

PART IX

FINA FACILITIES RULES

2015 - 2017

- Preamble
- FR 1 General
- FR 2 Swimming Pools
- FR 3 Swimming Pools for Olympic Games and World Championships
- FR 4 Automatic Officiating Equipment
- FR 5 Diving Facilities
- FR 6 Diving Facilities for Olympic Games and World Championships
- FR 7 Pools for Water Polo
- FR 8 Water Polo Pools for Olympic Games and World Championships
- FR 9 Equipment for Water Polo Pools
- FR 10 Pools for Synchronised Swimming
- FR 11 Pools for Synchronised Swimming in Olympic Games & World Championships
- FR 12 Automatic Officiating Equipment
- FR 13 Sound Equipment and Presentation Standards
- FR 14 High Diving

PREAMBLE

The Facilities Rules are intended to provide the best possible environment for **competitive use and training**. These Rules are not intended to govern issues related to the general public. It is the responsibility of the owner or controller of a facility to provide supervision for activities undertaken by the general public.

FR 1 GENERAL

FR 1.1 FINA Olympic Standard Pools. All World Championships (except the Masters World Championships) and Olympic Games must be held in pools that comply with Rules FR 3, FR 6, FR 8, and FR 11.

FR 1.2 FINA General Standard Pools. Other FINA events should be held in FINA Olympic Standard Pools, but the Bureau may waive certain standards for existing pools if they do not materially interfere with the competitions.

FR 1.3 FINA Minimum Standard Pools. All other events held under FINA Rules should be conducted in pools that comply with all of the minimum standards contained within these Facilities Rules.

FR 1.4 In order to protect the health and safety of persons using swimming facilities for the purposes of recreation, training and competition, owners of public pools or pools restricted only to training and competition must comply with the requirements established by law and the health authorities in the country where the pool is situated.

FR 1.5 New competition equipment (e.g. Starting blocks, lane-ropes, etc.) must be available by 1st January in the year of the Olympic Games and FINA World Championships.

FR 2 SWIMMING POOLS

FR 2.1 Length

FR 2.1.1 50.000 metres. When touch panels of Automatic Officiating Equipment are used on the starting end, or additionally on the turning end, the pool must be of such length that ensures the required distance of 50.000 metres between the two panels. See *Swimming Diagram 1. 50m Fig 1*

FR 2.1.2 25.000 metres. When touch panels of Automatic Officiating Equipment are used on the starting end, or additionally on the turning end, the pool must be of such length that ensures the required distance of 25.000 metres between the two panels. See *Swimming Diagram 2. 25m Fig 2*

FR 2.2 Dimensional Tolerances

FR 2.2.1 Against the nominal length of 50.000 metres, a tolerance of plus 0.030 metre in each lane minus 0.000 metre on both end walls at all points from 0.300 metre above to 0.800 metre below the surface of the water is allowed. These measurements should be certified by a surveyor or other qualified official, appointed or approved by the Member in the country in which the pool is situated. Tolerances cannot be exceeded when touch panels are installed. See *Swimming Diagram 1. 50m Fig 1*

FR 2.2.2 Against the nominal length of 25.000 metres, a tolerance of plus 0.030 metre in each lane minus 0.00 metre on both end walls at all points from 0.300 metre above to 0.800 below the surface of the water is allowed. These measurements should be certified by a surveyor or other qualified official, appointed or approved by the Member in the country, in which the pool is situated. Tolerances cannot be exceeded when touch panels are installed. See *Swimming Diagram 2. 25m Fig 2*

FR 2.3 Depth - A minimum depth of 1.35 metres, extending from 1.0 metre to at least 6.0 metres from the end wall is required for pools with starting blocks. A minimum depth of 1.0 metre is required elsewhere.

FR 2.4 Walls

FR 2.4.1 End walls shall be vertical, parallel and form 90 degree right angles to the swimming course and to the surface of the water. They shall be constructed of solid material, with a non slip surface extending 0.8 metre below the water surface, so as to enable the competitor to touch and push off in turning without hazard.

FR 2.4.2 Rest ledges along the pool walls are permitted; they must be not less than 1.2 metres below the water surface, and may be 0.1 metre to 0.15 metre wide. Both internal and external ledges are acceptable, however internal ledges are preferred.

FR 2.4.3 Gutters may be placed on all four walls of the pool. If end wall gutters are installed, they must allow for attachment of touch panels to the required 0.3 metre above the water surface. They must be covered with a suitable grill or screen.

FR 2.5 Lanes shall be at least 2.5 metres wide, with two spaces of at least 0.2 metre outside of the first and last lanes.

FR 2.6 Lane Ropes

FR 2.6.1 In an 8 lane pool, lane ropes shall extend the full length of the course, secured at each end wall to anchor brackets recessed into the end walls. The anchor shall be positioned so that the floats at each end wall of the pool shall be on the surface of the water. Each lane rope will consist of floats placed end-to-end having a minimum diameter of 0.10 metre to a maximum of 0.15 metre.

In a swimming pool the colour of the lane ropes should be as follows:

- Two (2) GREEN ropes for lanes 1 and 8
- Four (4) BLUE ropes for lanes 2, 3, 6 and 7
- Three (3) YELLOW ropes for lanes 4 and 5

The floats extending for a distance of 5.0 metres from each end of the pool shall be of RED colour.

There shall not be more than one lane rope between each lane. The lane ropes shall be firmly stretched. See *Swimming Diagram 2. 25m Fig. 4*

FR 2.6.2 At the 15-metre mark from each end wall of the pool the floats shall be distinct in colour from the surrounding floats.

FR 2.6.3 In 50 metre pools the floats shall be distinct to mark 25 metres.

FR 2.6.4 Lane numbers of soft material may be placed on the lane ropes at the start and turning end of the pool.

FR 2.6.5 Lane marking measurements, please read in conjunction with FR 2.6.6 *Pool Diagram*.

FR 2.6.6 Pool Diagrams.
See *Swimming Diagram 1, 50m* - Olympic Games and World Championships
See *Swimming Diagram 2, 25m* - Diagrams and Lane Markings

FR 2.7 Starting Platforms

Starting Platforms shall be firm and give no springing effect. The height of the platform above the water surface shall be from 0.5 metre to 0.75 metre. The surface area shall be at least 0.5 metre x 0.5 metre and covered with a non-slip material. Maximum slope shall not be more than 10 degrees. The platform shall be constructed so as to permit the gripping of the platform by the swimmer in the forward start at the front and the sides; it is recommended that, if the thickness of the starting platform exceeds 0.04 metre, grips of at least 0.1 metre width on each side and 0.4 metre width in the front be cut out to 0.03 metre from the surface of the platform. Handgrips for the forward start may be installed on the sides of the starting platforms. Handgrips for backstroke starts shall be placed within 0.3 metre to 0.6 metre above the water surface both horizontally and vertically. They shall be parallel to the surface of the end wall and must not protrude beyond the end wall. The water depth from a distance of 0.1 metre to 0.6 metres from the end wall must be 1.35 metres where starting platforms are installed. Electronic read-out boards may be installed under the blocks. Flashing is not allowed. Figures must not move during a backstroke start. See *Swimming Diagrams 1 & 2, Fig. 3*

FR 2.8 Numbering

Each starting block must be distinctly numbered on all four sides, clearly visible. Lane number 0 shall be on the right-hand side when facing the course from the starting end with exception of 50m events, which may start from the opposite end. Touch panels may be numbered on the top part.

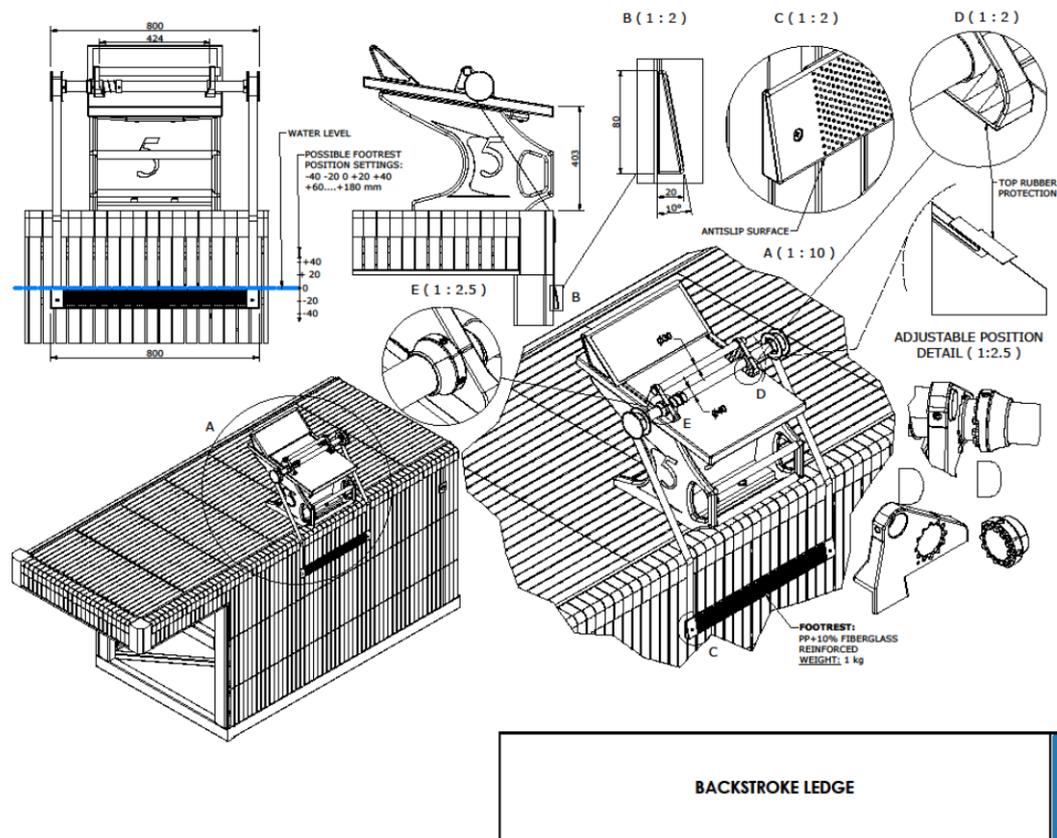
FR 2.9 Backstroke Turn Indicators - Flagged ropes shall be suspended across the pool, 1.8 metres above the water surface, from fixed standards placed 5.0 metres from each end wall. Distinctive marks must be placed on both sides of the pool, and where possible on each lane rope, 15.0 metres from each end wall.

FR 2.10 Backstroke Ledge

A backstroke ledge may be used:

- The ledge may be adjustable to 4 cm above or 4 cm below the water level.
- The ledge is a minimum of 65 cm in length.
- The ledge must be 8 cm in height, 2 cm at the width with 10 degrees of slope

See *Diagram*



FR 2.11 False Start Rope may be suspended across the pool not less than 1.2 metres above the water level from fixed standards placed 15.0 metres in front of the starting end. It shall be attached to the standards by a quick release mechanism. The rope must effectively cover all lanes when activated. See *Pool Diagrams* in FR 2.6.6. See *Swimming Diagrams 1 & 2, Fig. 1 & Fig 2*

FR 2.12 Water Temperature shall be 25° - 28°. During competition the water in the pool must be kept at a constant level, with no appreciable movement. In order to observe health regulations in force in most countries, inflow and outflow is permissible as long as no appreciable current or turbulence is created.

FR 2.13 Lighting - Light intensity over starting platforms and turning ends shall not be less than 600 lux.

FR 2.14 Lane Markings shall be of a dark contrasting colour, placed on the floor of the pool in the centre of each lane.
Width: minimum 0.2 metre, maximum 0.3 metre.
Length: 46.0 metres for 50 metre long pools;
21.0 metres for 25 metre long pools.
Each lane line shall end 2.0 metres from the end wall of the pool with a distinctive cross line 1.0 metre long and of the same width as the lane line. Target lines shall be placed on the end walls or on the touch panels, in the centre of each lane, of the same width as the lane lines.

They shall extend without interruption from the deck edge (curb), to the floor of the pool to a maximum of 3 metres. A cross line 0.5 metre long shall be placed 0.3 metre below the water surface, measured to the centre point of the cross line.

For 50m pools constructed after 1 January 2006, cross lines 0.5 metre long shall be placed at the 15 metre mark from each end of the pool. After October 2013 this shall be measured from the end wall to the centre point of the cross line.

See *Swimming Diagrams 1 & 2. Lane markings Fig 5, 6, 7 & 8.*

FR 2.15 Bulkheads – When a bulkhead serves as an end wall, it must extend the full width of the course and present a solid smooth, non-slippery stable vertical surface on which touch pads may be mounted extending not less than 0.8m below and 0.3m above the surface of the water, and must be free of hazardous openings above or below the waterline which may be penetrated by a swimmer's hands, feet, toes or fingers. A bulkhead must be of a design that provides for the free movement of officials along its length without such movement creating any appreciable current or water turbulence.

FR 3 SWIMMING POOLS FOR OLYMPIC GAMES AND WORLD CHAMPIONSHIPS

Length: 50.0 metres between the Automatic Officiating Equipment touch panels, except for the World Swimming Championships (25m), which shall be 25.0 metres between the Automatic Officiating Equipment touch panels at the starting end and the wall or touch panels at the turning end.

FR 3.1 Dimensional Tolerances as in FR 2.2.1.

FR 3.2 Width: 25.0 metres for Olympic Games and World Championships.

FR 3.3 Depth: 2 Metres (minimum); 3 metres recommended, when using the pool for multi disciplines i.e. synchronised swimming.

FR 3.4 Walls: as in FR 2.4.1.

FR 3.5 Pools for Olympic Games and World Championships must be equipped with flush walls (consistently flat) at both ends.

FR 3.6 Number of lanes: 8 (eight), for World Championships and Olympic Games: 10 (ten).

FR 3.7 Lanes shall be 2.5 metres wide with 2 spaces 2.5 metres wide outside of lanes 1 – 8. There must be a lane rope separating these spaces from lanes 1 and 8 for Olympic Games and world championships. If 10 lanes, these must be marked from 0 to 9.

FR 3.8 Lane Ropes: Lane Ropes shall extend the full length of the course, secured at each end wall to anchor brackets recessed into the end walls. The anchor shall be positioned so that the floats at each end wall of the pool shall be on the surface of the water. Each lane rope will consist of floats placed end-to-end having a minimum diameter of 0.10 metre to a maximum of 0.15 metre.

In a swimming pool the colour of the lane ropes should be as follows:

- Two (2) GREEN ropes for lanes 0 and 9
- Six (6) BLUE ropes for lanes 1, 2, 3, 6, 7 and 8
- Three (3) YELLOW ropes for lanes 4, 5

The floats extending for a distance of 5.0 metres from each end of the pool shall be of RED colour.

There shall not be more than one lane rope between each lane. The lane ropes shall be firmly stretched.

1		GREEN	
2		BLUE	
3		BLUE	
4		YELLOW	
5		YELLOW	
6		YELLOW	
7		BLUE	
8		BLUE	
		GREEN	

FR 3.9 Starting Platforms: as in FR 2.7.

Except the surface area shall be at least 0.5 metres wide X 0.6 metres in length and covered with non-slip material. False start control equipment must be installed.

FR 3.10 Numbering: as in FR 2.8.

FR 3.11 Backstroke turn indicators: as in FR 2.9, Flagged ropes must be 1.8 metres above the water surface. Flags must be fixed to the ropes having the following dimensions: 0.20m metres on the rope forming a triangle measuring 0.40 metres on the sides. The distance between each flag must be 0.25metres. If the flags are printed with or support / carry any signage this must be approved in advance by FINA

FR 3.12 False Start Rope: as in FR 2.11

FR 3.13 Water Temperature: as in FR 2.12

FR 3.14 Lighting: Light intensity over the whole pool shall not be less than 1500 lux.

FR 3.15 Lane Markings: as in FR 2.14. The distance between the centre points of each lane shall be 2.5 metres

FR 3.16 If the swimming pool and the diving well are in the same area the minimum distance separating the pools shall be 5.0 metres. For pools constructed from 1 January 2014 the minimum distance separating the pool shall be a minimum of 8 metres however 10 metres is preferred

FR 4 AUTOMATIC OFFICIATING EQUIPMENT

FR 4.1 Automatic and Semi-Automatic Officiating Equipment records the elapsed time of each swimmer and determines the relative place in a race. Judging and timing shall be to 2 decimal places (1/100 of a second). Equipment that is installed shall not interfere with the swimmers' starts, turns, or the function of the overflow system.

FR 4.2 The Equipment must:

FR 4.2.1 Be activated by the starter.

FR 4.2.2 Have no exposed wires on the pool deck, if possible.

FR 4.2.3 Be able to display all recorded information for each lane by place and by lane.

FR 4.2.4 Provide easy digital reading of a swimmer's time.

FR 4.3 Starting devices

FR 4.3.1 The starter shall have a microphone for oral commands.

FR 4.3.2 If a pistol is used, it shall be used with a transducer.

FR 4.3.3 Both the microphone and the transducer shall be connected to loudspeakers at each starting block where both the starter's commands and the starting signal can be heard equally and simultaneously by each swimmer.

