FIELD
Specifications

FIH WORLD CUP 2022/2023

VERSION 1.0

International Hockey Federation
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1. GENERAL

This document has been prepared to ensure the hockey fields provided for the 2022/2023 FIH World Cups are to the standards required by the FIH for its premier sporting events. It forms part of the FIH World Cup 2022/2023 Event Manual and should be read in conjunction with all other relevant FIH documentation.

FIH reserves the right to amend, delete or add to these requirements at any time. For clarification or further information on the FIH's field, lighting and sports equipment requirements please visit www.fih.ch/hockeyturf or contact facilities@fih.ch.

2. DEFINITIONS

TERM / ACRONYM	EXPLANATION
Competition field	A field used for competitive games during the event
Event	FIH World Cup(s) 2022/2023
FIH Hockey turf and Field Standards	All parts of the FIH Hockey turf and Field Standards. Unless otherwise specified by the FIH, this shall be the edition current 24 months in advance of the Event
FIH TV Lighting Guide	FIH Facilities Guide - Sports Lighting for Broadcasting 11 a-side Hockey, Outdoors (unless otherwise specified by FIH, this shall be the edition current 24 months in advance of the event).
FIH Lighting Guide for Non-televised Hockey	FIH Facilities Guide - Sports Lighting for Non-televised 11 a-side Outdoor Hockey (unless otherwise specified by FIH, this shall be the edition current 24 months in advance of the event).
Field	The full Hockey turf area comprising the field of play and Run-Offs. May also be described as the Pitch
Field of play	The playing area contained within the side lines and goal lines
FWC 2022/2023	FIH Men's and/or Women's World Cup 2022/2023
Hockey turf	A synthetic turf surface specifically designed for the game of hockey
LOC	Local Organising Committee
Operational margin	A margin outside the run-offs that is used by event management for TV camera positions, advertising boards, etc.
Run-Offs	Margins around the perimeter of the field of play that form deceleration and safety margins for players.
Temporary Overlay Pitch	A FIH Approved method of temporarily installing a hockey field above an existing natural grass or synthetic turf sports field or other suitable base
Warm-up field	A supplementary field provided to allow teams to warm-up and train prior to and during FIH WC 2022/2023

3. OFFICIAL FIH WORLD CUP HOCKEY TURF SUPPLIER

Sport Group Holding GmbH, owner of Polytan, have been appointed by the FIH as FIH Hockey turf World Cup Partner for the FIH World Cups 2022/2023. Polytan's rights and obligations under the contract include providing the hockey turfs and shockpads for the competition and warm-up fields at each hosting venue.

3.1. Obligations of Polytan

Polytan will provide the men's and women's FWC 2022/2023 venues hockey turfs and shockpads for one competition field and one warm-up field as follows:

i. Global category FIH Approved Hockey turf and ancillary materials for the on-site assembly of the playing surface (line markings, adhesives and jointing film or stitching thread, etc.);

ii. Materials for the elastic layer (shockpad) laid beneath the hockey turf;

iii. Two (2) specialist technicians for the installation of the shockpad, inclusive of flight/travel costs;

iv. Two (2) specialist technicians for the installation of the hockey turf, inclusive of flight/travel costs;

v. The specialist equipment required for the installation of the hockey turf, including the elastic layer underlay;

vi. Free on board (FOB) loading of all playing surface materials and installation equipment, including delivery to the port of origin.

3.2. Obligations of venue / LOC

To enable Polytan to provide and install the hockey turfs and shockpads at each FWC 2022/2023 venue, the venue owners and/or the LOCs, shall enter into a contact (of a form to be agreed) with Polytan for the supply and installation of the hockey turfs and shockpads.

