



RR07 FIM EUROPE STANDARDS FOR PERMANENT ROAD RACING CIRCUITS (SRRC) 2023

RR 07.1	GENERAL.....	3
RR 07.1.1	Object and aims	3
RR 07.1.2	Field of application.....	3
RR 07.2	CIRCUIT LAYOUT.....	3
RR 07.2.1	General principles.....	3
RR 07.2.2	Diagram of speeds	3
RR 07.2.3	Length of the circuit	3
RR 07.2.4	Starting zone	3
RR 07.2.5	Curves	3
RR 07.2.6	Longitudinal profile	3
RR 07.2.7	Width of the track.....	4
RR 07.2.8	Banking.....	4
RR 07.2.9	Banking on a straight	4
RR 07.2.10	Banking in bends	4
RR 07.2.11	Transition of banking.....	4
RR 07.3	VERGES, RUN-OFF AREAS AND KERBS	4
RR 07.3.2	Characteristics.....	6
RR 07.3.3	Gravel beds	6
RR 07.4	DRAINAGE OF SURFACE WATER.....	7
RR 07.5	ADDITIONAL PROTECTIVE DEVICES.....	7
RR 07.5.1	General.....	7
RR 07.5.2	Homologation procedure of new additional protective devices	9
RR 07.6	SIGNALS AND MARKING	9
RR 07.6.1	Distance signs	9
RR 07.6.2	Start lights	9
RR 07.6.3	Red lights around the circuit	9
RR 07.6.4	Pit-Lane Exit lights.....	9
RR 07.6.5	Yellow Flashing lights around the circuit.....	9
RR 07.6.6	Marking.....	10
RR 07.7	CIRCUIT INSTALLATIONS AND FACILITIES	10
RR 07.7.1	Paddock	10
RR 07.7.2	Technical control areas.....	11
RR 07.7.3	Pit-Lane Entry.....	11
RR 07.7.4	Signalling platform	11
RR 07.7.5	Pit-Lane Exit	11

RR 07.7.6	Starting Grid.....	11
RR 07.7.7	Closed Park Area.....	16
RR 07.7.8	Race Control.....	16
RR 07.7.9	Race Control Equipment	16
RR 07.7.10	Closed Circuit Television	16
RR 07.7.11	Timekeeping post and results office	16
RR 07.7.12	Jury Room.....	17
RR 07.7.13	Spectators Facilities	17
RR 07.7.14	Circuit maintenance.....	17
RR 07.7.15	Podium	17
RR 07.8	MARSHALS' POSTS	18
RR 07.8.1	Definition	18
RR 07.8.2	Number and location	18
RR 07.8.3	Protection	18
RR 07.8.4	Flag Marshal post.....	18
RR 07.8.5	Track Marshal post.....	20
RR 07.9	EMERGENCY EQUIPMENT	20
RR 07.9.1	Medical Service.....	20
RR 07.9.2	Fire-Fighting services.....	20
RR 07.10	NUMBER OF VEHICLES ADMITTED	21
RR 07.11	INSPECTION AND HOMOLOGATION PROCEDURE.....	21
RR 07.11.1	Inspection.....	21
RR 07.11.2	Compulsory conditions for inspection and homologation.....	21
RR 07.11.3	Inspection requests	21
RR 07.11.4	Documents to be submitted with an inspection request.....	21
RR 07.11.5	Expenses for inspections.....	22
RR 07.11.6	Inspection procedure.....	22
RR 07.11.7	FIM Europe Homologation report.....	22
RR 07.11.8	Objections to inspectors' recommendations.....	22
RR 07.11.9	Modifications to the inspection report.....	22
RR 07.11.10	Homologation licence of a circuit	23
RR 07.11.11	Grades of the circuit licence.....	23
RR 07.11.12	Suspension of the homologation licence	23

Appendix A
CO-ORDINATES OF MANUFACTURERS &
DISTRIBUTORS OF ADDITIONAL PROTECTIVE DEVICES:

Appendix B
CO-ORDINATES OF MANUFACTURES OF APPROVED **HOMOLOGATED** PAINTS

Everything printed in **BOLD** is new or changed for **2023**.

RR 07.1 GENERAL

RR 07.1.1 Object and aims

The "FIM EUROPE Standards for Road Racing Circuits" (SRRC) lay down the conditions that must be met by a circuit in order to obtain the homologation of the FIM EUROPE.

After having examined each case individually and by considering past experience gained, alternative solutions or exceptions could be admitted only in the case of an existing circuit.

RR 07.1.2 Field of application

These standards apply to all newly constructed circuits and to any modification to be made to existing circuits. A circuit can be Permanent or Non-permanent. These standards apply only for permanent circuits. For non-permanent tracks see RR 07.1.

RR 07.2 CIRCUIT LAYOUT

RR 07.2.1 General principles

The shape of the circuit both in plan and in longitudinal profile must in principle be chosen in such a way that the average speed cannot exceed 200 Km/h.

The ideal line (which is represented by the path of competition motorcycles) - and not the geometrical shape of the layout- is the factor which will be used when the standards refer to straights and bends and especially to calculate the average speed on the circuit and to design its layout.

RR 07.2.2 Diagram of speeds

The diagram of speeds is a graphic representation of the variations in maximum speed on the layout of a particular circuit.

It is drawn up upon the basis of the following hypotheses:

The maximum speed reached in a CURVE which has no longitudinal gradient is dependent upon the radius of the corresponding ideal line.

The maximum speed reached in a STRAIGHT is dependent upon the accelerating distance.

RR 07.2.3 Length of the circuit

The length of the circuit must be in principle between 2.5 and 6 Km.

RR 07.2.4 Starting zone

The starting zone must be located in a straight of a minimum length of 250 m.

The starting line must be located at a minimum distance of 200 m from the first bend.

RR 07.2.5 Curves

The connection between a straight and a circular curve or two circular curves each of a different radius, does not have to be made by means of a transition curve unless one wishes to increase the speed at the entry or exit of a particular curve.

RR 07.2.6 Longitudinal profile

The maximum longitudinal gradients are as follows:

Uphill 20%
Downhill 10%

Any change in a concave or convex slope (hump-backed) must have a transition made by an arc of a circle of which the radius must tend towards infinity.

The longitudinal uphill gradient at the starting line must not exceed 2%.

RR 07.2.7 Width of the track

The width of a track cannot be less than 9 m excluding the starting grid straight where the minimum width required will be 12 m.

The transition between the different widths of the track should be made as gradually as possible. The recommended transition is 1 m difference for every 20 m section.

RR 07.2.8 Banking

Banking is the transversal gradient or slope of the track which is measured perpendicularly to the centre-line of the track.

RR 07.2.9 Banking on a straight

On a straight, the track must be banked in such a way that it allows drainage of surface water. It can either be constant (unilateral) or cambered.

RR 07.2.10 Banking in bends

The banking in a bend (the outside of the track is banked compared to the inside) is determined upon the basis of the radius of that bend and must not exceed 10%.

An exception to this is made for permanent high speed-tracks.

An opposite gradient is not acceptable, except if the entry speed does not exceed 125 Km/h.

RR 07.2.11 Transition of banking

The transition of the banked track must be carefully studied so as to:

- guarantee satisfactory lateral drainage of water
- prevent any sudden variation in transversal acceleration which is no longer compensated by banking (dynamic)
- obtain a suitable line of sight

RR 07.3 VERGES, RUN-OFF AREAS AND KERBS

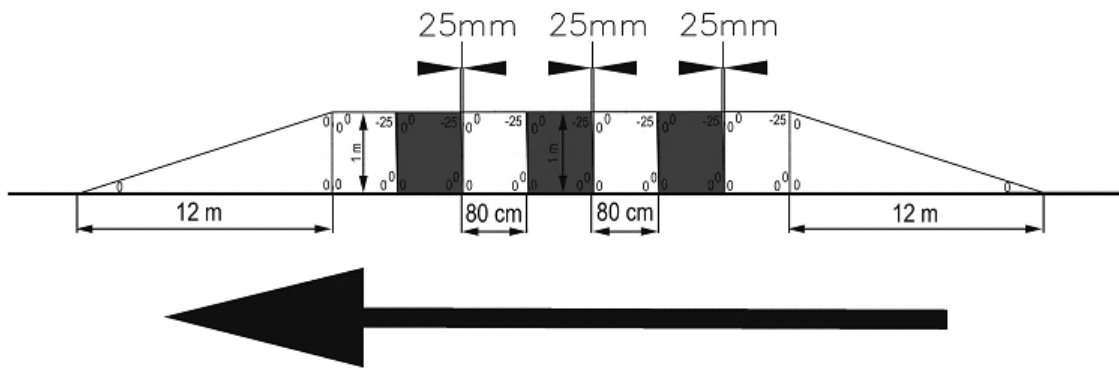
Verges (and on the outside and/or inside of bends, kerbs and run-off areas) represent the outer parts of the transversal profile of the track.