FR 4.4 Touch panels for Automatic Equipment

FR 4.4.1 The minimum measurement of the touch panels shall be 2.4 metres wide and 0.9 metre high, and their thickness shall be 0.01 metre \pm 0.002 metre. They shall extend 0.3 metre above and 0.6 metre below the surface of the water. The equipment in each lane shall be connected independently, so it may be controlled individually. The surface of the panels shall be of a bright colour and shall bear the line markings approved for the end walls.

FR 4.4.2 Installation - The touch panels shall be installed in a fixed position in the centre of the lanes. The panels may be portable, allowing the pool operator to remove them when there are no competitors.

FR 4.4.3 Sensitivity - The sensitivity of the panels shall be such that they cannot be activated by water turbulence, but will be activated by a light hand touch. The panels shall be sensitive on the top edge.

FR 4.4.4 Markings - The markings on the panels shall conform with and superimpose on the existing markings of the pool. The perimeter and edges of the panels shall be defined by a 0.025 metre black border.

FR 4.4.5 Safety - The panels shall be safe from the possibility of electrical shock and shall not have sharp edges.

FR 4.5 With Semi-Automatic Equipment, the finish shall be recorded by buttons pushed by timekeepers at the finish touch of the swimmer.

FR 4.6 The following accessories are essential for a minimum installation of Automatic Equipment:

FR 4.6.1 Printout of all information, which can be regenerated during a succeeding race.

FR 4.6.2 Spectator readout board.

FR 4.6.3 Relay take-off judging to 1/100 of a second. Where overhead video cameras are installed they may be reviewed as a supplement to the automatic system's judgement of relay take-off. For the differential in the relays take-off the manufacturer of the device shall be consulted.

FR 4.6.4 Automatic lap counter.

FR 4.6.5 Readout of splits.

FR 4.6.6 Computer summaries.

FR 4.6.7 Correction of erroneous touch.

FR 4.6.8 Automatic rechargeable battery operation possibility.

FR 4.7 For Olympic Games and World Championships the following accessories are also essential:

FR 4.7.1 The spectator electronic read-out board shall contain at least twelve (12) lines of thirty-two (32) characters, each capable of displaying both letters and numbers. Each character shall have a minimum height of 360 mm. Each line –matrix scoreboard shall be able to scroll up or down, with blink function, and each full matrix scoreboard shall be programmable, and capable of showing animation. The board must have a minimum size of 7.5 m width by 4.5m height.

FR 4.7.2 There shall be an air-conditioned control centre, with dimensions of a least 6.0 metres x 3.0 metres, located between 3.0 metres and 5.0 metres from the finish wall, with an unobstructed view of the finish wall at all times during the race. The referee must have easy access to the control centre during the competition. At all other times the control centre shall be able to be secured.

FR 4.7.3 Video-tape timing system.

FR 4.8 Semi-Automatic Equipment may be used as a backup to the Automatic Officiating Equipment at FINA or other major events if there are three buttons per lane, each operated by a separate official (in which case other finish judges shall not be required). An inspector of turns may operate one of the buttons.

DIAGRAMS FOR SWIMMING (Total 3)

FR 5 DIVING FACILITIES

FR 5.1 Springboard Diving

General requirements: Dimensions in metres for all diving facilities as detailed in *Diving Diagram, Annex 1.1 & Annex 1.2*, shall be observed.

FR 5.1.1 The springboards shall be at least 4.8 metres long and 0.5 metre wide. At all FINA Events, the type of springboard which must have a non slip surface shall be approved by FINA.

FR 5.1.2 The springboards shall be provided with movable fulcrums easily adjustable by the diver.

FR 5.1.3 For springboard diving facilities modified or constructed on concrete platforms after 1 October 2013, the following shall be observed

FR 5.1.3.1 The vertical distance from the level of the platform, which supports the fulcrum assembly, to the level of the top of the springboard, shall be 0.35metre.

FR 5.1.3.2 The distance from the front edge of the fulcrum assembly (which is 0.741 metres in length) to the front edge of the supporting platform, shall be a maximum of 0.44 metre.

FR 5.1.3.3 If the front edge of the platform projects past this point then the fulcrum assembly and the rear hinge assembly must be moved forward so as to provide for a maximum of 0.44 metres from the front edge of the platform to the front of the fulcrum assembly

FR 5.1.4 The minimum distance recommended from the rear to the centre line of the fulcrum shall be in accordance with the recommendation or specification of the springboard manufacturer,

FR 5.1.5 The springboards shall be installed dead level at the leading edge when the movable fulcrum is in all positions.

FR 5.1.6 The springboards should be placed on either one or both sides of the platform. For Synchronised Diving, it is required that at least two springboards at the same height shall be placed side by side and no objects should obstruct the visibility in any part of the dive between the divers. See *Diving Diagram, Annex 2.1 & Annex 2.2*

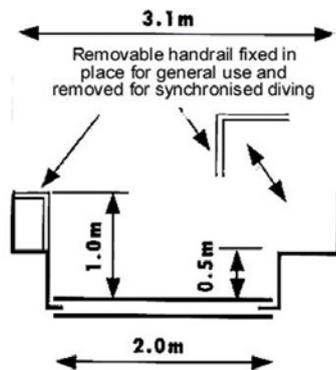
FR 5.2 Platform Diving

FR 5.2.1 Each platform shall be rigid and horizontal.

FR 5.2.2 The minimum dimensions of the platform shall be:

0.6m to 1.0m platform	1.00m width (2.90m preferred)	5.00m length
2.6m to 3.0m platform	1.00m width (2.00m preferred)	5.00m length
5.0m platform	2.90 width	6.00m length
7.5m platform	2.00m width	6.00m length
10.0m platform	3.00m width	6.00m length

On 10m platforms, with a width of less than 3m, only the handrails on each side for a distance of at least 3.0m back from the front edge of the platform may be shaped as detailed below. It is recommended that an easily removable section of handrail be included for general use, which can be removed for synchronised diving (see diagram).



FR 5.2.3 The preferred thickness of the front edge of the platform shall be 0.2 metre but not exceeding 0.3 metre, and can be vertical or inclined at an angle not greater than 10° to the vertical inside the plummet line.

FR 5.2.4 The surface and the front edge of the platform shall be covered throughout with a resilient non-slip surface. The two surfaces shall be covered separately in order to achieve a clean 90° angle or as described in FR 5.2.3. The front surface is to be applied first and then the top surface.

FR 5.2.5 The platforms shall be covered in an anti-slip material that shall have a tread pattern that provides sufficient traction in wet and dry conditions such that the divers are prevented from slipping when performing dives in all directions. The minimum thickness must be 6mm (- 0 / + 1mm) and the colour should give a contrast to the surrounding décor. The material shall be easily cleaned to maintain the anti-slip feature of the product. The installation of the non-slip platform covering shall respect FINA Rule FR 5.2.4.

FR 5.2.6 The front edge of the 10 metre platform shall project at least 1.50 metres, the 7.5 metre, 5 metre and 2.6 – 3.0 metre platforms 1.25 metres, and the 0.6 – 1 metre platform 0.75 metre beyond the edge of the pool.

FR 5.2.7 Where a platform is directly underneath another platform the platform above shall project a minimum of 0.75 metre (preferred 1.25 metres) beyond the platform below.

FR 5.2.8 The back and sides of each platform (except 1.0 metre or lower platforms) shall be surrounded by handrails up to 1m from the edge of the platform with a minimum clearance of 1.8 metres between vertical pairs. The minimum height shall be 1.0 metre and they shall be with at least two horizontal crossbars placed outside the platform beginning 1.0 metre from the front edge of the platform.

FR 5.2.9 Each platform shall be accessible by suitable stairs (not ladders) as required by the countries building regulations and or health and safety standards that are applicable.

FR 5.2.10 It is preferable that a platform is not constructed directly under any other platform however in circumstance where this cannot be avoided then you must refer to *Diving Diagram, Annex 1.1, 1.2, 2.1 & 2.2.*

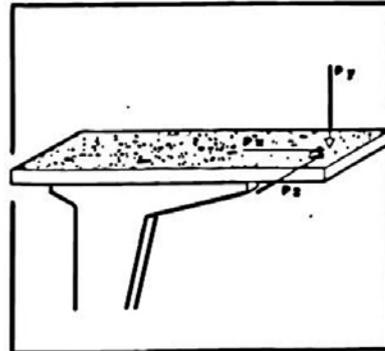
FR 5.2.11 Requirements for the supporting structure. For platforms and supporting structure of the springboards the design load is $p = 350$ kiloponds (kilograms force) per lineal metre.

In addition to the static requirements and for the comfort and safety of the user with respect to the movement of the towers, the following limits shall be observed, with respect to the platforms and springboard supports.

Fundamental frequency of platforms 10.0 Hz

Fundamental frequency of tower 3.5 Hz

Oscillation of total structure 3.5 Hz



The spatial deformation of the front edge of the platforms as a result of $P_x = P_y = P_z = 100$ kiloponds (kilograms force) shall be a maximum of 1 mm (see drawing).

These requirements can be met most adequately by a reinforced concrete structure. Proof of the dynamic behaviour is to be obtained together with the static calculations for the whole structure.

FR 5.3 General Requirements

FR 5.3.1 For pools designed and constructed after 26th September 2013 the minimum dimensions in metres for diving facilities as detailed on the “Diving Facilities Diagram” (Annex 1.2) shall prevail, using, as a basic measuring point of reference, the plummet line, which is a vertical line extending through the centre of the front edge of the springboard or platform. It is recommended that the preferred dimensions be used for projects considered to have an important status.

FR 5.3.2 The dimensions C from plummet to adjacent plummet in the “FINA Dimensions for Diving”, Annex 1.2 table apply to platforms with widths as detailed in FR 5.2.2. If platform widths are increased then the dimensions B and C shall be increased by half the additional widths.

FR 5.3.3 The height of the springboards and each platform above the water level may vary by plus 0.05 metre and minus 0.00 metre from the heights prescribed in the Rules.

FR 5.3.4 The end of 5, 3, and 1 metre platforms must not project beyond the ends of the 3 and 1 metre springboards when they are adjacent to each other.

FR 5.3.5 In the area of full water depth, the bottom of the pool may rise up to 2%. In the diving pool, the depth of water shall not be less than 1.8 metres at any point.

FR 5.3.6 In outdoor pools, best practice suggests that springboards and platforms are recommended to face north in the northern hemisphere and south in the southern hemisphere.

FR 5.3.7 The minimum illumination at a level of 1 metre above the water surface shall not be less than 600 lux.

FR 5.3.8 Sources of natural and artificial illumination shall be provided with controls to prevent glare.

FR 5.3.9 The water temperature shall be not less than 26° Celsius.

FR 5.3.10 Mechanical surface agitation shall be installed under the diving facilities to aid the divers in their visual perception of the surface of the water. In pools equipped with an underwater bubble machine, the machine should only be used for this purpose if it creates sufficient water agitation when working with a very low pressure; otherwise a horizontal water sprinkler system should only be used.

FR 5.3.11 For Diving Pools that will also be used for swimming.

Lane markings for Diving pools shall be of a dark contrasting colour, placed on the floor of the pool in the centre of each lane.

Width: minimum 0.2 metre, maximum 0.3 metre.

Length: 21.0 metres for 25 metre long pools.

Each lane line shall end 2.0 metres from the end wall of the pool with a distinctive cross line 1.0 metre long and of the same width as the lane line. Target line shall be placed on the end of the walls or on the touch panels, in the centre of each lane, of the same width as the lane lines. A cross line 0.5 metre long shall be placed 0.3 metre below the water surface, measured to the centre point of the cross line. They shall extend without interruption from the deck edge (curb) to the floor or to a maximum of 3 metres.

FR 5.3.12 Individual diving

FR 5.3.12.1 The judges will be placed side by side in a line on each side of the springboard / platform by the Referee.

FR 5.3.12.2 When seven (7) / five (5) judges are used, four (4) / three (3) judges will be on the side closest to the competition.

Note: The Referee may decide to place four (4) / three (3) judges farthest from the competition depending of the local situation in the pool.

FR 5.3.12.3 No judge shall be seated behind the front edge of the springboard or platform.

FR 5.3.12.4 The numbering of the judge chairs will be clockwise when facing the springboard / platform.

FR 5.3.12.5 In the 1 metre springboard competitions, chairs suitable for use on poolside shall be used.

FR 5.3.12.6 In the 3 metre springboard competitions, the judges shall be seated at a height of not lower than two (2) metres above the water level.

FR 5.3.12.7 In the 10 metre platform competitions, the chairs from the 3m springboard competitions can be used but if at all possible, the judges shall be seated at an even higher level.

FR 5.3.12.8 To assist the judges in the 3 metre springboard and 10 metre platform competitions, the judge chairs must be positioned as far back from the edge of the pool as is practical.

FR 5.3.13 Synchronised diving

FR 5.3.13.1 Three (3) / two (2) execution judges will be placed on either side of the springboard / platform by the Referee.

FR 5.3.13.2 The numbering of the execution judge chairs will be clockwise when facing the springboard / platform, namely E 1, E 2 and E 3 (or E 1, E 2) on the left side and E 4, E 5 and E 6 (or E 3, E 4) on the right side.

FR 5.3.13.3 In between the execution judges on either side of the pool, the synchronised judges will be placed in a line.

FR 5.3.13.4 Three (3) synchronised judges will be on the side closest to the springboard / platform competition, and the other two (2) synchronised judges on the opposite side.

FR 5.3.13.5 The numbering of the synchronised judge chairs will start on the left-hand side on the pool with the lowest chair being S 1, and the highest chair on the right-hand side of the pool being S 5.

FR 5.3.13.6 In the synchronised competitions, the synchronised judges closest to the pool edge, shall be seated at a height of not lower than 2.0 metres above the water level.

FR 5.3.13.7 The subsequent heights for the remaining synchronised judges (or additional execution judge) must increase no less than 0.5 metre per seat.

FR 5.3.13.8 There shall be no interference or movement in front of the judge chairs.

FR 5.3.13.9 The above recommendations are shown in *Diving Diagram, Annex 2.1 & Annex 2.2.*

FR 5.3.14 Dry Land Training Facilities

General Requirements: Dimensions in metres for Dry Land Training Facilities as detailed in *Diving Dry Land Training, Annex 3.1 & Annex 3.2* and *Diving Dry Land Recommended Equipment, Annex 3.3*

FR 5.3.14.1 For the safety and development of divers in the learning of new and more difficult dives, it is strongly recommended that the guidelines presented below be incorporated into the facility and placed adjacent to the competitive diving area /facilities

FR 5.3.14.2 When minimum dimensions are used in B and C a vertical mat or other protective surface should be attached to the appropriate forward and side walls.

FR 5.4 Electronic Officiating Equipment

FR 5.4.1 Electronic Officiating equipment records the judges awards for each diver and determines the final score for each dive as required by Rule D 7

FR 5.4.2 Preferred Equipment must be able to;

FR 5.4.2.1 Record judges awards by whole and half points

FR 5.4.2.2 Be able to display all recorded and calculated information for each diver both before and after each dive

FR 5.4.2.3 Be able to display the scores for all divers before and after each dive

FR 5.4.2.4 Be able to display the rank order and scores for all divers after each round of dives

FR 5.4.2.5 The equipment must provide each judge with an electronic judging device that will permit each judge to enter their award and to see their award on a window on the device. After the referee has accepted the judges awards, all awards shall be displayed on each electronic judging device

FR 5.4.2.6 Judges analysis is to be provided at the conclusion of each event or series

FR 5.4.2.7 The referee must be provided with a monitor on which he/ she will be able to view the awards of all the judges prior to the awards then being displayed on the score board

- FR 5.4.2.8** There is a requirement for a print out of the following information;
1. The draw for the diving order
 2. A start list for each session or event
 3. A ranking of dives at the end of each round
 4. A ranking of dives at the end of each event
 5. Judges awards and scores for each diver at the end of each session and event

FR 6 DIVING FACILITIES FOR OLYMPIC GAMES AND WORLD CHAMPIONSHIPS

FR 6.1 General requirements - Dimensions in Metres for Diving Facilities as detailed in *Diving Diagram, Annex 1.1 & Annex 1.2* and 'Field of Play for Olympic Games and World Championships: *Diving Diagram, Annex 2.1 & Annex 2.2.*

FR 6.1.1 For Olympic Games and World Championships FR 5 in total shall apply; however the light intensity at the level of 1 metre above the water surface shall not be less than 1500 lux.

FR 6.2 With regard to dimensions for diving facilities a combination of preferred and minimum measurements found in the "*FINA Dimensions for Diving Facilities, Annex 1.1 & Annex 1.2* table may be used. However measurements less than minimum are not acceptable and may not be used. If the swimming pool and diving well are in the same area, the minimum distance separating the pools shall be of 8 metres, however 10 metres is preferred (see FR 3.16).

FR 6.2.1 The vertical height from the plummet of the diving board and or springboard at rest to the water surface at rest and before water sprays or bubbles are set in motion shall be specified in the Diving Facilities Dimensions table. These measurements should be certified by a surveyor or other qualified officials, appointed or approved by the member of the country in which the pool is situated.