Additionally, the venue owners and/or the LOCs shall assume financial and contractual responsibility for commissioning Polytan or others (as agreed with the FIH) to undertake the following enabling works; the precise scope of works depending on status of the venue:

3.2.1. Venue with existing hockey fields

If it is planned to host the FWC 2022/2023 at an existing venue, the competition and warm-up fields shall be resurfaced by Polytan, unless the fields have one of the following hockey turf surfaces and they will be no more than two years old at the start of event:

- Poligras Platinum CoolPlus 11-42 MB EL 10;
- Poligras Platinum CoolPlus 11-42 EL 10;
- Poligras Platinum World Cup CoolPlus 11-43 MB EL 10;
- Poligras Platinum World Cup CoolPlus 11-43 EL 10;

- Poligras Tokyo GT 11-43 MB EL 10;
- Poligras Tokyo GT 11-43 EL 10.

If the fields at the venue do not have one of the hockey turfs listed above, or the hockey turf installed will be more than two years at the start of the FWC 2022/2023, the LOC shall arrange for the following to be undertaken (by Polytan or others, as agreed by FIH and Polytan):

I. **Option 1** – permanent replacement of the existing surfacing:

   a. The lifting, removal, relocation or disposal of the existing hockey turf.

   b. If the existing elastic layer or shockpad is not suitable for re-use once the existing hockey turf carpet has been removed (as agreed by FIH and Polytan), the lifting, removal and disposal of the existing elastic layer or shockpad and the provision of a suitable asphalt base on which the new elastic layer or shockpad can be laid.

   Option 2 – installation of temporary overlay pitch

   a. All necessary works to allow the installation of a temporary overlay pitch, including any preparatory grounds works.

   b. Supply and installation of the base and edge components of the temporary overlay pitch system – either on a purchase or hiring basis, as agreed with Polytan.

   c. Dismantling, shipping and installation or storage (for future installation) of the hockey turf and shockpad components for use elsewhere, following the World Cup.

   d. Dismantling and shipping (if hired) or dismantling, transportation and storage (if purchased for future reuse) of the base components, following the World Cup.

II. Provision of all necessary documentation to allow the smooth clearance of the goods through customs and allowance for any costs resulting from delays in customs clearance, such as demurrage or storage.

III. Contribute to Polytan's costs for the following items relating to the installation of the donated Hockey turfs and elastic layers:

   a. Six [6] suitable labourers to assist with the installation of any elastic layer or shockpad;

   b. Six [6] suitable labourers to assist with the installation of the new hockey turf surface;

   c. Provision of an adequate power supply onsite for the operation of Polytan's specialist installation equipment for the duration of the installation process;

   d. Provision of material handling equipment onsite, such as a forklift, for the duration of the surfacing installation process;

   e. Shipment of materials and installation equipment from the port of origin to the site, including customs clearance, import duties and local transportation charges;

   f. Re-export of Polytan's specialist installation equipment to the original port of export;

g. Accommodation and subsistence allowance for Polytan's specialist technicians whilst undertaking the works;

h. Provision of an FIH field test to allow certification of the field on completion of the works prior to the World Cup.

3.2.2. New venue to be constructed prior to the World Cup

If a new venue is to be used for the FWC 2022/2023 the venue operator/LOC shall arrange for the following works to be undertaken:

I. Design and construction of suitable base platform, drainage system, edging details (including turf anchoring), and field irrigation in accordance with FIH Hockey turf and Field Specifications and specific requirements for the Polytan Hockey turf and shockpad to be installed.

II. Provision of all necessary documentation to allow the smooth clearance of the goods through customs and allowance for any costs resulting from delays in customs clearance, such as demurrage or storage.

III. Contribute to Polytan's costs for the following items relating to the installation of the donated Hockey turf and elastic layer:

a. Six [6] suitable labourers to assist with the installation of any elastic layer or shockpad;

b. Six [6] suitable labourers to assist with the installation of the new hockey turf surface;

c. Provision of an adequate power supply onsite for the operation of Polytan's specialist installation equipment for the duration of the installation process;

d. Provision of material handling equipment onsite, such as a forklift, for the duration of the surfacing installation process;

e. Shipment of materials and installation equipment from the port of origin to the site, including customs clearance, import duties and local transportation charges;

f. Re-export of Polytan's specialist installation equipment to the original port of export;

g. Accommodation and subsistence allowance for Polytan's specialist technicians whilst undertaking the works;

h. Provision of an FIH field test to allow certification of the field on completion of the works prior to the World Cup;

