

9 Work Procedures – Drill Pad Preparation

9.1 Bunding

The bunding surrounding the drill area shall comply with the following requirements:

- a. Prior to any dozer work commencing i.e. lowering of windrows, appropriate signage will be placed to ensure the area can be identified as a restricted work area.
- b. Safety bunding to be constructed to a height of approximately 800mm;
- c. The bunding will be off-set, from the drill pattern designed perimeter, so as to allow for completion of the pattern extremities.
- d. The bunding shall run around the perimeter of the area leaving an entrance to allow access for servicing the drill and for loading the blast area and where required to eliminate the ability for any water to pool. When breaks are left in the perimeter bunding; appropriate signage, witches hats, bollards etc. will be positioned so as to ensure recognition that it is a restricted work area and prevent un-authorized access.
- e. A windrow shall be positioned on the crest of the highwall. Prior to construction consideration shall be given to the safe construction of the windrow, the design position of the front row of holes and the most appropriate equipment to complete the task. NOTE: suitable material may need to be introduced to achieve this.
- f. Prior to construction of the safety bunding behind the rear row of holes, consideration shall be given to the likely orientation of the drill. For example; angled holes require a greater area of clearance behind the hole than vertical holes. The end of the shot shall also have a bund which will be positioned past the end of the rows. The alignment for the construction of the bund and the limit of the clean-up area will be pegged at a minimum of 10metre off-set from the closest hole.
- g. Where heavy vehicles are working or their access (running road) is in proximity to the drill bench, the windrow must be 2.0metres in height to ensure adequate separation.

Document Reference - MAC-PRD-STD-009

1. Work Procedure

Ensure a windrow, approximately 800mm high, is in place as detailed in Drill Bench Preparation Standard (MACPRD-STD-009). No work is to take place until the requirements of this standard are met.

Note: Where a windrow cannot be constructed, limited material, for drainage purposes etc. appropriate delineation e.g., bollards with reflectalines, witches' hats, signage will be put in place to define the area of concern. However, along the crest material should be introduced, if necessary, to ensure a safety bund is constructed.

Flashing lights (witches' hats with reflective tape and containing lights) and flags are to be placed in the windrow, alternately, at a maximum distance of 20m apart.



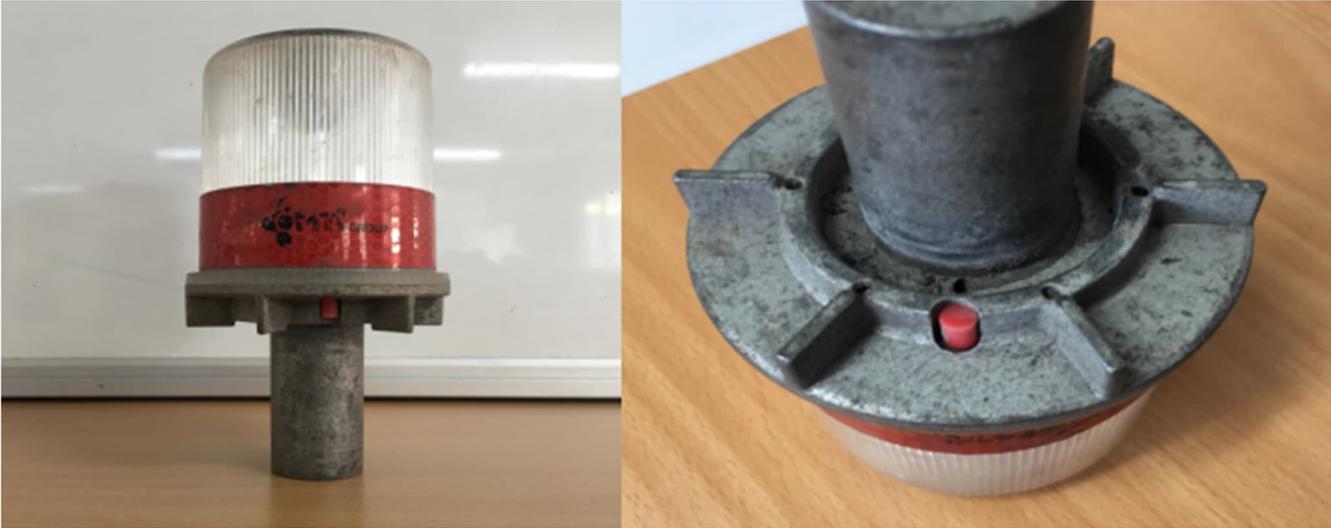
Where there is traffic in proximity, red blast area signs (BLAST AREA KEEP OUT) are to be placed approximately 100m apart along with cones and flashing lights in between the signs.

Blast area signs and flashing lights are placed at designated entry points in the perimeter windrow. These signs shall bear the wording "BLAST AREA KEEP OUT".



Bollards, signs and flashing lights are to be placed at entry points to the blast area where no windrow exists. Reflectaline shall then be hung between the bollards at any time there is no work taking place within the blast area.





Lights must be tested or switched on before using for delineation by pressing red on/off switch.

Where drills are still working on the blast area, bollards shall be placed two-hole spacing's away from the closest loaded hole. Reflectaline shall then be hung between the bollards to allow a corridor of safe access to the working drill.

If there is any work taking place on benches above which may result in material falling onto blast area the bench above shall be barricaded.



Place orange flags and witches' hats with flashing lights along high wall and low wall to indicate to digging equipment and other operations above and below that there are charged blastholes. Delineation should also be placed within the broken muck pile adjacent to the blast to maintain a safe distance between excavation and loading operations.



Pre-Blast warning signs shall be placed on the approaches to the shot at a distance, wherever practical, of around 50m. These signs shall bear the wording “WARNING BLAST LOADING AREA”.

Yellow “BLAST ACCESS KEEP OPEN” signs shall be used to indicate access roads to blast loading areas.

Once the blast area has been delineated there is to be no access to the area by unauthorised personnel. In order to gain access personnel shall contact the Shot firer prior to entry and be given authorisation to enter the blast area.

Where there is adjacent work taking place the delineation and barricades will be set at a minimum of 10 metres from the last row of holes to ensure adequate separation distance between the excavation and blast loading operations.

i Document Reference - MAC-PRD-PRO-011