FR 6.3 Line markings for the diving well will consist of 3 lines running the width of the diving well 90 degree angle to the diver facing forward on the springboard or platform. These lines shall be as follows:

Width: minimum 0.2 metre, maximum 0.3 metres

Length: 21.0 metre for 25 metre wide diving well

The distance between the centre points of each lane shall be 2.5 metres

The centre of the first line shall be directly under the plummet of the 3 metre springboard. See *Diving Diagram, Annex 2.1 & Annex 2.2*

FR 6.4 The host facility must provide a trampoline with spotting equipment and a hot tub. It is preferred that there be two trampolines and a dryland area with a springboard and a platform take-off into foam landing pits.

DIAGRAMS FOR DIVING (Total 7)

FR 7 POOLS FOR WATER POLO

FR 7.1 General requirements: Water Polo Dimensions and Equipment as detailed in Field of Play for Olympic Games and World Championships. See *Water Polo Diagram, Annex 4*

FR 7.2 Field of Play. The distance between the respective goal lines shall be 30.0 metres for games played by men and 25.0 metres for games played by women. The anchor point at the edge of the field of play shall be placed 30cm behind the front of the goal line. The width of the field of play shall be 20.0 metres. The depth of the water shall be consistently not less than 1.8 metres and preferred 2.0m. The overall field of play including the goal area will be 30m x 25m for men and 25m x 20m for women.

FR 7.3 The water temperature shall not be less than 26° plus 1° minus 1° Centigrade.

FR 7.4 The light intensity shall not be less than 600 lux.

FR 7.5 Exception from FR 7.2 may be allowed on the discretion of the federation controlling the match.

FR 7.6 The game secretariat shall be placed at a table behind the referees and at the same height

FR 8 WATER POLO POOLS FOR OLYMPIC GAMES AND WORLD CHAMPIONSHIPS

See Water Polo Diagram, Annex 5

FR 8.1 Exceptions from the requirements in FR 7.2 are not allowed.

FR 8.2 The water temperature shall be as in FR 7.3.

FR 8.3 The light intensity shall not be less than 1500 lux.

FR 8.4 In Olympic Games, World Championships and FINA events fresh water shall be used.

FR 9 EQUIPMENT FOR WATER POLO POOLS

FR 9.1 Distinctive marks shall be provided on both sides of the field of play to denote the goal lines, lines 2.0 metres and 5.0 metres from that line and half the distance between the goal lines. These markings shall be clearly visible throughout the game. The white marker shall be measured from the anchor point and will be 0.3 metres to line up with the front of the edge of the goal line. This shall be consistent at both ends of the field. The 2 metre red marker shall be measured from the front end of the goal line extending into the field of play. This shall be consistent at both ends of the field of play. The yellow marker shall then extend 3 metres from the 2 metre marker into the field of play. This shall be consistent at both ends of the field of play. The middle section of the field of play will be green and should be 20 metres for the men's game and 15 metres for the women's game. There will be a white marker placed in the middle of the green area to denote the centre of the field. The exclusion zones shall be placed in the two corners on the opposite side of the pool to the official table. They shall be 2 metres in length and shall extend along the goal line.

FR 9.2 Platforms must be provided on both sides of the field of play, which shall be 1 metre in width and 70 cm in height above the water level. These platforms enable the referees to have free way from end to end of the field of play. Sufficient space shall also be provided at the goal lines for the Goal Judges. The platforms must be colour coded to meet the specification as shown in the diagram of the field of play Annex 5

FR 9.3 Goals: The goal posts and crossbar must be of wood, metal or synthetic (plastic) with rectangular sections of 0.075 metre, square with the goal line and painted white. The goal posts must be fixed, rigid and perpendicular at each end of the playing space, equal distances from the sides and at least 0.3 metre in front of the ends of the field of play or of any obstruction. Any standing or resting place for the goalkeeper other than the floor of the pool is not permitted.

FR 9.4 The inner sides of the goal posts must be 3.0 metres apart. The underside of the cross bar must be 0.9 metres above the water surface.

FR 9.5 The underside of the crossbar must be 0.9 metre above the water surface when the water is 1.5 metres or more in depth, and 2.4 metres above the bottom of the pool when the depth of the water is less than 1.5 metres.

FR 9.6 Limp nets must be attached to the goal fixtures to enclose the entire pool space securely fastened to the goal posts and crossbar, allowing not less than 0.3m of clear space behind the goal line everywhere within the goal area.

FR 9.7 Automatic Officiating Equipment

DIAGRAM FOR WATER POLO (Total 1)

FR 10 POOLS FOR SYNCHRONISED SWIMMING

FR 10.1 General requirements: Field of Play for Synchronised Swimming in Olympic Games and World Championships as detailed in: *Synchro Diagram, Annex 6*.

FR 10.1.1 For the figure section of competition two areas each 10.0 metres long by 3.0 metres wide are to be provided. Each area is to be close to a wall of the pool with the 10.0 metre long side parallel to and not greater than 1.5 metres from the pool wall. One of these areas is to be of 3.0 metres minimum depth and the other area is to be of 2.5 metres minimum depth.

FR 10.2 For the routine section of competition a minimum area of 12 meters by 25 meters is required, within an area of which 12 meters by 12 meters must have a minimum depth of 3.0 meters. The depth of the remaining area shall be 2.0 meters minimum.

FR 10.2.1 Delimit in width and length the field of play in the Solo and the Duet with two lanes (maximum width 16 mt length 25).

For the Solo and Duet competition, the field of play may be delimited in width and length.

FR 10.3 Where the water depth is more than 2.0 metres, the depth at the pool wall may be 2.0 metres and then sloped down to reach the general depth at 1.2 metres maximum from the pool wall.

FR 10.4 The areas for figure competition in FR 10.1 can occupy the same area of the pool as that used for routine competition.

FR 10.5 If there are no lane markings as described in FR 2.13, the floor of the pool must be marked with contrasting lines in one direction, following the length of the pool.

FR 10.6 The water must be of sufficient clarity for the bottom of the pool to be visible.

FR 10.7 The water temperature shall not be less than 27° plus 1° minus 1° Centigrade.

FR 11 POOLS FOR SYNCHRONISED SWIMMING IN OLYMPIC GAMES AND WORLD CHAMPIONSHIPS

FR 11.1 The Field of Play for Synchronised Swimming in Olympic Games and World Championships as detailed in *Syncro Diagram, Annex 6*.

FR 11.1.1 For the routine section of competition at Olympic Games and World Championships a minimum area of 12.0 metres by 30.0 metres is required, within which an area of 12.0 metres by 12.0 metres must have a minimum depth of 3.0 metres. The depth of the remaining area shall be 2.5 metres minimum. The sloped area from 3.0 metres depth to 2.5 metres depth should be over a minimum distance of 8.0 metres.

FR 11.2 The water temperature shall be as in FR 10.7.

FR 11.3 The light intensity shall not be less than 1500 lux.

FR 11.4 Automatic officiating equipment, as listed in FR 12 shall be available.

FR 11.5 Sound equipment and presentation standards as listed in FR 13 shall be available.

FR 11.6 Starting platform is recommended 0.7metres in height but not less than 0.5 metres. See *Syncro Diagram, Annex 6*

FR 11.7 Judges Platform must have tables and chairs and be of a minimum height of 0.6 metres. See *Syncro Diagram, Annex 6*

FR 12 AUTOMATIC OFFICIATING EQUIPMENT

The minimum installation consists of:

FR 12.1 same number of score recorder units as judges (figure: 5 up to 28; routine 5 up to 15)

FR 12.2 the results may only be transferred after confirmation by the referee or appointed official

FR 12.3 result unit (computer) with result recording and backup system. Only FINA approved programmes and systems are allowed.

- FR 12.4** print out system for all recorded information, start lists and result lists;
- FR 12.5** A judge's evaluation system based on the recorded results (FR 12.3). Only FINA TSSC approved programmes and system are allowed.
- FR 12.6** scoreboard control unit with a scoreboard; of a minimum of 10 lines containing 32 digits (or scoreboard as described in Rule FR 4.7.1). The scoreboard must be able to display all recorded information and the running time;
- FR 12.7** for each judge flash cards in case of failure of the electronic system.

FR 13 SOUND EQUIPMENT AND PRESENTATION STANDARDS

The sound equipment should include, at minimum:

- FR 13.1** Amplifier-mixer system.
- FR 13.2** A sound reproduction system
- FR 13.3** High quality microphones and microphone stations for announcements and ceremonies.
- FR 13.4** Good quality air speakers of size, number and placement to obtain uniform clear sound to both the field of competition area and audience.
- FR 13.5** UW speakers for clear and uniform underwater sound above all interfering noise and at levels acceptable to the competitors.
- FR 13.6** Isolation and impedance matching transformer systems for the UW speakers if speakers with metallic shells are used.
- FR 13.7** Sound volume (decibel) meter for monitoring music sound levels both above and under water.
- FR 13.8** Patch cords for interconnecting equipment properly, speaker extension lines adequate for placing speakers for optimal sound distribution.
- FR 13.9** Fusing systems as needed to protect speakers and other equipment.
- FR 13.10** Grounding lines to ensure safe grounding of all equipment.
- FR 13.11** Safety materials to minimize potential of injury to person or equipment from stepping on or tripping over electrical or speaker lines.
- FR 13.12** A stopwatch.
- FR 13.13** Tools and meters as needed for initial special hookups and emergency repairs.
- FR 13.14** Systems for communication between officials and sound desk.

FR 13.15 A system for monitoring and recording underwater sound continuously.

DIAGRAM FOR SYNCHRONISED SWIMMING (Total 1)

FR 14. HIGH DIVING

General requirements: Dimensions in metres for all high diving facilities as detailed in *High Diving Facilities Diagram, Annex 4.1 and Annex 4.2*, shall be observed.

In natural surroundings the dimensions can be adjusted to the local situation and approved by FINA Bureau.

The Annex 1 is established by the FINA Facilities Committee in cooperation with the FINA Technical High Diving Commission and approved by the FINA Bureau.

FR 14.1 Platform High Diving

FR 14.1.1 Each platform shall be rigid and horizontal.

FR 14.1.2 The minimum dimensions of the platform shall be:

20m and 27m platforms	2.00m width	4.00m length
5m, 7.5 and 10m platforms	1.50m width	4.00m length

FR 14.1.3 The preferred thickness of the front edge of the platform shall not exceeding 0.16 metre and can be vertical or inclined at an angle not greater than 10° to the vertical inside the plummet line.

FR 14.1.4 The platforms shall be covered in an anti slip material that shall have a tread pattern that provides sufficient traction in wet and dry conditions such that the divers are prevented from slipping when performing dives in all directions.

FR 14.1.5 The front edge of the 20m and 27m platforms shall project at least 3.50 metres beyond the edge of any obstacle. The 5m and 7.5m shall project at least 1.5 metres beyond the edge of any obstacle and the 10m platforms at least 1.50 metres.

FR 14.1.6 The back and sides of each platform shall be surrounded by handrails up to 1m from the edge of the platform with a minimum clearance of 1.8 metres between vertical pairs. The minimum height shall be 1.0 metre and they shall be with at least two horizontal crossbars placed outside the platform beginning 1.00 metre from the front edge of the platform.

FR 14.1.7 Each platform shall be accessible by suitable non-slip stairs (not ladders) as required by the country's building regulations and or health and safety standards that are applicable.

FR 14.1.8 It is preferable that a platform is not constructed directly under any other platform however in circumstance where this cannot be avoided then you must refer to *High Diving Diagram, Annex 4.1*

- FR 14.1.9** The platform shall be a concrete, steel or other rigid material construction as approved by FINA. The longitude and latitude movement/oscillation allowance for the entire 27 metres high tower structure shall be 2.7 cm (1/1000 from 27m). The maximum wind speed for the tower oscillation stability is 54km/hour (banners will affect the stability). The downward flex at the diving end of the platform shall not exceed 2-3mm and approved by the local authority of the area.
- FR 14.2 General Requirements**
- FR 14.2.1** For High Diving platforms designed and constructed after 31st December 2014 the minimum dimensions in metres for high diving facilities as detailed on the “High Diving Facilities Diagram” (*Annex 4.1 & Annex 4.2*) shall prevail, using, as a basic measuring point of reference, the plummet line, which is a vertical line extending through the centre of the front edge of the platform. It is recommended that the preferred dimensions be used for projects considered to have an important status.
- FR 14.2.2** The platform height for the 20m platform, must not be less than 20m and not more than 20.5m. The platform height for the 27m platform, must not be less than 27m and not more than 27.5m.
- FR 14.2.3** The platforms shall face north in the northern hemisphere and south in the southern hemisphere where possible.
- FR 14.2.4** The water temperature shall be not less than 18° Celsius.
- FR 14.2.5** A certificate of suitability for use of the venue shall be issued by the appropriate local health and safety authorities. In general terms the certification must also relate to the general water quality for human use.
- FR 14.2.6** The surface agitation shall be done by a strong horizontal water spray and the scuba divers must also provide additional splash when necessary. The water spray must not be mounted higher than 1.50m above the water level. The water spray should be strong and provide foamy white water for better visibility for the athletes. The spray or the foam must be strong enough to cover the landing area.
- FR 14.2.7** If the average wind speed exceeds 40km per hour then the competition cannot continue until the average wind speed is below 40km.
If lighting is within 3km of the site then the competition is to be postponed until the lighting subsides or moves away from the venue.
- FR 14.3 Security and Emergency Rescue Requirements**
- FR 14.3.1** For all High Diving competitions and training from 20m or higher medical staff, scuba teams and rescue equipment must be on duty and in position at the venue.
- FR 14.3.2** The minimum medical staff shall consist of two (2) doctors, with knowledge in trauma injuries, two to three (2-3) staffed ambulances on site and a designated hospital with an Orthopaedic surgery unit on alert.
- FR 14.3.3** The scuba team consists of two (2) apnea, one (1) scuba diver and 1-2 reserve scuba divers, one (1) scuba captain.

FR 14.3.4 The rescue equipment comprises:

- 2 rescue boats
- 2 spinal boards
- 5 stiff neck collars
- 2 defibrillators
- 2 oxygen tanks
- Blankets
- General first aid kit

FR 14.4 Judges Seating

FR 14.4.1 The judges shall be placed side by side in two lines on one side of the platform with the sunlight in the back or above the judges. Four judges in the back and three in the front, 1m below the back row.

FR 14.4.2 No judge shall be seated behind the front edge of the platform.

FR 14.4.3 The judges shall be seated at a distance of 35-40 metres from the entry point for the 27m platform and 25-30 metres for the 20m platform and their positions elevated by approximately three (3) metres above the water level.