Run-off area is the ground between the verge and the first line of protective devices.

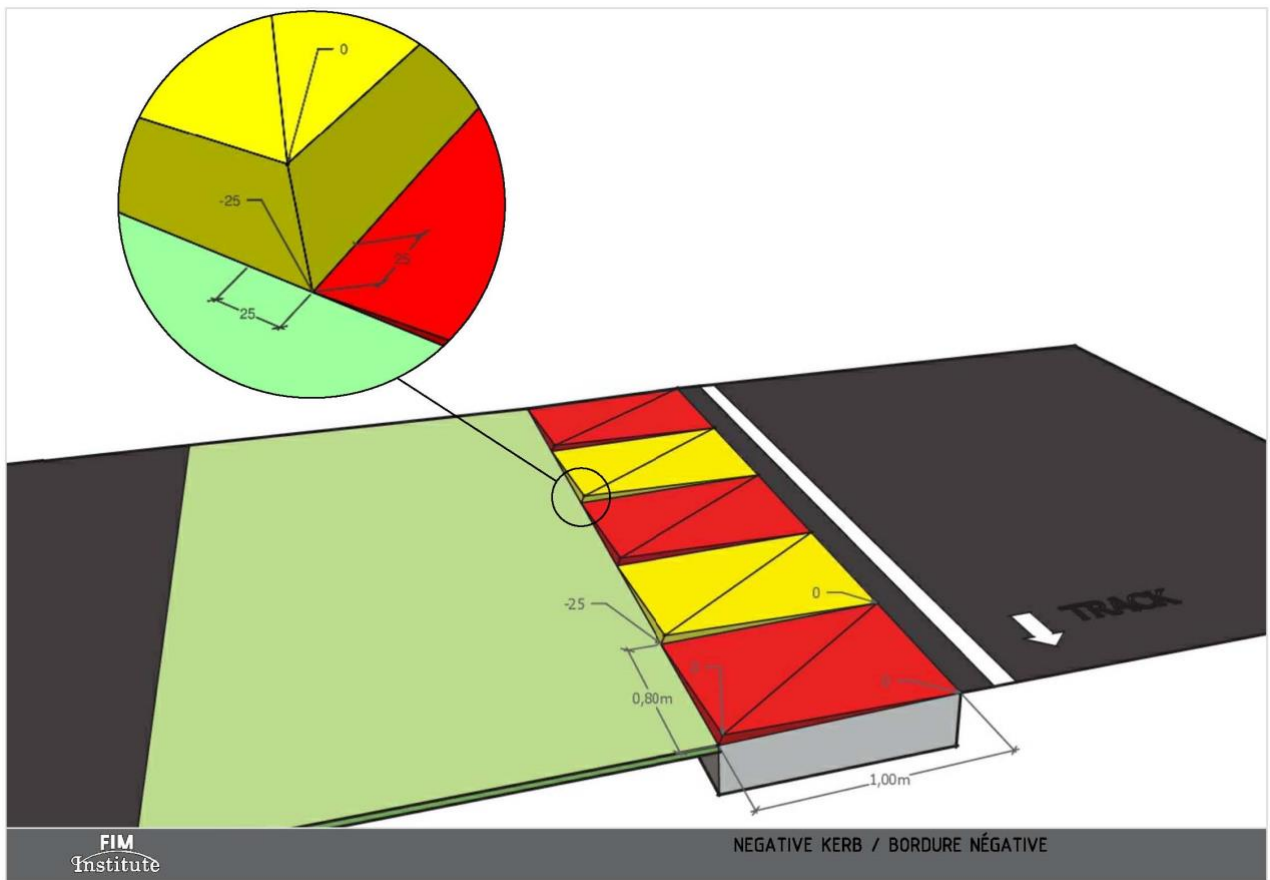
Both are absolutely necessary, from the construction point of view, serving as a limit and shoulder for the superstructure of the track.

They contribute to higher safety by improving visibility and use of the track over its whole width. If they are of a sufficient range, they **may serve as an area in which motorcycles can be brought to a halt.**

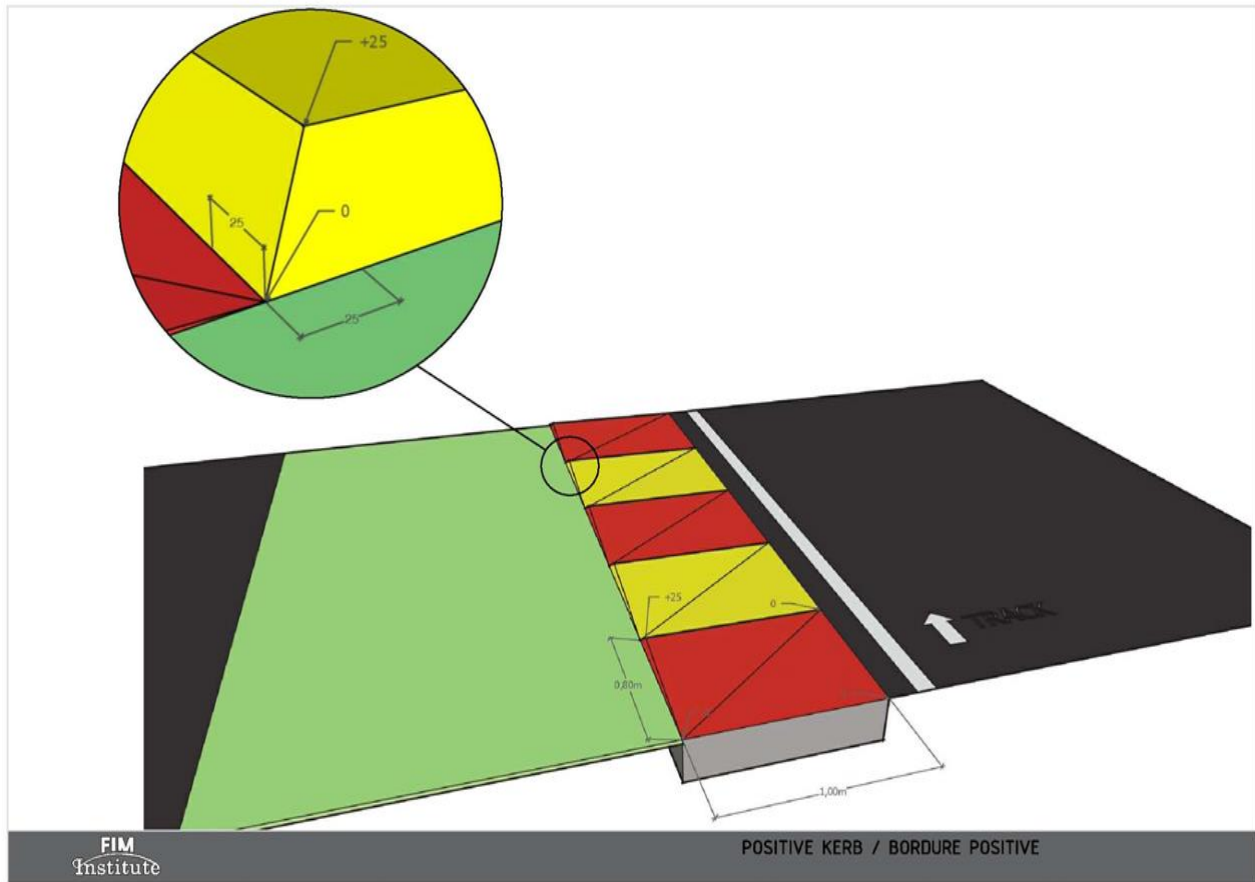
The ideal types of kerbs approved for the FIM Europe Championships and Cups should be constructed according to the following parameters:



Negative kerb



Positive kerb (only on internal turns)



Other kerbs can be approved during the homologation process.

