NEW ZEALAND STOCKYARD LOADING FACILITY GUIDELINES

Prepared by

THE NATIONAL LIVESTOCK TRANSPORT & SAFETY COUNCIL

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CONTENTS

03 Introduction

03 Design objectives

04 Vehicle access

05 Cattle yards

07 Sheep yards

08 Calves

PICTURES & ILLUSTRATIONS

03 Figure 1. A set of sound yards to handle cattle

04 Figure 2. A yard with good access and vehicle turning ability

04 Figure 3. A yard with poor access

06 Figure 4. A cattle ramp with a timber buffer

06 Figure 5. Loading race with catwalk access to the crate door

08 Figure 6. Ramp loading with no forcing pen

08 Figure 7. Good pen with no firm vehicle access

08 Figure 8. No firm vehicle access to ramp and race

08 Figure 9. Good pen with level loading and firm vehicle access

APPENDICES

09 Appendix A. Loading & Unloading Facilities Checklist

10 Appendix B. Bobby Calf Loadout Facilities Checklist

11 Appendix C. Truck Turning Circle Specification

INTRODUCTION

This guide provides detailed information regarding the design, construction, and operational best practices for stockyard and livestock loading facilities in New Zealand. Its primary objective is to foster a safe and healthy working environment for all personnel interacting with livestock while ensuring the highest possible standards of animal welfare.

Livestock handling infrastructure plays a critical role in:

- Receiving and dispatching animals in a calm and controlled manner
- Managing the movement of animals for drafting, weighing, and transportation
- Performing animal health inspections and livestock management procedures efficiently
- Ensuring proper restraint and close observation of livestock is performed with minimum stress and no injury to the animals

Well-designed and maintained loading facilities offer numerous benefits, including improved animal flow, enhanced safety for workers and livestock, reduced handling stress, and minimization of operational delays or disruptions.
All facilities should be incorporated into the wider farm or site layout and must feature appropriate infrastructure such as holding pens, access lanes, forcing yards, races, drafting areas, ramps, catwalks, shelter, and provisions for animal and transport documentation to be accessed.

DESIGN OBJECTIVES

Effective livestock handling systems should be constructed and managed in accordance with the following key principles:

- Full compliance with New Zealand animal welfare legislation, regulations and Codes of Welfare
- Full compliance with New Zealand health and safety legislation, Regulations, Approved Codes of Practice, Good Practice Guidelines and any relevant AS/NZ Standards
- Integration of low-stress animal handling techniques based on natural animal behaviour and internationally recognised livestock handling techniques
- Prioritisation of both animal comfort and handler safety to reduce incidents and injuries
- Efficient operational design that enables smooth livestock flow with minimal disruptions
- Flexibility to accommodate growth or changes in livestock volume and species
- Robust construction to handle varying environmental conditions and long-term use
- Facilities that can accommodate a range of vehicle types and sizes that are standard in modern livestock truck fleets

Figure 1. A set of sound yards to handle cattle

VEHICLE ACCESS

Minimum Requirements:

- Road access to stockyards must be safe, functional, and accessible in all weather conditions
- Roadways must be wide enough for large vehicles and feature adequate turning radii (minimum 13 metres)
- No loading/unloading under overhead power wires. The distance between any live overhead electric line and any part of any mobile plant or load carried shall be “AT LEAST 4.0 METRES” (NZECP 34:2001 NZ Electrical Code of Practice for Electrical Safe Distances)
- Livestock transport vehicles should never be required to reverse in or load out on public roadways
- Clearance along access roads must meet a minimum of 4.5 metres in height and 4 metres in width
- The road base must have a stable subgrade with a crowned profile to facilitate drainage
- The surface must be smooth, free of potholes, loose materials, or obstructions
- Truck approach areas must include a level and firm pad to ensure proper alignment with ramps
- Sharp turns on steep grades should be avoided to prevent vehicle instability
- Bridges, culverts, and cattle stops over 2 metres must be built to support 54-tonne fully loaded trucks and comply with all regional authority standards
- A clearly marked no-go zone must be maintained between reversing trucks and loading ramps

Recommendations:

- Roadway entrances should be splayed to allow large trucks and trailers to enter without crossing into opposing lanes
- Signage to the yard should be prominently placed and clearly show the direction to travel
- Livestock should never be held on access roads or loops leading to the yards
- Accessways should be routinely sprayed to prevent weed growth and ensure clear visibility
- Buffers and bumper stops in front of ramps should be maintained in good condition

