



Eventing IRELAND

Grass Roots to Gold Medals

CROSS COUNTRY COURSE DESIGNER MANUAL AND GUIDELINES



Eventing IRELAND

Cross Country Designer Guidelines



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1. Introduction

These guidelines are intended to provide a framework around which to work when designing and building cross-country courses at all levels including training, arena eventing, warm up and national eventing. It is advised that you contact a List A Course Designer when undertaking any new works. These Guidelines may be subject to change and it is your responsibility to keep up-to-date with any changes or rules in respect of Course Design.

Design Objective

- To provide a flowing course appropriate to the level of the competition, creating a good picture, educational for both horse and rider and made to look easy by the best combinations.

Design and Construction

- The siting and positioning of fences is important and great care should be taken looking at approach, take-off and landing. Remember an obstacle with an uphill approach will measure big.
- Groundwork should be done well in advance so it is stable and able to cope with the number of horses running over it in competition
- Portable fences should be strong and robust and designed in such a way that they can be set into position and secured so as to minimise the risk of them moving if hit by a horse. Please see Point 11 *Arena Eventing And Fences not on Grass* for further information.

Breakable Devices

Any fence on any course that meets the criteria for Breakable Devices must have the appropriate device fitted. Eventing Ireland approves both MIM and BE breakable devices. Please contact Cetag to purchase (see back of booklet for contact details)

All fences must be compliant with the current FEI Guidelines when using frangible pin or MIM pin technology. Please refer to <https://inside.fei.org/fei/disc/eventing/rules> and scroll down to Cross Country Guide For Officials.

- Oxers: where MIM Clips and Reverse Pins are available it is recommended that a MIM Clip should be used on the front rail and the Reverse Pin on the back rail. However, both devices are approved.
- Corners: as the MIM skinny post and rail kit is now approved, it is recommended to replace front pinned fences with this system the updated MIM system for open corners using the yellow clips
- From 2022, front pins are no longer acceptable on fences.
- Ground Lines must be used on fences at all levels.



The Course Designer is responsible for completing the fence dimension sheets for each track they design along with a course map and must submit this to Head Office a week before the event.

Front Shoulder and Corners of Spread Fences

Since 1 January 2020, it has been included in the Eventing rules that all CDs should reshape spread fences with upright fronts so that the top of the front of the fence will be rounded or sloped. It is recommended that the slope should be 45° (with a margin of +/- 5°) to a point 20cm. below the top of the leading edges. If a fence has a sloping back, the back edge should follow the same principles as the front edge.

Gates are exempted. However, if gates are used on a course it is strongly recommended at all levels that they have an approved frangible mechanism incorporated in to their design and a ground line. It is not recommended at any level to encourage athletes to jump gates on an angle.

Measurement of Fences

The height of an obstacle is measured from the point which the average horse would normally take off.

The top spread of an open obstacle (eg: oxer) is measured from the outside of the rails or other material making up the obstacle (including the ground line). The spread of a closed obstacle with a solid top (eg. table) is measured from the highest point to the highest point.

The drop on an obstacle is measured to the point that the average horse is expected to land.

At least 90% of XC fences on each track must be up-to-height

Note: It is recommended that the last obstacle of Cross Country shall be not less than 20 metres no more than 50 metres from the finishing line.

Distances and Speeds/Course Measurement

The distances and speeds demanded for the different levels are determined by the intended difficulty of the whole test.

Course Designers, within the limits shown in Table of Distances, Speeds, Times and Jumping Efforts for the relevant level of Competition (see EI Rule 23.19) will choose the most suitable distance for the specific Competition.



Any exceptional modification to the distances and speeds specified under EI Rule 23.19 must be agreed and approved by the Organiser / Land Owner and the permission of Eventing Ireland

The measurement of the length of the course is the responsibility of the Course Designer. The distance of the course should be measured with a measuring wheel, along the track that an average horse may be expected to take, ie. neither turning particularly tight into a fence nor making wide, exaggerated turns.

Guideline Distances For Horses in Cross Country Combinations

These guidelines represent inside measurements between elements in a simple combination on flat ground, the variation depends on type of fence and level of competition. The shorter distances are appropriate for EI80, EI90, EI100, EI105 and EI110 competitions and the longer for higher (as per EI Rule Book).

Slope, steps up or down and fences before water may also require adjustment to the distance. Discussion with your Accredited Course Designer is important before you set distances in a combination.

Combination Type	Guide Distance
One Stride	7.5m – 8m
Two Strides	10.5m – 11m
Three Strides	14.5m – 16m

It is very important for designers to understand how horses jump different types of fences in different situations so that they can adjust distances accordingly. Watching fences jumped is always educational as is walking the footprints at fences after they have been jumped.

Clarification on the Securing Down of Portable Cross Country Fences

Please refer to Point 11 *Arena Eventing And Fences not on Grass*

All reasonable steps must be taken to ensure that portable fences are secured in a way that will minimise the risk of them moving if hit by a horse. Too many fixings rather than too few is a good decision as fences lifting or moving may increase the chances of a fall.

In order to achieve this there are two various ways of securing portable fences to the ground, the two most common ones are the Spirafix Ground Anchor system and the use of posts.

In some situations, such as lines water jumps or all-weather arenas, posts or Ground Anchors cannot be used. Fences should be weighted down commonly with ballast, concrete or containers full of sand, or water. Please seek advice from your Accredited Course Designer for the most appropriate option.

**Spirafix System 50mm “C” type Ground Anchors**

This is a very good system but there are some key points to consider in their use:

- The anchors must be at the front of the fence rather than at the back, or at the front as well as the back. At least two must be used.
- Where fences with small base spreads are to be fixed down extra ground anchors may be required at the front of the fence.
- There are two lengths of anchors available (460mm and 620mm) and it is important that the appropriate one is used depending on soil type, ie: long ones in sandy soil.
- The anchor brackets must be securely fixed to the frame of the fence so that the fence cannot break away from the brackets under a large impact.
- See Contact Information for Spirafix details

Posts

These should be a minimum of 70cm for a 1m fence and minimum of 100cm for fences above 1m. Posts should be well dug or knocked into the ground. A depth of 0.70cm in the ground would be acceptable, but ground conditions could require them to be in deeper.

- Posts should be at the back of the fence and if set below the highest part of the fence should be put at the front as well to stop the front lifting in impact.
- Try to avoid using posts with lots of knots as this can weaken the post.
- Using a mixture of posts and anchors can be useful and is quite acceptable.