RR 07.3.2 Characteristics

Verges and run-off areas have a flat surface which is less even than that of the track itself. They must be kept free of any debris and stones of a diameter bigger than that of the grains of the gravel beds and should preferably be grass-covered. The surface of a verge must be on a level with the profile of the track or the lower side of the kerb. Negative steps are permitted with a maximum of -2 cm. The transition from the verge to the run-of area should be very smooth.

RR 07.3.3 Gravel beds

The surface of the gravel beds must be completely flat, without waves and should be levelled with the racetrack or the lower side of the kerb. It is strictly recommended that the gravel level be 1 cm or 2 cm lower than the edge of the track.

The depth of the gravel bed will vary according to the type of gravel available in the region and the type of run-off area. As standard, the height of the gravel bed should be 25 cm and the diameter of the grains must be between 8 mm and 20 mm. Mono-grain is strongly recommended.

The first 5 m of the gravel bed should grow gradually until we reach the exact gravel bed height required.

In order to maintain the efficiency of the gravel beds, a mixing (counter-sinking) should be carried out and all debris and stones of a diameter superior to the grains must be removed before each FIM EUROPE event or events inscribed in the FIM EUROPE open calendar.

RR 07.4 DRAINAGE OF SURFACE WATER

Proper drainage must ensure that the track, verges, run-off areas and gravel beds are cleared of any surface water.

When calculating the possible flow of water (dependent on the intensity of rainfalls, their duration and the coefficient of flow) local climatic conditions must be taken into account.

Should the installation of a gutter between the track and the first line of protection be required, it must be built in such a way that there is no bump at the surface of the verge or the run-off area: i.e. it must be recovered with a smooth metal wire mesh, or an absorbent well must be used, which can maintain the normal surface of the verge and/or of the run-off area at any time.

RR 07.5 ADDITIONAL PROTECTIVE DEVICES

RR 07.5.1 General

Additional protective devices may be permanently or provisionally used to protect non flexible obstacles. The devices must be homologated by the CCR/FIM or RRC/FIM EUROPE.

The following systems are homologated (see manufacturers' and/or distributors' specs in Appendix A):

1. FIM Homologated Barriers (FRHPba-01)

For any new acquisition of barriers, and mandatory as of 2032 in all FIM / FIM Europe competitions, please refer to the following list of barriers manufacturers.

More details can be found on www.frhp.org.

CCR Type A – FRHPba-01

- ALPINA SUPER DEFENDER 3 TYPE A
- SPM Type A

CCR Type B – FRHPba-01

- LISKI SAFETY 3
- SPM Type B

CCR Type C – FRHPba-01

- LISKI SAFETY 4
- SPM Type C4

2. Existing Additional Protective Devices (APDs)

The APDs listed below already installed/stocked on circuits are tolerated until the 31/12/2031.

Type A (homologated devices)

- ***Air Active Protective Devices***
 - Alpina Air-Module AA
 - Airprotek – Racing Safety Wall – Type A
 - Liski Air Safety Mattress
 - SPM AirPADS – type AA

- ***Air Protective Devices***
 - Alpina Air-Module
 - Airfence Type IS and Airfence IIS
 - **SPM AirPADS**
 - Trackcare Inflatable Barrier

- **Foam Protective Devices**

- Alpina Super Defender and Alpina Super Defender 2
- Airfence Bike and Airfence Bike Evo
- **Archem (ex-Bridgestone) Module 1000 and Archem (ex-Bridgestone) Module 1300**
- Liski Safety 1
- Recticel Safeguard barrier 1 and Recticel Safeguard RR
- SPM Energy Absorber Type A
- Trackcare Hi-Lite
- PKS Modele 1

Type B (homologated devices)

- Airfence Type I and Airfence Bike B
- Alpina Defender Barrier
- **Archem (ex-Bridgestone) Urethane Barrier**
- Liski Safety 3
- Recticel Safeguard barrier 2
- SPM Energy Absorber Type B1

Type C (homologated devices)

- ~~Straw bales wrapped in a fire-resistant bag (grey colour recommended) — allowed only for year 2022~~
- Air Protek – Racing Safety Wall
- Alpina Synthetic bales and “Big bales”
- Filling Italiano Protection System (ONDA 27/33 - 20/26)
- Liski Safety 4
- PKS Modele 5
- Recticel Safeguard barrier 3 and Safeguard barrier 4
- SPM Energy Absorber Type C2
- Trackcare barrier

- Horizontal tyre barrier built and installed according to FIM Specifications and assembly instructions for tyre barriers (available on request to the FIM Secretariat)
- Vertical tyre barrier built and installed according to FIM Specifications and assembly instructions for tyre barriers (available on request to the FIM Secretariat)

Type D

- **Car tyre barriers covered with conveyor belt**

Type E

- **Car tyre barriers**

Type F

- **Various plastic protection modules**

All **homologated** additional protective devices must be placed against the rigid obstacle (no free space). All **homologated** additional protective devices must be used and installed according to the manufacturer's indications and requirements.

The homologation report may require non-homologated contingency protective devices to be available at each FIM Europe event.

Reserve stock

Contingency type C protective devices may be requested in the homologation report to be available at each FIM EUROPE event.

RR 07.5.2 Homologation procedure of new additional protective devices

The description of duties can be obtained from the CCR/FIM or FIM EUROPE/RRC Executive secretariat.

RR 07.6 SIGNALS AND MARKING

RR 07.6.1 Distance signs

The approach run before a bend must be indicated by distance signs which must be positioned 50 metres before the beginning of the geometrical bend.

Maximum dimensions of the signs L X H (cm):

-vertical 50 X 150

-horizontal 130 X 60

Minimum dimensions of the figures L X H (cm) : 30 X 40

Colours: black or dark blue figures on a white background.

OR:

A white line (width: 1m, length: minimum 5m) painted at both sides on the verge at the edge of the racing surface or the kerb and also on the first line of protection (guardrail or wall) or on the additional protective device (width 1m).

The signs must be entirely visible from the track.

For night races, signs in reflective material must be installed.

RR 07.6.2 Start lights

An installation of 2 lights, i.e. red and yellow. The following combinations must be possible:

- Red light single

- Yellow flashing light single

On the opposite side of the Pit Lane at the Starting Grid must be at each row a red light connected and switched together with the Starting lights.

RR 07.6.3 Red lights around the circuit

A red light system around the circuit will be switched on by the Clerk of the Course to signal that a practice or race is stopped, is recommended. They will be complemented by the marshals' red flags.

The luminous intensity must ensure a good visibility of the lights. In order to avoid sun reflection, it is desirable to cover the top.

RR 07.6.4 Pit-Lane Exit lights

The pit lane exit lights are red, flashing blue and green. The exit must be controlled by these signs and control must be permanently ensured by an official. Each light must work independently. Two lights cannot work simultaneously.

RR 07.6.5 Yellow Flashing lights around the circuit

Each circuit on which night races are organised must be equipped with light signals fixed to each of the marshals' posts.

The signals must be controlled by the post on which they depend as well as by the following one.

The installation may be made of flashing lights, i.e. two lamps which switch on alternatively.

RR 07.6.6 Marking

On each side of the track, a continuous white line 10 cm wide, must be painted on the very edge of the verge or of the kerbs, except at the entrance and at the exit of the pit-lane where an interrupted white line must be painted.

Direction lines on the axle of the track must be avoided.

The paint to be used for the white lines and the kerbs along the track, for the starting grid and for any other marking on the track, in the pit-lane and on the asphalt run off areas must be approved by the CCR/FIM. (see appendix B)

The openings in the first protection line allowing access to the run-off area must be indicated by a "fluorescent" orange (recommended colour reference: Pantone 17-1350 TPX « Orange Popsicle ») line two metres wide minimum, painted on the first line of protection or on the protective devices. Both side of the opening must be painted.

