



Motorcycling New Zealand Track Requirements 2018

The Track Requirements have been developed by Motorcycling New Zealand (MNZ) to ensure affiliated clubs operating at New Zealand Championship level are using tracks that are constructed and operated in the safest and best manner.

The following requirements are issued in DRAFT format and are open for limited consultation.

As the governing body for the sport of motorcycling in New Zealand, MNZ is committed to advancing the sport of motorcycling in New Zealand.

Motorcycling New Zealand

MNZ is committed to promoting safe motorsport, through various initiatives and through the publication of the Manual of Motorcycle Sport (MoM's) and various guides.

The safe construction and operation of tracks and events is the shared responsibility of the track operators, MNZ appointed officials, clubs and / or promoters.

Motorsport is a dangerous activity. Access to affordable and appropriate insurance has been a major issue for MNZ and other sporting organisations. MNZ provides insurance for events run under the MNZ permit scheme. The scheme covers personal accident insurance for participants, officials and others. The scheme also provides public liability insurance for affiliated clubs running events and track operators.

To ensure the safe operation of events that comply with the requirements of the insurance scheme, MNZ requires that tracks meet the requirements below;

1. Tracks being used for National Championship events will be inspected by a nominated 'track inspector' nominated by MNZ.
2. Tracks will be approved by MNZ prior to being allocated a National Championship event.
3. All events must be conducted pursuant to the permit issued by MNZ.
4. In respect of accident insurance for participants, the participants must hold a current MNZ Championship or Club license.

Application and Scope of Track Requirements

The Track Requirements must be applied in their entirety for a new track, applying for a National Championship event.

In the case of existing National Championship tracks where there is an identified non-compliance with the track requirements, the track inspector will raise these issues with both MNZ and the club /

operator. Where rectification work is required, MNZ will consult with the club / track operator to develop a satisfactory plan of action to either bring the track up to standard or eliminate the issue.

These track requirements are primarily aimed at National Championship tracks and are not mandatory for all other tracks. However MNZ may refuse to issue a permit on other tracks where major non-compliance of these requirements is identified.

A track inspector may use reference materials in assessing matters of non-compliance, such as the Manual of Motorcycle Sport or documents produced by the Federation Internationale de Motorcyclisme (FIM).

For the purpose of obtaining a permit to conduct an international event, additional measures may be required to meet FIM standards. The FIM publishes information to assist track operators to develop their tracks for international competition.

The Role of a Track Inspector

Track Inspectors assess tracks for the purpose of providing a report to MNZ of the compliance of the track with these requirements. Track Inspectors play a valuable role in motorcycle sport in New Zealand, by assisting MNZ affiliated clubs / track operators to create the safest possible facilities.

Track Inspectors do not provide advice to clubs or track operators with regards to legal or regulatory compliance.

Support Facilities at Track

It is the responsibility of the affiliated clubs / track operators to ensure compliance with all local and national laws, regulations and codes, regarding the safe design, construction, management and operation of the track and all support facilities.

It is the responsibility of the club / track operator to ensure that the track and all support facilities comply with any planning, building, environmental, occupational health and safety, public safety or other laws and regulations.

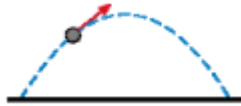
1. Definitions and Interpretations

For the purposes of these track requirements, the following definitions apply;