3.2.3. Venue planning to install a temporary overlay hockey field specifically for the World Cup

If the LOC is proposing to host the FWC 2022/2023 in an existing venue (multi-purpose stadium) and install temporary overlay pitches supplied by Polytan, the venue operator/LOC shall arrange for the following works to be undertaken:

I. All necessary ground preparation works to enable the temporary overlay pitches to be installed. The works to be undertaken in accordance with the specifications for the temporary overlay pitch installation, as detailed by Polytan.

II. Supply and installation of the base and edge components of the temporary overlay pitch system – either on a purchase or hiring basis, as agreed with Polytan.

III. Dismantling, shipping and installation or storage (for future installation) of the hockey turf and shockpad components for use elsewhere, following the World Cup

IV. Dismantling and shipping (if hired) or dismantling, transportation and storage (if purchased for future reuse) of the base components, following the World Cup

V. Provision of all necessary documentation to allow the smooth clearance of the goods through customs and allowance for any costs resulting from delays in customs clearance, such as demurrage or storage.

VI. Contribute to Polytan's costs for the following items relating to the installation of the donated Hockey turf and elastic layer:

a. Six (6) suitable labourers to assist with the installation of the shockpad;

b. Six (6) suitable labourers to assist with the installation of the hockey turf surface;

c. Provision of an adequate power supply onsite for the operation of Polytan's specialist installation equipment for the duration of the installation process;

d. Provision of material handling equipment onsite, such as a forklift, for the duration of the surfacing installation process;

e. Shipment of materials and installation equipment from the port of origin to the site, including customs clearance, import duties and local transportation charges;

f. Re-export of Polytan's specialist installation equipment to the original port of export;

g. Accommodation and subsistence allowance for Polytan's specialist technicians whilst undertaking the works;

h. Provision of an FIH field test to allow certification of the field on completion of the works prior to the World Cup;

i. Any customs duties or local taxes. If these can be waivered due to the playing surfaces being provided the LOC by FIH/Polytan, it will be the responsibility of the LOC to ensure all necessary tax and customs documentation is provided to allow the smooth clearance of the goods through the local customs. Any delay in customs clearance, resulting in additional costs like demurrage or storage will be the responsibility of LOC.

4. FIELD REQUIREMENTS

Each field used for the FWC 2022/2023 shall comply with the following criteria:

4.1 Competition Field

FIELD LAYOUT AND DIMENSIONS			
Field size – field of play		91.40m x 55.00m	
Run-offs Run-off dimensions are minimums. Larger run-offs are acceptable. Ideally the inner and outer run-off will be surfaced with hockey turf.	Ends	Inner	3.0m
		Outer	2.0m
	Sides	Inner	2.0m
		Outer	1.0m
Field size (minimum)		101.4m x 61.0m	

Run-offs shall be kept clear of all permanent or temporary fixtures, (including advertising boards, TV cameras, etc.) at all times.

OPERATION ZONE	
A 1.0m (minimum) wide Operational Zone is required outside the run-offs of each side boundary and ideally on all four each boundaries of the field. The Operational Zone may be surfaced with Hockey turf or an alternative surface such as asphalt, concrete pavers, etc. The transition from the run-off to the operational margin shall be smooth and not form a potential trip point.	
Total field area (minimum)	103.4m x 63.0m

FIELD ORIENTATION
Unless otherwise agreed with the FIH the Field shall be aligned North / South, with a maximum deviation from north of no more than ± 15^{o}.

HOCKEY TURF PLAYING SURFACE
FIH Global Category Approved Hockey turf by Polytan. The playing surface shall be one of the hockey turfs listed in section 3.2.1 or any other Global Category Approved Hockey turf surface agreed by FIH and Polytan.