FR 14.5 Electronic Officiating Equipment

FR 14.5.1 Electronic Officiating equipment records the judges awards for each diver and determines the final score for each dive as required by Rule HD 6

FR 14.5.2 Preferred Equipment must be able to:

FR 14.5.2.1 Record judges awards by whole and half points

FR 14.5.2.2 Be able to display all recorded and calculated information for each diver both before and after each dive

FR 14.5.2.3 Be able to display the scores for all divers before and after each dive

FR 14.5.2.4 Be able to display the rank order and scores for all divers after each round of dives

FR 14.5.2.5 The equipment must provide each judge with an electronic judging device that will permit each judge to enter their award and to see their award on a window on the device. After the referee has accepted the judges awards, all awards shall be displayed on each electronic judging device

FR 14.5.2.6 Judges analysis is to be provided at the conclusion of each event or series

FR 14.5.2.7 The referee must be provided with a monitor on which he/she will be able to view the awards of all the judges prior to the awards then being displayed on the score board

- FR 14.5.2.8** There is a requirement for a print out of the following information;
1. The draw for the diving order
 2. A start list for each session or event
 3. A ranking of dives at the end of each round
 4. A ranking of dives at the end of each event
 5. Judges awards and scores for each diver at the end of each session and event

DIAGRAMS FOR HIGH DIVING (Total 2)

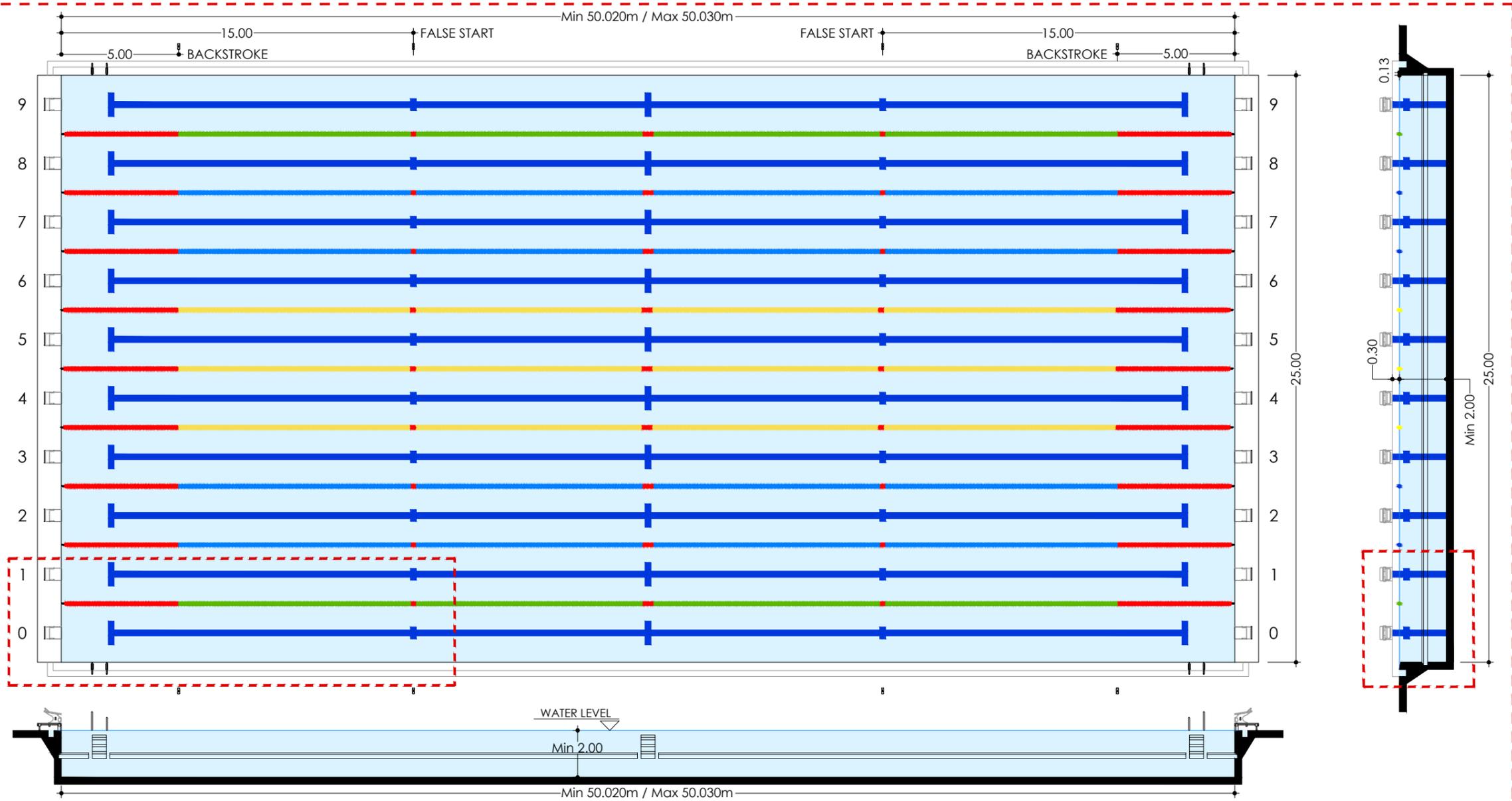


FIG. 1

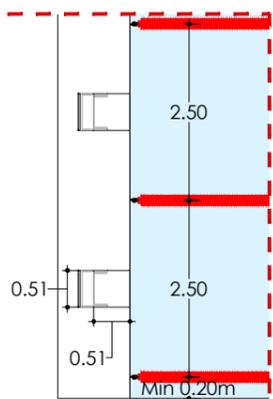


FIG. 3 STARTING PLATFORMS

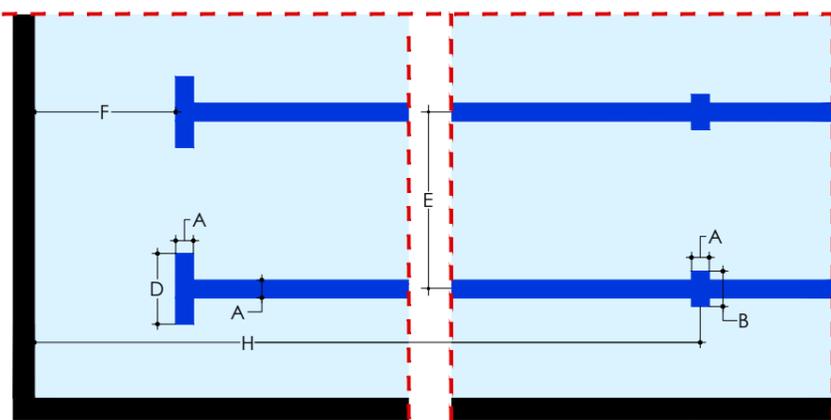


FIG. 6 PLAN LANE MARKINGS

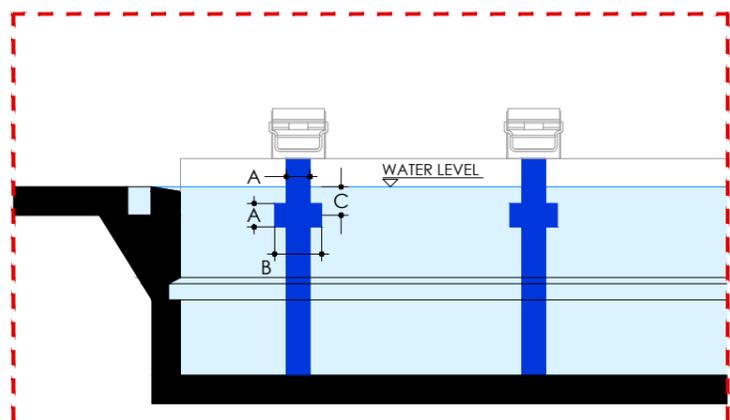


FIG. 7 END WALL LANE MARKINGS

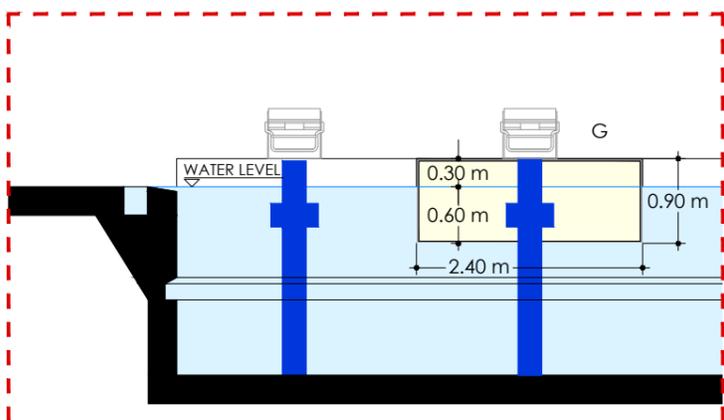


FIG. 8 TOUCH PANEL (2.40m x 0.90m x 0.01m)

FR 3.8 LANE ROPES	
9	Green
8	Blue
7	Blue
6	Blue
5	Yellow
4	Yellow
3	Yellow
2	Blue
1	Blue
0	Green

FIG. 4

FR 2.14 FINA LANE MARKINGS	
WIDTH OF LANE MARKINGS, END, LINES, TARGETS	A 0.25m ± 0.05m
LENGTH OF END WALL TARGETS	B 0.50m
DEPTH TO CENTRE OF END WALL TARGETS	C 0.30m
LENGTH OF LANE MARKER CROSS LINE	D 1.00m
WIDTH OF RACING LANES	E 2.50m
DISTANCE FROM END OF LANE LINE TO END WALL	F 2.00m
TOUCH PAD	G 2.40m x 0.90m x 0.01m
DIST. FROM CENTRE OF CROSS LINE TO END WALL	H 15.00m

FIG. 5

50m SWIMMING POOL FOR OLYMPIC GAMES AND WORLD CHAMPIONSHIPS

DIAGRAMS AND LANE MARKINGS



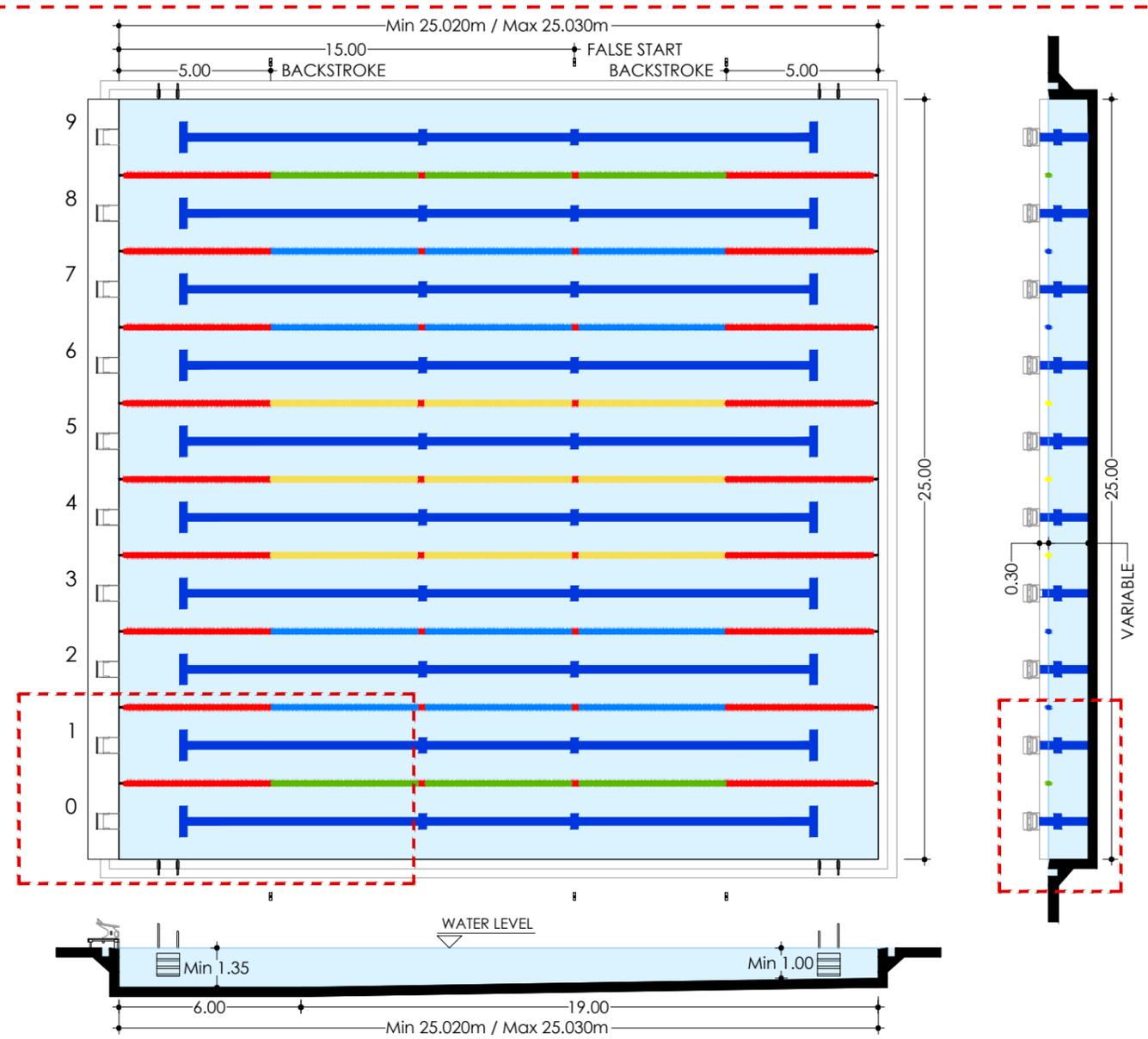
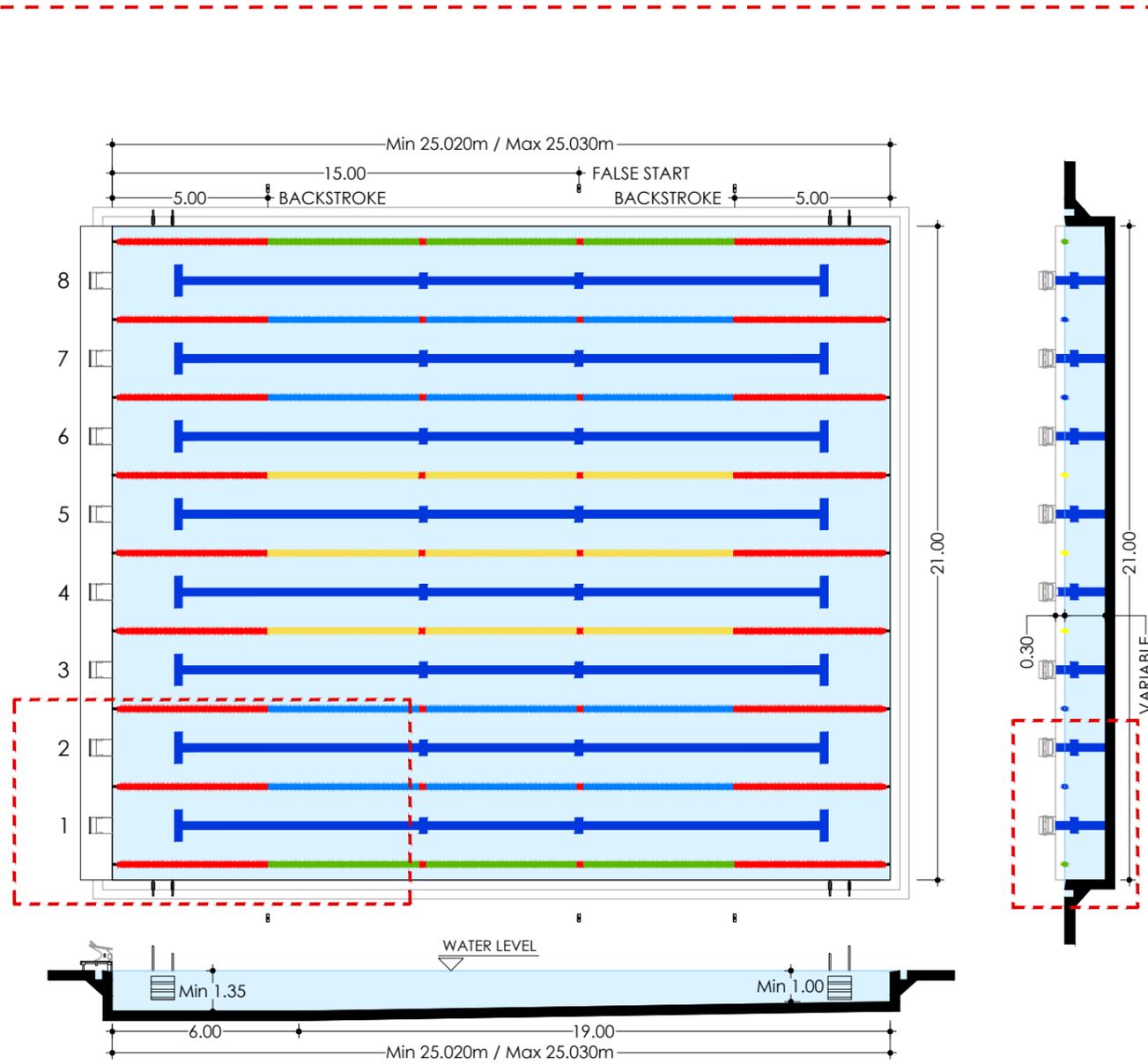


FIG. 2

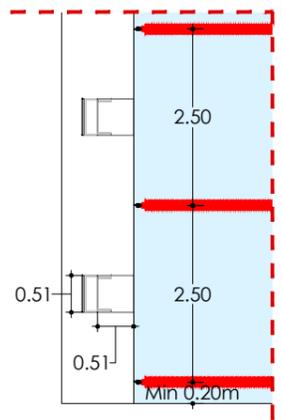


FIG. 3 STARTING PLATFORMS

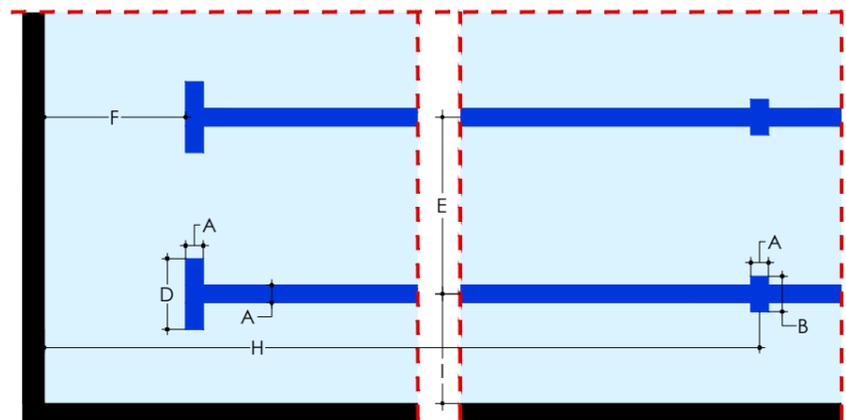


FIG. 6 PLAN LANE MARKINGS

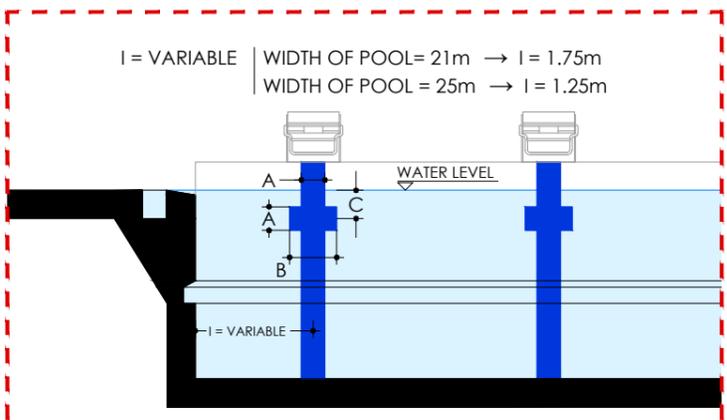


FIG. 7 END WALL LANE MARKINGS

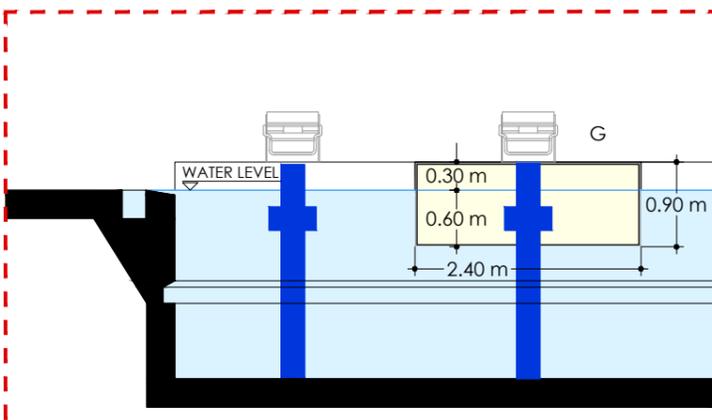


FIG. 8 TOUCH PANEL (2.40m x 0.90m x 0.01m)