Figure 2. A yard with good access and vehicle turning ability

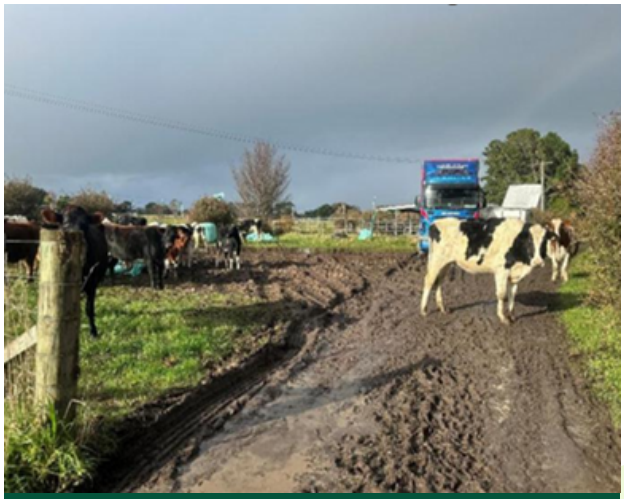


Figure 3. A yard with poor access

CATTLE YARDS

Minimum Requirements:

- Yard design must ensure trucks can reverse safely and align correctly with loading ramps
- Holding yards should be spacious enough to contain the entire consignment/load
- Yards must be secure and facilitate controlled drafting and selection processes
- Stock should be withheld from feed for a minimum of four hours before transport
- Stock should have access to water while held in yards awaiting pick up
- Yard fencing must be at least 1.7 metres high with a backrub indicator (a cross bar above the race) at 1.4 metres high
- For cattle over 1.4 metres in height at the hip, loading must be on a single-deck unit or adequate height lower deck to avoid injury to the animal (backrub)
- Farmers must ensure they let their transporter know in advance so the right truck is provided for cattle over 1.4 metres high
- Ramp height should range from 1.1 metres to 1.2 metres with a slope not exceeding 20°
- As a guide, livestock generally manage loading and unloading best when the maximum slope of ramps does not exceed 20° for all animals except young animals.
- For livestock younger than one week of age the use of ramps is not encouraged however, where a ramp must be used, the maximum slope should be no greater than 12°
- Ramp flooring should be solid, non-slip, and designed to minimise noise and vibration
- Ramps should be filled in from the bottom at least 600 millimetres and cleats should be spaced 300 millimetres apart and raised at least 40 millimetres
- Personnel gates at the top of ramps must be self-closing and open onto flat, obstruction-free platforms
- Raised catwalks should be a minimum of 500 millimetres wide, include handrails and non-slip surfaces, and comply with all NZ safety standards
- Provide a gate at the entrance of the race and/or lock bars as a means of preventing livestock reversing out of the loading race
- Ramps in high-throughput operations must accommodate dual or multi-deck loading
- Animals going to a processor must be identified and adequately marked prior to loading
- A separate ramp and yard/pen should be incorporated at dairy sheds to ensure stock can be loaded/unloaded during milking times
- Yards shall have no broken rails or protruding objects and all gates should swing and be secured when closed
- The owner or person in charge of the livestock must always be present at loading and unloading
- Ensure that there is a document holder on right-side of ramp for ASD forms and Veterinary Certificates

Recommendations:

- Provide a pen capable of holding at least four adult cattle to check welfare and tag status prior to loading
- Forcing pens should measure approximately 2.5 x 2.5 metres and be operable from outside of areas where animals are contained
- Try to align ramps north-south to avoid sun glare during loading and unloading
- Ensure facilities used at night are well-lit to support safe operations during the hours of darkness
- Include personal access gates (600 millimetres wide) to safe areas with slam-shut latches
- Use pressure-treated timber or galvanized steel for posts, with proper installation to avoid rot or corrosion
- Gates must have secure, easy-to-operate latches and captive hinges to avoid lifting off by animals
- Avoid having ramp flaps or gates protruding from the ramp that could catch on reversing vehicles
- Allow for the safe discharge and capture of effluent in accordance with environmental regulations
- Documentation holders should be included at the right hand side of the ramp for paper ASDs and Veterinary Certificates to be collected or left by the transporter

Figure 4. A cattle ramp with a timber buffer

Figure 5. Loading race with catwalk access to the crate door

SHEEP YARDS

Minimum Requirements:

