical Restoration Handbook for further guidance) **:**

Wire splinters and abrasion possible, gloves to be worn.

Hot sparks and noise when stihl saw in use, PPE to be worn, other volunteers to be warned – care to be taken with spark stream.

Some manual handling required - cages to be built in liftable sizes and wired together in trench or machine placed.

**Mandatory PPE:** Hard hat, Safety Footwear, Gloves, ear defenders and eye protection when using Stihl saw

**Schedule/Timing:** alongside trench prep.

**Personnel requirements:** 3-4 people.

**Equipment needed:** bending tools, wire wrapper, stihl saw

**Materials:** steel work, cable ties, wire wrap, saw blades and fuel.

**Details:** Site Rules, Hard Hat sign, etc to be displayed at site entrance.

Create reinforcing cages as required according to plans supplied.

**Work in progress notes:**

# Job Ref: 3

**Job Description:** Blinding layer

**Location:** above lock 17

**Risk Assessment/Safety measures to be taken** (see also Section 7 in the Project Plan and consult the Practical Restoration Handbook for further guidance)**:**

Working in canal – no work to be done above.

Concrete splashes – wash off immediately, wear safety specs.

**Mandatory PPE:** Hard hat, Safety Footwear, Gloves, safety specs, high viz

**Schedule/Timing:** after excavation

**Personnel requirements:** 6-8 people

**Equipment needed:** shovels, wheel barrow

**Materials:** concrete, plastic sheeting

**Details:** Site Rules, Hard Hat sign, etc to be displayed at site entrance.

**Lock** - Pour 50mm thick blinding layer of concrete (7:1 ballast: cement) over plastic – use excavator to move concrete from wheel barrows to chamber or pour from lock edge.

**Lock Wall** – wheelbarrow in concrete, pour 50mm thick, rough finish.

**Work in progress notes:**

Job Ref:4

**Job Description:** Cast foundations using pre mix concrete

**Location:** Above Lock 17

**Risk Assessment/Safety measures to be taken** (see also Project Plan and consult the Practical Restoration Handbook for further guidance) **:**

Concrete splashes, to be washed off immediately, safety specs to be worn

Vehicle movements, banksmen to be used to control pedestrian traffic.

1 banksmen to control concrete pour from dumper to excavation

**Mandatory PPE:** Hard hat, Safety Footwear, Gloves, high vis, eye protection.

**Schedule/Timing:** after blinding pour and steelwork.

**Personnel requirements:** 6-7 people.

**Equipment needed:** dumpers, vibrators, shovels

**Materials:** concrete, fuel.

**Details:** Site Rules, Hard Hat sign, etc to be displayed at site entrance.

Pre mix concrete will be transported by dumper from lorry at rail bridge to site.

Place concrete via chute into excavation.

Vibrate concrete as placed.

Work to be completed as continuous pour.

**Work in progress notes:**

Job Ref:5

**Job Description:** Construct Block work on foundations, incorporate brick facing on upper third of wall.

**Location:** Above Lock 17

**Risk Assessment/Safety measures to be taken** (see also Project Plan and consult the Practical Restoration Handbook for further guidance) **:**

Mortar splashes, to be washed off immediately.

Safety specs and gloves to be worn while mixing mortar.

Care to be taken over manual handling of blocks.

**Mandatory PPE:** Hard hat, Safety Footwear, Gloves, eye protection.

**Schedule/Timing:** 24h after concrete pour.

**Personnel requirements:** 3 people, depends on length.

**Equipment needed:** brick kit, spot boards

**Materials:** mortar (4:1 sand:cement), blocks, bricks.

**Details:** Site Rules, Hard Hat sign, etc to be displayed at site entrance.

Brickwork to be tied to blocks using standard butterfly ties.

All new work to be toothed into existing brickwork

Brickwork under large coping stone to be completed to 9” depth and void left to be filled with vibrated concrete.

**Work in progress notes:**

Job Ref:6

**Job Description:** Demolish and remove existing defective brickwork on upper towpath wing wall.

**Location:** above lock 17

**Risk Assessment/Safety measures to be taken** (see also Project Plan and consult the Practical Restoration Handbook for further guidance) **:**

Working in bed of canal, footing likely to be slippery.

Working close to machinery, crush zones to be pointed out and high vis worn.

Banksman to be used as necessary for machine movements.

Volunteers to be made aware of vibration damage, excavator to be used as much as possible for demolition, otherwise short periods with hand breakers.

Trench sheets heavy/awkward – 2 person lift, volunteers t obe briefed on safe lifiting.

**Mandatory PPE:** Hard hat, Safety Footwear, Gloves, eye protection, ear defenders, high vis as required

**Schedule/Timing:** After concrete pour

**Personnel requirements:** Excavator driver, dumper driver, 2 others.

**Equipment needed:** excavator, dumper, hand breakers as required, shovels.

**Materials:** Trench sheets

**Details:** Site Rules, Hard Hat sign, etc to be displayed at site entrance.

Soil to be dug out behind wall to 850mm width from face to full depth.

Trench sheets to be emplaced to retain soil.

Concrete/brickwork to be demolished as far as practicable with excavator neatening up and keying into existing brickwork to be done with hand/power tools.

Spoil to be dumpered to disposal point, confirm with camp leader before start of work.

Trench excavation, blinding, reinforcement and rebuild as Jobs 1 – 5.

Job Ref:7

**Job Description:** Pressure wash lock walls, chase out old mortar and repoint.

**Location:** lock 17 chamber

**Risk Assessment/Safety measures to be taken** (see also Project Plan and consult the Practical Restoration Handbook for further guidance) **:**

Personnel working in lock, safety fencing to be used on lock sides, volunteers to be aware.

High pressure water to be used, suitable PPE required.

Grinders to be used, suitable PPE required.

Scaffold tower to be assembled/inspected by competent person.

Mortar corrosive, gloves/safety specs to be worn.

**Mandatory PPE:** Hard hat, Safety Footwear, Gloves, eye protection, ear defenders, waterproofs

**Schedule/Timing:** in parallel with other work.

**Personnel requirements:** 3-5 people

**Equipment needed:** pressure washer, water bowser, generator, grinders, shovel, bucket, brick kit, scaffold tower.

**Materials:** fuel, water, mortar (4:1 sand:cement)

**Details:** Site Rules, Hard Hat sign, etc to be displayed at site entrance.

Pressure wash areas of lock chamber required repair.

Rake out old mortar using grinders/chisel.

Brush out remaining loose mortar and dispose of.

Use scaffolding tower to access higher areas.

Repoint bricks.

**Work in progress notes:**