FR 3.8 LANE ROPES

9	Green
8	Blue
7	Blue
6	Blue
5	Yellow
4	Yellow
3	Yellow
2	Blue
1	Blue
0	Green

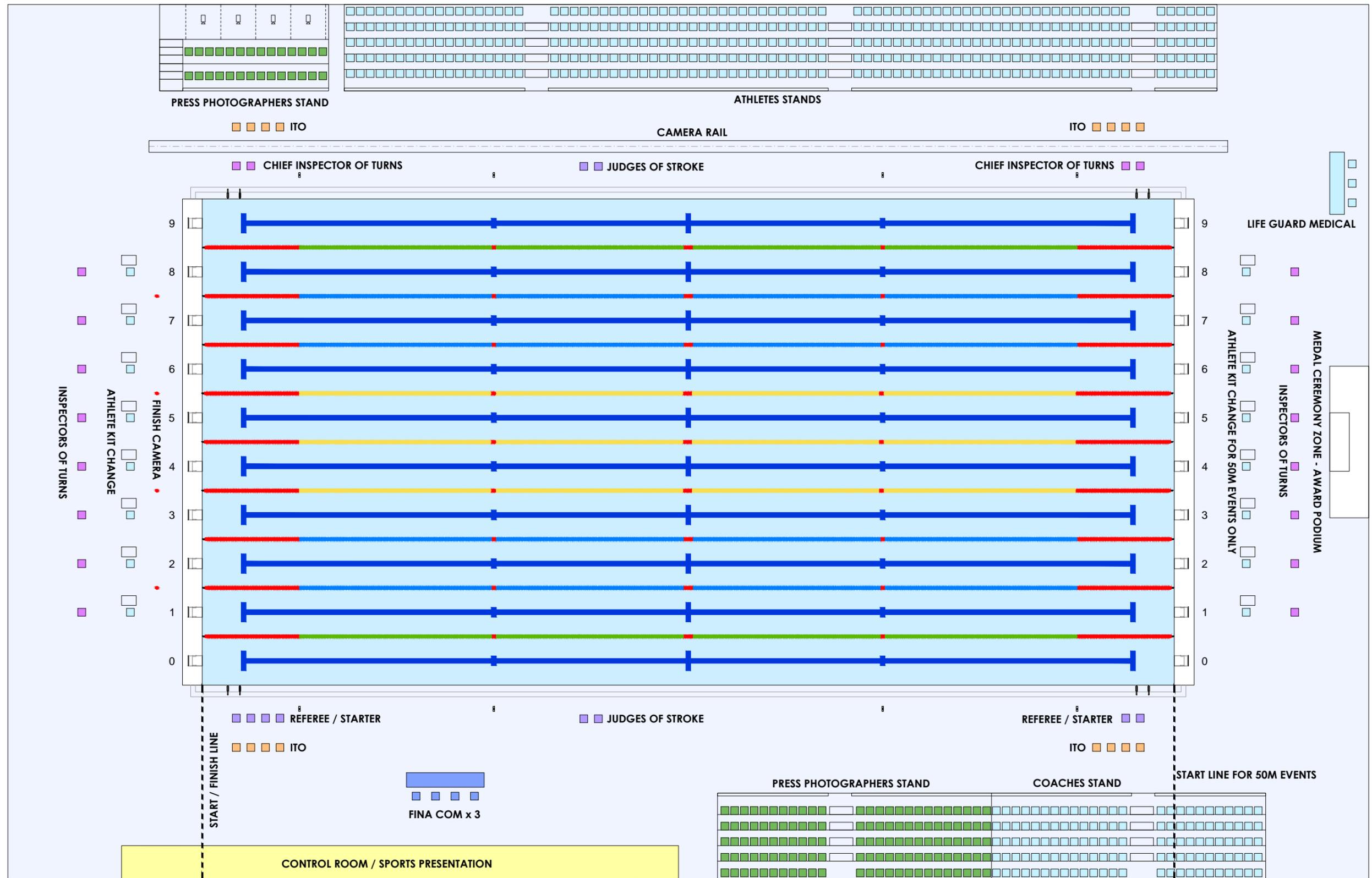
FIG. 4

FR 2.14 FINA LANE MARKINGS

WIDTH OF LANE MARKINGS, END, LINES, TARGETS	A	0.25m ± 0.05m
LENGTH OF END WALL TARGETS	B	0.50m
DEPTH TO CENTRE OF END WALL TARGETS	C	0.30m
LENGTH OF LANE MARKER CROSS LINE	D	1.00m
WIDTH OF RACING LANES	E	2.50m
DISTANCE FROM END OF LANE LINE TO END WALL	F	2.00m
TOUCH PAD	G	2.40m x 0.90m x 0.01m
DIST. FROM CENTRE OF CROSS LINE TO END WALL	H	15.00m

FIG. 5

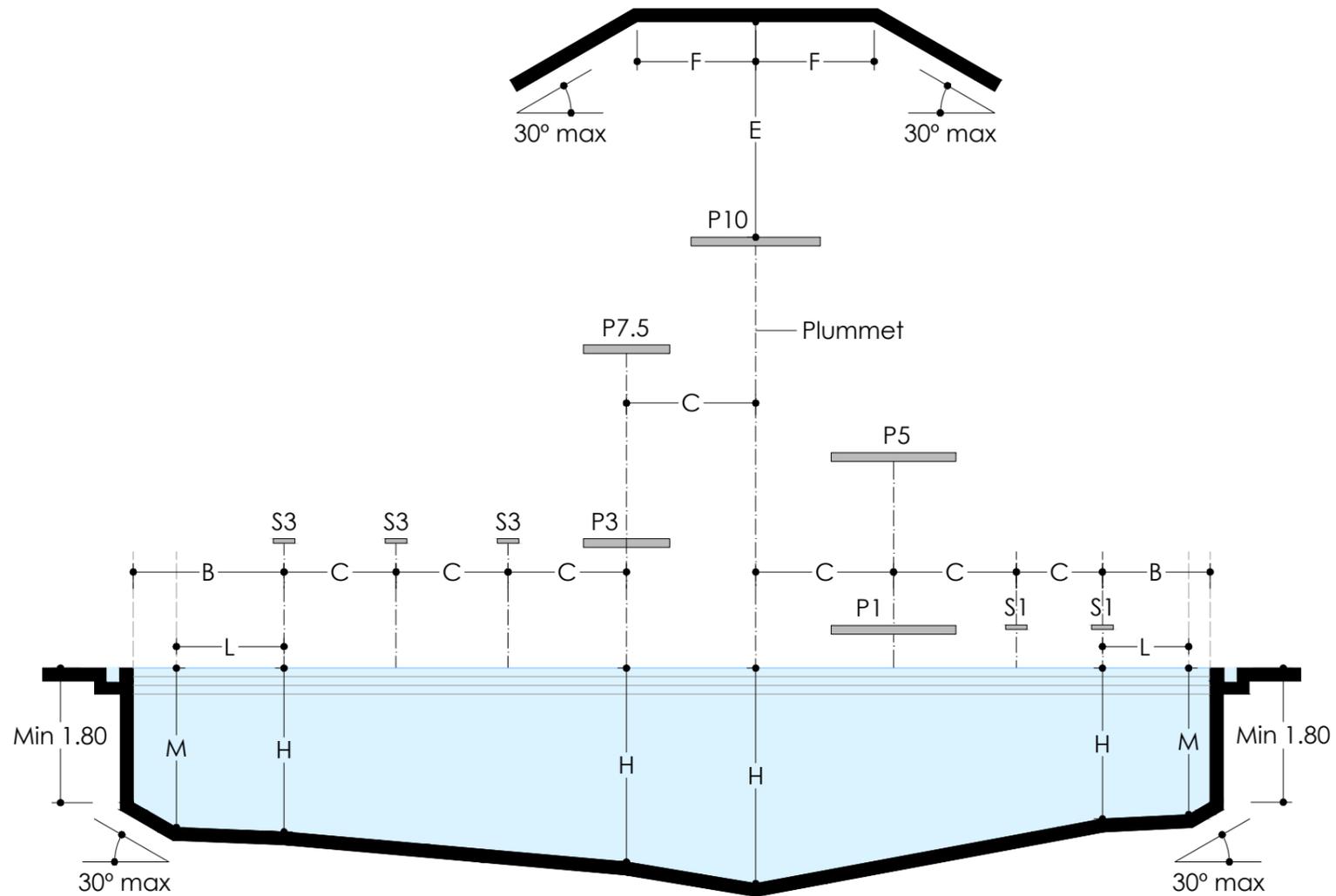
**25m SWIMMING POOL
DIAGRAMS AND LANE MARKINGS**



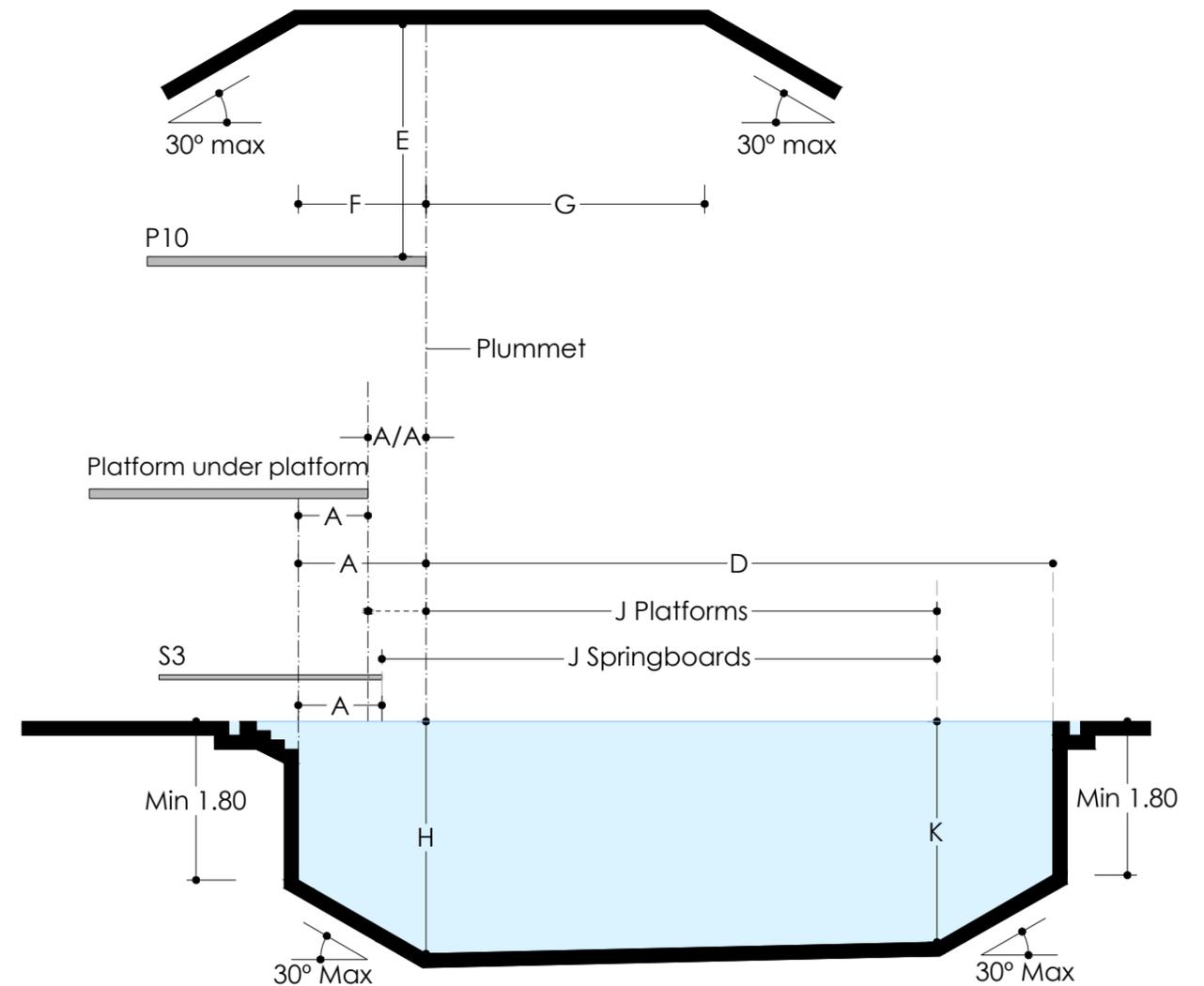
FINA COMPETITION / REFEREE	LIFE GUARD MEDICAL
INSPECTORS	ATHLETES STAND
JUDGES	COACHES STAND
INTERNATIONAL TECHNICAL OFFICIALS (ITO)	PRESS PHOTOGRAFERS STAND