- Drafting and holding yards should comfortably contain all stock intended for transport
- Sheep should be stood for a minimum of four hours prior to loading
- Stock should have access to water while held in yards awaiting pick up
- Yards must be clean, structurally sound, and provide safe animal handling pathways
- Ramps should incline between 20° to 25°, with 30° as a strict upper limit
- As a guide, livestock generally manage loading and unloading best when the maximum slope of ramps does not exceed 20° for all animals except young animals. For livestock younger than one week of age that are expected to walk up or down ramps themselves, the maximum slope is 12°.
- A reinforced barrier must be placed behind fixed ramps to absorb truck impact during reversing
- Ramps must be adjustable (ideally between 1000 and 3000 millimetres) to match multi-deck vehicles
- Closed sides on ramps help direct sheep forward and minimize distractions
- Cleats should measure 25 millimetres in height and be spaced at 200 millimetre intervals
- Ramps must include walkways on at least one side, providing handlers with safe access
- Fall-prevention mechanisms should be installed for adjustable ramps
- Where ramps are adjustable they shall be prevented from free falling in the event of a failure of the lifting mechanism, either by use of mechanical safety locks or by some other means
- Space under fixed raised ramps to be fenced off to prevent the operator from walking under a raised ramp
- Yards shall have no broken rails or protruding objects and all gates should swing and be secured when closed
- The owner or person in charge of the livestock must always be present at loading and unloading
- Ensure that there is a document holder on right-side of ramp for ASD forms and Veterinary Certificates

Recommendations:

- Use a third deck ramp where required for commercial transporters
- Minimise slope where possible to ensure efficient sheep movement
- Design continuous walkways without steps if possible to reduce trip hazards
- Align ramp width with common stock crate gate widths (450 to 900 millimetres)
- Avoid loading directly from laneways—use dedicated holding and forcing areas
- Avoid having ramp flaps or gates protruding from the ramp that could catch on reversing vehicles

CALVES

Minimum Requirements:

- Farms must have facilities allowing calves up to 14 days old to walk on and off trucks freely
- Shelters must be provided for calves during pre-loading and while loading
- Loading platforms must be anchored securely to prevent movement when reversed in to
- Flooring surfaces should be slip-resistant and free from gaps or tripping hazards
- Head clearance for loaders/operators in covered pens of at least 2 metres is required
- Ensure a dry, weatherproof area is available for writing and maintaining documentation

Recommendations:

- Ramps should not be used to load young calves – They are not fit for purpose and should be decommissioned due to safety concerns
- Use purpose-built pens that are level to the stock crate floor so calves transfer easily
- Inefficient loading procedures can result in increased stress, injury, and frustration for both animals and handlers
- Consider alternate solutions such as ground-level walk-on loading areas wherever practical

Figure 6. Ramp loading with no forcing pen

Figure 7. Good pen with no firm vehicle access

Figure 8. No firm vehicle access to ramp & race

Figure 9. Good pen with level loading and firm vehicle access

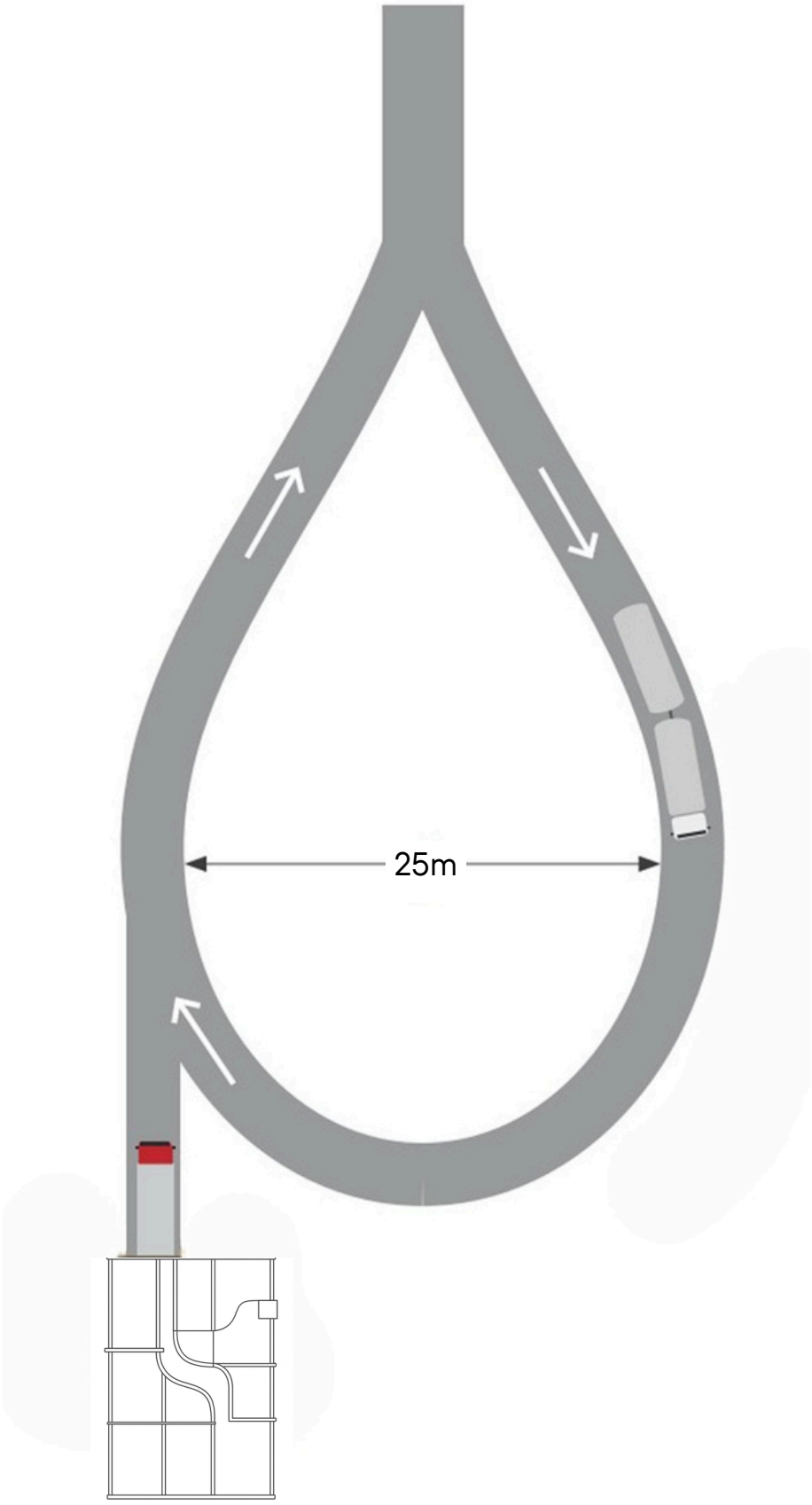
Appendix A: Loading & Unloading Facilities Checklist