RR 07.7 CIRCUIT INSTALLATIONS AND FACILITIES

RR 07.7.1 Paddock

The surface of the paddock must allow heavy vehicles traffic.

Any marking of roadways, unauthorised zones, and parking spaces must ensure that vehicles allowed in the paddock are rationally parked.

If the paddock is located on the inside of a race track, it should be possible to gain access via a bridge or tunnel (clearance : 4,5 metres) by private cars, ambulances, etc. at all times.

The following minimum installation requirements must be met :

- toilets: 20 of which 5 for ladies
- Showers with hot water: 10 of which 3 for ladies
- A Riders'-info
- A first aid post
- A medical service post
- Drinking booths, catering or Bar-Restaurant
- The paddock must be supplied with 220 and 380 V electricity
- A firefighting service must be placed in the Paddock (see RR07.9.2)

This list is meant as a guideline only, as it is an almost impossible task to calculate and use every square metre in a paddock.

The bigger the paddock space available for use, the more professional its image will be.

Electricity outlets

The minimum totals of electricity outlets should be in the following areas:

	220v (16 amp)	380v (32 amp)
Paddock working area	50	10

These figures again are only guidelines and the greater the number of outlets the easier access can be. It is desirable that no vehicle is ever further away than 50m from an electricity supply. The further leads have to stretch through a paddock the greater the power loss through the cables, as well as a greater chance of cable damage and accident.

The total amount of KVA needed is difficult to ascertain, but on average a minimum of 5KVA should be assigned to every vehicle in the paddock. (This does not take into account electricity used within the pit boxes.)

Waste oil/fuel containers

Containers must be located evenly throughout the working area and should be easily accessible to teams.

Waste disposal units

Must be located evenly throughout the paddock area.

Maintenance

Waste oil/fuel containers and waste disposal units must be emptied or replaced at least once a day. Toilets and showers must be kept clean and serviced throughout the event.

A technician for all the main services should remain on site throughout the event and be easily contacted.

RR 07.7.2 Technical control areas

Inside or near the riders' paddock, a zone must be reserved for personnel carrying out administrative checks and Technical control. This zone must meet the following specifications:

- it must be fenced and covered
- the surface must be flat
- weighing material must be provided
- access must be strictly controlled.

A board for official notices must be set up on the edge of this zone. The board must have a surface of at least 2m² (2x1m). Any official notice must be suitably protected from inclement weather.

RR 07.7.3 Pit-Lane Entry

The longitudinal and transversal profiles must be the same as those of the track itself.

A 60 km/h speed limit board must be placed in principle 50 m before the first pit. A continuous 10 cm wide white line must be painted across the pit-lane entry in line with this board. This line will coincide with Pit-entry loop.

The exact location will be decided by the inspector during the homologation of the circuit.

50 Meters before the board, another continuous white line must be painted across the pit-lane entry.

RR 07.7.4 Signalling platform

A platform for signalling must be built between the pit-lane and the verge at the track edge.

Dimensions to be respected:

- width of the verge track side: 2 m
- width of the platform: 1.2 m
- length: the platform must extend a further 25 m in front of the first pit and beyond the last pit
- level of the ground in the lane: 35 cm higher than the pit lane
- protective concrete wall track side.

There must be an opening of at least 2 m in width in the wall and in the whole infrastructure of the signalling platform. This opening must be located at the level of the start/finish line. The passage must be in principle fitted with a sliding door which must be joined to the wall.

About ~~50~~ **25** meters after the start line, a platform of at least ~~1~~ **2** m high, surrounded by a handrail, must be installed. This platform must be built so that the starter can easily watch the complete starting grid. The control of the starting lights must be made from here.

RR 07.7.5 Pit-Lane Exit

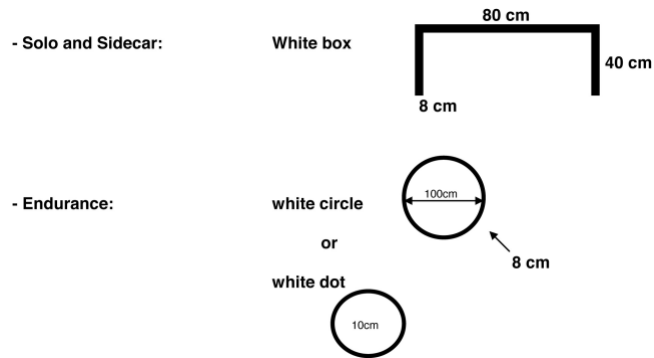
The pit-lane exit must be controlled with a set of lights (see RR 07.6.4)

A continuous 10 cm wide white line must be painted across the pit-lane exit.

A "crossed out 60 Km/h" speed limit board must be placed at both sides of this.

RR 07.7.6 Starting Grid

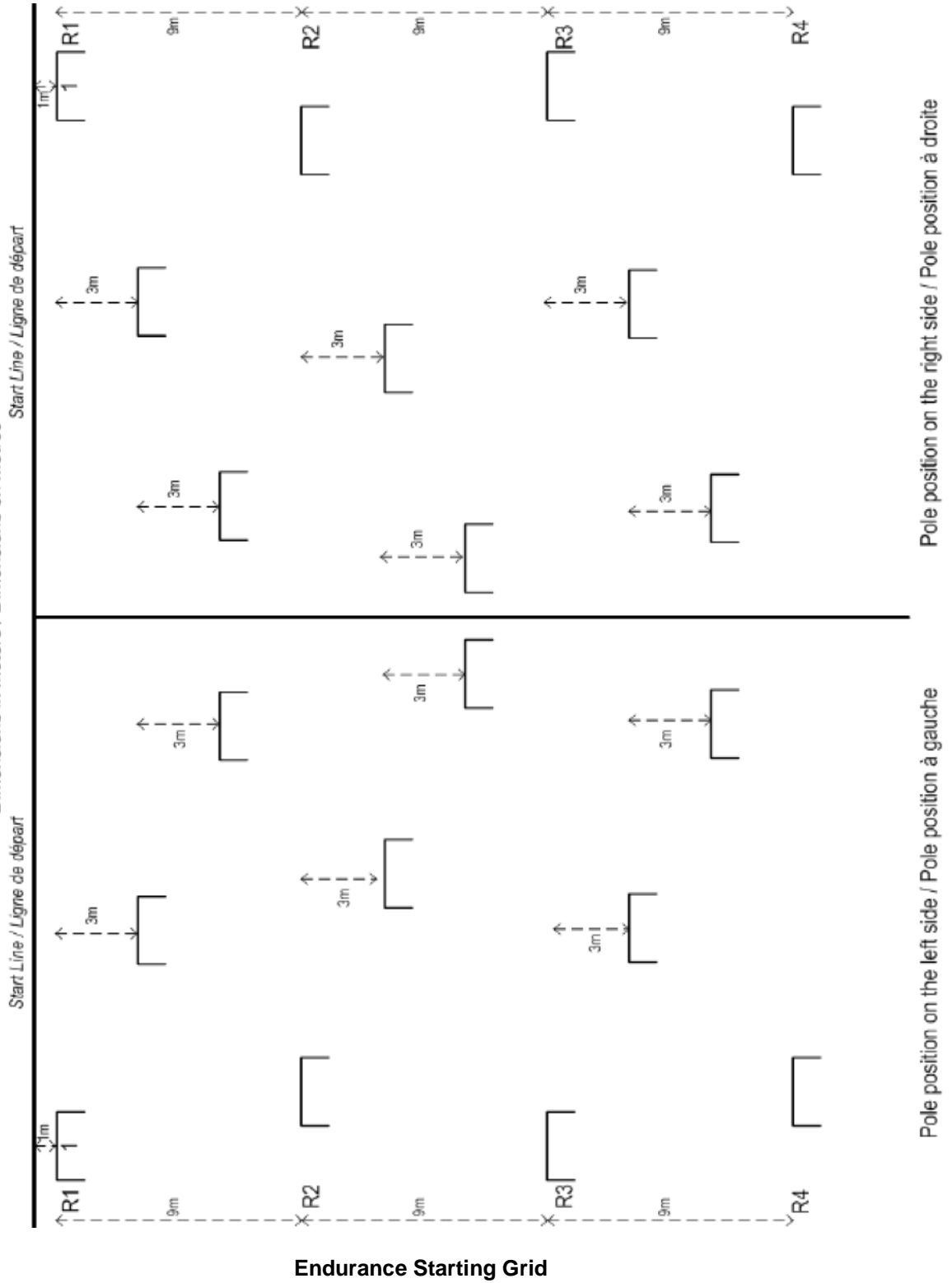
The Position on the starting grid must be indicated on the track with an approved paint as follows:



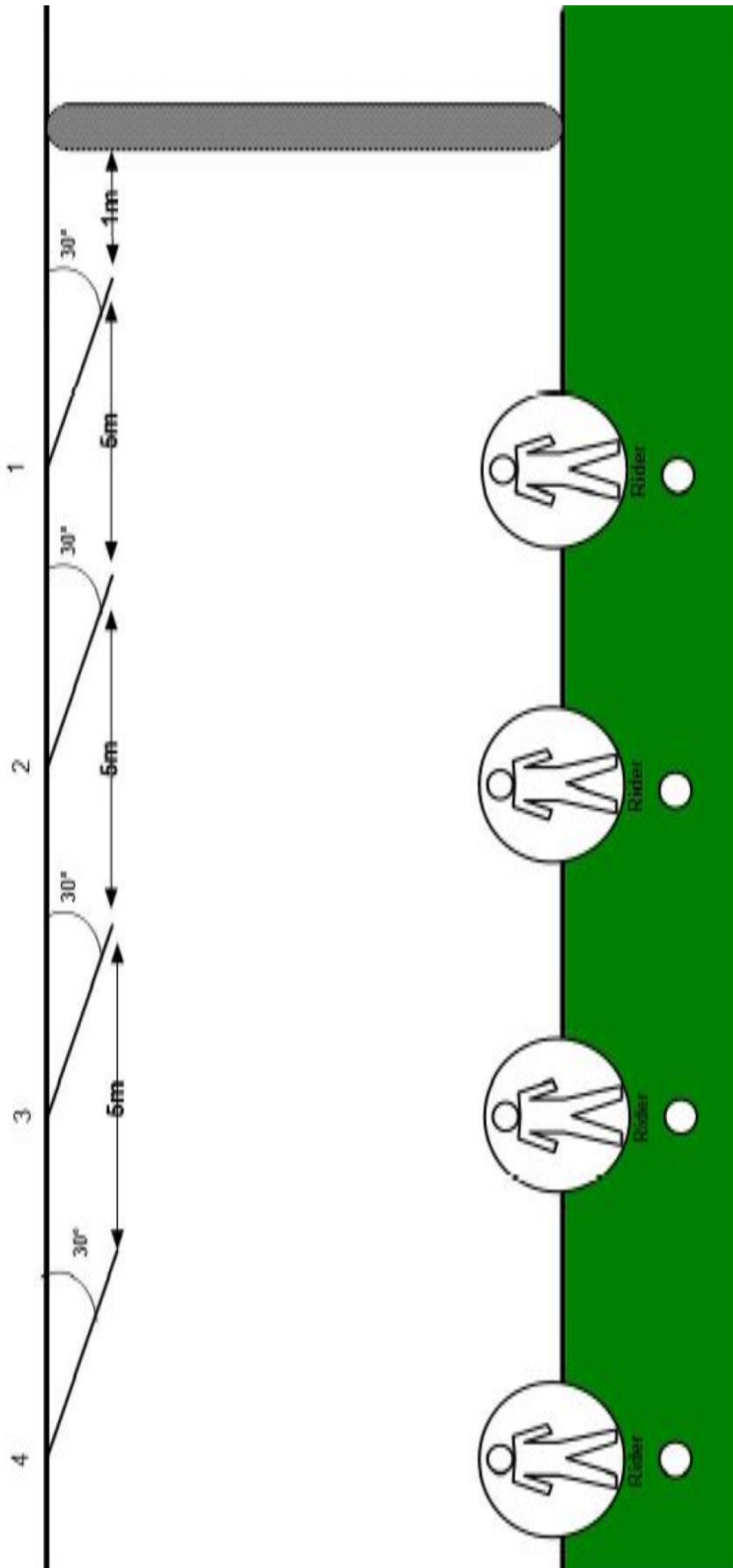
Positions on the starting grid must be shown with a white line painted on the track (dimensions 80X40X8 cm). The starting grid shall be drawn up in the following way:

- the width available on the starting line will be divided into lanes taking the number of riders per row into account and the interval with the riders on the second row.
- the minimum width available is: – for solo machines: lane of 3,00 m
– for sidecars: lane of 4,00 m
- Pole position : 1 m. behind the start line will be decided by the inspector during the homologation of the circuit.
- in the length of the track between each row: 9 m.
- machines must be positioned "in echelon" on the grid in staggered lines thus leaving the space in front of each machine free in the preceding row ("corridor").

SOLO (3-3-3-3)
STARTING GRID / GRILLE DE DEPART
 Dimensions in meters / Dimensions en mètres