2. Distances, Speeds, Jumping Efforts and Dimensions

Classes	Length	Speed*	Efforts	Height	Top Spread	Base Spread	Base Only	Water jump max	Drop max
E180	1600-2800m	435 m/min	18-25	0.80m	0.90m	1.25m	1.20m	0.20m	
E190	1600-2800m	450 m/min	18-25	0.90m	1.00m	1.50m	1.20m	0.20m	1.20m
E1100	1600-2800m	475 m/min	18-25	1.00m	1.10m	1.80m	1.80m	0.20m	1.40m
E1105	1800-3000m	520m/min	18-30	1.05m	1.15m	2.00m	2.50m	0.30m	1.60m
E1110	1800-3000m-	520 m/min	20-28	1.10m	1.40m	2.10m	2.80m	0.30m	1.60m
E1115	2800-3600m	550 m/min	22-32	1.15m	1.60m	2.40	3.20m	0.30m	1.80m
E1120	3200-4000m	570 m/min	25-35	1.20m	1.80m	2.70m	3.60m	0.35m	2.00m



3. XC Guidelines – Quick Reference

XC Guidelines – Quick Reference	EI180	EI190	EI100	EI105	EI110	EI115	EI120
Combinations/Related Distances (ex water)	Max 3	Max 3	Max 4	Min 4	Min 4	Min 5	Min 7
Alternatives	√	√	√	√	√	√	√
Bounces	x	x	<input checked="" type="checkbox"/>	√	√	√	√
Bounces 2 x steps	√	√	√	√	√	√	√
Top Spread (% of efforts with Top Spread>#)	-	-	15% > 0.90m	20%> 1.0m	20%> 1.0m	20%> 1.30m	20%> 1.40m
Water: Jumps into/ Jumps in	x	x	x	√	√	√	√
Water: Steps into	x	x	<input checked="" type="checkbox"/>	√	√	√	√
Water: Steps Out	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	√	√	√	√	√
Narrow fences – Min jumpable width	2.00m	2.00m	1.80m	1.50m	1.50m	1.30m	1.10m
Number of Narrow Fences	Max 3	Max 3	Max 3	Max 4	Max 4	Min 2	Min 4
Breakable Devices	x	x	√	√	√	√	√
Minimum Non-jumping Strides							
Bending through 45°	5	5	5	4	4	3	3
Bending through 60°	6	6	6	5	5	4	3
Bending through 90°	9	9	8	6	6	5	4
Angle Guide for Corners	25-30°	25-30°	30-35°	45-50°	45-50°	60-70°	75-80°

See EI Guidelines

4. EI80 Classes

Objective

The EI80 class is to encourage inexperienced riders and horses to compete in and experience EI events at an introductory level, with the benefit of the highest standards of course design and building.

Riders should be able to canter, around the course, in a good rhythm. They will be expected to be able to go up and down hills/slopes and to jump a variety of straight forward fences.

The cross-country course should be made up exclusively of EI80 fences, where possible, and the course should be inviting, flowing and encouraging with the minimum amount of technicality involved. If fences have to be shared with EI90 obstacles, they must be within EI80 dimensions.

The EI80 class needs to cater for EI80 competitors as well as those who will use it as an educational stepping stone to progress up the classes. Time is not expected to be a key element at this level – this class is to encourage and build confidence.

It is intended that these guidelines be used to create a base standard for the EI80 class. Advice from Accredited Course Designers is essential during the design, construction and alteration of courses.

Design and Construction

At this grass roots level, the variety in the way that obstacles appear and their profile is very important. Obstacles which have a sympathetic and more forgiving profile should be used wherever possible. All obstacles should have well defined ground lines and their jumpable width should generally be wide and inviting. Courses should have a good balance of fences and the first six fences should encourage horses to jump confidently and in a rhythm.

The inclusion of more upright fences: post and rails, is appropriate and educational but care should be given in the correct positioning of upright fences

Some fence types and their suitability at EI80 level are considered in **Table A**

1. Combinations and Related Distances

There should be a **maximum of three combinations** within the course, excluding the water fence. They should appear in the last two thirds of the course, wherever possible, to allow sufficient time for competitors to have warmed up before any questions are asked. Combinations should not appear before fence 4. **(A Combination is defined as elements with two or less non jumping strides in**



between. Related distances refer to distances above two non-jumping strides.)

Combinations should be simple and straight forward consisting of not more than two elements.

Sympathetic fence profiles should be used. Avoid using fence types which can jump erratically and alter distances between elements eg. brush fence as the first part of a combination.

Combinations and related distances should not be sited at the end of long galloping stretches, on a downhill slope or in an area with a confined access or exit. Avoid areas in shadow or with poor light. A slow measured approach should be the designer's aim.

Distances

Bounce distances, on fences with height, should **not** be used at this level. (A bounce distance between two steps is permitted – see table)

2. Alternatives

Alternatives should not be necessary as the direct route should be suitable for the majority of competitors. Where they are considered necessary, they should be asking the same type of question as the direct route eg: accuracy, be the same in construction (where possible) and be easier and more time consuming to execute.

3. Water Obstacles

EI80 competitors should be expected to negotiate a simple 'dew pond' type complex, with a ramp into and out of water. **Competitors should not be expected to jump into water.**

Obstacles before water

Obstacles placed before a ramp into water should be on two non-jumping strides or more. Fence profiles should be sympathetic. Maximum height fences should be avoided.

Obstacles after water

Obstacles after a ramp out of water should be sited on two non-jumping strides or more.

Fence profiles should be sympathetic.

Steps out of water

Steps out of water are acceptable, but not recommended, and must be well defined. Consider painting the top of the step out with a suitable defining colour. NO jumps in water. The depth of water (max 0.20cm) is not the test.

4. Narrow Fences

Narrow fences are optional at EI80 level. If used, they should start to set the rider and horse a test of accuracy and honesty. **There should be a maximum of 3 minimum jumpable width fences.** (Jumpable width is defined as between the flags)

The minimum jumpable width should be **2.00m**. This should be made more inviting with the use of trees and dressing to create an impression of width and to help guide competitors in. In the case of birch fences, cutting in a 'scallop' shape creates such an impression.

Fences whose jumpable widths reduce from back to front ie: arrow heads should have a front face jumpable width of a minimum of 50% of the back. eg: a 2m wide arrow head at the back, should taper to a minimum of 1m. Base spread should not exceed 75% of maximum allowed.

5. Tables

All tables should either be filled in with a sloping front face, with such face sloping away from the horse on the take-off side of the fence (this would be appropriate for the traditional sleeper tables or churn stands) or, in the case of picnic tables, the top line should have a vertical face of at least 0.25m and there should be a seat in front of the table, also with a vertical face of at least 0.25m. **Seats must not be placed on the landing side of a table**, as this may present a false ground line.

6. Verticals

Verticals/uprights should not be sited, where it is possible for many riders/horses to approach them too fast.

7. Fences with Breakable Devices

Breakable devices must be used on all fences which meet the current criteria.

8. Core Elements

Table A identifies fence types for inclusion in EI80 courses and recommendations for construction and design. Fence types highlighted are considered to be core elements to EI80 classes and **each cross country should have at least 4 different core fence types**.



Table A EI80 Cross Country Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
Verticals and Palisades	√	Base spread min 30cm Recommended 50cm	See main notes
Parallels	√	Back rail min 5cm higher than front	
Tables Top Type	√	Back minimum 5cm higher than front	See main notes
Bench/Chair	√	Height at front 40cm Base Spread 1.20m	A minimum of 10° slope on back of seat. The slope from front of seat to top of bench to be 40-50°
Round Tops	√	Base Spread 1.35m	
Brush Box	√	Minimum of 0.25m of Birch Height of solid part of fence - 0.70m	
Bullfinch	X		
Feeder / Lamb Creeper	√		Filled with straw
Ramps	√		Recommended 40-50° slope
Steps*	√	(i) Single step Height 0.90m (ii) 2 steps Height 0.75m No bounce on descent No Fences associated after 2 steps down	Fences associated before a step down, on a distance not less than 9.10m
Trakehner	√	Shallow Ditch. Min Jumpable width 3.6m	Ground line essential
Water	√	Minimum width of water crossing to be 6.00m	See Main Notes