VEHICLE ACCESS	✓ = YES ✗ = NO	**Notes**
Off the roadside		
All-weather track		
Level surface		
Bridges, culverts and cattle stops can support 54 tonne		
Sufficient turning room		
Six metres clearance for overhead power lines		
Height clearances of 4.5 metres for overhead protrusions		
Marked no-go zone between ramps and reversing trucks		
ALL YARDS	✓ = YES ✗ = NO	**Notes**
Truck & trailer can reverse in and butt up square		
Sufficient yard capacity for the entire load		
Secure & facilitate controlled drafting/selection processes		
Ramp slope not exceeding 20°		
Ramp flooring should be solid and non-slip		
No broken rails or protruding objects		
All gates swing		
A weatherproof document holder on right-side of ramp		
CATTLE YARDS	✓ = YES ✗ = NO	**Notes**
Yard sides at least 1.7 metres high		
Backrub indicator (cross bar above the race) at 1.4 metres high		
Ramp height should range from 1.1 to 1.2 metres		
Cleats spaced 300 millimetres apart and raised at least 40 millimetres		
Personnel/safety gates at the top of ramps (must be self-closing and open onto flat, obstruction-free platforms)		
Raised catwalks 500 millimetres wide and include handrails and non-slip surfaces		
Ramps in high-throughput operations must accommodate dual or multi-deck loading		
A separate ramp and yard/pen incorporated at dairy shed		
SHEEP YARDS	✓ = YES ✗ = NO	**Notes**
A reinforced barrier behind fixed ramps to absorb truck impact		
Ramps must be adjustable (ideally between 1 and 3 metres) to match multi-deck vehicles		
Closed sides on ramps		
Cleats measure 25 millimetres in height and spaced at 200 millimetre intervals		
Ramps include walkways on at least one side, providing handlers with safe access		
Fall-prevention mechanisms installed on adjustable ramps		
Space under fixed raised ramps fenced off		

Appendix B. Bobby Calf Loadout Facilities Checklist

CHECK	✓ = YES ✗ = NO	Comments
Off the roadside		
All-weather track		
Sufficient turning room		
Track width at least 4 metres wide		
Height clearances of 4.5 metres for overhead protrusions		
Six metres clearance for overhead power lines		
Calves can walk onto truck (deck height 1.2 metres)		
Steps and handrails up to calf pens		
Sufficient height under calf pen roof for driver		
Height indicator on pen wall at 700 millimetres		
No gaps in pen floors		
Truck/trailer can butt up square		
All gates/rails/fences well maintained		
Shelter provided for calves		
Pens are clean		
Ramp slope no more than 12°		
Farmer present		

Appendix C. Truck Turning Circle Specification



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