FIELD OF PLAY FOR OLYMPIC GAMES AND WORLD CHAMPIONSHIPS SWIMMING

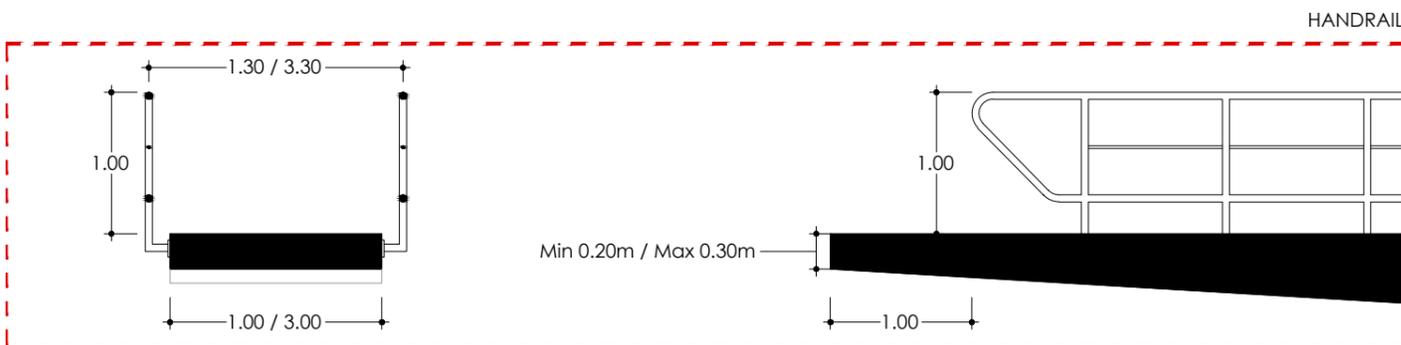




CROSS SECTION



LONGITUDINAL SECTION



HANDRAIL

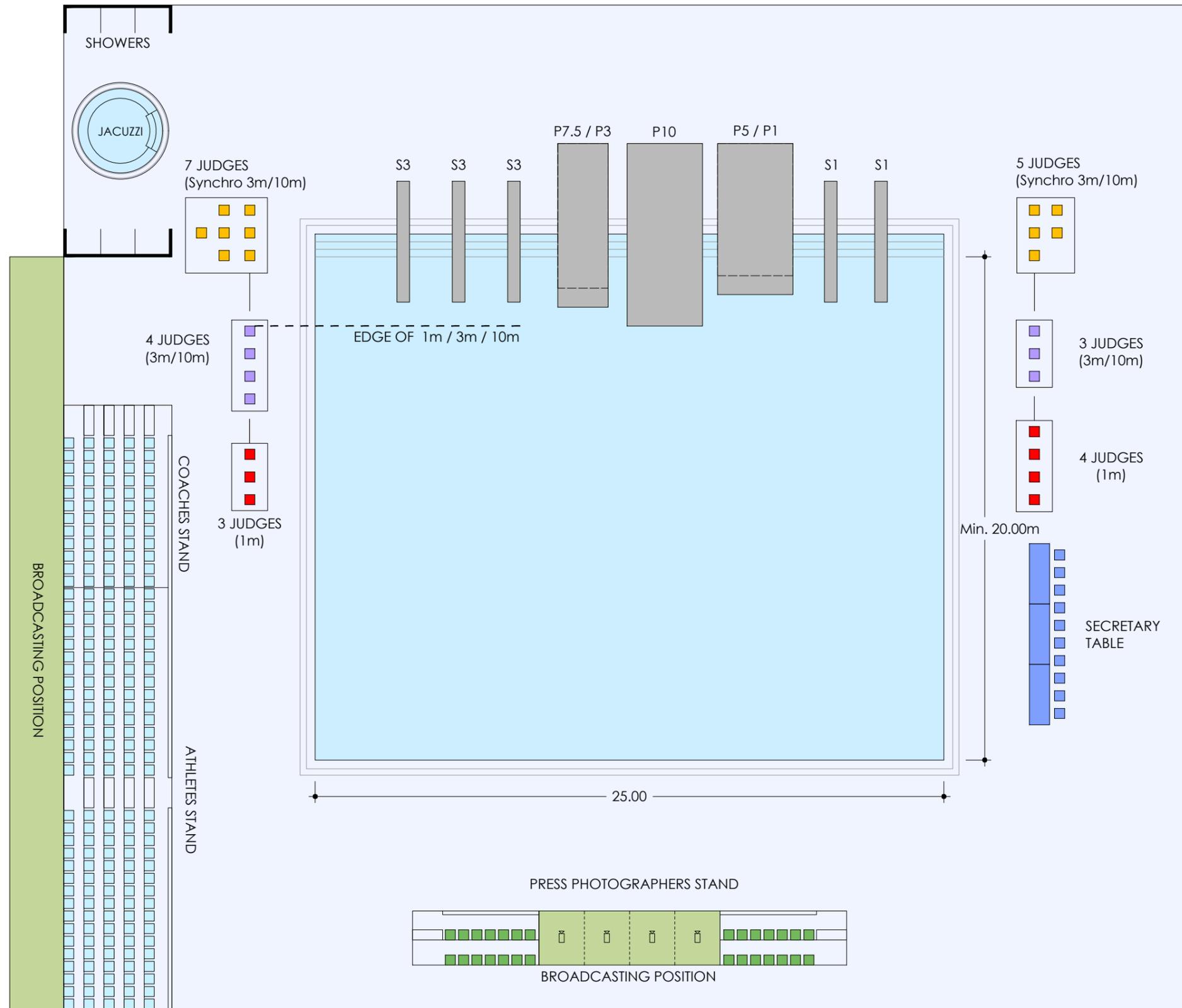
**DIVING DIAGRAMS
ANNEX 1.1**



FR 5.3 GENERAL REQUIREMENTS																
FINA Dimensions for Diving facilities		SPRINGBOARD				PLATFORM										
		1 metre		3 metres		1 metre		3 metres		5 metres		7.5 metres		10 metres		
For pools constructed after September, 26th, 2013 (see FR 5.3.1)	Lenght	4.80		4.80		5.00		5.00		6.00		6.00		6.00		
	Width	0.50		0.50		1.00 min. 2.90 preferred		1.00 min. 2.00 preferred		2.90		2.00		3.00		
	Height	1.00		3.00		0.60 min. 1.00 preferred		2.60 min. 3.00 preferred		5.00		7.50		10.00		
A	From plumbet back to pool wall for CONCRETE PLATFORM	Designation	A-1		A-3		A-1 pl		A-3 pl		A-5		A-7.5		A-10	
		Minimum	2.22		2.22		0.75		1.25		1.25		1.25		1.50	
		Preferred	2.22		2.22		0.75		1.25		1.25		1.25		1.50	
	From plumbet back to pool wall for PEDESTALS AND METAL STANDS	Minimum	1.50		1.50											
		Preferred	1.80		1.80											
A/A	From plumbet BACK TO PLATFORM Plumbet directly below	Designation									A/A 5/1		A/A 7.5/3,1		A/A 10/5,3,1	
		Minimum									0.75		0.75		0.75	
		Preferred									1.25		1.25		1.25	
B	From plumbet to POOL WALL AT SIDE	Designation	B-1		B-3		B-1 pl		B-3 pl		B-5		B-7.5		B-10	
		Minimum	2.50		3.50		2.50		3.00		4.00		4.50		5.75	
		Preferred	2.50		3.50		3.50		3.60		4.50		4.75		5.75	
C	From plumbet to ADJACENT PLUMMET	Designation	C-1-1		C3-3,3-1		C-1-1 pl		C3-3pl,1pl		C5-3, 5-1		C7.5-5,3,1		C10-7.5,5,3,1	
		Minimum	2.00		2.20		1.85		2.20*		2.85*		2.75*		3.00*	
		Preferred	2.00		2.60		2.15		2.35*		2.85*		2.75*		3.00*	
D	From plumbet to POOL WALL AHEAD	Designation	D-1		D-3		D-1 pl		D-3 pl		D-5		D-7.5		D-10	
		Minimum	9.00		10.25		8.00		9.50		10.25		11.00		13.50	
		Preferred	9.00		10.25		8.00		9.50		10.25		11.00		13.50	
E	On plumbet, from BOARD TO CEILING	Designation		E-1		E-3		E-1 pl		E-3 pl		E-5		E-7.5		E-10
		Minimum		5.00		5.00		3.25		3.25		3.25		3.25		4.00
		Preferred		5.00		5.00		3.50		3.50		3.50		3.50		5.00
F	CLEAR OVERHEAD behind and each side of plumbet	Designation	F-1	E-1	F-3	E-3	F-1 pl	E-1 pl	F-3 pl	E-3 pl	F-5	E-5	F-7.5	E-7.5	F-10	E-10
		Minimum	2.50	5.00	2.50	5.00	2.75	3.25	2.75	3.25	2.75	3.25	2.75	3.25	2.75	4.00
		Preferred	2.50	5.00	2.50	5.00	2.75	3.50	2.75	3.50	2.75	3.50	2.75	3.50	2.75	5.00
G	CLEAR OVERHEAD ahead of plumbet	Designation	G-1	E-1	G-3	E-3	G-1 pl	E-1 pl	G-3 pl	E-3 pl	G-5	E-5	G-7.5	E-7.5	G-10	E-10
		Minimum	5.00	5.00	5.00	5.00	5.00	3.25	5.00	3.25	5.00	3.25	5.00	3.25	6.00	4.00
		Preferred	5.00	5.00	5.00	5.00	5.00	3.50	5.00	3.50	5.00	3.50	5.00	3.50	6.00	5.00
H	DEPTH OF WATER At plumbet	Designation		H-1		H-3		H-1 pl		H-3 pl		H-5		H-7.5		H-10
		Minimum		3.40		3.70		3.20		3.50		3.70		4.10		4.50
		Preferred		3.50		3.80		3.30		3.60		3.80		4.50		5.00
J K	DISTANCE AND DEPTH ahead of plumbet for all stands	Designation	J-1	K-1	J-3	K-3	J-1 pl	K-1 pl	J-3 pl	K-3 pl	J-5	K-5	J-7.5	K-7.5	J-10	K-10
		Minimum	5.00	3.30	6.00	3.60	4.50	3.10	5.50	3.40	6.00	3.60	8.00	4.00	11.00	4.25
		Preferred	5.00	3.40	6.00	3.70	4.50	3.20	5.50	3.50	6.00	3.70	8.00	4.40	11.00	4.75
L M	DISTANCE AND DEPTH each side of plumbet	Designation	L-1	M-1	L-3	M-3	L-1 pl	M-1 pl	L-3 pl	M-3 pl	L-5	M-5	L-7.5	M-7.5	L-10	M-10
		Minimum	1.50	3.30	2.00	3.60	1.40	3.10	1.80	3.40	3.00	3.60	3.75	4.00	4.50	4.25
		Preferred	2.00	3.40	2.50	3.70	1.90	3.20	2.30	3.50	3.50	3.70	4.50	4.40	5.25	4.75
N	MAXIMUM SLOPE TO REDUCE DIMENSIONS BEYOND FULL REQUIREMENTS FOR POOL DEPTH and CEILING HEIGHT				30 DEGREES											
<p>* Note: The minimum distance between adjacent platforms must be at least 0.25 metres.</p> <p>Note: Dimensions B (plumbet to pool wall at side) and C (plumbet to adjacent plumbet) apply to Platforms with widths as detailed in FR.5.2.5. If Platform widths are increased then B and C shall be increased by half the additional width(s).</p> <p>Note: The 10 Metre Platform must project 0.25 metres beyond any adjacent platform.</p> <p>Note: All platforms must project 0.75 metres beyond any platform directly below.</p> <p>Note: The leading edge of the concrete platforms for springboards must be at least constructed to be directly above the pool wall or beyond.</p>																