Colour of playing surface **Field of play and Run-offs**	Preferred colour - Signal Blue (RAL Colour 5005) Other acceptable colours: Ultramarine Blue (RAL Colour 5002), Gentian Blue (RAL Colour 5010), Traffic Blue (RAL Colour 5017) Capri Blue (RAL Colour 5019)
Line markings	In accordance with the *Rules of Hockey* 5m dashed circle lines - required FIH Quality Turf logo - required on each side run-off Polytan logo as specified in FIH / Polytan Official Turf Supplier Contract - required on each side run-off Other markings – there shall be no other markings (lines or logos) present on the field of play or run-offs

FIELD WATERING

If a Hockey turf that requires irrigating to achieve FIH Global category performance is to be used, each field shall have a method of irrigation that provides a uniformly wet playing surfaces in accordance with the *FIH Hockey turf and Field Standards.*

Irrigation may be provided by sub-field irrigation or above-field sprinklers, rain-guns or other means agreed with the FIH. The minimum quantity of water applied to the playing surface shall be in accordance with the wetting procedure used when the Hockey turf system was tested and Product Approved.

Above-field irrigation

If above-field irrigation is to be used there shall be no sprinklers located within the field of play or within 2m of a goal or side line. Rain-guns shall not be located within the run-offs.

The design of the irrigation system shall take into account prevailing wind directions and minimise water spray drift onto spectators.

The irrigation control system shall allow varying cycles and individual programs to ensure the entire playing area and surrounds can be watered. It shall allow the following cycles:

- 10 minutes
- 4 - 5 minutes
- Single station activation

Adequate water storage shall be provided to ensure the field(s) can be fully watered as required for the projected schedules of play during the Event.

The sprinklers or rain guns shall be capable of sectoring to 90° or 180°. The discharge rate shall be such that an irrigation cycle of all six emitters (operating in matched arc pairs) shall achieve an even precipitation over the field of play as specified in the FIH Hockey turf and Field Standards.

For locations where any of the conditions listed below could occur the irrigation system shall be designed to ensure the risk of water borne bacterial infection of players or spectators from diseases such as Legionnaires Disease is eliminated:

- the water temperature in all or some parts of the system is between 20 °C and 45 °C
- water is stored in an open loop system
- water is re-circulated
- there are sources of nutrients such as rust, sludge, scale, organic matter or biofilms within the irrigation or storage system
- local climatic conditions are likely to encourage bacteria to multiply

Sub-field irrigation

The irrigation control system shall ensure water levels are uniformly maintained throughout a game with the ability to top-up during breaks in play as required.

The control mechanism shall ensure that optimum playing conditions are retained at all times and that ponding of water within the Hockey turf surface does not occur. The system shall be sufficiently responsive so that it can self-adjust to any rain-fall event occurring during a game, so there is no adverse effect on play.

Ancillary watering

Back-up large bore hoses with a suitable supply shall be provided for additional manual watering of the field as necessary. These should be stored close to the field (not on the Run-Offs) to enable rapid deployment and should be stored safely to avoid tripping hazards.

CATEGORY OF FIH FIELD CERTIFICATION REQUIRED[1, 2]		
New build venues	Global Elite	
Existing venues	Preferred category	Global Elite
	Minimum	Global
Temporary Overlay Pitch	Global – TOP 1[3]	

1 – see FIH Hockey turf and Field Standards for details

2 – New and existing fields shall be certified between 4 months and 12 months in advance of the FWC 2022/2023. Temporary Overlay pitch shall be tested following installation.