Table A EI80 Cross Country Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
Brush & Open Ditch Towards	√	Minimum 0.25m of Birch. Height of solid part of fence – 0.70m Base Spread 1.10m Ditch should be not less than 0.60m wide and not more than 0.60m deep Min Jumpable Width 3.6m	Ground line essential Not recommended within a combination
Wall and Open Ditch Towards	√	Base Spread 1.20m Ditch should be not less than 0.60m wide and not more than 0.60m deep Minimum Jumpable Width 3.6m	Ground line essential Not recommended within a combination
Half Coffins	√	Recommended two non-jumping strides between elements. Not less than 9.10m 3.6m min jump width of ditch	Jumping element can be before or after ditch. Ditch to be well defined
Open Ditch	√	Min Jumpable Width 3.6m	Clear Ground Line
Full Coffins	X		
Sunken Road	X		
Bounces	X		
Corners	√	Top spread max 1.00m measured 1.10m in from point of corner. Back to be min 5cm higher than front. Suggest 30 degree angle	Decking of corner-not essential. Steps must be taken to ensure corner is not jumped where it is too wide.
Log Piles	√		



Table A EI80 Cross Country Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
Banks	√	NO bounce distances	Clear defined jump off
Drop Fences	√		If possible on a slope and never onto flat ground and not too many on the course
Elephant Traps	X		
Zig Zag	X		
Roofs and Keyholes	√	Any fixed barrier above the obstacle must be a minimum of 3.36m above ground level	Provided there is ample space. Should be seen as decorative not a jumping test
Narrow Fences	√	Minimum 2.00m	See main notes
Steeplechase	√	Take Off Board 45-55° Angle	Knee Rail 0.52cm High
Helsinki Steps	√	3.00m Sections	On gentle slope
Sharks Teeth	√		
Triple Bars	√	Base spread 1.10m	

* It is worthy of note that a double of steps on a bounce distance, is the only bounce experience an EI80 horse/rider will experience.

5. EI90 Classes

Objective

The EI90 class is to encourage inexperienced riders and horses to compete in and experience EI events at an introductory level, with the benefit of the highest standards of course design and building.

Riders should be able to canter, around the course, in a good rhythm. They will be expected to be able to go up and down hills/slopes and to jump a variety of straight forward fences.

The cross-country course should be made up exclusively of EI90 fences, where possible, and the course should be inviting, flowing and encouraging with the minimum amount of technicality involved. If fences have to be shared with EI100 obstacles, they must be within EI90 dimensions.

The EI90 class needs to cater for EI90 competitors only as well as those who will use it as an educational stepping stone to progress up the classes. Time is not expected to be a key element at EI90 level.

It is intended that these guidelines be used to create a base standard for the EI90 class. Advice from Accredited Course Designers is essential during the design, construction and alteration of courses.

Design and Construction

At this grass roots level, the variety in the way that obstacles appear and their profile is very important. Obstacles which have a sympathetic and more forgiving profile should be used wherever possible. All obstacles should have well defined ground lines and their jumpable width should generally be wide and inviting. Courses should have a good balance of fences and the first six fences should encourage horses to jump confidently and in a rhythm.

The inclusion of more upright fences: post and rails, is appropriate and educational but care should be given in the correct positioning of upright fences

Some fence types and their suitability at EI90 level are considered in **Table B**

9. Combinations and Related Distances

There should be a **maximum of three combinations** within the course, excluding the water fence. They should appear in the last two thirds of the course, wherever possible, to allow sufficient time for competitors to have warmed up before any questions are asked. Combinations should not appear before fence 4. **(A Combination is defined as elements with two or less non jumping strides in**



between. Related distances refer to distances above two non-jumping strides.)

Combinations should be simple and straight forward consisting of not more than two elements.

Sympathetic fence profiles should be used. Avoid using fence types which can jump erratically and alter distances between elements eg. brush fence as the first part of a combination.

Combinations and related distances should not be sited at the end of long galloping stretches, on a downhill slope or in an area with a confined access or exit. Avoid areas in shadow or with poor light. A slow measured approach should be the designer's aim.

Distances

Bounce distances, on fences with height, should **not** be used at this level. (A bounce distance between two steps is permitted – see table)

10. Alternatives

Alternatives should not be necessary as the direct route should be suitable for the majority of competitors. Where they are considered necessary, they should be asking the same type of question as the direct route eg: accuracy, be the same in construction (where possible) and be easier and more time consuming to execute.

11. Water Obstacles

EI90 competitors should be expected to negotiate a simple 'dew pond' type complex, with a ramp into and out of water. **Competitors should not be expected to jump into water.**

Obstacles before water

Obstacles placed before a ramp into water should be on two non-jumping strides or more. Fence profiles should be sympathetic. Maximum height fences should be avoided.

Obstacles after water

Obstacles after a ramp out of water should be sited on two non-jumping strides or more.

Fence profiles should be sympathetic.

Steps out of water

Steps out of water are acceptable, but not recommended, and must be well defined. Consider painting the top of the step out with a suitable defining colour. NO jumps in water. The depth of water (max 0.20cm) is not the test.

12. Narrow Fences

Narrow fences should be introduced at EI90 level. They should start to set the rider and horse a test of accuracy and honesty. **There should be a maximum of 3 minimum jumpable width fences.** (Jumpable width is defined as between the flags)

The minimum jumpable width should be **2.00m**. This should be made more inviting with the use of trees and dressing to create an impression of width and to help guide competitors in. In the case of birch fences, cutting in a 'scallop' shape creates such an impression.

Fences whose jumpable widths reduce from back to front ie: arrow heads should have a front face jumpable width of a minimum of 50% of the back. eg: a 2m wide arrow head at the back, should taper to a minimum of 1m. Base spread should not exceed 75% of maximum allowed.

13. Tables

All tables should either be filled in with a sloping front face, with such face sloping away from the horse on the take-off side of the fence (this would be appropriate for the traditional sleeper tables or churn stands) or, in the case of picnic tables, the top line should have a vertical face of at least 0.25m and there should be a seat in front of the table, also with a vertical face of at least 0.25m. **Seats must not be placed on the landing side of a table**, as this may present a false ground line.

14. Verticals

Verticals/uprights should not be sited, where it is possible for many riders/horses to approach them too fast.

15. Fences with Breakable Devices

Breakable devices must be used on all fences which meet the current criteria.

16. Core Elements

Table B identifies fence types for inclusion in EI90 courses and recommendations for construction and design. Fence types highlighted are considered to be core elements to EI90 classes and **each cross country should have at least 4 different core fence types**.