1.1 Competition Area	The area of a motorsport track or venue to which spectators or the general public are not admitted, where competition vehicles can move at unrestricted speed, and including track entry and exit points.
1.2 Course	Generally understood to be a track that need not start or end at the same point.
1.3 Curve	A change in direction through an angle greater than 15 degrees with a radius of less than 300 metres.
1.4 Event Organiser	The holder of an event or competition permit issued by MNZ.
1.5 Fire Protection	Adequate precautions must be taken to reduce the risk of fire in the pits, paddock and all other risk areas.
1.6 GPS	Global Positioning System. The GPS coordinates (latitude / longitude) of the track. The coordinates must be provided in MGA or WGS84 format and must note the location of the track for emergency evacuation of injured riders.
1.7 Hazard	A hazard or object adjacent to the track (trees, sign, culvert, post, vertical drop off, square edge bank etc). A hazard is something that a rider may run into or ride off.
1.8 Jump	An obstacle that would reasonably require that a machine negotiating it would become airborne.
1.9 Lines of Protection	Described as 1 st Line of Protection and 2 nd Line of Protection. i) 1 st Line of Protection – The barrier or separation closest to the track which acts to prevent motorcycles and riders from colliding with spectators, officials, marshals or prevents them from crossing onto other parts of the track. ii) 2 nd Line of Protection – The barrier or fence required to prevent the public from entering the Racing Area.
1.10 MNZ	Motorcycling New Zealand
1.11 MNZ Track Inspector	An official appointed by MNZ and assigned to undertake inspections of tracks and report findings as appropriate in a Track Inspection Report.
1.12 Major Alteration	An alteration to the construction, design or configuration of a track since the most recent track inspection.

1.13 Marshall Point	An area reserved for the exclusive use of authorised personnel, usually event marshals, flag marshals and officials.
1.14 May	Indicates a recommendation only.
1.15 MoM's	MNZ Manual of Motorcycle Sport (Road / Off Road)
1.16 Motocross	A competition that is held on an outdoor track of natural terrain which may have man made obstacles.
1.17 Multiple Jump	An obstacle that consists of two to a maximum of four jumps within 10 metres of each preceding jump on a straight section of the course. A multiple jump includes any two obstacles that can be cleared in a single action measured from a leading edge.
1.18 Must	A mandatory requirement under these requirements.
1.19 Natural Terrain	A temporary or permanent outdoor track that is set out using the natural contours of the land and has no man-made obstacles.
1.20 Neutral Zone	An area between either the 1 st and 2 nd Lines of Protection and / or the edge of the track and the 2 nd Line of Protection that provides a buffer distance between riders and hazards and/or spectators and machines on the track.
1.21 Obstacle	In Motocross / Supercross : a Jump, Multiple Jump, Whoops section, Table Top Jump.
1.21 Paddock Area	Areas established for use by competitors and their competition and support vehicles.
1.22 Parc Ferme	An area where machine access is restricted in accordance with the regulations for the event, generally references a pre-start area, but can also relate to an impound or scrutineering area.
1.23 Pit Board Area	An area for signalling by a riders support crew, which is visible to all riders, may be provided and clearly marked at a suitable position adjacent to the track.
1.24 Club / Track Operator	The holder of an event or competition permit issued by MNZ (also known as event organisers).
1.25 Race Line / Trajectory	The ideal trajectory which is followed by the competitors under competition conditions, which may not correspond to the physical shape of the track.
1.26 Racing Area	An area including the racing track proper and extending to where the 2 nd Line of Protection would need to be placed behind run off areas.

1.27 Run Off Area	The area on the outside of curves extending from the track to the 1 st Line of Protection (or barrier).
1.28 Safety Fence	Also known as the 1 st Line of Protection – a barrier closest to the track which acts to prevent riders and machines from colliding with spectators, officials and marshals or prevents them from crossing into other parts of the track.
1.29 Spectator Fence	Also known as the 2 nd Line of Protection – a fence or barrier required to prevent the public from entering the Racing Area.
1.30 Start Gate	The mechanical apparatus behind which motorcycles are assembled and is used to start an event.
1.31 Start Pad	The area immediately behind the start gate where the motorcycles are lined up ready to commence the competition.
1.32 Step Up / Down Jump	A jump designed to transfer the elevation of the rider from a short lower jumping point to a higher (or lower) landing area. The transition area simulates the visual look of a step.
1.33 Stutter Section	Two or more obstacles with a maximum height of 1m, a minimum distance between peaks of 1m and a maximum distance between peaks of 3m.
1.34 Table Top Jump	An obstacle with a take off ramp, a flat horizontal surface flowing to a down ramp. The horizontal section will have a minimum length of 3m and a maximum length of 20m.
1.35 Track	A broad term applied to all tracks used for motorcycle sport. A track can; <ul style="list-style-type: none"> i. Begin and end at the same point; or ii. Begin and end at different points; or iii. Can be either temporary, permanent or semi-permanent.
1.36 Track Density	The maximum number of machines permitted to start a single race at an event.
1.37 Track Inspection	A formal, structured assessment process, undertaken in respect of a prospective or current motorcycle sport track, for the purpose of issuing a National Championship event permit.
1.38 Track Operator	The principle person or body controlling the day-to-day operation of a motorsport track or venue and can include the affiliated club or owner of the track.
1.39 Trajectory Point	The point at which a motorcycle is launched while negotiating an obstacle in which the rear wheel becomes airborne.