3 – currently under development by FIH

SPORTS EQUIPMENT	
Goals	Three goals (one set and one spare) shall be available at least one week before the start of the competition. These must be free of any commercial branding unless otherwise agreed by FIH. Goals shall be aluminium goals with an integral weight system that conform to the *Rules of Hockey* and European Standard EN 750. The front wall on the uprights and cross bar shall be reinforced to prevent ball impact damage. The backboard panels shall be reinforced and fitted with impact and noise absorbing panels on all inside faces to a height of 460mm. The posts and cross-bar shall be white (or another colour subject to FIH approval). The front corners and edges of the goal-posts and cross-bar must be rounded with a radius of three (3) mm +/-one (1) mm; Brackets supporting the net or parts of the goal frame must not protrude outside the 50 mm width of the goal-posts and cross-bar; Frame fixings must not be attached to the side-boards or back-boards in a way which could result in a ball entering the goal rebounding from them; Side-and back-boards must be covered with a shock-absorbing material such as rubber; Any vertical part of the net support frame must be outside the net and fixed in such a way that a ball entering the goal cannot rebound from it; Any horizontal part of the net support frame across the back or sides of the goal must be outside the net and fixed in such a way that a ball entering the goal cannot rebound from it.
Goal nets	Three nets (one set and one spare) shall be available at least one week before the start of the competition. These must be free of any commercial branding unless specified in section 12 or otherwise agreed by FIH. Nets shall be hung from the back bar in a way that allows them to hang freely to eliminate ball rebounds. They shall be held firmly in place with an integral net retaining system (not net hooks). The nets shall be the same colour as the field of play. They shall be fixed so that the ball does not pass between the goal-posts and the net or between the cross-bar and the net. The nets shall be fixed at the back of the side-boards and back-boards so that the ball cannot pass beyond the net.

Corner flags	Six (one set and two spare) shall be available at least one week before the start of the competition. These must be free of any commercial branding unless specified in section 12 or otherwise agreed by FIH. Corner flags shall be mounted on flexible (22mm diameter) posts.
Team benches	By one (1) week prior to the start of the competition, two team benches shall be provided. They shall have seating for 11 people and be covered to protect players from the weather. They shall be available at least one week before the start of the competition and must be free of any commercial branding unless specified in section 12 of the Event Manual or otherwise agreed by FIH. Each bench shall provide: • Two electrical outlets and running water • Stick storage box • Waste bin • Table (3m2) for drinks and medical equipment • Screens to protect from the watering system are recommended. • In hot climates (ambient temperature above 30°C), industrial cooling fans • 1.2m high barrier to provide protection from the FoP. The benches shall be Immediately accessible at the side of the field and be positioned within 10m either side of the technical table. They shall be set back the same distance (as minimum) as the technical table.
Technical table	An appropriate working table to accommodate laptop, printer and technical equipment The front and two sides of the table must be closed completely from the top of the table to the floor It shall have seats for four people at the table, with sides open for the Event Officials and the Reserve Umpire and two additional seats for authorised personnel It shall have electrical outlet points for computers and printers It shall be located at the side of the pitch on the halfway line on the same side as the Team benches, without interfering with spectators' view of the pitch. It shall be set back a minimum distance of the pitch run off (3m) and allow a clear view of all of the field of play and have a protective cover against sun, wind, rain and pitch watering. It shall have sides that permit easy access to the field of play for Event Officials It must not have a glass cover, windows etc. that may be exposed to hockey balls accidentally hit from the field of play It shall be elevated at least 300 mm above ground level

Suspended player seats	At least four seats shall be provided for suspended players (2 each side of the technical table). These can be located at the front or alongside the technical table. These seats should be positioned behind a minimum 1m high fence / wall to provide protection from balls leaving the FOP.

PERIMETER FENCING

Behind the goals fencing shall be at least 7.0m high for the full width of the boundary.

On side boundaries fencing shall be a minimum of 1.0m high. Low level fencing shall incorporate an upper hand rail.

Fencing may be ball catch netting or a combination of metal chain-link or weldmesh and ball catch netting suspended above. The mesh size shall not allow hockey balls to pass through at speed. Fence posts and supports shall be positioned to minimise the visual intrusion on TV images.

Ball catch netting shall be fully attached to prevent billowing in the wind.

Player and match officials' access gates to the field shall be at least 1.0m wide.

At least one set of double gates shall be provided to allow maintenance and emergency vehicle access to the field(s).