Table B EI90 Cross Country Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
Verticals and Palisades	√	Base spread min 30cm Recommended 50cm	See main notes
Parallels	√	Back rail min 5cm higher than front	
Tables Top Type	√	Back minimum 5cm higher than front	See main notes
Bench/Chair	√	Height at front 40cm Base Spread 1.20m	A minimum of 10° slope on back of seat. The slope from front of seat to top of bench to be 40-50°
Round Tops	√	Base Spread 1.35m	
Brush Box	√	Minimum of 0.25m of Birch Height of solid part of fence - 0.80m	
Bullfinch	X		
Feeder / Lamb Creeper	√		Filled with straw
Ramps	√		Recommended 40-50° slope
Steps*	√	(i) Single step Height 0.90m (ii) 2 steps Height 0.75m No bounce on descent No Fences associated after 2 steps down	Fences associated before a step down, on a distance not less than 9.10m
Trakehner	√	Shallow Ditch. Min Jumpable width 3.6m	Ground line essential
Water	√	Minimum width of water crossing to be 6.00m	See Main Notes



Table B EI90 Cross Country Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
Brush & Open Ditch Towards	√	Minimum 0.25m of Birch. Height of solid part of fence – 0.80m Base Spread 1.10m Ditch should be not less than 0.60m wide and not more than 0.60m deep Min Jumpable Width 3.6m	Ground line essential Not recommended within a combination
Wall and Open Ditch Towards	√	Base Spread 1.20m Ditch should be not less than 0.60m wide and not more than 0.60m deep Minimum Jumpable Width 3.6m	Ground line essential Not recommended within a combination
Half Coffins	√	Recommended two non-jumping strides between elements. Not less than 9.10m 3.6m min jump width of ditch	Jumping element can be before or after ditch. Ditch to be well defined
Open Ditch	√	Min Jumpable Width 3.6m	Clear Ground Line
Full Coffins	X		
Sunken Road	X		
Bounces	X		
Corners	√	Top spread max 1.00m measured 1.10m in from point of corner. Back to be min 5cm higher than front. Suggest 30 degree angle	Decking of corner-not essential. Steps must be taken to ensure corner is not jumped where it is too wide.
Log Piles	√		



Table B EI90 Cross Country Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
Banks	√	NO bounce distances	Clear defined jump off
Drop Fences	√		If possible on a slope and never onto flat ground and not too many on the course
Elephant Traps	X		
Zig Zag	X		
Roofs and Keyholes	√	Any fixed barrier above the obstacle must be a minimum of 3.36m above ground level	Provided there is ample space. Should be seen as decorative not a jumping test
Narrow Fences	√	Minimum 2.00m	See main notes
Steeplechase	√	Take Off Board 45-55° Angle	Knee Rail 0.52cm High
Helsinki Steps	√	3.00m Sections	On gentle slope
Sharks Teeth	√		
Triple Bars	√	Base spread 1.10m	

* It is worthy of note that a double of steps on a bounce distance, is the only bounce experience an EI90 horse/rider will experience.

6. EI100 Classes

Objective

EI100 is to encourage less experienced riders and horses to compete in and enjoy the demands of EI events.

The cross-country course should be made up of exclusively EI100 fences. If fences have to be shared with EI110 obstacles, they must be within EI100 dimensions.

The course should be inviting and flowing with obstacles evenly spaced throughout, thereby reducing long galloping stretches. The course as a whole must be consistent and demanding enough that a successful competitor could progress to EI110 with confidence, yet inviting enough to allow riders and horses, not yet ready for EI110 to gain confidence. It needs to be recognised and understood that many riders do not have the ambition to progress above this level.

Competitors will be expected to jump the course in a rhythm over a variety of straightforward fences including going up and down slopes and undulations. At EI100 time begins to become a factor in the context of the competition.

These guidelines are intended to create a base standard for the EI100 class. Advice from Accredited Course Designer is essential during the design, construction and alteration of courses.

Design and Construction

The variety of fence design and materials used in construction plays a significant part in educating horses and riders in what they will face as they progress through the different classes.

Courses should have a good balance of fences and the first six fences should encourage horses to jump confidently and in a rhythm. All obstacles should have ground lines with their jumpable width as wide and inviting as possible. A number of fences with top spread (90cm or over) should be encouraged.

Fences that restore confidence should be used after combinations or more difficult questions.

Some fence types and their suitability at EI100 level are considered in **Table B**

1. Combinations and Related Distances

There should be up to **four combinations and related distances** within the course, excluding the water fence, and they should appear in the last two thirds of the course wherever possible, and not before fence 4. **(A Combination is defined**



as elements with two or less non jumping strides in between. Related distances refer to distances above two non-jumping strides.)

Combinations and related distances should be straight forward and inviting and can consist of up to three elements. Elements may be partially offset, parallel, or placed on a gentle curve. .

Combinations should not be sited at the end of long galloping stretches, on a downhill slope or in an area with a confined access or exit. Avoid areas in shadow or with poor light. A slow measured approach should be the designer's aim. At EI100 the design of combinations and related distances should start to incorporate a variety of different obstacle profiles.

In introducing slightly more technical combinations and related distances, kinder profile obstacles should be used eg: logs, in order to give a more positive experience. Avoid using fence types which can jump erratically and alter distances between elements eg. brush fence as the first part of a combination.

Separately numbering obstacles, rather than ABC lettering, is a useful design tool to help the inexperienced and is strongly recommended where appropriate.

Distances

Bounce distances, on fences with height, should only be used at this level in a step combination. A step up to a fence on a bounce distance is acceptable (75% of max height), with an appropriate alternative.

2. Alternatives

Alternatives should only be used where necessary. Where they are considered necessary, they should be asking the same type of question, if possible, as the direct route eg: accuracy, be the same in construction (where possible) and be easier and more time consuming to execute.

3. Water Obstacles

EI100 competitors can be expected to negotiate a variety of options.

- (i) Competitors can be expected to jump down into water off a step, but a suitable ramp alternative into water **should** be provided. Any jumping effort into water should have no significant height (below 30cm). ie.: Pole on top of step should be below 30cm in height.
- (ii) A Step out of water is acceptable provided it is significant in height (0.75m). The placing of a pole at the base of the step and painting the top of the step a defining colour can prove to be helpful.

Obstacles before water

- (i) Obstacles placed before a ramp into water, should be on one non-jumping strides or more. Fence profiles must be sympathetic. Maximum height fences should be avoided.
- (ii) Obstacles placed before a step into water should be on at least 2 non-jumping strides from the edge of the step. Fence profiles must be sympathetic. Maximum height fences should be avoided.

Obstacles after water

Obstacles after a water complex can be placed after a ramp or step out. Obstacles should be on one non-jumping stride or more.

NO jumps in water.

4. Narrow Fences

The education started at EI90 should be built upon and we should be setting the horse and rider an increased test of accuracy and honesty, but still allowing for the inexperienced members of the partnership. **There should be a maximum of 3 minimum jumpable width fences. (Jumpable width is defined as between the flags)**

The minimum jumpable width should be **1.8m** wide. This can be made more inviting with the use of trees and dressing to create an impression of width. Some help can be given but learning to negotiate narrow fences is essential for progression.

Fences whose jumpable widths reduce from back to front ie: triple brushes, arrowheads should have a front face jumpable width of a minimum of 50% of the back. eg: a 1.8m wide triple brush at the back, should taper to a minimum of 0.90m. Base spread should not exceed 75% of the maximum allowed.

5. Tables

All tables should either be filled in with a sloping front face, with such face sloping away from the horse on the take-off side of the fence (this would be appropriate for the traditional sleeper tables or churn stands) or, in the case of picnic tables, the top line should have a vertical face of at least 0.25m and there should be a seat in front of the table, with a vertical face of at least 0.25m

Seats must not be placed on the landing side of a table, as this may present a false ground line.

6. Verticals

Verticals/uprights should not be sited where it is possible for many riders/horses to approach them too fast.

7. Breakable Devices on Fences

Breakable Devices **must** be used on all fences which meet the current criteria.

