

Customer Notification Concrete Delivery Requirements

MARCH 2017



At Boral we regard the safety and welfare of our people as our most important responsibility. We are committed to operating our businesses in a manner which ensures that our employees, contractors, visitors and the communities in which we operate are free from harm.

In seeking to meet our zero harm goal, Boral is committed to ensuring the safe delivery of our products and would like to formally draw your attention to our specific Concrete Delivery requirements set out below:

traffic management

Our Drivers	Our requirements – for Customer planning
<p>Must be satisfied that they have a safe & legal area for the truck to park & discharge the load.</p>	<p>Authorised traffic control is to be in place if:</p> <ul style="list-style-type: none"> (i) the truck has to face oncoming traffic while discharging. (ii) the driver has to discharge the load on a main road or is in a hazardous position (e.g Bend or over the crest of a hill). In this case, barriers & witches hats are required.
	<p>Safe & legal access for pedestrians:</p> <ul style="list-style-type: none"> (i) The customer must ensure that when the footpath is crossed or blocked by the trucks discharging that there is safe & legal access for pedestrians.
	<p>A spotter available at all times to guide the truck into position for discharge.</p> <ul style="list-style-type: none"> (i) Customers will need to ensure that the spotter is wearing Hi-Vis clothing, is at a safe distance from the truck and is visible to the driver at all times.



environmental

Our Drivers	Our requirements – for Customer planning
<p>Have the right to refuse to enter any site if they believe that the truck will illegally drag contaminants offsite onto a public road upon their departure.</p>	<p>Cleaning facilities:</p> <p>Customers to provide a wheel wash, pressure washer or other means of cleaning wheels and a area to clean any contaminates from the truck before the truck leaves the site.</p>
<p>Are not to wash onto street where contaminants could enter storm water drains.</p>	<p>Wash down of chutes:</p> <p>customer to provide a skip or alternative.</p>



power lines

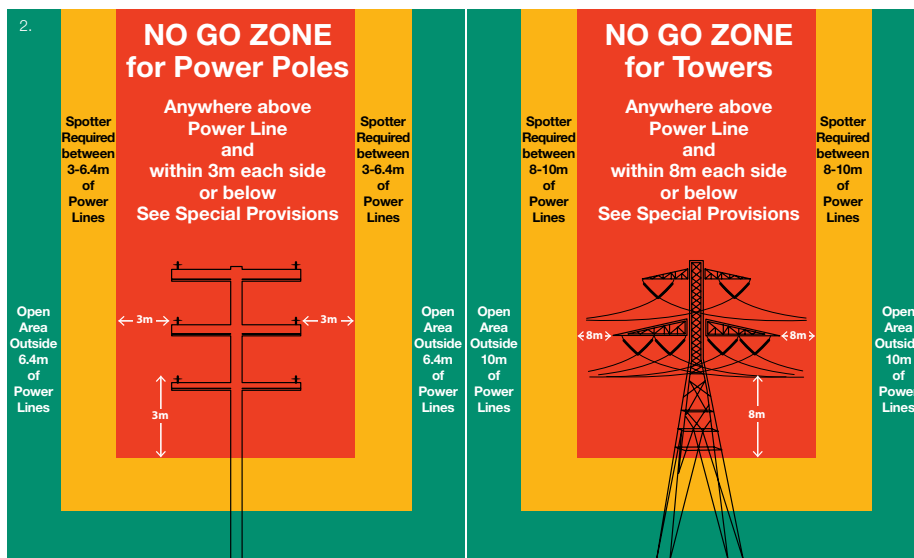
Approach distances for work performed by ordinary persons¹

Phase to phase a.c. voltage (volts)	Approach distance (metres)
Up to and including 33,000 volts*	0.9
33,000 to 132,000	3.0
132,000 to 330,000	6.0
Above 330,000	8.0

*Note: the 0.9 separation distance relates to the following activities:

- Vehicles driving under power lines
- Trucks discharging while parked under power lines
- Vehicles and personnel passing under power lines that connect a domestic house to power lines.

The separation distance increases to a minimum 3m for all other activities.



cranes, kibbles and booms

Our Drivers	Our requirements – for Customer planning
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Must comply to all PPE requirements and ensure that Kibble is not overfilled.

Are not to wash onto street where contaminants could enter storm water drains.

Dogman or Spotter –
Our Drivers must not be used as a dogman or spotter.

Loading Kibble -
(i) Customer to ensure truck driver is directed into position for discharging loads.
(ii) The loading area must be clearly defined and kept free of obstructions and trip hazards.

