

Health and safety plan of demolition and
renovation works in Moldevej 29-39

H&S

Health and safety plan

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1. Introduction

This Health and Safety Plan (HASP) provides a general description of the levels

personal protection and safe operating guidelines expected of each employee or subcontractor associated with the construction works being conducted at the Moldevej site, located at Moldevej 29-39, vejle. This HASP identifies hazards known to be associated with the activities addressed in this document.

HASP Supplements will be generated as necessary to address any additional activities or changes in conditions which may occur during field operations.

1.1 General

The provisions of this HASP are mandatory for all personnel engaged in fieldwork associated with the works being conducted at the subject site. A copy of this HASP, any applicable HASP Supplements shall be maintained on site and available for review at all times. Record keeping will be maintained in accordance with this HASP. In the event of a conflict between this HASP and regulations, workers shall follow the most stringent/protective requirements.

1.2 Policy statement

It is mandatory that a healthy and safe working environment is provided to all personnel. Injury and illness prevention is of great importance.

The practices and procedures presented in this document are binding to all employees. In addition, all site visitors shall abide by these regulations.

1.3 Site introduction and training

Site induction, training and information are vital to securing health and safety on site. The principal contractor has to ensure, so far as is reasonably practicable, that every worker has:

- (a) a suitable induction; and
- (b) any further information and training needed for the particular work.

2. Site

Full refurbishment works will be carried out at the Moldevej location, including demolition works, asbestos removal, heavy lifting and working at heights.

Building is 5 stories high, and additional penthouse story will be constructed as part of the works.

Site is owned by Østebro housing association, and there will be residents in part of the building during the course of works.

There are other residential buildings nearby and also a school. Land plot is rather large, consisting of parking area and a 60m wide green area.

See attached map of the site and site plans.

2.1 General risk

Construction and demolition work usually creates nuisance dust. The greatest amount of dust may be generated during dry dusting and sweeping. These practices should be avoided because they may lead to excessive dust in the work area, which may cause health related complaints from building occupants. Demolition and construction can cause excessive noise. There may also be airborne exposure to welding fumes as well as carbon monoxide and fuel exhaust. Safety-related problems may include: dangerous traffic patterns; open construction areas; falling objects; unattended construction equipment; blocked exits; and disabled fire alarms, detection systems and emergency lights.

2.2 Scope of the works

The likely scope of works includes demolition works of external facades and roof, asbestos removal both the roof and indoors, heavy lifting, installation of steelwork , carpentry, roofing, electricians work, plumbing, hot works and ground works.

2.2.1 Access to site

There should be safe access onto and around the site for people and vehicles. Plan how vehicles will be kept clear of pedestrians, especially at site entrances where it may be necessary to provide doors or gates to achieve this segregation. Doors that open onto traffic routes may need viewing panels or windows.

Construction work should be fenced off and suitably signed. This will protect people (especially children) from site dangers and the site from vandalism and theft. For some jobs the workplace will have to be shared.

2.2.2 Welfare facilities

Everyone on site must have access to adequate lavatories and showers. A place for break time and consuming refreshments should be provided.

Welfare facilities should be easily accessible to everyone on site. Number of toilets, showers and other facilities depends on the number of workers on site. A drying area must be provided.

Adequate accessories must be provided.

Also rest facilities should be available if the nature of works requires so.

It should be possible for non-smokers to use facilities without suffering from tobacco smoke.

Space for storing personal belongings and changing must be provided. Drinking water must be made available.

2.2.3 Storage

All materials must be stored in an orderly manner and not cause risk of tripping or falling objects. Waste must also be managed in a timely and effective manner.

2.2.4 Light

There should be adequate lighting in all areas of the site. Where natural light is not available or is inadequate artificial lights must be provided.

2.2.5 Emergency procedures

Evacuation plan must be made.

Firefighting tools and first aid must be accessible at all times. Emergency numbers must be clearly marked.

Precautions for imaginable emergencies, such as fire or collapse, must be made. This includes handling, inspection and planning of work procedures.

Site rules must be clearly established.

2.2.6 Scaffolding

Scaffolding must be put up in a safe manner and incomplete scaffolding must be clearly marked.