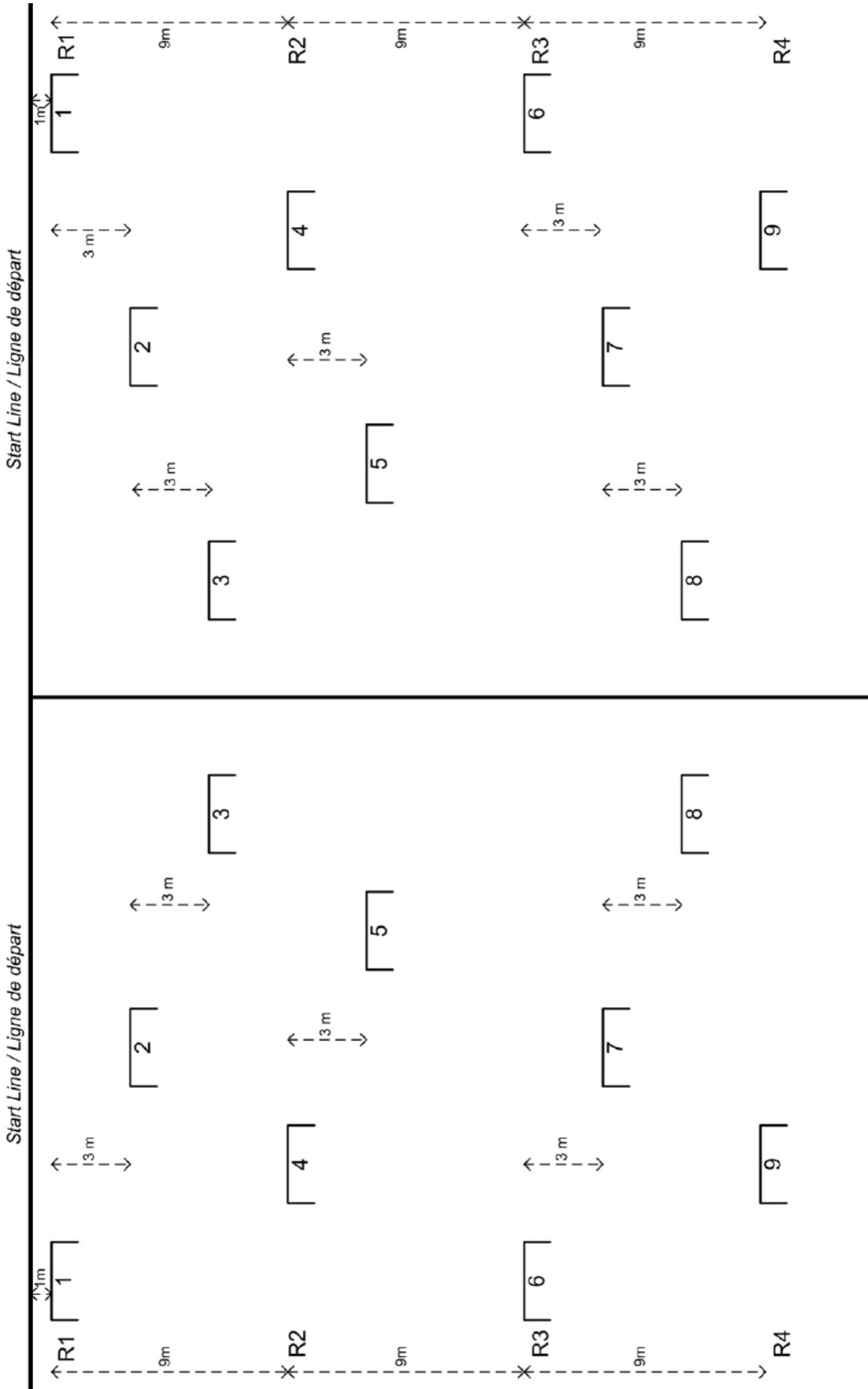
Endurance Starting Grid



SIDECAR

STARTING GRID / GRILLE DE DEPART

Dimensions in meters / Dimensions en mètres



RR 07.7.7 Closed Park Area

Of a 200 m² minimum surface area. This Closed Parc area should be positioned, if possible, as close as much near the Technical Control area. This Closed Park must be fenced-off and must only have one controlled entrance/exit point.

RR 07.7.8 Race Control

Race Control room is the centre of supervision and control of the race.

It must provide the Clerk of the Course and his assistants, as well as the Race Direction if appropriate, with all the facilities necessary to perform these duties in suitable working conditions. It should be a room with suitable sound attenuation.

It will be accessible only to the authorised personnel.

The Clerk of the Course should remain in Race Control for the duration of all on-track activities.

A proper Race Control must be spacious enough to hold (approx. 60 m²), in a comfortable manner, 10 working officials (National and International) including the relevant furniture and technical equipment.

Race Control has to be located in a permanent facility preferably on the ground floor of the Pit Box building. It is recommended a direct access to the Pit Lane and as close as possible to the Start line.

RR 07.7.9 Race Control Equipment

The following equipment must be installed in the control post:

- A telephone connected to the outside network available for international calls
- A radio transmitter/receiver for the internal network
- WiFi connection must be provided and must be sufficient for all of the members of the Race Control and it is recommended to be a private network
- Closed circuit television (CCTV) (See Art. 07.7.10)
- 1 TV screen or preferably 2 TV screens for timing
- A switch to turn on/off all the red lights around the track including the pit lane exit lights (if the red lights are installed)
- Adequate heating or cooling facilities

RR 07.7.10 Closed Circuit Television

This installation can be permanent or provisional and must be in compliance with the following instructions:

- 1 small TV screen per track camera
- 1 larger TV screen to enlarge any of the track cameras
- A CCTV operator must be in the Race Control Room
- All the TVs must be clearly visible from the last row of the Race Control Room (officials must be able to recognise incidents from the last row).
- The sizes of the TVs and the number and location of cameras will be decided during the homologation procedure.
- It is recommended that the size of the small screens should be 27 inches and the larger screens 42 inches.
- It is also recommended to use HD cameras and HD TVs.
- Each screen (camera) must be connected to a video or DVD recorder system.
- The control system of the recorders must be located in the Race Control room.
- The operating technician must be able to replay an incident in a very short time.
- The storage capacity of the recording system must be sufficient to record all the sessions of an event.
- The installation must be operational throughout the event from the first practice session.

RR 07.7.11 Timekeeping post and results office

The timekeeping post must be as sound proofed as possible and must allow perfect viewing conditions.

Timing equipment must be able to record lap by lap times and be accurate to 1000th of a second.

The results office must be arranged in such a way that the time of each rider for each lap may be calculated immediately.

The results office which if possible will be situated in a nearby but separated room from the time keeping post, must contain typewriters and a copying machine (with back-up machines).

RR 07.7.12 Jury Room

A room must be reserved for the meetings of the International Jury. This room must be close to the race control.

The room must be accessible to riders who wish to ask questions or put in protests to the race directors during the event or possibly to the Jury.

The following equipment must be installed as well:

- one monitor connected to the timekeeping
- one telephone (direct line with outside national and international calls)
- one table and chairs for at least 12 persons
- at least 12 office trays labelled with the names of attending staff
- one refrigerator with soft drinks
- adequate heating or air-conditioning facilities is strongly recommended.

RR 07.7.13 Spectators Facilities

The installations for the public must comply with the laws of the country and the local building standards with particular attention to:

- the spectators' stands (overcrowding, exits)
- car parks
- first aid services
- public conveniences
- fire-fighting services
- restaurants

Zones near the track, from where spectators may see the race properly should be foreseen. These zones must be situated in areas which do not represent any danger, i.e. inside bends.

RR 07.7.14 Circuit maintenance

Proper circuit maintenance is essential for safety and upholding of the homologation licence.

Regular checks are necessary for:

- the cleanliness of the track and the condition of its surfacing;
- all edges and verges must be at level with the track edge and all areas behind the kerbs must be filled up and levelled. The grass must be cut short and all dry grass must be removed. All vegetation must be removed, in particular in the run-off areas, in front of the guard-rails and walls as well as in the gravel beds;
- the tightening of bolts on guard-rails;
- repairs to damaged protective devices;
- repairs to kerbs or their replacement/removal;
- inspection and cleaning of water drainage;
- keeping the service roads in good condition;
- painting the delimitation lines of the tracks and the pit-lane;
- keeping the visibility by cutting trees or other vegetation;
- control of telephone and TV lines;
- maintenance of buildings belonging to the circuit infrastructure.

A rapid-intervention vehicle must be in attendance with all the necessary material to immediately repair any protective device during the event or after an accident.

RR 07.7.15 Podium

The podium must be visible and protected at the prize giving ceremony by installing a temporary protection line at quite a distance away from the podium, in order to allow a large number of photographers to work efficiently.

RR 07.8 MARSHALS' POSTS

RR 07.8.1 Definition

Marshal post staff provides surveillance of the track and its immediate surroundings. Marshals' posts will be located behind the first line of protection close to the service roads.

RR 07.8.2 Number and location

The number and location of Marshals' posts will be determined according to the characteristics of the circuit and the following points:

- no section of the circuit must be left unobserved;
- each post must be able to make visual communication with the previous and the next ones. If this is not possible, additional posts must be set up with extra personnel to meet this requirement;
- the distance between two consecutive observation posts must not exceed 300 m (not including additional posts);
- each post must be able to communicate with the race control;
- each post must be shown with a sign board numbered in ascending order starting from the first post after the starting line. This number must be clearly visible from the track;
- all posts must be located near an opening in the protection system.
- The number of marshal's post and location will be established during the track homologation

RR 07.8.3 Protection

The posts adjacent to the track must, in their simplest design, have a sufficient stabilised area, protected from the vehicles which are on the track and must protect officials and equipment from bad weather. Flag marshals must remain behind the first line of protection and other personnel must remain behind an additional line.

RR 07.8.4 Flag Marshal post

Each post should be indicated by signboard clearly visible from the track. It is recommended this board to be 40cm horizontal by 30cm vertical with yellow background and black signs. The signs should be "F" and the number of the post

Equipment

At each post, the following equipment must be available:

1. General equipment

- A radio connection with race management and/or race control centre.
- A set of official flags :
All the flags must have the following dimensions: 100 cm horizontal X 80 cm vertical.
The "Pantone" reference for the colours in brackets must be respected:
 - 1 green (348 C)
 - 1 with 3 yellow and 2 vertical red stripes, each stripe with same width (Yellow C, Red 186 C)
 - 1 blue (286 C) Light blue (298C) is recommend for 2014 and will be mandatory for 2015
 - 1 white
 - 2 yellow (C)
 - 1 red (186 C)
 - 1 black flag
 - 1 black flag with an orange disc 40 cm Ø
 - 1 white flag with a diagonal red cross (Red 186C) whose stroke width is between 10 and 13 cm.