1.40 Whoop Section

Two or more rounded obstacles of even spacing, same height and construction, with a maximum height of 0.6m, a minimum distance between crests of 3m and a maximum distance between crests of 6m.

2. Operational Minimum Requirements

2.1 Safety

Safety during an event or race meeting (for participants, spectators and officials) must be the priority for the track operator, organisers and nominated officials.

2.2 First Aid / Medical

First aid and medical personnel and facilities required for an event / meeting are detailed within the MNZ Manual of Motorcycle Sport (MoM's)

2.3 Environment

The event must be run in accordance with the relative requirements and recommendations to ensure the protection of the environment during an event as stipulated in the MNZ Environmental Policy.

2.4 Paddock Area & Track Access

- 2.4.1 The track inspector must ensure that all tracks have a Paddock Area for participants' vehicles and motorcycles. This should be separate to the parking area or viewing area for non-participants (spectators).
- 2.4.2 The Paddock and Parc Ferme area should be relatively flat with direct access to the track starting area, which must be clearly marked and securely fenced.
- 2.4.3 Where the Paddock Area is immediately adjacent to the course, the whole length adjoining the course shall be fenced in an appropriate manner similar to that used to separate spectator areas from the track.
- 2.4.4 The track must identify an emergency access route allowing emergency vehicles to promptly access all parts of the circuit to get medical / recovery personnel where required.

2.5 Notices To The Public

All tracks are required to display signage as detailed under the heading 'Notices To The Public' below.

All notices will be displayed prominently and affixed in a manner to ensure they remain visible for the duration of the event. These notices must be displayed before any admission charge is paid, or where no admission is charged, before entry is made to the venue.

- 2.5.1 A separate spectator area with appropriate signage must be provided for spectators. This must be clearly signed with appropriate barriers between the area and the track (utilising effective Lines of Protection).
- 2.5.2 Warning to the public and motorsport is dangerous. Warning notices as detailed must be displayed at every entrance to the course, including the entrance to car parks and paddock area.

- i. Warning Notice (550mm x 450mm minimum)

**Warning to the Public
MOTORCYCLE RACING IS DANGEROUS AND SPECTATORS
ATTENDING THIS TRACK DO SO ENTIRELY AT THEIR OWN RISK**

- ii. Prohibition Notice (550mm x 450mm minimum)

**NOTICE
PROHIBITED AREA
The Public are not permitted in this area.**

- iii. Notice - Pets and Animals (550mm x 450mm minimum)

**NOTICE
No Animals Allowed
(Guide Dogs Excepted)**

2.6 Communications – Emergency Medical Evacuation

The venue must have effective communication via mobile phone at all times. If there is no mobile phone coverage, then the track operator must make other arrangements to ensure communication is available via Radio link or Satellite phone at all times.

3. Track Requirements – Motocross

3.1 Scope and Application

This section outlines the track requirements for Motocross tracks which must be evident to the Track Inspector during any track inspection, before MNZ will issue a permit for a Senior National Championship event / permit.

This module applies to permanent, semi-permanent or temporary tracks.

