

Safety Checklist

Earthmoving Plant in Construction



This checklist can be used by principal contractors and site supervisors to manage the risks of earthmoving plant activities on construction sites.

Principal contractors (PCs) and people conducting business or undertaking (PCBUs) have a duty to provide and maintain a working environment that is safe and without risks to health and safety. This includes ensuring proper planning, consultation and communication, safe systems of work, the right safety equipment at the right time and plant that is adequately maintained.

Excavation work is an integral activity for any construction project, and increasingly over the years has seen a rising rate of incidents and fatalities. High risk work licences are no longer required for earth moving plant such as excavators, front end loaders, bulldozers, leaving the onus of responsibility on the PCBU to ensure the competency of the operator. The major risks related to earthmoving plant are hitting services, plant hitting people and plant overturning. Businesses must fulfil Before You Dig Australia (BYDA) requirements before any excavation work is carried out.

This earthmoving plant in construction safety checklist is designed to help identify potential issues or risks associated with earthmoving operations including planning, consultation and hazard identification, falling objects, site conditions and equipment maintenance. It is **NOT** intended to be exhaustive, and reference should be made to appropriate legislation, standards, Codes of Practice and Guides.

On-the-spot fines of up to \$3,600 for businesses may be issued to those placing workers lives at risk by not providing adequately protection against risk of falling, not obtaining underground services information, and or not obtaining safe work method statements.

If you answer no to any of the following questions, you may be in breach of your duties under the work health and safety legislation, or its associated Codes of Practice.

PC / PCBU registered name:	Date:	Time:
Checklist completed by:	Position:	
Site address:		
Earthmoving plant owner / company:		

Earthmoving Prestart Checks and Plant Maintenance Records		
Ask yourself these questions	Y	N
Do all workers involved with earth works hold a general construction induction training card?		
Are periodic maintenance inspections recorded as per OEM (Original Equipment Manufacturer)?		
Is the plant lifting/load shifting? If yes:		
i. Does the plant have a load chart?		
ii. Is the plant working within the WLL and WLL marked?		
iii. Are all attachments used within their rated capacity?		
Has a pre-start check been completed?		
Does the plant have a legible compliance plate in a prominent position?		
Does the earthmoving plant appear to be in a serviceable order with no visual signs of damage affecting the safe operation of the plant?		
Comments		

Earthmoving Pre-Job Planning		
Ask yourself these questions	Y	N
Are you able to provide evidence of obtaining the BYDA information prior to commencing excavation work?		
Have the services been isolated/protected prior to works starting?		
Have underground and overhead assets been identified prior to mechanical excavation? EG: potholing, hydro vac, hand digging with non-conductive tools, flagging and height marking of overheads.		
Have you provided the BYDA information to all persons engaged to carry out excavation work?		
Is work being carried out near assets which require a spotter present from the asset owner? E.g. High pressure gas, high voltage electricity?		
i. Have you consulted with workers, operators regarding job planning? E.g. Excavation, exclusion zones, ground conditions, site set up?		
Is the earthmoving plant in operation appropriate for the task being undertaken?		
Is there an unexpected finds procedure available for site? E.g. contaminated soil, asbestos, lead?		
Is there an asbestos management plan available for site?		

Earthmoving Pre-Job Planning		
Ask yourself these questions	Y	N
Have you ensured the earthmoving machinery operator is competent to operate the specific type of plant being used and attachments fitted to the plant? Competency-based training Documented skills maintenance activities Familiarisation training Review of previous experience VOC by RTO On site assessment Reference from previous employers Other		
Has the plant operator read and understood all of the following documentation: - operator manuals - SWMS - BYDA maps		
Do you have a system in place for reporting notifiable incidents?		
Do you have a system of work in place to monitor and control atmospheric conditions and ventilation?		
Comments		

Earthmoving Site Set -Up & Equipment		
Ask yourself these questions	Y	N
Have you provided the BYDA information to all persons engage to carry out excavation work?		
Are adequate controls in place to prevent contact with overhead powerlines? E.g. isolated, tiger tails, exclusion zone, accredited person and safety observer.		
Is there a competent spotter for the plant operator who; - Is not supervising other activities whilst spotting - Has adequate communication between operator and site supervisor - Situated outside of the exclusion zone.		
Is there an adequate exclusion zone in place around plant and excavation zones?		
Are all safety devices in place and working? - Roll over protection - Falling object protection - Quick hitch pins - Warning lights and sounds - Seatbelt - E-stops		
Are there adequate controls in place to manage the risk of hearing loss from noise? (noise levels that exceed an 8-hour noise level equivalent of 85 dB(A) or peak more than 140 dB(C))		
Comments		

Excavation		
Ask yourself these questions	Y	N
Have hazards regarding surrounding structures been considered within the excavation zone? (Undermining adjacent property/ arm reach of excavator)		
Is a site-specific SWMS readily available?		
Have you adequately prevented the risk of falls into trenches?		
What system is implemented to prevent the risk of falls into trenches: Using trench box extensions or trench sheets longer than the trench depth Installing guard rails or covers on trench shields Inserting guard rails and toe-boards into the ground immediately next to the supported excavation side Installing landing platforms or scaffold towers inside deep excavations Securing ladders to trench shields Installing effective barriers or barricades Providing clearly defined pedestrian detours Providing alternative access and egress points to the excavation for emergency use, Backfilling the excavation as work progresses.		
Have you restricted access to the trench if over 1.5 metres in depth?		
Have you prevented risk of collapse by ensuring the trench is adequately supported by doing 1 or more of the following: Shoring by shielding or other comparable means Battering Benching Geotech report		
Have you controlled the risk of trench collapse regarding the zone of influence? E.g.: Plant, vehicles, spoil etc. Outside the ZOI		
Is there an emergency plan available for the excavation work?		
Is there a vehicle movement/management plan implemented while the earthmoving plant is in operation to separate plant and people?		
Do you conduct regular inspections of the ground conditions of the excavation area? <i>Consideration for recent or forecasted weather events when assessing ground conditions.</i>		
Comments		

Further Information

Safety information

[SafeWork NSW](#)
[SafeWork Australia](#)
[Before You Dig Australia](#)

Codes of practice

[Excavation Work Code of Practice](#)
[Managing risks of plant in the workplace code of practice](#)
[How to manage work health and safety risks code of practice](#)
[Construction Work](#)

For further information on earthmoving plant and excavations, see www.safework.nsw.gov.au or call 13 10 50.

Disclaimer

This publication may contain information about the regulation and enforcement of work health and safety in NSW. It may include some of your obligations under some of the legislation that SafeWork NSW administers. To ensure you comply with your legal obligations you must refer to the appropriate legislation.
Information on the latest laws can be checked by visiting the NSW legislation website
www.legislation.nsw.gov.au

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