- 1 black board (70 cm x 50 cm) which enables the race numbers of a rider to be attached with a set of changeable white numbers **000 to 999**. (Stroke width minimum 4 cm and minimum 30 cm of height).
- 2 Rigid brooms and shovels.
- One 15 litres and two 4 litres containers filled with calcium carbonate or a similar substance which can absorb oil.
- Fire-fighting service: Preferably 2 fire extinguishers of 5 to 6 Kg who are inspected for readiness use.
- If the distance between 2 posts is 300 m, a fire extinguisher must be placed halfway between these posts.
- Straps for lifting the motorcycles. The use of a strong pipe, approximately 1½ m long with a crank axle form in the middle together with a nylon belt (to wrap this belt through the wheel), is recommended.
- type C additional protective devices

2. Additional equipment for Endurance races

- 1 yellow board with the letters "SC" in black (Yellow C, Black C)
- 1 yellow board with the word "Push" in black (Black C, Yellow C). For races taking place partly at night, this board must be retro reflective.

3. Additional equipment for races partly run at night

- yellow flashing lights (RR07.6.5).
 - a set of official retro reflective boards.
- All the boards must have the following dimensions: 100 cm horizontal X 80 cm vertical.

The "Pantone" reference for the colours in brackets must be respected:

- 1 green board (348 C)
- 1 yellow board with vertical red stripes (Yellow C, Red 186 C)
- 1 white board
- 1 red board (186 C)
- 1 white board with a diagonal red cross (Red 186 C)
- **1 white board with the letters "SC" in black (black C)**

4. Equipment for the marshal post on the Starter rostrum and at the finish line

- 1 "drop of position" yellow board (100 cm horizontal x 80 cm vertical) which enables the race number of a rider to be attached and which enables to indicate the number of position to be dropped. A "+" sign as well as one set of black numbers, whose stroke width is a minimum of 4 cm and height minimum of 30 cm, must also be provided.
- **1 ride through yellow board (100 cm horizontal x 80 cm vertical) which enables up to 4 rider's numbers to be attached**
- **2 yellow flags**
- **1 green flag**
- **1 red flag**
- **2 Chequered flags**
- **1 or 2 blue flag(s)**
- **Boards – 5 min / 3 min / 1 min / 30 sec**
- **"Wet race" board**
- **"Start delay" board**

5. Additional equipment for Sidecar Races

On the Starter rostrum and at the finish line level the following equipment is needed:

- **1 per-bend black/white flag**

6. Equipment for Pit Lane Exit

- Whistles
- 1 set of official flags:
 - The flag dimensions should be 80 cm vertically and 100 cm horizontally.
 - The “Pantone” reference for the colours mentioned in brackets must be respected:
 - 1 green (348 C)
 - 1 red (186 C)
 - Yellow (C) depending on the number of pit lane marshals
 - Boards for remaining practice time – 5 min / 4 min / 3 min / 2 min / 1 min
 - “Wet race” board
 - “Start delay” board
 - A countdown clock

7. Equipment for Starting Procedure

- Flags:
 - The flag dimensions should be 80 cm vertically and 100 cm horizontally.
 - The “Pantone” reference for the colours mentioned in brackets must be respected:
 - 1 yellow (C) per row
 - Number boards row by row
 - Ground numbers for starting positions

RR 07.8.5 Track Marshal post

Each post should be indicated by signboard clearly visible from the track. It is recommended this board to be 40cm horizontal by 30cm vertical with yellow background and black signs. The signs should be “T” and the number of the post

Equipment

At each post, the following equipment must be available:

- A reliable two-way radio communications system with race control
- 2 rigid brooms and shovels.
- 1x 15 liter recipient and 2x 4 liter recipients filled with calcium carbonate or similar substance that can absorb oil
- Absorbent Towels/Roller
- Fire-fighting service:
 - Preferably fire extinguisher of polyvalent powder or ABC type of 6 Kg.
 - Straps for lifting the motorcycle.
 - Minimum of 2 “Doctor barriers”

RR 07.9 EMERGENCY EQUIPMENT

RR 07.9.1 Medical Service

This service is recommended to be in accordance with the FIM and FIM EUROPE Medical Code.

RR 07.9.2 Fire-Fighting services

A fire-fighting service must be provided on the track, in the pits and in the riders' paddock.

Each observation post along the track must be provided with portable fire extinguishers (art. RR07.8.3).

In the pits, each separate block must be equipped with a portable fire extinguisher of a 5 Kilogram capacity. There must be a sufficient number of portable fire extinguishers in the riders' paddock. This area must allow easy access to fire fighting vehicles.

When choosing an extinguishing agent, the following factors must be taken into account: efficiency, rapidity, absence of slippery waste residue, minimal effect on visibility, toxicity level, cost price.

The use of DTE is recommended.

RR 07.10 NUMBER OF VEHICLES ADMITTED

The maximum number of solo machines allowed in a group start for a race will be calculated according to the following formula:

$$N = \sqrt{100 \times B \times T}$$

N = maximum number of solo machines allowed (For practices: N + 20 %)

B = minimal width of the track in meters

T = best time in minutes (example: 1.30 minutes = 1,5; 45 seconds = 0,75 {T = $\frac{X \text{ seconds}}{60}$ })

For sidecars, the maximum number allowed is 60% of the calculated maximum number of the solo machines.

For endurance races, the maximum number of machines is the maximum number calculated for solo machines + 40%. Total number can not exceed 60 machines.

RR 07.11 INSPECTION AND HOMOLOGATION PROCEDURE

RR 07.11.1 Inspection

An inspection is a visit by a delegate of the FIM EUROPE who has to:

- Establish the level of safety of circuit and its conformity with the SRRC 0.7 and make eventual recommendations required for homologation.
- Either verify all conditions of permanent and provisional safety as well as the services required for the safe conduct of an event.
- Or grant an homologation licence.

If necessary, medical installations will be inspected by a member of the International Medical Panel.

RR 07.11.2 Compulsory conditions for inspection and homologation

FIM EUROPE Championships/Prizes and all events inscribed in the FIM Europe open calendar must be held on circuits homologated by the FIM EUROPE/RRC.

An inspection is compulsory for:

- a) Any new circuit to be used for a Championship/Prizes and Cup Events;
- b) Existing circuits that have already been used for Championship/ Prizes and Cup Events, but have undergone changes substantially affecting the course or the safety installations;
- c) Existing circuits, for which the homologation licence has been suspended;
- d) The circuits for which the previous homologation is coming to expiry;

RR 07.11.3 Inspection requests

- All inspections must be requested by the FMN
- The FIM EUROPE Road Racing Commission will appoint the inspector.
- The inspection must take place as early as possible
- On the basis of the importance of the work to be carried out, the Inspector may decide to carry out one or several intermediate inspection(s).
- Homologation becomes effective after the final inspection.

RR 07.11.4 Documents to be submitted with an inspection request

An inspection request must include the complete file of the circuit and its outbuildings. This must allow the appointed inspectors the possibility to make a detailed study before the visit.

The circuit file must include the following documents and information:

1. Drawing of the track, including the position, race control post, buildings, facilities, access roads, pits, paddock and location of the starting line, ambulances, medical centre, heliport, fire-fighting vehicles and track marshals' posts.
2. Drawing of the pits, medical centre and paddock area.
3. Detailed drawing of all buildings.
4. Profile of the track axle
5. Transversal sections of the track and lateral zones (as far as at least the second line of protection), at the level of the starting line and at the centre of the most important corners
6. Additional information :
 - Systems for internal and external communication;
 - Location, distance and specialisation of hospitals;
 - Description of the medical services, Equipment, Personnel;
 - Description of the fire-fighting, Service, Equipment.
7. The form "Circuit Homologation Report" must be filled in and given to the inspector upon their arrival at the circuit.

Note: All drawings must be clearly visible and on the A-3 format (297x420 mm).

RR 07.11.5 Expenses for inspections

The FMNR will cover the expenses using the method of payment established by the FIM EUROPE.

RR 07.11.6 Inspection procedure

At all inspections inspector has to examine all the installations and safety equipment of the circuit and make recommendations, where required, to ensure that these and the necessary services are conform to the FIM EUROPE SRRC.