Tracks where New Zealand Senior Championship or Series events are conducted, must comply with these requirements.

3.2 Track Inspection

Applications to hold New Zealand Championship events must include a plan / drawing (to scale) of the track and surrounds which must include the following:

- a. The racetrack proper
- b. The location of all jumps, whoops and other obstacles on the track.
- c. Each obstacle on the track must be numbered on the plan, with a brief description and approximate height width and length of each obstacle recorded.
- d. The location, extent, height and construction type of the 1st Line of Protection.
- e. The location, extent, height and construction type of the 2nd Line of Protection.
- f. The location and extent of pit entry / exit roads.
- g. The location of all marshal points.
- h. Details of the track watering system.
- i. The location of first aid / medical facilities.
- j. The GPS coordinates of the track to facilitate emergency evacuation.
- k. The street address of the venue.

3.3 Inspections

All tracks will be inspected by an MNZ appointed Track Inspector prior to the issue of the event permit.

- a. During the inspection the Track Inspector must be accompanied by a representative of the club / track operator.
- b. For National Championship tracks the track must be inspected 2 months prior to the event to ensure adequate time is available to complete any required modifications.
- c. It is the responsibility of the Club / Track Operator to ensure that the inspection occurs and that final alterations are made to achieve compliance prior to an event.
- d. Tracks that do not pass inspection will be advised of the reasons and the work required will need to be agreed upon to achieve approval.

3.4 Track Layout

Track layout must be designed with all grades of riders in mind and must be rideable for all competitors and classes in attendance.

- a. Particular attention to the installation, consistency and shape of any jump faces is a priority.

- b. The track surface materials must be exclusively natural. The use of sawdust or wood chips from chemically treated timbers must not be used.
- c. The safety of riders, officials, crew and spectators must be taken into account.
- d. Motocross tracks should be designed with minimal stop / start turns. The track should be designed to allow for safe passing.
- e. Consideration should be given to drainage to prevent large areas of standing water forming during irrigation or heavy rainfall.
- f. Jumps and obstacles should vary in difficulty making it possible for riders of different abilities to demonstrate their skills.
- g. A split section of track is permitted provided adequate space is available and the section meets all requirements of these requirements.
- h. The presence of square edge banks and vertical drop off's within 1.5m of the edge of the track are prohibited. Care should be taken to 'batter' banks and surfaces adjacent to the track to allow riders to recover and rejoin the track safely.

3.5 Length

All Motocross Tracks used for New Zealand National Championships must have a minimum length of 1.5km and a maximum length of 3km.

- a. The track length should be measured along the centreline.
- b. MNZ can supply a GPS recording unit able to be fitted to a bike or ATV to accurately plot and measure the track.

3.6 Width

The minimum width at any point on the track must be 6m.

- a. The track width is to be measured on the inside of track markers.
- b. The physical track width must include an additional 1.5m outside of the track markers for rider safety / runoff.
- c. For tracks where 40 gate starts are expected it is anticipated that track width will need to increase to a minimum width of 8m to meet international standards in the future.
- d. The track shall have a minimum of 3m separation between racing sections of the track. If this cannot be provided due to track confinements, hay bales or other energy absorbing material must be used to separate sections.

3.7 Track Density

When track dimensions do not allow for 40 participants the number of riders allowed to start in Motocross events will be determined by the track density formula below;

$$N = W \times L / 30 \pm 1$$

Where

N = Number of riders allowed on the start gate.

W = Width of the first corner.

L = Length of the start straight.

Where permissible the maximum number of riders allowed for a mass start at Motocross is 40.

When calculating track density 3.6 above must be complied with. If the track is 6m wide there cannot be any more than 30 riders.

3.8 Speed

The average speed for a lap of a Motocross track is to be no greater than 65kph.

The formula to work out average track speed is:

$$\text{Average Speed (kph)} = \frac{\text{Distance Metres}}{\text{Lap Time (seconds)}} \times 3.6$$

Speed is calculated by taking the distance of a lap (measured in metres) and dividing this by the lap time recorded, the answer is then multiplied by 3.6 to give a speed in kilometres per hour (kph).