SPORTS LIGHTING

Lighting of the field shall be to the **TV1** category as detailed in the *FIH Facilities Guide - Sports lighting for broadcasting 11 a-side hockey, outdoors* and summarised below:

Property		**Requirement**
Vertical illuminance – towards main camera		≥ 1650
Vertical illuminance - orthogonal directions		≥ 1200
		≥ 1200
Horizontal illuminance (lux)		≥ 2000
Vertical illuminance - main camera uniformity	**Uv1**	≥ 0. 60
	Uv2	≥ 0. 65
Vertical illuminance - orthogonal dir. Uniformity	**Uv1**	≥ 0. 50
	Uv2	≥ 0. 60
Horizontal illuminance uniformity	**Uh1**	≥ 0. 65

	Uh2	≥ 0. 70
Minimum calculated MAUR	**Vertical**	≥ 0. 65
	Horizontal	≥ 0. 65
Flicker factor		≤ 5%
GR-Max		< 50
CRI		>75
Colour temperature		5000 – 6200K

4.2 Warm-up & training fields

For venues wishing to host either the men's or women's FWC 2022/2023, one warm-up field adjacent to the Competition Field shall be provided. If any venue wishes to host both the men's and women's FWC 2022/2023 concurrently, one warm-up field adjacent to the Competition Field and one training field in the vicinity of the Competition Field shall be provided.

The warm-up / training field shall satisfy all the requirements for the competition fields, as detailed in section 4.1, other than the following:

Hockey turf	Same as the competition field and be of a similar age and have received similar levels of use prior to the event
Operational zone	Preferable, but not essential
Category of field certification	Global (Global Elite preferable) or Global – Temporary Overlay
Height of fencing	3m at ends providing there are no spectator facilities behind the goals 1m along sides
Technical table	Recommended (in case rescheduled competition matches have to be played on the warm-up field)
Team benches	Required
Sports Lighting	Minimum Class II as defined in the FIH Sports Lighting for Non-televised Hockey

5. GENERAL FIELD REQUIREMENTS

5.1. Sustainability principles

The FIH is keen to ensure the hockey facilities constructed for the World Cups are as environmentally sustainable as possible. With this is mind the Local Organising Committee is encouraged to use a Hockey turf surface that:

- Utilises bio-based polyethylene yarns as far as possible;
- Is designed to only require irrigating at 1l/m^2 or less;
- Incorporates the sustainable reuse of water used to irrigate the fields;
- Is not bonded to the underlying shockpad, allowing the more straightforward resurfacing /relocation of the Hockey turfs in the future;
- Is manufactured from a range of materials that allow the full recycling of the Hockey turf and shockpad (cradle to cradle) when it reaches the end of its life as a hockey playing surface.

The design and construction of the fields should also be based on the principals of the IOC's Guide to Sport, Environment and Sustainable Development.

5.2. Field design and construction

The fields shall be designed and constructed to ensure they can be certified to the specified requirements of the FIH Hockey turf and Field Standards. The design and construction should also be based on the principals of the IOC's Guide to Sport, Environment and Sustainable Development.

The construction shall typically comprise a stabilised formation, sub-field drainage system compacted aggregate sub-base, engineered (preferably porous asphalt) base, shockpad and Hockey turf playing surface, all designed and constructed in accordance with sports field engineering best practice.

5.3. Field drainage

Unless otherwise agreed with the FIH the fields shall be designed to incorporate a sub-surface drainage system (vertical or horizontal) that is designed to cater for a rain-fall event of at least 150mm/hr or a one in ten year's rain-fall event, whichever is greater.

The hockey turf surface shall be designed to ensure water is able to drain vertically into the underlying sub-surface drainage system.

5.4. Field profile

Unless otherwise agreed in advance with the FIH, the fields shall be built with a profile that satisfies the FIH's Preferred Gradient requirements as detailed in the FIH Hockey turf and Field Standards.