During the inspection, the persons in charge of the circuit must ensure that the inspector does not encounter any obstacle when carrying out their duties by persons whose presence is not essential.

No vehicle must go on the track during the inspection, except in inevitable cases, when it is a public road, or if works are in progress on the track or its surroundings.

RR 07.11.7 FIM Europe Homologation report

After each inspection a report will be issued with the relevant requirements of the inspector (this can include works to be carried out to obtain the circuit license).

After the final inspection, the homologation will be issued as well as a report including the safety measures to be taken for each FIM Europe event or event inscribed in the FIM Europe Open Calendar

The homologation report is valid for FIM Europe Championships, Prize and Cup events and events inscribed in the FIM Europe Open Calendar

RR 07.11.8 Objections to inspectors' recommendations

Whenever an inspection report, as agreed by the inspector, is officially sent by the Executive Secretariat to the FMN of a particular circuit, this FMN will have a maximum of three weeks to comment on the report. In the absence of any comment, the report will be considered as final.

Should, after this three-week period, a persistent disagreement remains between the inspector and the particular FMN about any point of the report, the RRC chairman will examine and finally settle the matter.

RR 07.11.9 Modifications to the inspection report

During a FIM EUROPE event, any request for modifications to the inspection report must be approved by the Jury President in consultation with the Clerk of the Course.

Before a FIM EUROPE event, any request for modifications to the inspection report must be approved by the FIM EUROPE official in charge of circuit inspections.

RR 07.11.10 Homologation licence of a circuit

A homologated circuit will receive a FIM EUROPE circuit licence. The period of validity of homologation is determined by the inspector and will be written in the final inspection report and on the licence. It can never exceed 3 civil years.

It is obvious that the FIM EUROPE homologation licence of a circuit refers to 2 and 3 wheeled motorcycles. It is not valid for cars or karts.

RR 07.11.11 Grades of the circuit licence

Grade A = NTC, **Yamaha bLU cRU Championship**, European **Women's Championship**
Grade B = FIME STK 1000, FIME SSP 300 and other FIME Championships, Prize and Cups events

RR 07.11.12 Suspension of the homologation licence

The FIM EUROPE official in charge of circuit inspections can suspend a homologation licence in the following cases:

- Deterioration of the permanent safety measures
- Deterioration of the surface quality
- Deficiency or insufficiency of additional protective devices
- Deterioration of the circuit facilities
- Lack of maintenance of the circuit

Appendix A

CO-ORDINATES OF MANUFACTURERS & DISTRIBUTORS OF ADDITIONAL PROTECTIVE DEVICES:

Airfence I, I S, IIS, Bike, Bike B & Bike Evo

AIRFENCE SAFETY SYSTEMS
Harim Industrial Corporation, M. Andy Coffey
P.O. Box 293
Apollo Bay, Vic 3233 - AUSTRALIA
Tel.: +61 (0)417 500 852
Fax: +61 (0)3 8660 2577
www.airfence.com
airfence@airfence.com

Airprotek - Racing Safety Wall Type C

AIRPROTEK SAS
ZI Combe de Bramfond,
46200 SOUILLAC, FRANCE
Tél : +33 (5) 65 27 01 85
commercial@airprotek.com

Alpina Air-Module, Air-Module AA, Defender, Super Defender, Super Defender 2, Super Defender 3 Type A, Synthetic Bales & Big bales

ALPINA SAFETY SYSTEMS GMBH
Bundesstrasse 20
9552 STEINDORF - AUSTRIA
Tel.: +43 4243 2480 0
Fax: +43 4243 2480 5
robert@alpina.at
office@alpina.at
www.alpina.at

Archem (ex-Bridgestone Module) 1000, Module 1300 & Urethane Barrier

ARCHEM BUSINESS JAPAN CO., Ltd.
Shinagawa Season Terrace 16 F,
Konan 1-2-70, Minato-ku,
Tokyo, 108-0075, JAPAN
Tél. : +81 50 8885 0615
Fax : +81 50 3737 8856
foam_support@archem.inc
www.archem.inc/contact/

Filling Italiano Protection System (ONDA 27/33-20/26)

FILLING TECHNOLOGIES S.r.l.
M. Paolo Barbazza
Via Pavoni, 1
20900 Monza (MB) - ITALY
Tel.: +39 (0) 39 20 50 999
Fax: +39 (0) 39 20 51 266
fillingtechnologies@pec.it
www.fillingtech.it

Liski Air Safety Mattress, Safety 1, 3 and 4

LISKI S.r.l. Via Veneto, 8
Brembate (BG) - ITALY
Tel.: +39 0 35 4826195
Fax: +39 035 2283818
info@liski.it
www.liski.it

PKS Modelle 1 & Modelle 5

PKS PROMOTER SERVICE
Via Michele Angileri 162
91020 PETROSINO (TP) - ITALY
Tel./Fax: +39-0923-986166
pk@ctomline.it

Recticel Safeguard Barrier 1, 2, 3, 4 & RR

The Awning Company
Unit 1 Jubilee Works, Vale Street, Bolton
Lancashire BL2 6QF – GRANDE BRETAGNE
Tel.: +44 1204 544900
www.theawningcompany.co.uk
www.safeguardbarriers.co.uk
information@theawningcompany.co.uk
safeguard@theawningcompany.co.uk

SPM AirPADS & Energy Absorber Type A, B1 and C2

SPM SpA
Via Provinciale, 26
21030 BRISSAGO (Varese) - ITALY
Tel.: +39 0332 54 20 11
Fax: +39 0332 57 61 68
sport@spmspa.it
www.spm-sport.com

Trackcare Barrier, Inflatable Barrier & Hi-Lite

TRACKCARE MARKETING AND MAINTENANCE
6 Sunderland Road
BELFAST BT6 9RA - N. IRELAND
Tel: +447710 882858
info@trackcare.com

Appendix B

Co-ordinates of manufactures of homologated paints:

SWARCO LIMBOROUTE Circuit line WBP

SWARCO LIMBURGER LACKFABRIK GmbH (Heidi EHLERT)
Robert - Bosch - Straße 17
65582 Diez - ALLEMAGNE
Tel.: +49 (0) 6432 / 918422
Fax: +49 (0) 6432 / 918418
info.limburgerlackfabrik@swarco.com

SAMOLINE ANTISKID PAINT 8550.050 **SAMOLINE STARTING GRID (WHITE 8555.0050 ou BLACK 555.0099)**

COLORIFICIO SAMMARINESE SA
Via del Camerario 7 RSM-47891 Falciano – RÉPUBLIQUE DE SAINT MARIN
Tel.: (+378) 05 499 05 515
Fax: (+378) 05 499 08 453
export@colsam.com

ANTI-SLIP **GREENFORD LTD**

Unit 1, London Road
OX33 1JH Wheatley - UNITED KINGDOM
Tel.: (+44) 01865 876000
Antislip@greenford.ltd.uk

RACE LINE

GEVEKO (ex ORÉ PEINTURE) Edouard CHAMPALBERT
ZAC du Bon Puits
49480 St-Sylvain d'Anjou - FRANCE
Tel.: (+33) 2 41 21 14 10
Fax: (+33) 2 41 21 14 18
e.champalbert@ore-peinture.fr
c.dunaye@ore-peinture.fr

09NS-SERIES W/B CIRCUIT MARKING PAINT

DREW PAINTS, INC. (Keith DiBrino)
PO Box 29139,
Portland, Oregon 97296-9139 – UNITED STATES OF AMERICA
Tel.: (+1) 503-227-6497
kdibrino@drewpaints.com

MAPECOAT TNS RACE TRACK

MAPEI SpA (Ing. Elisa Portigliatti)
v. le Jenner, 4
20158, Milan (Italy)
Tél. : +39 3351303121
e.portigliatti@mapei.it

PRISMA PAINTS

Prisma Racetrack Paint (WB260)

**P.O. Box 20392, Bldg: 754, Road: 113, Block: 601,
Sitra Industrial Area, KINGDOM OF BAHRAIN.**

T: +97317732373

F: +97317731028

www.prismapaints.com

prisma@batelco.com.bh