Note : The lap time used is to be one achieved by an experienced National Championship level senior rider on the track.

As an example:

Track Length **1750 metres**
Lap Time **119 seconds**

This equates to:

$$\begin{aligned} \text{Average Speed (kph)} &= \frac{1750 \text{ Metres}}{119 \text{ (seconds)}} \times 3.6 \\ &= \mathbf{52.94 \text{ kph}} \end{aligned}$$

Note ; MNZ can supply a GPS recording unit able to be fitted to a competition machine (bike) to accurately record the track length and continuous speed measurements around the entire track.

3.9 Obstacles

The following are the only obstacles permitted in Motocross.

Triple Jumps and Stutters are not allowed to be used on a Motocross track.

The safety of riders, spectators and officials must be given the utmost priority when constructing jumps and obstacles. If any obstacles do not comply with the below criteria or dimensions the track will not pass inspection and the club / operator will be advised of the actions needing to be taken to achieve approval.

3.9.1 Measuring an Obstacle

Diagram – How to measure the height of an obstacle.

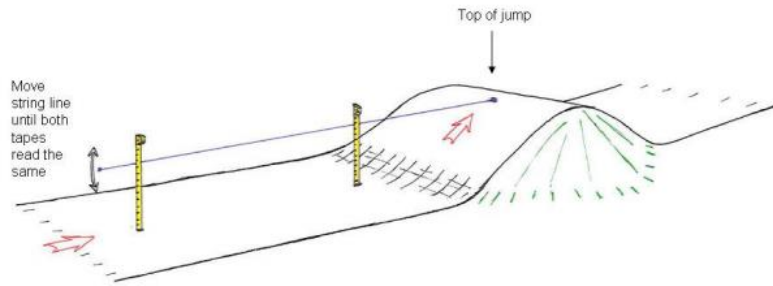
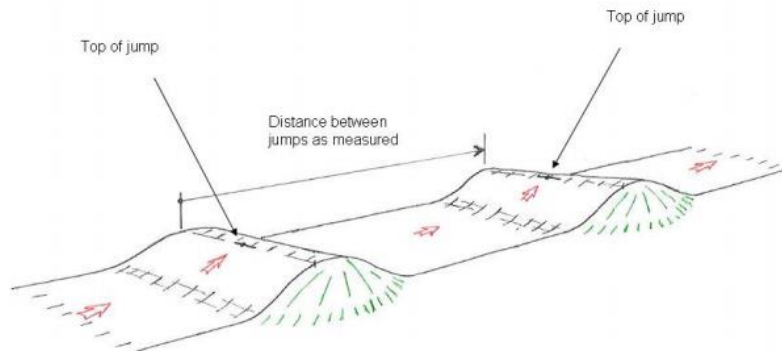


Diagram – How to measure the distance between obstacles.



3.9.2 Jumps

- Must be constructed with all levels of riders in mind.
- Jumps must not exceed 3m in height.
- The length of run-ups to jumps should be limited to avoid high speed jump approaches and have due regard to safety.
- The take off ramp must be smooth and consistent without ruts or ledges forming.
- The landing ramp must be 1m wider than the take-off ramp and placed in a straight line from the direction of the take-off ramp.
- The landing ramp must be well rounded without a peaked top and with a long gentle down ramp for landing.
- If required the take-off and landing ramps must be serviced throughout the event to maintain the above conditions.

3.9.3 Double Jumps

- Double jumps are acceptable, however the second jump shall be approximately 400mm lower than the first jump.