Foundations of scaffolding must be stable. Handrails must be provided to minimize risk of fall

2.2.7 Demolition works

Demolition works can generate multiple types of risk to personnel. These risks must be assessed before beginning of works.

Risk areas:

- Working at heights
- Asbestos removal
- Danger of falling particles due to demolition
 - Demolition includes: staircases, facades, roof and internal walls, both bearing and non-bearing
- Dust and pollutants

Stability of structures must be inspected at all phases of demolition works. Demolition must be planned and carried out by trained specialists.

2.2.8 Work at heights

Use of protective equipment is mandatory. Minimizing consequences of fall must be made. All platforms must be inspected before using for working at heights. Safety harness should be used where there is no protective railing, or when it's not adequate.

Risk of overhead cables should be considered when working with a cherry-picker etc. All machinery should be maintained and inspected on regular basis.

Safety nets and soft landing systems may be used where necessary.

Working on ladders is prohibited.

2.2.9 Steel erection

installing edge protection at ground level before steel members are lifted into position (Figure 28); ensuring erection is sequenced so that stairs and handrails can go in as early as possible to provide safe access to high levels of the structure; designing connection joints to make bolting-up easy; adding bracing, guys or stays into the design to ensure integral stability of the structure through all stages of erection; ensuring adequate information is passed on to inform erectors about special sequences that need to be followed to ensure stability

2.2.10 Site traffic

Access to lorries and such must be provided on stable ground. Turning place and adequate room must be ensured. Pedestrians must be provided with safe access ways as not to encounter a lorry. Adequate warning signs must be placed.

Scaffolding and site structures must be protected from traffic.

Vehicles on site must be maintained and inspected. If possible, the safer alternatives must be considered when optioning the machinery. Machinery with a blind spot must be equipped with mirrors, and if necessary with a warning drill.

Drivers, signalers and work force must be trained to deal with vehicles. Cooperation is the key to safety.

2.2.11 Lifting

Lifting must be done on a safe manner to personnel and structures.

No lifting overhead.

To avoid injuries it is mandatory that all lifting works are properly planned and controlled, and on site personnel notified. Lifting conditions must be good and visibility ensured.

2.2.12 Ground works

Ground works including excavations include risks to people falling in excavations or excavation walls failing and resulting to collapse. Edges of excavation must be protected with barriers. Excavations must be fenced off to reduce the risk to public.

2.3 Typical accidents

Falls: People fall due to inadequate access to workplace or the work place is not safe

Mobile plant: People walking on site are killed or injured by moving vehicles due to poor soil conditions, eq. mud or the operator's inability to see.

Falling material and collapses: In particular failed demolition and dangerous lifting works Walls can fail due to nearby excavations. Action must be taken to prevent these happenings. Scaffolds fail because of inadequate and unchecked connections or too great loading.

Electrical accidents: Unsafe equipment causes shocks and burns and can lead to death. Also accidental contact with power lines during excavation works.

Trips: Major cause of injuries. These are caused by inadequate conditions in access ways, such as corridors, stairways and footpaths.

Asbestos: Exposure to asbestos can cause serious respiratory diseases and cancer.

Manual handling: Lifting heavy and awkward loads causes back and other injuries. Also long term heavy lifting causes problems.

Noise and vibration: High levels of noise can cause loss of hearing and other hearing problems. Using vibrating tools can cause damage to nervous system of hands.

Chemicals: Exposure to toxic and harmful materials on site. Examples of harmful materials are cement and solvents.

3. Personal protective equipment

Gear appropriate to the trade must be worn.

All personnel in addition required to wear a protective helmet and safety shoes.

In risky works, other additional protective equipment can be specified.

Goggles and safety spectacles must be worn when using a nail gun, when there's a risk of sparks, when welding and when there's a possibility of chemical splashes.

Proper clothing must be provided. Clothing must provide adequate protection to the conditions of the site and be of high visibility. Gloves must be worn as they protect against dust, wood particles and can protect against cuts. A range of gloves should be provided, trade specific.

4. Insurance

Insurance must be provided for all personnel on site prior to beginning of works.