Slewing kibbles –
Slewing of mobile cranes or booms cannot pass over truck - Kibble is to be raised above Agitator height and slewed away from personnel.



Source:
1] Work Cover New South Wales - Work Near Overhead Power Lines Code of Practice 2006.
2] www.worksafe.vic.gov.au/_data/assets/pdf_file/0014/21704/ngz_overhead_power_lines.pdf

open trenches & ramps

Our requirements – for Customer planning

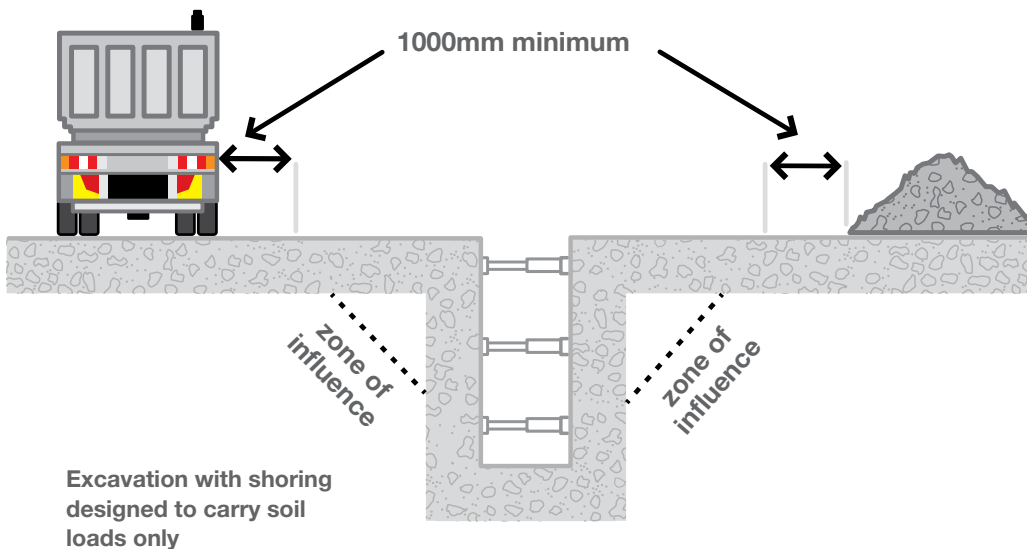
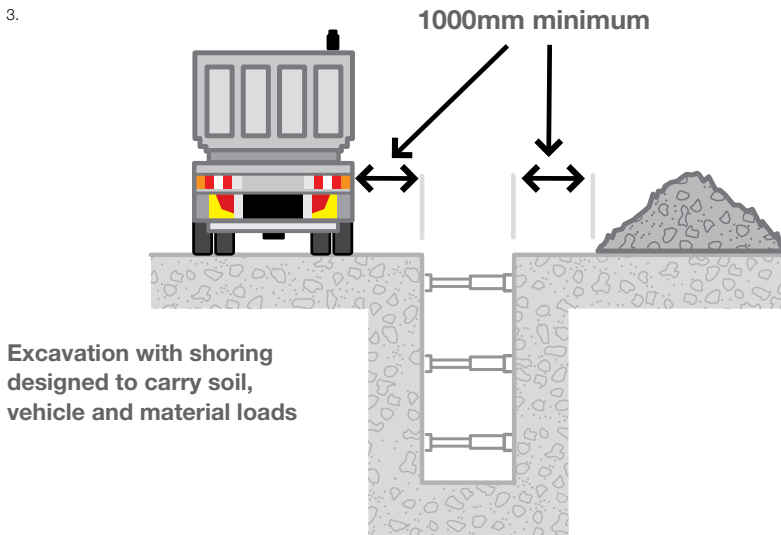
The minimum width for access road should be 3 metres clear of any building materials or debris:

- (i) The customer should consider extra width if there are any turns on the access road.

The minimum distance any part of our truck must stay away from an open trench is the depth of the trench plus 1 metre.

This means for example:

- (i) If the trench depth is 500mm deep the truck must stay 1500mm away.
- (ii) If the trench depth is 1 metre deep the truck must stay 2 metres away.
- (iii) If the trench depth is 1.5 metres deep the truck must stay 2.5 metres away.



pumping

Our Drivers

Must stand well clear of pump lines and couplings where practicable.

Must wear all required personal protective equipment:

1. Safety Helmet
2. Safety glasses
3. Ear plug/muffs
4. Hi-Visibility vest or shirt
5. Work gloves
6. Steel capped boots

Must never reverse without a spotter in place.