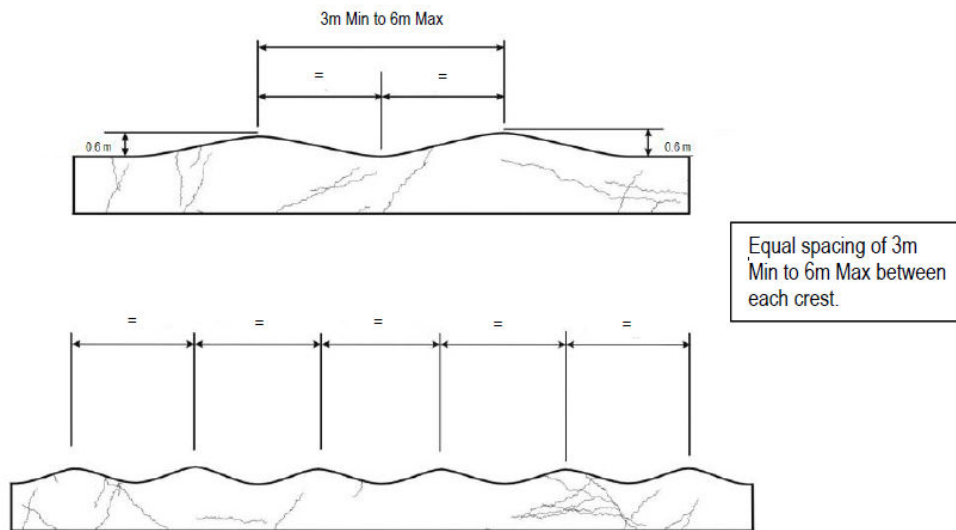
3.9.4 Table Top Jump

- An obstacle with a flat surface with a minimum length of 3m and a maximum length of 20m.

3.9.5 Whoops Section

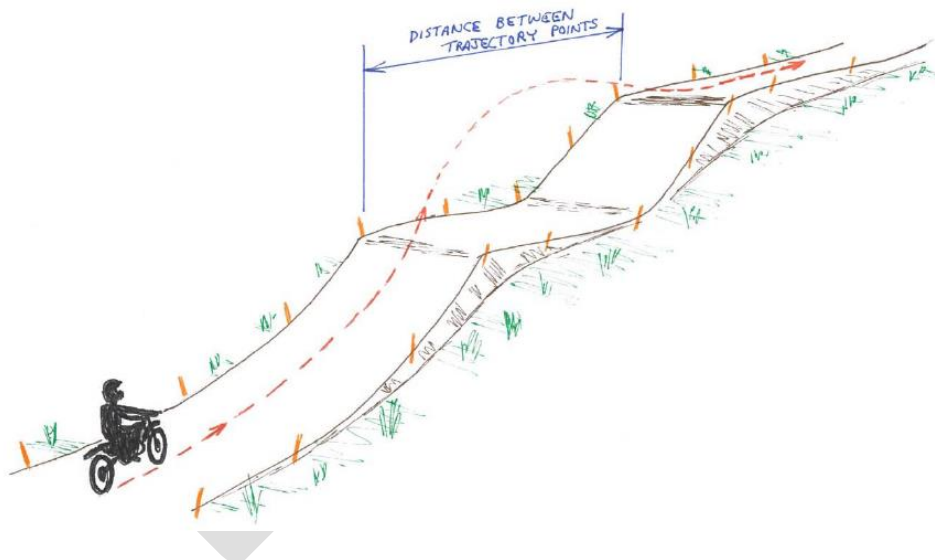
- Two or more rounded obstacles of even spacing, same height and construction, with a maximum height of 0.6m, a minimum distance between crests of 3m and a maximum distance between crests of 6m.
- The whoops section shall be located within the second half of the track only.

- c. It should not be possible for riders to clear more than one rounded obstacle while negotiating a whoops section.



3.9.6 Step Up / Step Down Jump

- a. A jump designed to transfer the elevation of a rider from a trajectory point to a higher (or lower) landing area.
- b. The section between up-ramps must be filled to at least the level of the previous trajectory point.