**8. Core Elements**

Table C identifies fence types for inclusion in EI100 courses and recommendations for construction and design. Fence types highlighted are considered to be core elements to BE100 classes and **each cross country should have at least 4 different core fence types.**

Table C: EI100 Cross Country Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
Verticals and Palisades	√	Base spread min 30cm Recommended 50cm	See main notes
Parallels	√	Back rail min 5cm higher than front	
Tables Top Type	√	Back of table min 5cm higher than front	See main notes
Bench/Chair	√	Height at front 45cm Base Spread 1.35m	A minimum of 10° slope on back of seat. The slope from front of seat to top of bench to be 40-50°
Round Tops	√	Base Spread 1.50m	
Brush Box	√	Minimum of 0.25m of Birch Height of solid part of fence - 0.90m	
Bullfinch	√		Very wispy
Feeder / Lamb Creeper	√	Base Spread 1.50m	Filled with straw
Ramps	√	Recommended 40-50° slope	
Steps*	√	(i) Single step Height 1.00m (ii) 2 steps: As part of a combination Height 0.90m (iii) 3 steps: Height 0.90m Associated fences can be used after steps.	Avoid using fences before a step up Fences associated before a step down or after a step up, on

Table C: EI100 Cross Country Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
		Distances not less than 9.10m	a distance not less than 9.10m
Trakehner	√	Base Spread 1.50m Min jumpable Width 3.6m	Shallow Ditch essential
Water	√	Step In Drop 0.75m Step Out Height 0.75m Min width of water crossing 6.00m	See Main Notes
Brush & Open Ditch Towards	√	Minimum 0.25m of Birch. Height of solid part of fence – 1.00m Ditch should be not less than 0.60m wide and not more than 0.60m deep Base spread 1.50m Min jumpable Width 3.6m	Clearly visible ground line Not recommended within a combination
Wall & Open Ditch Towards	√	Ditch should be not less than 0.60m wide and not more than 0.60m deep Base spread 1.35m Min jumpable width 3.6m	Not recommended to be used within a combination
Full Coffins	√	'A' Element: Height 0.90m Min 9.10m between Fence and Ditch (flat ground) 'B' Element: Spread 1.00m min 6.40m between Ditch and Fence (flat ground).	



Table C: EI100 Cross Country Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
		Min jumpable width 3.6m 'C' Element: Height 1.00m	
Half Coffins (Approach needs attention)	√	Recommended two non-jumping strides between elements. Well defined Ditch with a min jumpable width 3.6m	Jumping element can be before or after ditch.
Open Ditch	√	Min Jumpable Width 3.6m	Clear Ground Line
Sunken Road	√		With advise from Accredited Course Designer. Consider approach and dimensions
Bounces	X		
Corners	√	Top spread max 1.00m measured 1.20m in from point of corner. Back to be minimum 5cm higher than front. Suggest 30° angle	Decking of corner-not essential. Steps must be taken to ensure corner is not jumped where it is too wide.
Log Piles	√		
Banks	√		Clear defined jump off
Drop Fences	√		If possible never on flat ground
Elephant Traps	√	Base spread recommend not more than 75% of maximum – 1.35m Min jumpable width 3.6m	Slope to be 40-50° to discourage a flat obstacle
Zig Zag	√	Min jumpable width 3.6m	
Roofs and Keyholes	√	Any fixed barrier above the obstacle must be a minimum	Provided there is ample space.

Table C: EI100 Cross Country Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
		of 3.36m above ground level	Should be seen as decorative not a jumping test
Narrow Fences	√	Minimum 1.80m	See main notes
Steeplechase	√	Take Off Board 45-55° Angle	Knee Rail 0.52cm High
Helsinki Steps	√	Min 2.40m Sections	
Sharks Teeth	√		
Triple Bars	√	Base spread 1.35m	
Gates	√	On a breakable Device	



7. EI105 Class

The EI105 will feature a **maximum fence height of 1.05m, consisting of enhanced EI100 cross country course.**

The class is intended to provide competitors with an opportunity to “ease the transition” from EI100 to EI110 level, with the **cross-country course seeing a mixture of EI100 and EI110 fences**, with some additional elements.

EI105 cross-country course must be increased in its technicality from EI100. EI105 competitors will be expected to ride at **500 meters per minute, over a course of between 1,800m and 2,800m**, with a maximum of 27 efforts.

No more than 50% of fences should be shared with EI100 or EI110 tracks.

Objective

The EI105 class is a step towards EI110, aimed at those aspiring to EI110.

If fences have to be shared with another class, they must be within EI105 dimensions.

The course should be inviting, flowing, well balanced and make use of the natural terrain as much as possible. The use of the terrain and positioning of obstacles should require competitors to think more about the judgement of speed and approach.

Advice from Accredited Course Designers should be sought during the design, construction and alteration of courses.

Design and Construction

The variety of fence design and materials used in construction plays a significant part in educating horses and riders in what they will face as they progress through to the EI115 class.

Courses should have a good balance of fences and the first few fences should encourage horses to jump confidently and in a rhythm and reflect the task ahead. Straight forward fences should be up to maximum dimensions, and where design is not an issue should be as wide and inviting as possible. A number of fences with significant top spread (over 1.00m) should be encouraged.

Increased technicality should play an important part in the design process at this level. Fences that restore confidence should be used after combinations or more difficult questions. Please refer to **Table C**

1. Combinations & Related Distances

There should be a **minimum of four combinations and related distances** within the course, excluding the water fence, and they should appear in the last three quarters of the course wherever possible, and not before fence 4. (**A Combination is defined as elements with two or less non jumping strides in between. Related distances refer to distances above two non jumping strides.**)

Combinations should consist of numerous elements. Elements may be partially offset, parallel, or placed on a curve.

When bending EI110 horses and riders from one jumping effort to another, the following guideline is appropriate;

Bend through 45° – Minimum of 4 non jumping strides..

Bend through 60° – Minimum of 5 non jumping strides.

Bend through 90° – Minimum of 6 non jumping strides.

Distances

- (i) **A bounce** (2 similar fences on reasonably flat ground) can be used but is not compulsory. Differentiating both elements of the bounce is strongly advised. Fences with Top Spreads over 30cm **must not** be used within a bounce.
- (ii) The make up of combinations and related distances should be varied in technicality and the questions that are asked. Full use should be made of natural terrain and features to test competitors' ability to judge speed and approach and accuracy. However, care should be used to avoid areas which could be 'trappy' or have shadow and poor light.
- (iii) Incorporating different fence profiles into combinations and related distances is essential in testing ability and educating EI110 competitors. Avoid using fence types, which can jump erratically and alter distances between elements, eg:: Brush Fence as the first part of a combination.

2. Alternatives

Alternatives should be used where necessary. Where they are deemed to be necessary, they should be asking the same question as the direct route i.e.: accuracy, be the same in construction (where possible) and take longer to execute.

A bounce combination must have a suitable alternative, accessible without having to negotiate the bounce.

3. Water Obstacles

Competitors should be expected to negotiate a variety of options.

**Water**

- (i) Competitors can be expected to jump down into water off a step and over an obstacle with height. Jumps landing into water (which have a height of 0.50m or more) should have a suitable alternative, and have no significant top spread.
- (ii) Steps out of water are acceptable provided they are significant in height (up to 0.80m). The placing of a pole at the base of the step and painting the top of the step a defining colour can prove to be helpful.
- (iii) The depth of water (max 0.30m) is not the test.

Obstacles before water

- (i) Obstacles can be placed before water, using the whole spectrum of distances, except a bounce distance.
- (ii) Consideration needs to be given to the profiles of obstacles before water. Sympathetic profiles i.e.: Log, would be more suitable on distances closer to the water with stronger profile fences i.e.: post and rails being used with greater distance between the obstacle and the water.