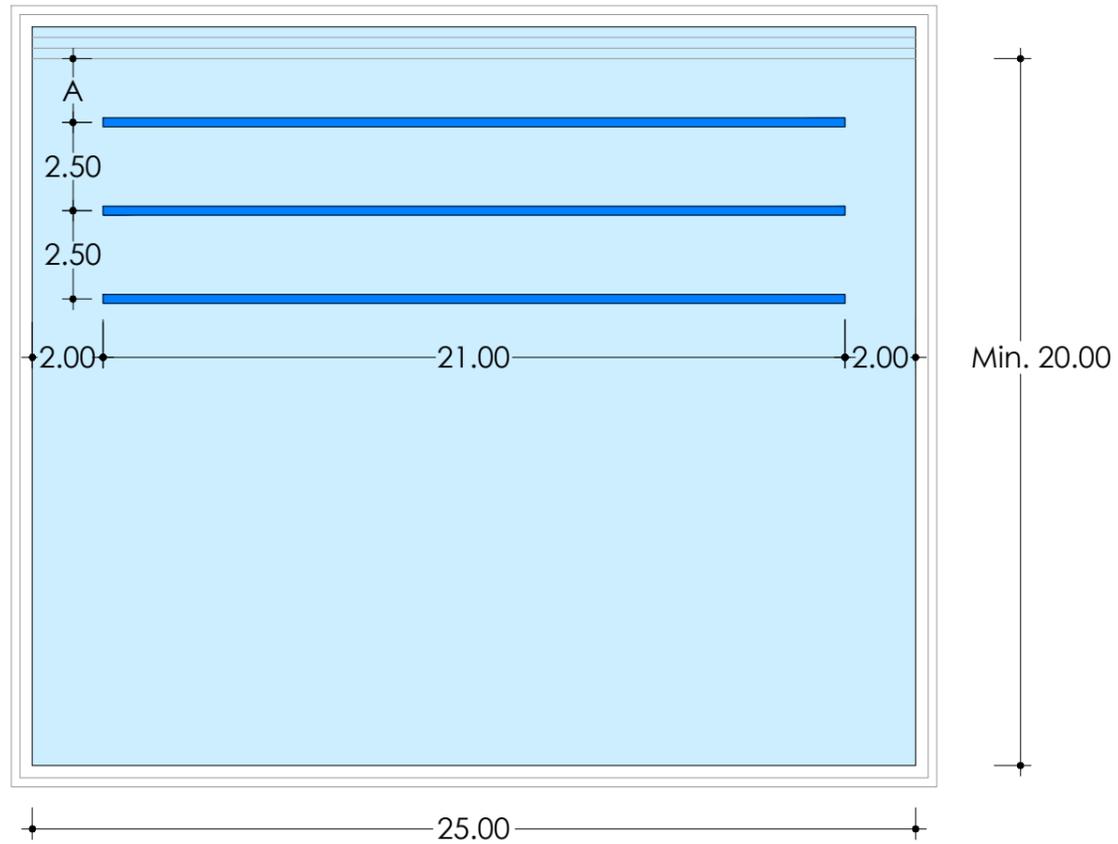
**DIVING DIAGRAMS
ANNEX 1.2**





**FIELD OF PLAY FOR OLYMPIC GAMES AND
WORLD CHAMPIONSHIPS
DIVING
ANNEX 2.1**

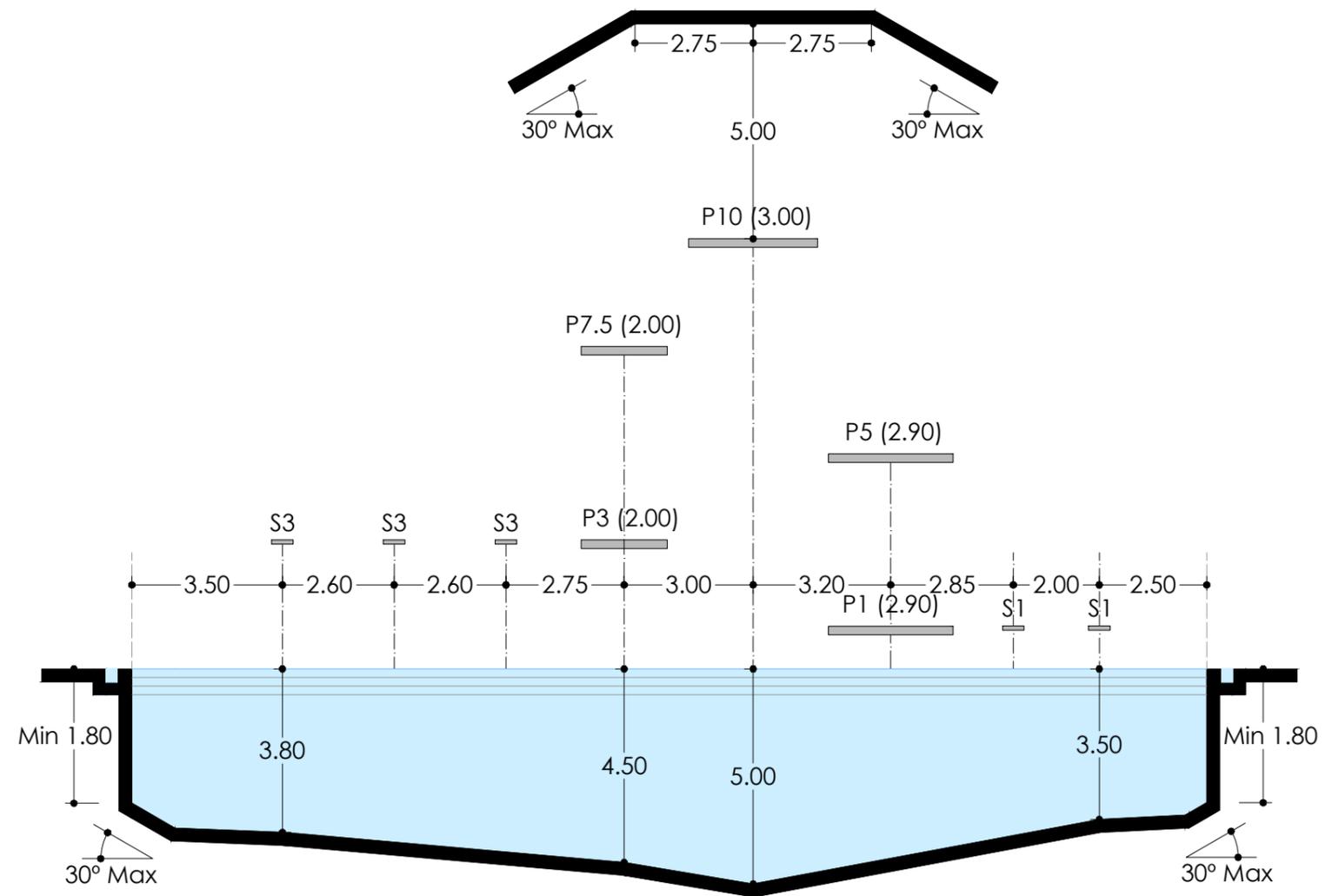




DIVING MARKING LANES: FR 6.3

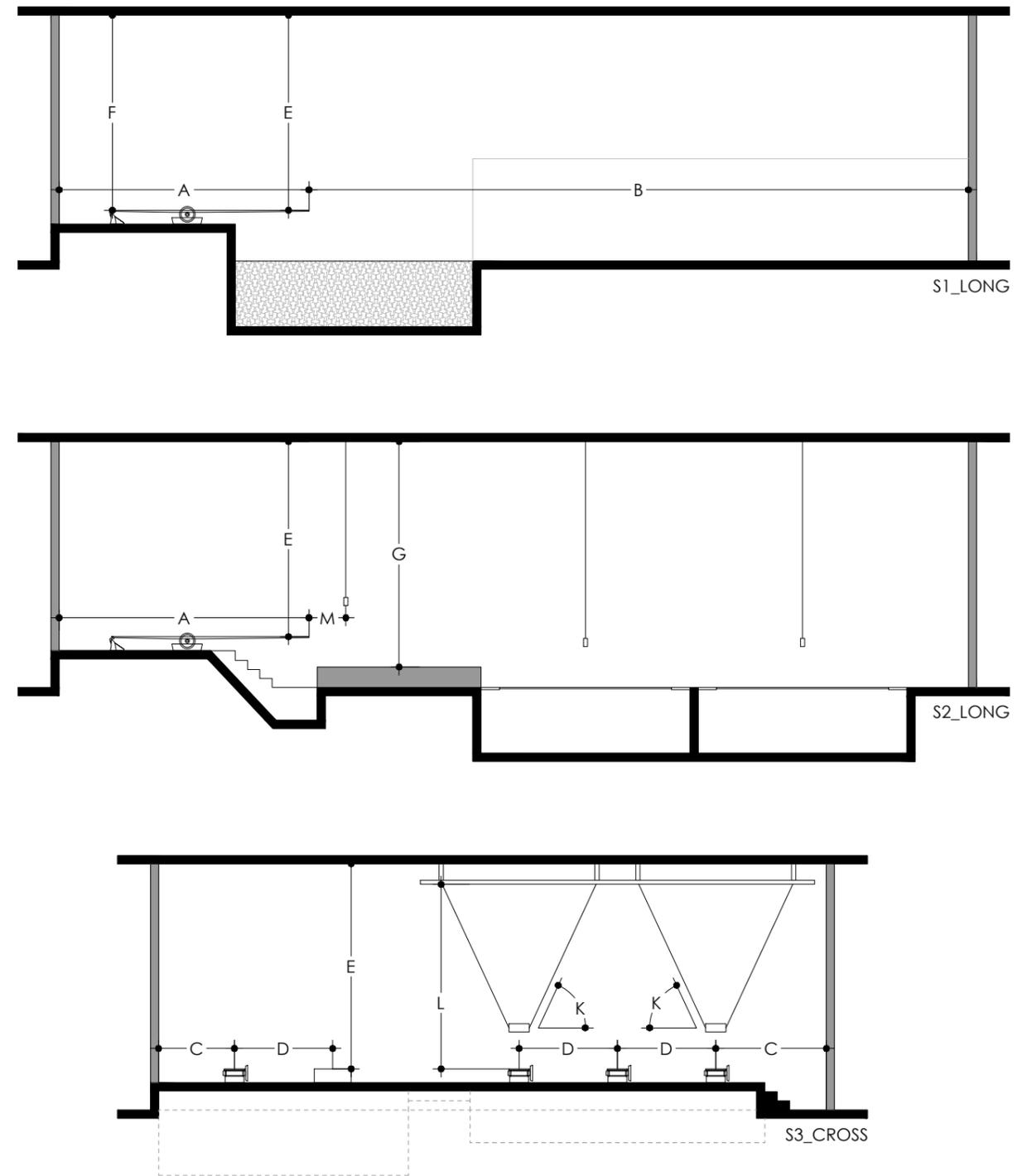
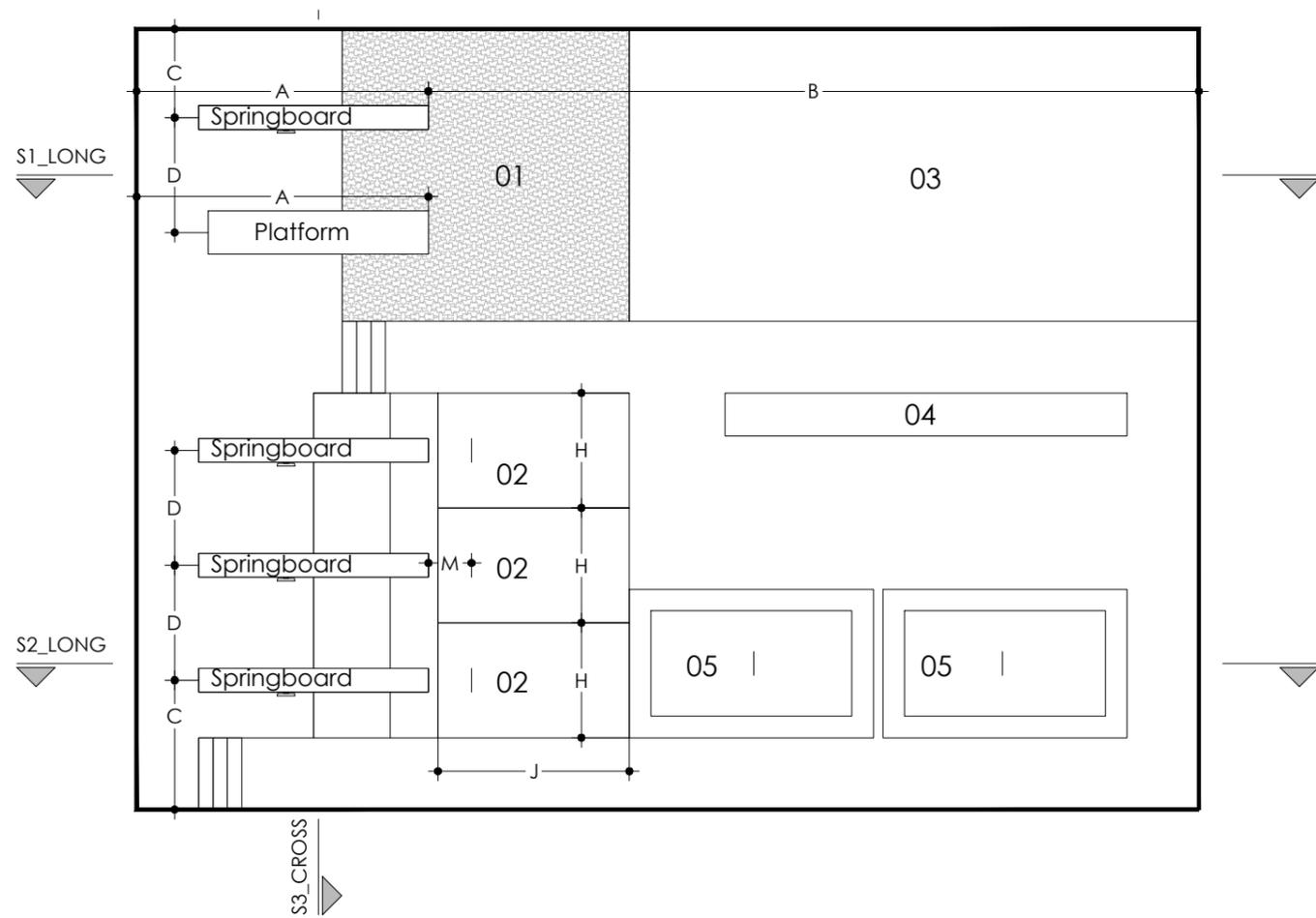
A = Distance from the end of the wall and plummet of 3 metres springboard.

Dark color. Contrasting color of the bottom of the swimming pool.
Width: Minimum 0.20 metres, maximum 0.30 metres.



**FIELD OF PLAY FOR OLYMPIC GAMES AND
WORLD CHAMPIONSHIPS
DIVING
ANNEX 2.2**





**DIVING DRY LAND TRAINING
ANNEX 3.1**

DIVING DRY LAND TRAINING DESIGN GUIDELINES		GOVERNING BODY	FINA			
		LAST DATE UPDATED	10/26/2012		10/26/2012	
			SPRINGBOARD		PLATFORM	
		Length	4.80 m		VARIES	
		Width	0.50 m +/-		VARIES	
		Height	1.24 m		VARIES	
		Horizontal	Vertical	Horizontal	Vertical	
A	From plummet BACK TO BUILDING WALL	Designation	A-1		A-PL	
		Minimum	4.877 m		VARIES	
		Preferred	6.10 m		INFINITY	
B	From plummet to BUILDING WALL AT AHEAD	Designation	B-1		B-PL	
		Minimum	3.66 m		3.66 m	
		Preferred	INFINITY		INFINITY	
C	From plummet to BUILDING WALL AT SIDE	Designation	C-1		C-PL	
		Minimum	1.83 m		1.83 m	
		Preferred	INFINITY		INFINITY	
D	From plummet to ADJACENT PLUMMET	Designation	D-1		D-PL	
		Minimum	2.00 m		2.00 m	
		Preferred	2.40 m		2.40 m	
E	On plummet from BOARD TO CEILING	Designation		E-1		E-PL
		Minimum		5.00 m		2.70 m
		Preferred		6.40 m		6.40 m
F	OVERHEAD behind and each side of plummet	Designation	F-1	F-1	F-PL	F-PL
		Minimum	2.50 m	4.50 m	1.50 m	2.70 m
		Preferred	VARIES	6.40 m	VARIES	6.40 m
G	CLEAR OVERHEAD ahead of plummet	Designation	G-1	G-1	G-PL	G-PL
		Minimum	5.00 m	4.50 m	1.50 m	2.70 m
		Preferred	VARIES	6.40 m	VARIES	6.40 m
H	WIDTH OF LANDING PIT in front of plummet	Designation	H-1		H-PL	
		Minimum	1.83 m		1.50 m	
		Preferred	VARIES		VARIES	
J	LENGTH OF LANDING PIT in front of plummet	Designation	J-1		J-PL	
		Minimum	3.66 m		1.50 m	
		Preferred	VARIES		VARIES	
K	ANGLE OF SPOTING RIG ROPES *	Designation		K-1		K-PL
		Minimum		30 DEGREES		30 DEGREES
		Preferred		35 DEGREES ±		35 DEGREES ±
L	HEIGHT OF SPOTING RIG above diving board or platform	Designation		L-1		L-PL
		Minimum		4.50 m		4.50 m
		Preferred		6.40 m		6.40 m
M	DISTANCE in front of plummet to SPOTING RIG	Designation	M-1		M-PL	
		Minimum	0.76 m		0.76 m	
		Preferred	0.91 m		0.91 m	

The plummet is the point of measurement from the center front of the springboard.

* Aproximated real angle of spoting rig ropes = 65 DEGREES

USE AND INSTALLATION GUIDELINES FOR DRY LAND TRAINING FACILITIES WITH IN GROUND AND ABOVE GROUND TRAMPOLINES

Installation and use instructions for trampolines and related equipment, such as frame pads, mats, end decks, and spotting systems, shall be provided by the manufacturer and shall specify the minimum safe area dimensions required for each trampoline type and relating their products to center or edge of the trampoline.

Clearance (trampolines): Users should refer to the manufacturer's specifications for all clearance, which may vary depending upon the manufacturer, the size of the trampoline, the type of bed in place, the type of spotting system in place, if any, and other variables. In any event, adequate space should be provided so that intended users and equipment* will not come into contact with any obstacles during their anticipated use of the equipment.

*i.e., bottoming out a trampoline or Dry land diving board.

Clearance (platforms): These specifications apply to facilities used by FINA level international athletes. Other specifications may be appropriate for junior or development programs, so long as adequate space is provided so that intended users and equipment will not come into contact with any obstacle during their anticipated use of the equipment.

DIVING DRY LAND TRAINING EQUIPMENT	
01	BLOCK FOAM LANDING PIT
02	LANDING FOAM PAD
03	GYMNASTICS SPRING FLOOR
04	PADDED PLATFORM BENCH
05	TRAMPOLINE BED

DIVING DRY LAND TRAINING ANNEX 3.2



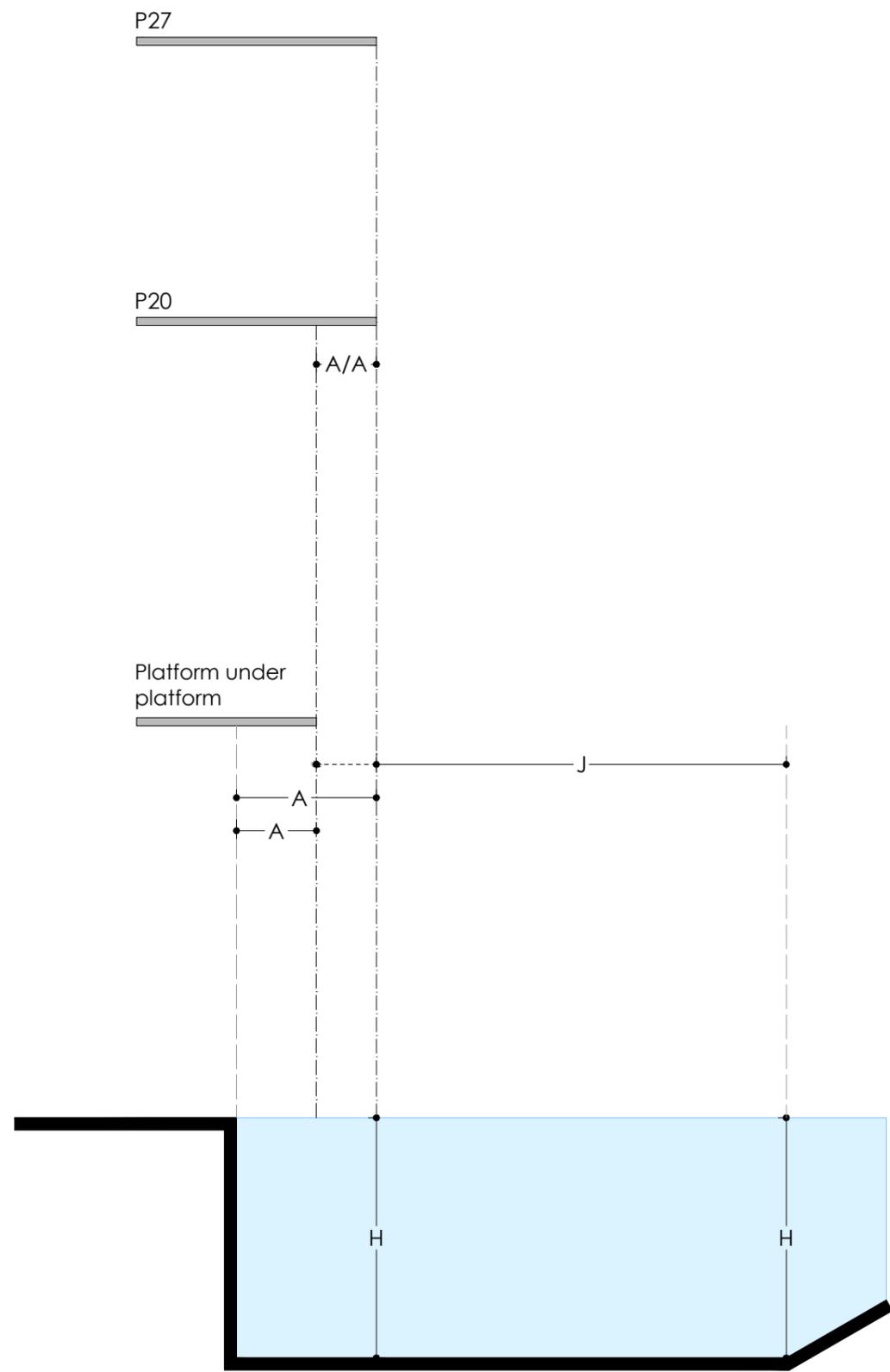
RECOMMENDED EQUIPMENT IN DRY LAND TRAINING ROOM

GOVERNING BODY		FINA						
			Number		Suggested dimensions			
1	DIVING BOARDS	The latest model of Duraflex Springboards mounted on diving stands with moveable fulcrums.	Minimum	2				
			Preferred	4				
2	DIVING BOARD LANDING PADS*	Foam landing pads for Dry land diving boards are located in front of the diving boards.	Minimum	2	Floor	Width	Length	
			Preferred	4	120 cm	1.5 m min.	1.5 m min.	
3	TRAMPOLINES		Minimum	1				
			Preferred	3				
4	FOAM CRASH MATS		Minimum	2	Height	Width	Length	
			Preferred	4	22 cm	2 m	3 m	
5	SOMERSAULT BOXES		Minimum	2	Height	Width	Length	
			Preferred	4	32 cm	1 m	1 m	
6	STRETCHING MATS		Minimum	12	Height	Width	Length	
			Preferred	24	12 cm	1 m	2 m	
7	LARGE MIRRORS	Should be placed on walls so divers can observe body movements while training on equipment.						
8	VIDEO REPLAY SYSTEM (similar to TIVO)	With at least 2 cameras and 2 monitors. This allows divers to review acrobatic skills performed on springboard and trampoline.						
9	WEIGHT LIFTING EQUIPMENT	Combination of free weights and weight lifting machines.						
10	CARDIO CONDITIONING EQUIPMENT	Treadmills and stationary bicycles.						