3.10 Flag Marshalling Points

- a. There must be a sufficient number of official flag points around the course to ensure that from any marshal point there is an unrestricted view to the next marshal point.
- b. The location chosen for flag points must ensure that signals given are clearly visible to riders travelling at pace.
- c. Flag marshal points must be located and protected to minimise the risk of injury to officials.
- d. The area must be level and hard packed with sufficient flat area.
- e. The position must be clearly marked.

- f. Marshal points must not be placed on the outside of a corner or an outside exit from a corner.
- g. The distance from the track edge (in line with track markers) to the flag marshalling point should be 3m where ever possible, with the flag point adjacent to the track in a safe location.
- h. Any structures used as flag points and closer than 3m from the edge of the track are to be protected with straw bales or other energy absorbing materials.

3.11 Pit Board Area

- a. An area for signalling, which is visible to all riders, may be provided at a suitable place adjacent to the track.
- b. The area must not require signallers to cross the live track to gain access to the pit board area.
- c. The pit board area must have a barrier to protect signallers from oncoming machines and to keep signallers off the track. Barriers must be designed with both the riders and signallers safety in mind.
- d. A pit board area must not be placed at the outside of a corner or an outside exit of a corner.

3.12 Watering Systems

The track must be properly watered, if necessary in ample time before and between races to ensure suitable racing conditions, safety and to protect the public and riders from dust.

- a. At no time during competition should watering of jump faces occur.
- b. An efficient method or system must be provided in order to water the entire track.
- c. Any watering system installed must not present a hazard to riders.
- d. Water systems should not be placed in Neutral Zones unless they are not a hazard to riders and if they may be considered a hazard they must be adequately protected.

3.13 Protection from Hazards

- a. Straw bales or other shock / energy absorbing materials must be placed to cover all hazards such as poles, trees, bridges, structures, walls, camera posts, PA system poles, irrigation components etc to a height of 2m to protect the riders from danger.
- b. Portable plastic safety barriers (road barricades) should only be used for demarking areas of the track like pre-start areas, start areas and infield between circuit areas to prevent riders from crossing sections of track.
- c. Where these barriers are used adjacent to the track, they must be moveable (not filled with water) and the end facing oncoming riders shall be protected by energy absorbing material or be angled away to prevent end on impact / contact.

3.14 Controlled Crossings

- a. All controlled crossings must be adequately marshalled and the movement of spectator and media across the course during riding (live track) must not be allowed.

3.15 Paddock

- a. There must be a suitable Paddock Area for the use of riders and teams.
- b. Where the paddock area is immediately adjacent to the course the whole length adjoining the course shall be fenced by one or more of the methods applicable to spectator protection.

3.16 Track Maintenance / Construction Equipment

- a. Track maintenance and construction equipment (excavators, tractors, Bobcats and other equipment) should not be stored within the vicinity of the track and must be parked in a safe area, isolated from the track.
- b. If machinery must be located within the track area (such as side-by-sides or machinery), riders must be protected from machinery through the use of safety barriers and/or shock absorbing materials.

3.17 Public and Rider Safety

- a. Ideally there should be 2 Lines of Protection between competitors, their machines and members of the public.
- b. A single Line of Protection may be adequate provided a sufficiently wide Neutral Zone exists between the defined track edge and the spectator fence.
- c. In some situations the lay of the land may suffice as the 1st Line of Protection.
- d. The 2nd Line of Protection shall be 1.2m high.
- e. Barbed wire is prohibited.
- f. Ringlock (sheep fencing) is preferred as the 2nd Line of Protection. If star pickets (warratahs) are used in the 2nd Line of Protection they must be fitted with a plastic top cap.

3.18 Neutral Zone

- a. The track must have a Neutral Zone between the marked edge of the track and the 2nd Line of Protection for spectators.
- b. The minimum distance of the Neutral Zone must be 4m.
- c. A Neutral Zone a minimum of 6m must be provided adjacent to table tops and double jumps.
- d. A Neutral Zone a minimum of 8 metres must be provided behind berms of more than 1m in height.
- e. Adjacent areas of the track other than item c. above must be a minimum of 4m apart, unless separated by adequate protection, e.g. straw bales, plastic safety barriers or other energy absorbing materials.
- f. The Neutral Zone should be relatively smooth and free of obstacles.