Obstacles in water

- (i) Obstacles in water are acceptable at EI110 level.
- (ii) If jumps in water are to be used there should be only one other effort associated with the water, eg: jump into water followed by an obstacle in water and a slope/ramp out.

Obstacles after water

Obstacles can be placed after water, using the whole spectrum of distances, except a **bounce** distance.

4. Narrow Fences

At EI105 level, we should be asking the horse and rider an increased test of accuracy and honesty, but still allowing for the less experienced members of the partnership. The minimum jumpable width should be **1.50m** wide. **There should be a maximum of 4 minimum jumpable width fences. (Jumpable width is defined as between the flags)**

This can be made more inviting with the use of trees and dressing to create an impression of width. The use of narrow fences should be encouraged at this level and included into combinations as well as water complexes.

Fences whose jumpable widths reduce from back to front ie: triple brushes, arrowheads should have a front face jumpable width of a minimum of 50% of



the back. eg: a 1.8m wide triple brush at the back, should taper to a minimum of 0.90m. Base spread should not exceed 75% of the maximum allowed.

5. Tables

All tables should either be filled in with a sloping front face, with such face sloping away from the horse on the take-off side of the fence (this would be appropriate for the traditional sleeper tables or churn stands) or, in the case of picnic tables, that the top line should have a vertical face of at least 0.25m and that a seat should be in front of the table, also having a vertical face of at least 0.25m

Seats must not be placed on the landing side of a table, as this may present a false ground line.

6. Verticals

Care should be given to the positioning of verticals/uprights. We should at this level be starting to test judgement and approach, but must be aware of competitors approaching upright fences too fast.

7. Breakable Devices

Breakable devices must be used on all fences which meet the current criteria.

8. Core Elements

Table D identifies fence types for inclusion in EI105 courses and recommendations for construction and design. Fence types highlighted are considered to be core elements to EI105 classes and **each cross country should have at least 5 different core fence types**.

TABLE D EI105 Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
Verticals and Palisades	√	Base spread min 30cm Recommended 50cm	See main notes
Parallels	√	Back rail min 5cm higher than front	
Tables Top Type	√	Back of table min 5cm higher than front	See main notes
Bench/Chair	√	Height at front 45cm Base Spread 1.35m	A minimum of 10° slope on back of seat. The slope from front of seat to top of bench to be 40-50°

TABLE D EI105 Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
Round Tops	√	Base Spread 1.50m	
Brush Box	√	Minimum of 0.25m of Birch Height of solid part of fence - 0.90m	
Bullfinch	√		Very wispy
Feeder / Lamb Creeper	√	Base Spread 1.50m	Filled with straw
Ramps	√	Recommended 40-50° slope	
Steps*	√	(i) Single step Height 1.00m (ii) 2 steps: As part of a combination Height 0.90m (iii) 3 steps: Height 0.90m Associated fences can be used after steps. Distances not less than 9.10m	Avoid using fences before a step up Fences associated before a step down or after a step up, on a distance not less than 9.10m
Trakehner	√	Base Spread 1.50m Min jumpable Width 3.6m	Shallow Ditch essential
Water	√	Step In Drop 0.75m Step Out Height 0.75m Min width of water crossing 6.00m	See Main Notes
Brush & Open Ditch Towards	√	Minimum 0.25m of Birch. Height of solid part of fence – 1.00m Ditch should be not less than 0.60m wide and not more than 0.60m deep Base spread 1.50m	Clearly visible ground line Not recommended within a combination

TABLE D EI105 Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
		Min jumpable Width 3.6m	
Wall & Open Ditch Towards	√	Ditch should be not less than 0.60m wide and not more than 0.60m deep Base spread 1.35m Min jumpable width 3.6m	Not recommended to be used within a combination
Full Coffins	√	'A' Element: Height 0.90m Min 9.10m between Fence and Ditch (flat ground) 'B' Element: Spread 1.00m min 6.40m between Ditch and Fence (flat ground). Min jumpable width 3.6m 'C' Element: Height 1.00m	
Half Coffins (Approach needs attention)	√	Recommended two non-jumping strides between elements. Well defined Ditch with a min jumpable width 3.6m	Jumping element can be before or after ditch.
Open Ditch	√	Min Jumpable Width 3.6m	Clear Ground Line
Sunken Road	√		With advise from Accredited Course Designer. Consider approach and dimensions
Bounces	X		
Corners	√	Top spread max 1.00m measured 1.20m in from point of corner. Back to be minimum 5cm higher than	Decking of corner-not essential. Steps must be taken to ensure corner is not jumped where it is too wide.



TABLE D EI105 Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
		front. Suggest 30° angle	
Log Piles	√		
Banks	√		Clear defined jump off
Drop Fences	√		If possible never on flat ground
Elephant Traps	√	Base spread recommend not more than 75% of maximum – 1.35m Min jumpable width 3.6m	Slope to be 40-50° to discourage a flat obstacle
Zig Zag	√	Min jumpable width 3.6m	
Roofs and Keyholes	√	Any fixed barrier above the obstacle must be a minimum of 3.36m above ground level	Provided there is ample space. Should be seen as decorative not a jumping test
Narrow Fences	√	Minimum 1.80m	See main notes
Steeplechase	√	Take Off Board 45-55° Angle	Knee Rail 0.52cm High
Helsinki Steps	√	Min 2.40m Sections	
Sharks Teeth	√		
Triple Bars	√	Base spread 1.35m	
Gates	√	On a breakable Device	

8. EI110

Objective

The EI110 class is the first class to carry any significance towards qualification for other classes as the horses now gain points. It is aimed at the more experienced and capable combinations of horse and rider, and at the same time recognising that EI110 level is a goal for many riders. It should be noted that double clears at EI110 level count as a qualification and also earn grading points, the standard of the test should reflect that.

The cross-country course should be made up of exclusively EI110 fences. If fences have to be shared with another class, they must be within EI110 dimensions.

The course should be inviting, flowing, well balanced and make use of the natural terrain as much as possible. The use of the terrain and positioning of obstacles should require competitors to think more about the judgement of speed and approach. EI110 horses are still learning and must be given the opportunity to learn and grow in confidence.

The course as a whole must satisfy various needs – those who are stepping up to this level for the first time, combined with those who are ready to progress to the next level. The importance of encouraging horses and riders must not be lost. Courses must be sufficiently demanding and technical that a successful competitor could progress through to EI115 with confidence, yet fair enough to allow riders and horses not yet ready for EI115 to gain confidence and education and build towards the next level.

These guidelines are intended to create a base standard for the EI110 class. Advice from Accredited Course Designers should be sought during the design, construction and alteration of courses.

Design and Construction

The variety of fence design and materials used in construction plays a significant part in educating horses and riders in what they will face as they progress through to the EI115 class.

Courses should have a good balance of fences and the first few fences should encourage horses to jump confidently and in a rhythm and reflect the task ahead. Straight forward fences should be up to maximum dimensions, and where design is not an issue should be as wide and inviting as possible. A number of fences with significant top spread (over 1.00m) should be encouraged.

Increased technicality should play an important part in the design process at this level. Fences that restore confidence should be used after combinations or more difficult questions. Some suitable EI110 fence types are considered in **Table D**



1. Combinations & Related Distances

There should be a **minimum of four combinations and related distances** within the course, excluding the water fence, and they should appear in the last three quarters of the course wherever possible, and not before fence 4. **(A Combination is defined as elements with two or less non jumping strides in between. Related distances refer to distances above two non jumping strides.)**

Combinations should consist of numerous elements. Elements may be partially offset, parallel, or placed on a curve.