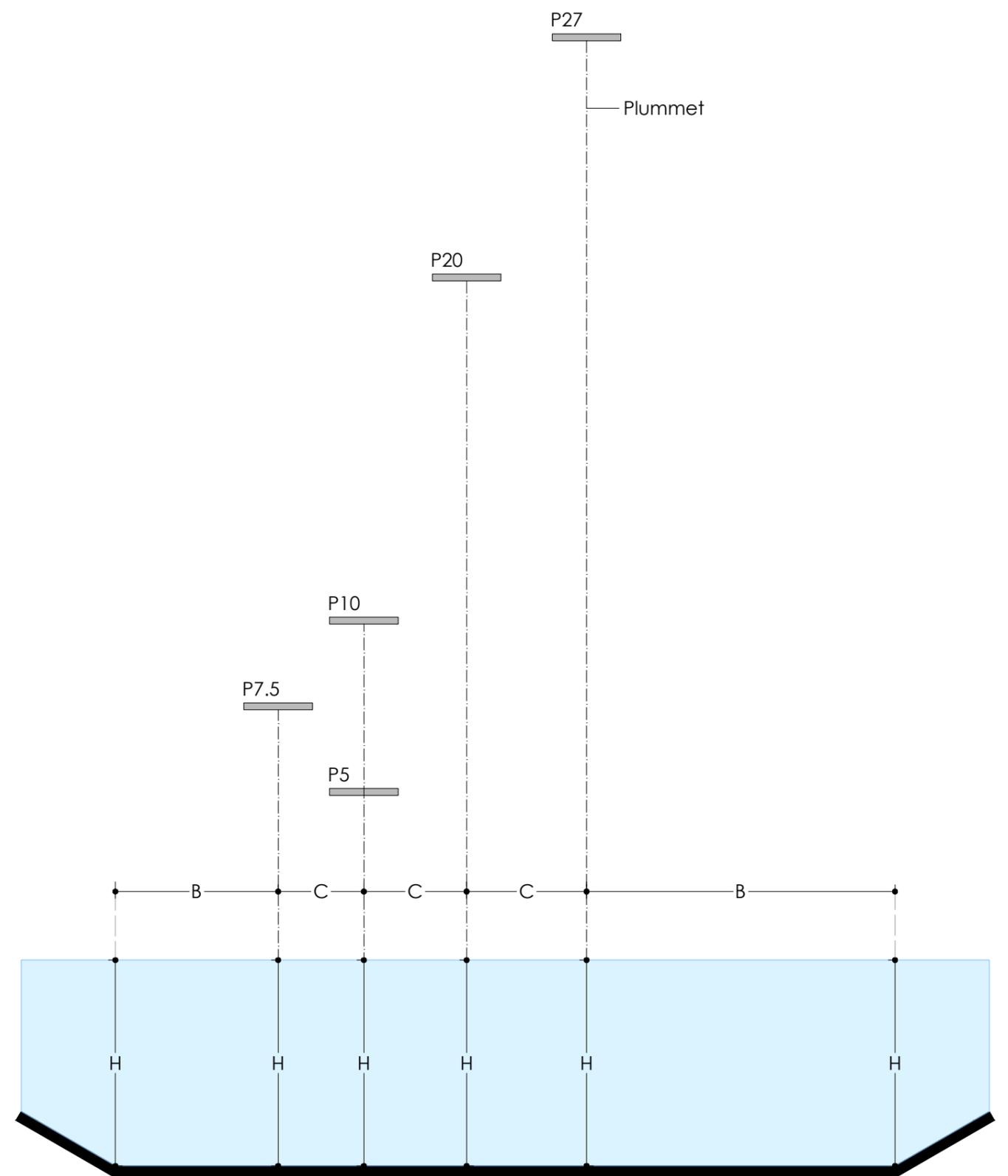
* Please note: Foam crash mats may be stacked to a height of 120 cm for the foam landing pads, or Foam pits maybe used instead of landing pads.

DIVING DRY LAND RECOMMENDED EQUIPMENT ANNEX 3.3

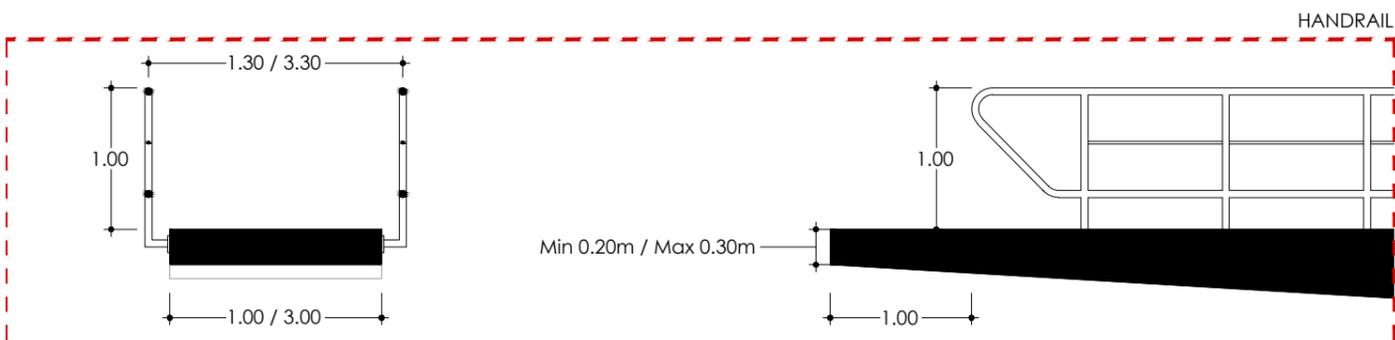




LONGITUDINAL SECTION



CROSS SECTION



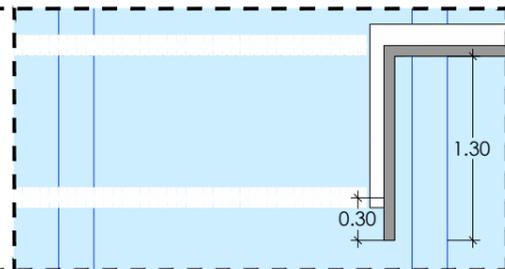
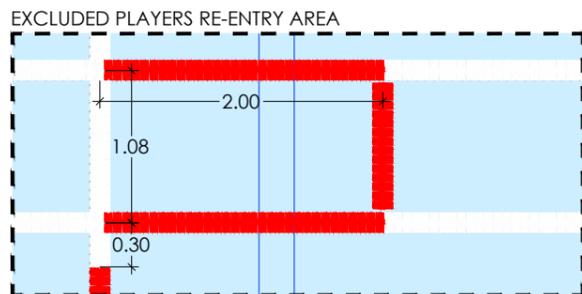
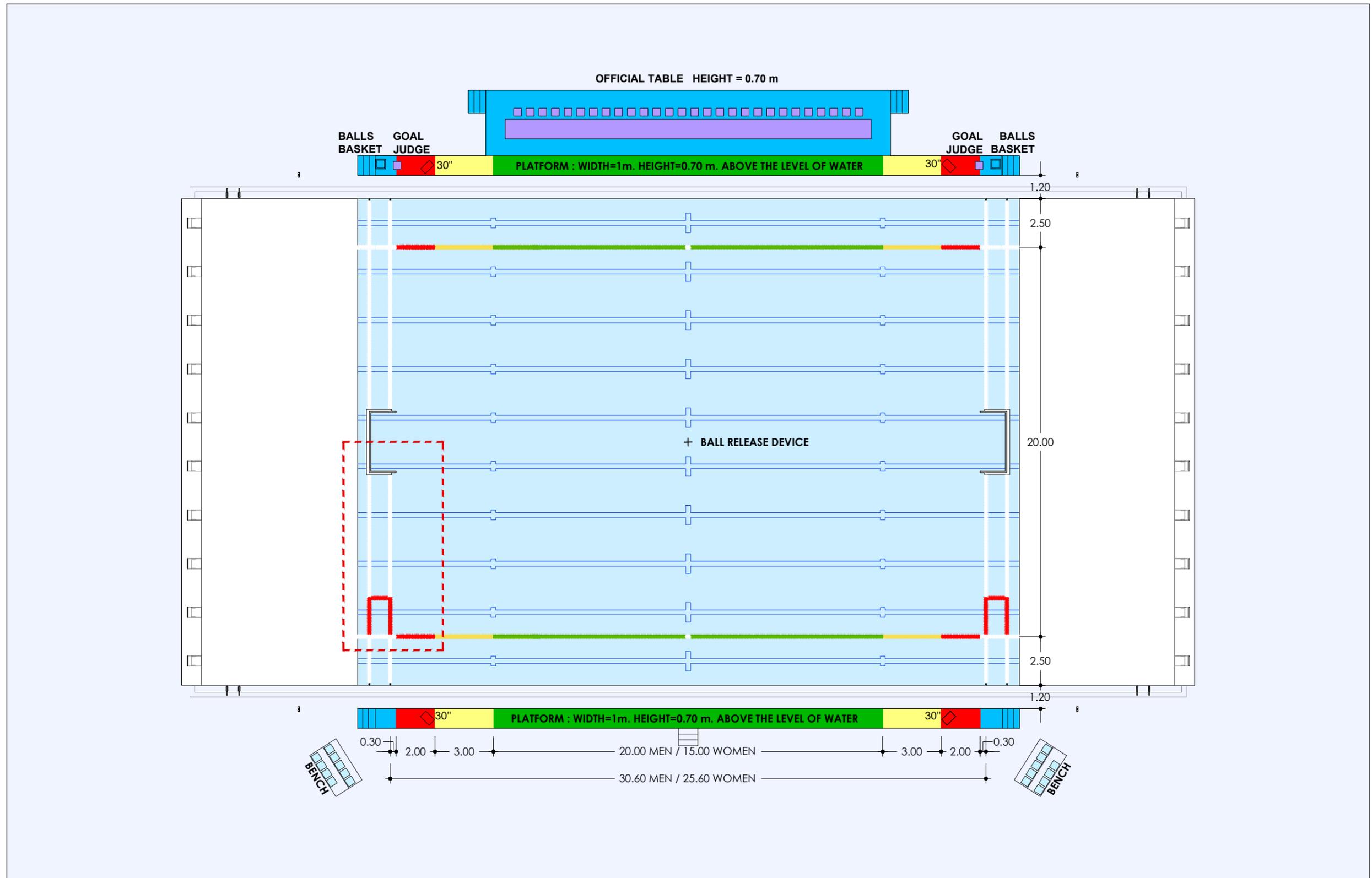
HIGH DIVING DIAGRAMS

ANNEX 4.1

FINA Dimensions for High Diving facilities			PLATFORM				
			5 metres	7.5 metres	10 metres	20 metres	27 metres
	Lenght	Minimum	4.00	4.00	4.00	4.00	4.00
		Preferred	5.00	5.00	6.00	6.00	6.00
	Width	Minimum	1.50	1.50	1.50	2.00	2.00
		Preferred	2.00	2.00	2.00	2.00	2.00
	Height		5.00	7.50	10.00	20.00	27.00
						+0.50/-0.00	+0.50/-0.00
A	From plummet BACK TO OBSTACLE (pool wall)	Minimum	1.25	1.25	1.50	3.50	3.50
		Preferred	1.25	1.25	1.50	3.50	3.50
A/A	From plummet BACK TO PLATFORM Plummet directly below	Minimum	0.75	0.75	0.75	1.00	1.50
		Preferred	1.25	1.25	1.25	1.25	1.50
B	From plummet to obstacle POOL WALL AT SIDE	Minimum	4.00	4.50	5.75	9.00	10.00
		Preferred	4.50	4.75	5.75	9.00	10.00
C	From plummet to ADJACENT PLUMMET	Minimum	2.50*	2.75*	3.00*	3.50*	3.50*
		Preferred	2.50*	2.75*	3.00*	3.50*	3.50*
H	DEPTH OF WATER At plummet	Minimum	6.00	6.00	6.00	6.00	6.00
J	From plummet to obstacle POOL WALL AHEAD	Minimum	10.25	11.00	13.50	16.00	18.00
		Preferred	10.25	11.00	13.50	16.00	18.00
<p>Note: The appropriate local authorities must certify that the minimum requirements are observed. * The side distance between platforms must not be less than 0.50m</p>							

**HIGH DIVING DIAGRAMS
ANNEX 4.2**

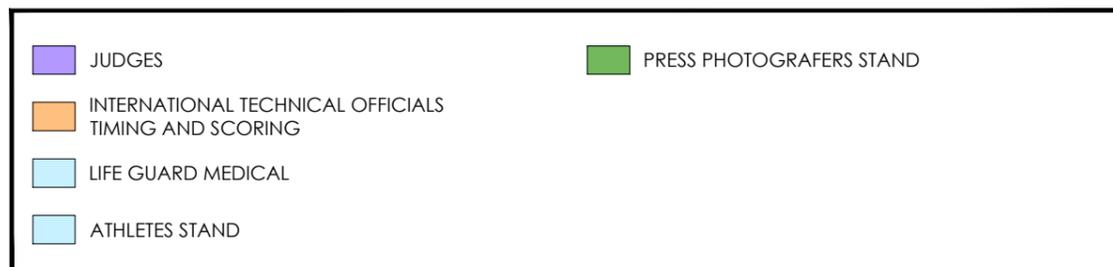
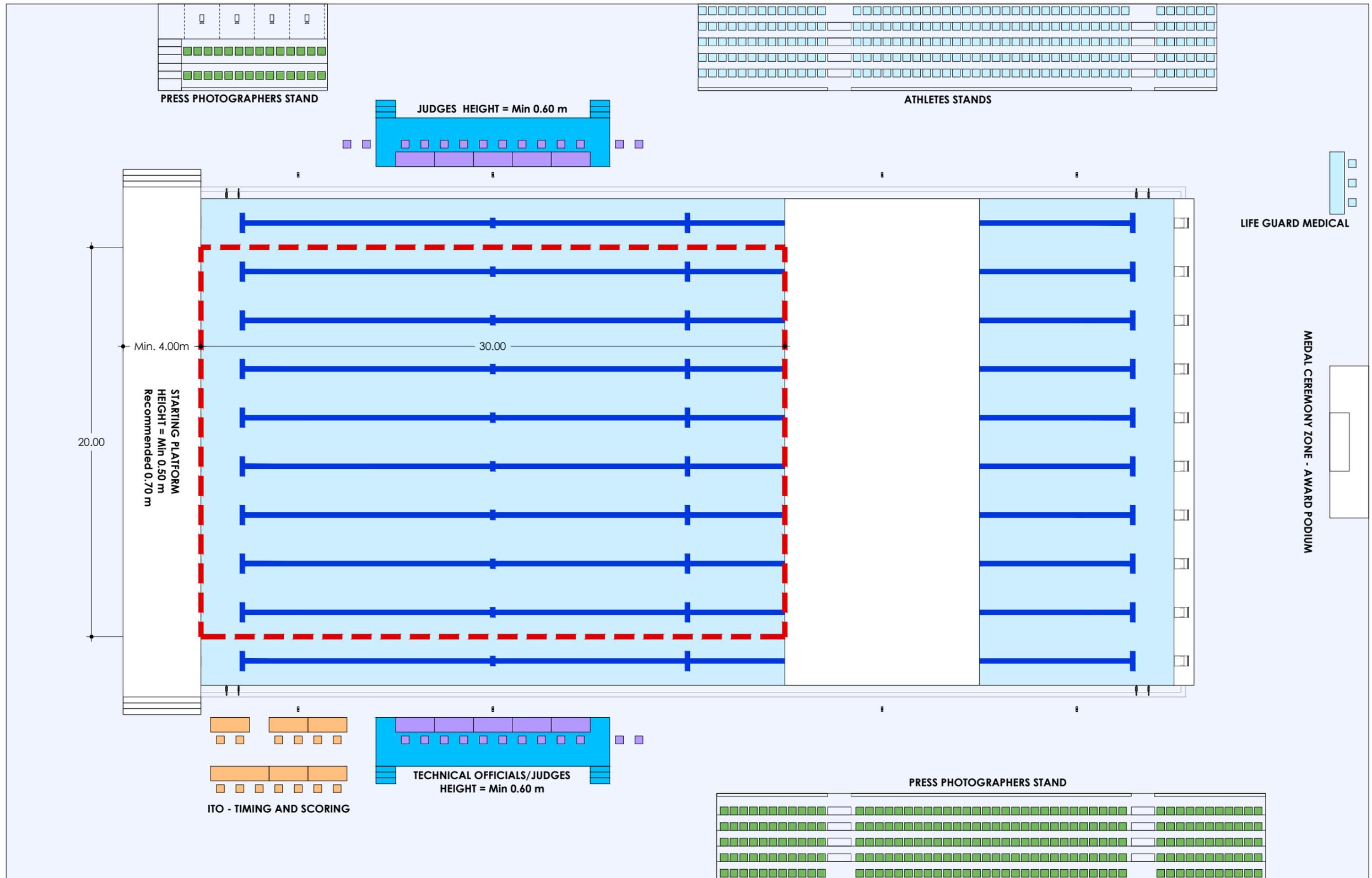




DEPTH OF WATER
 MINIMUM: 1.80 metres
 PREFERABLY: 2.00 metres

**FIELD OF PLAY FOR OLYMPIC GAMES AND
 WORLD CHAMPIONSHIPS
 WATER POLO
 ANNEX 5**





**FIELD OF PLAY FOR OLYMPIC GAMES
AND WORLD CHAMPIONSHIPS
SYNCHRONISED SWIMMING
ANNEX 6**