In locations where climatic or geographic considerations mean Global Elite / Global fields meeting the preferred gradients may not have adequate surface drainage (i.e. in areas subjected to intense rain-fall events or where free draining sub-base aggregates are not available), a field profile that complies with the maximum gradient requirements may be used providing:

i. The profile does not adversely affect the ability of the field to satisfy the Global category ball roll consistency requirements as specified in the FIH Quality Programme for Hockey turf;

ii. The profile and field drainage system ensures water applied to wet the Hockey turf during play does not drain from higher areas of the field (causing the surface to dry) and collect in lower areas of the field (resulting in the surface becoming saturated or too wet).

The longitudinal slope of the field should be symmetrical on either side of the pitch centre-line.

5.5. Maintenance equipment

The LOC shall ensure that all necessary maintenance equipment, as recommended by the hockey turf manufacturer, is available to enable the Hockey turf on each field to be fully maintained in accordance with the manufacturer's instructions. They shall also ensure an adequate number of trained maintenance staff are available throughout the Event.

If intensive rainfall (thunderstorms, etc.) may be anticipated during the Event, suitable squeegees to remove any excess water ponding on the hockey turf shall be provided.

If painted lines are to be used the LOC shall ensure that suitable maintenance equipment and paint is available throughout the Event to allow the remarking of lines as required.

5.6. FIH Field Certification

New fields should be used prior to test to ensure the hockey turf reaches its optimum condition prior to test. This may require several months play and an adequate allowance should be made in the commissioning programme for this.

FIH field certification includes an assessment of the effectiveness of the field's irrigation system and this needs to be fully compliant and operational at the time of the field test.

The tests shall be undertaken by an FIH accredited test institute (see www.fih.ch/hockeyturf for details of FIH Accredited Test Institutes). To ensure impartiality the test institute should not have been involved in the design or procurement of the field.

5.7. Sports lighting

The lighting system shall be tested after at least 10 hours use (to ensure consistency). The tests shall be undertaken by an independent lighting engineer, as agreed with the FIH or an FIH accredited test institute appointed by the LOC.

If the lighting system is a permanent installation the lighting test shall be undertaken no more than six, and no less than two, months in advance of the Event.

If a temporary lighting system is to be used to fully light or augment an existing lighting system, the lighting tests shall be undertaken, and the results submitted to the FIH for approval no more than two weeks in advance of the Event.

6. INFORMATION TO BE PROVIDED BY HOST NA AT TIME OF BIDDING

6.1. Field layout details

At time of bidding to host the FWC 2022/2023 the National Association shall provide full details of each proposed venue and fully demonstrate how the venue will comply with the requirements of this document. This will be best achieved by providing for each field a detailed CAD drawing (DWG format) of the existing or proposed field. The following information is required for the competition and warm-up fields. If a new (yet to be constructed) or temporary venue is being proposed, as much information as currently available shall be provided:

- Overall field dimensions (field of play, run-offs and operational margin), including details of any run-off not surfaced with Hockey turf
- Field profile (gradients or levels)
- Field orientation
- If an existing venue, details of the existing playing surface, including brand name, date of installation, colour of the field of play and run-offs
- If an existing venue, details of the approximate and predicted hours of usage between the date of installation and the FWC
- Details of the sub-base and drainage system (this information should be available from the company that constructed the field
- Details of the irrigation system including position of rain guns or irrigation sprinklers, etc
- Height and positions of perimeter fencing, including any ball stop netting, player and vehicle access points
- Location of team benches and technical table
- If an existing venue, details of whether the existing playing surface can be lifted and repositioned after removal for use elsewhere

6.2. Lighting details

Details of the performance of any current lighting system (vertical and horizontal illumination levels), along with details of how these will be upgraded to satisfy the required lighting levels of this specification (if this is not currently the case).

6.3. FIH Hockey turf World Cup Partner agreement confirmation

The National Association shall also confirm that they have fully considered the benefits, obligations and requirements of the FIH / Polytan Hockey turf World Cup Partner agreement and have fully allowed for them in their budgeting for hosting the FWC 2022/2023.