When bending E110 horses and riders from one jumping effort to another, the following guideline is appropriate;

Bend through 45° – Minimum of 4 non jumping strides

Bend through 60° – Minimum of 5 non jumping strides

Bend through 90° – Minimum of 6 non jumping strides

Distances

(i) **A bounce** (2 similar fences on reasonably flat ground) can be used but is not compulsory. Differentiating both elements of the bounce is strongly advised. Fences with Top Spreads over 30cm **must not** be used within a bounce.

(ii) The make up of combinations and related distances should be varied in technicality and the questions that are asked. Full use should be made of natural terrain and features to test competitors' ability to judge speed and approach and accuracy. However, care should be used to avoid areas which could be 'trappy' or have shadow and poor light.

(iii) Incorporating different fence profiles into combinations and related distances is essential in testing ability and educating E110 competitors. Avoid using fence types, which can jump erratically and alter distances between elements, eg: Brush Fence as the first part of a combination.

2. Alternatives

Alternatives should be used where necessary. Where they are deemed to be necessary, they should be asking the same question as the direct route i.e.: accuracy, be the same in construction (where possible) and take longer to execute.

A bounce combination must have a suitable alternative, accessible without having to negotiate the bounce.

3. Water Obstacles

It is a requirement that all E110 courses have a water obstacle. Competitors should be expected to negotiate a variety of options.

**Water**

- (i) Competitors can be expected to jump down into water off a step and over an obstacle with height. Jumps landing into water (which have a height of 0.50m or more) should have a suitable alternative, and have no significant top spread.
- (ii) Steps out of water are acceptable provided they are significant in height (up to 0.80cm). The placing of a pole at the base of the step and painting the top of the step a defining colour can prove to be helpful.
- (iii) The depth of water (max 0.30m) is not the test.

Obstacles before water

- (i) Obstacles can be placed before water, using the whole spectrum of distances, except a bounce distance.
- (ii) Consideration needs to be given to the profiles of obstacles before water. Sympathetic profiles i.e.: Log, would be more suitable on distances closer to the water with stronger profile fences i.e.: post and rails being used with greater distance between the obstacle and the water.

Obstacles in water

- (i) Obstacles in water are acceptable at EI110 level.
- (ii) If jumps in water are to be used there should be only one other effort associated with the water, eg:: jump into water followed by an obstacle in water and a slope/ramp out.

Obstacles after water

Obstacles can be placed after water, using the whole spectrum of distances, except a **bounce** distance.

4. Narrow Fences

At EI110 level we should be asking the horse and rider an increased test of accuracy and honesty, but still allowing for the less experienced members of the partnership. The minimum jumpable width should be **1.50m** wide. **There should be a maximum of 4 minimum jumpable width fences. (Jumpable width is defined as between the flags)**

This can be made more inviting with the use of trees and dressing to create an impression of width. The use of narrow fences should be encouraged at this level and included into combinations as well as water complexes.

Fences whose jumpable widths reduce from back to front i.e.: triple brushes, arrowheads should have a front face jumpable width of a minimum of 50% of



the back. Eg:: a 1.8m wide triple brush at the back, should taper to a minimum of 0.90m. Base spread should not exceed 75% of the maximum allowed.

5. Tables

All tables should either be filled in with a sloping front face, with such face sloping away from the horse on the take off side of the fence (this would be appropriate for the traditional sleeper tables or churn stands) or, in the case of picnic tables, that the top line should have a vertical face of at least 0.25m and that a seat should be in front of the table, also having a vertical face of at least 0.25m

Seats must not be placed on the landing side of a table, as this may present a false ground line.

6. Verticals

Care should be given to the positioning of verticals/uprights. We should at this level be starting to test judgement and approach, but must be aware of competitors approaching upright fences too fast.

7. Breakable Devices

Breakable Devices must be used on all fences which meet the current criteria.

8. Core Elements

Table E identifies fence types for inclusion in EI110 courses and recommendations for construction and design. Fence types highlighted are considered to be core elements to EI110 classes and **each cross country should have at least 5 different core fence types.**

TABLE E EI110 Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
Verticals and Palisades	√	Base spread min 30cm Recommended 50-60cm	See main notes
Parallels	√	Back rail min 2.5cm higher than front Base spread 1.80m	
Tables Top Type	√	Back of table min 5cm higher than front Base spread 1.80m	See main notes
Bench/Chair	√	Height at front 45cm Base Spread 1.60m	

TABLE E EI110 Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
Round Tops	√	Base Spread 1.80m	
Brush Box	√	Minimum of 0.25m of Birch Max height of solid part of fence 1.00m	
Bullfinch	√		Light and wispy
Feeder / Lamb Creeper	√	Base Spread 1.80m	Filled with straw
Ramps	√	Recommended 40-50° slope	
Steps*	√	(i) Single step Height 1.10m (ii) 2 steps: As part of a combination Height 1.00m (iii) 3 steps: Height 1.00m Associated fences can be used after steps.	Fences associated before a step down or after a step up
Trakehner	√	Base Spread 1.80m that the back of ditch not be riveted. Min jumpable Width 3.6m	Large log. Ditch should be well defined
Water	√	Step Out 0.90m	See Main Notes
Brush & Open Ditch Towards	√	Minimum 0.25m of Birch. Height of solid part of fence – 1.00m Ditch should be not less than 0.60m wide and not more than 0.60m deep Min jumpable Width 3.6m	Clearly visible ground line Not recommended within a combination
Wall & Open Ditch Towards	√	Ditch should be not less than 0.60m wide and not more than 0.60m deep	Not recommended to be used within a combination



Fence Type	Appropriate	Suggested Dimensions	Notes
		Base spread 1.35m Min jumpable width 3.6m	
Half Coffins (Approach needs attention)	√	On a distance of 1 (min 5.50m) or 2 (min 9.10m) non-jumping strides. Min jumpable width of ditch 3.6m	Jumping element can be before or after ditch.
Full Coffins	√	'A' Element: Height 1.05m Min 5.50m between Fence and Ditch 'B' Element: Spread 1.30m min 5.50m-6.40m between Ditch and Fence). Min jumpable width 3.6m 'C' Element: Height 1.10m	
Open Ditch	√	Min Jumpable Width 3.6m	
Sunken Road	√	'A' Element: Height 1.00m Min 5.50m between Fence and Step into Road between B&C Element Min 6.40m 'C' Element: Height 1.00m Min 5.50m between Step Up and Fence	Use kind profile obstacles
Bounces	√	'A' Element: Max 1.05m 'B' Element: Max 1.10m Normally 4.50m between elements (top to top)	Different colour top rails strongly advised. No spread fences
Corners	√	Top spread max 1.00m measured 1.20m in from point of corner.	Alternative to be given. Open corners encouraged.