3.19 Washing Zone for Motorcycles

- a. The washing zone must be designated, with protection of the ground a prime consideration.
- b. The area should have adequate surface water drainage, including sediment traps to collect litter.

3.20 Bridges and Tunnels

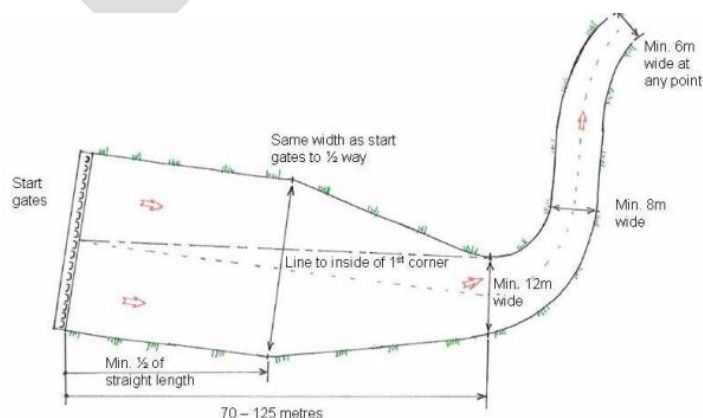
- All event organisers, clubs and track operators acknowledge that all bridges and tunnels at the venue have been inspected by a qualified structural engineer, confirming the structural integrity of the structure.
- Confirmation of compliance should be provided to the Track Inspector during the inspection process.
- Suitable barriers must be in place to prevent machines, riders and debris from falling onto either the track surface or pathways / spectator areas below.

3.21 Starting Area

- The starting area should be fenced off to restrict entry and access.
- The placement of the start gate must allow for equal chances for all competitors.
- The start gate must be 500mm high and allow a minimum 1m spacing (centre-to-centre) for each competitor.
- For New Zealand Championship events, the start gate must allow for up to 40 solo competitors.
- The starting pad immediately behind the start gate may be of concrete or other similar solid construction (e.g. metal grating).
- A rear barrier (backboard) must be installed at the start gate, in order to prevent riders from moving their machines backwards away from the start gate. The distance between the top of the start gate (released / lowered) and the rear barrier (backboard) must be 3m.

3.22 Start Straight

- There must be no jumps on the start straight.
- The length will be measured along the centre line of the track (see diagram).
- The minimum length of the start straight from the start gates must be at least 70m.
- The maximum length of the start straight from the start gates to the first corner cannot exceed 125m to the inside of the first corner.
- The start straight must taper to a minimum width of 12m at the first corner and must maintain the width of the full start gate for 50% of its length.
- The width of 12m may taper down to 8m through the length of the first corner.
- The first corner should be a left turn, where possible.



3.23 Waiting Zone

- a. A waiting zone (parc ferme) must be provided for all New Zealand Championship meetings.
- b. The waiting zone must be designed to accommodate 40 machines, preferably adjacent to the start area.

3.24 Course Markers

- a. The entire length of the track must be clearly defined either continuously or by markers.
- b. The track may also be defined by the lay of the land.
- c. Plastic breakable tape (bunting) may be used.
- d. Single tyres and hay bales are prohibited for marking the inside of corners.
- e. Tyres used elsewhere must not be dug in (buried) alongside the track.
- f. Truck, tractor or loader tyres are strictly prohibited.
- g. Any marking poles should be flexible and placed at an outward angle from the track.
- h. The use of rope bunting is prohibited.
- i. The use of ridged posts (steel star pickets / warratahs) is prohibited.
- j. Marking posts should not exceed 500mm above ground level.
- k. Coloured plastic traffic cones, can be used provided they are no greater than 300mm in height.
- l. The use of plastic safety barriers (such as water filled Road Barricades) cannot be used as course markers.