Must never stand on the pump truck or straddle between the concrete truck and the pump truck.

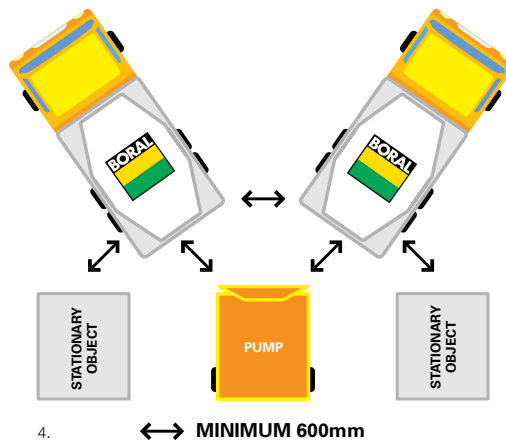
Our requirements – for Customer planning

The concrete pumping area should be:

- (i) reasonably level, solid and free of obstructions, with careful attention paid to positioning of the pumping equipment and any stabilising devices.
- (ii) clear of excavations, trenches or holes in the ground.
- (iii) clear of inadequately compacted or soft ground.
- (iv) clear of cellars, basements, pits or back-filled ground, to allow for the safe discharge of the concrete delivery trucks.

The emergency stop should be visible to the driver and operational crew.

We also require there to be a **600mm** clearance between two trucks simultaneously feeding into pump hopper as demonstrated in the diagram below.



A spotter to assist reversing trucks must be provided by the contractor or pump operator.

We require the provision of a safe location for the spotter, pump operator and truck drivers to prevent them from being caught between the reversing truck and the pump hopper, other trucks or stationary objects.

Our customer must ensure they have a competent person reversing trucks onto the receiving hopper at all times.

The primary chute on concrete trucks should only be moved when the truck is stationary. It is preferable for the truck driver to perform this task. If another worker performs this task then the permission of the driver should be obtained.

The concrete receiving hopper should be at a height that allows a gravity flow of concrete into the hopper.

The pump must be fitted with a secure hopper grate constructed of parallel bars. A grill must be provided to prevent access to dangerous moving parts such as feed or agitator mechanisms and valve gear.



NO ONE SHOULD EVER BE ALLOWED OR ABLE TO STAND BETWEEN A REVERSING TRUCK AND THE PUMP OR OTHER NEARBY STATIONARY OBJECT

Source:
[4] Cement Concrete & Aggregates Australia 2012, Concrete pumping guide: Western Australia, p. 10, CCAA, Sydney, NSW. <http://tinyurl.com/mhetj2l>

pumping cont....

No one should ever be allowed or able to stand between a reversing truck and the pump or other nearby stationary objects.

An emergency stop must be located within easy reach of the concrete truck driver

Safety pins are to be fitted to all couplings and clamps

The boom should not be rotated over trucks or drivers

The delivery hose is to be secured by a safety chain, webbing or cable

Earth straps to be fitted when working near power lines (in accordance with AS 2550)



blowback – important advice notification

- Blowback into a concrete truck can only occur if;
 1. a risk based process has been documented, and
 2. approval has been given by Boral.
- Allowing concrete to be blown back into the agitator barrel is an inherently dangerous procedure unless it is carefully controlled. Air pressure can cause anything inside the pipeline to act as a high velocity projectile.
- Blowback must occur via a well secured fixed line to prevent “whipping”. The steel pipe must extend 600 mm inwards beyond the barrel drip ring.
- Appropriate work platforms must be provided to fit the blowback line
- The pump operator is responsible for fitting the line.
- The driver is to be positioned forward of the pump truck cabin.

road surfaces & gradients

- Forward road gradients are not to exceed 1 metre high for every 10 metres in length (1:10)
- Cross slopes are not to exceed 1 metre high for every 10 metres in width (1:10)
- The road surface are to be compacted (or able) to sustain;
 - 23 tonnes (6 wheeler concrete truck)
 - 28 tonnes (8 wheeler concrete truck)
 - 32 tonnes (10 wheeler concrete truck)
- Self draining (free from pooled water)
- One way roads are to be 1.5 times the width of the concrete truck with passing bays (a minimum of 16 metre in length and 4 metres wide)
- Two way roads are to be 2.5 times the width of the concrete truck.

Note: Contact your Boral Account Manager in the event you would like to discuss these requirements further.

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