TABLE E EI110 Design Guidelines			
Fence Type	Appropriate	Suggested Dimensions	Notes
		Back to be minimum 2.5cm higher - 45° angle	Decking corner should be given consideration but not essential
Log Piles	√		
Banks	√		Clear defined jump off
Drop Fences	√		If possible never on flat ground
Elephant Traps	√	Base spread not more than 75% of maximum – 1.60m	Slope to be 40-50° to discourage a flat obstacle
Zig Zag	√	Scoop Ditch underneath acceptable	
Roofs and Keyholes	√	Any fixed barrier above the obstacle must be 3.36m above ground level	Can be seen as a jumping test
Narrow Fences	√	Minimum 1.50m	See main notes
Steeplechase	√	Take Off Board 45-55° Angle	Knee Rail 0.52cm High
Helsinki Steps	√	Min 2.10m Sections	
Sharks Teeth	√		
Triple Bars	√	Base spread 1.60m	
Gates	√	On a breakable Device	Ground Line



9. EI115

Objective

The EI115 should be considered the second stage towards true international competition. The class has a significant importance towards qualification for other competitions and should therefore be aimed to give experience to those combinations. AN EI115 cross country course should start to test the scope, control, accuracy, education and balance of horse and rider.

The cross-country course should ideally be made up of exclusively EI115 fences. The course should be inviting and flowing, and the terrain can be used to play a more important part in the course design and positioning of obstacles, than at the lower levels.

Design and Construction

Courses should have a good balance of fences and the first few fences should encourage horses to jump confidently and in a rhythm and reflect the task ahead. Straight forward fences should be up to height and top spread, and where design is not an issue, should be as wide and inviting as possible.

At EI115 level intensive questions can be asked more frequently without the need for as many let up or confidence giving fences, as in EI110. It is important to remember that this is still an educational level and opportunities for horses and riders to grow in confidence must still exist.

1. Design Specifics and Core Elements

Within the EI115 class, specific design criteria and core elements should be incorporated, where appropriate. **Each cross country should have at least 5 different core fence types.**

- (a) There should be a correct correlation between course distance, jumping efforts and terrain.
- (b) The course should have at least two minimum jumpable width fences, one of which should be in a combination, or related distance. **Narrow Fences** are considered a core fence type.
- (c) A **Water Jump** is essential and is a core element.
- (d) A course should have a **Drop** of between 1.20m and 1.80m and is a core element.
- (e) Simple bounces are recommended. As with all classes the correct site for a bounce is paramount.



- (f) Open Corners are strongly recommended. **Corners** are considered a core fence type 60°-65° is appropriate
- (g) A **Ditch** is considered a core fence type and the course must incorporate at least one ditch, (more than one preferable) either an open ditch within a coffin or as an integral part of a fence ie. Trakehner or elephant trap.
- (h) A minimum of 20% of fences should have Top Spread (greater than 1.30m). **Top Spread** fences are core fence types
- (i) **Vertical** and more upright fences are considered essential for riders and horse to demonstrate their skills. They are considered core fence types and should be used appropriately and with the use of breakable devices.

AN EI115 designer should be encouraged to use the full spectrum of questions and distances ie. split lines, curving lines and bounces. Designers should be moving away from 90 degree turns within their courses, which are stressful and uncomfortable for the horse to jump. (Unless the distance between them is more than five strides)

2. Combinations

There should be a **minimum of five combinations or related distances** within the course, excluding the water fence and wherever possible not before fence 4. (**A Combination is defined as elements with two or less non jumping strides in between. Related distances refer to distances above two non-jumping strides.**)

Combinations and related fences should be appropriately demanding and technically challenging and consist of several elements. Elements can be straight, partially offset, parallel, or placed on a curve. **At least one of the combinations should be made up of three elements and one should include a narrow test.**

When bending EI115 horses and riders from one jumping effort to another, the following guideline is appropriate;

Bend through 60° – Minimum of 4 non jumping strides.

Bend through 90° – Minimum of 5 non jumping strides.

Distances

- (i) **A bounce** (2 similar fences on flat ground or uphill) is recommended. Differentiating both elements of the bounce is strongly advised. (i.e.: colour) Fences with significant top spread (over 30cm) should be not be used within a bounce.
- (ii) The balance of combinations should be varied in technicality and the questions that are asked. Particular use should be made of natural terrain and features to test competitors' ability to judge speed, approach and accuracy. However,



care should be used to avoid areas which could be 'trappy'. Where shadow and poor light are evident, pale colours should be used.

- (iii) Incorporating different fence profiles and designs into combinations and related fences is essential in testing the ability and education of horses and riders.

3. Alternatives

Where alternatives are deemed to be necessary, they should, where possible, be asking the same question as the direct route ie: accuracy, be of similar nature, but take longer to execute.

Where there are combinations involving maximum top spreads or with very technical questions An EI115 designer may decide to offer a 'long route', which takes significantly longer. As time is more crucial at this level, this is good design practice and allows for inexperienced horses or combinations to complete and learn without affecting the result.

4. Water Obstacles

A Water obstacle is essential at EI115 level. Competitors should be expected to negotiate a variety of options. A designer should be more inventive with fence designs around water i.e. Narrow fences, brush and corners.

There should be a minimum of two efforts connected with the water one of which must have height (over 30cms).

- (i) Competitors can be expected to jump down into water off a step and over an obstacle with height into water. The maximum drop for the EI115 class (1.80m) should be avoided into water. Most often the drop determines the height of the obstacle.
- (ii) Steps out of water should be significant in height (Suggested Max 1.00m). The placing of a pole at the base of the step and painting the top of the step a defining colour is always helpful.
- (iii) The depth of water (max 0.30m) is not the test.

Obstacles before water

- (i) Obstacles can be placed before water, using the whole spectrum of distances, including a bounce distance.
- (ii) Consideration needs to be given to the profiles of obstacles before water. A more sympathetic profile ie: Log, would be more suitable on distances closer to the water with stronger profile fences ie: post and rails being used with greater distance between the obstacle and the water.

**Obstacles in water**

Obstacles in water are appropriate at E1115 level. Maximum height and minimum width of obstacles in water should be avoided.

Obstacles after water

Obstacles can be placed after water, using the whole spectrum of distances, however a bounce distance would be considered in appropriate.

5. Narrow Fences

At E1115 level we should be asking the horse and rider an increased test of accuracy and honesty. The minimum jumpable width should be **1.30m** wide.

The use of narrow fences is essential at this level and **included in at least one combination**.

6. Tables

All tables should either be filled in with a sloping front face, with such face sloping away from the horse on the take off side of the fence (this would be appropriate for the traditional sleeper tables or churn stands) or, in the case of picnic tables, that the top line should have a vertical face of at least 0.25m and that a seat should be in front of the table, also having a vertical face of at least 0.25m
Seats must not be placed on the landing side of a table, as this may present a false ground line.

7. Verticals

Care should be given to the positioning of verticals/uprights.

8. Breakable Devices

Breakable devices must be used on all fences which meet the current criteria.



10. EI120

Objective

EI120 is the ultimate platform towards top international competition. The class should test the best and also allow less established combinations at this level to develop. An EI120 cross country course should test the scope, control, accuracy, stamina, education and balance of horse and rider.

The cross country course should be ideally be made up exclusively of EI120 fences. The course should be inviting and flowing, and the terrain should play a more important part in the course design and positioning of obstacles, than at lower levels.

Design and Construction

Courses should have a good balance of fences and the initial fences should encourage horses to jump confidently, in a rhythm and reflect the task ahead. Straightforward fences should be up to height and top spread, and where design is not an issue, should be as wide and inviting as possible.

At EI120 level intensive questions can be asked more frequently without the need for as many let up or confidence giving fences. Such "Let up" fences should be used appropriately as horses, over EI120 distances and efforts, can be mentally challenged by intensity of efforts and let up fences help to restore some balance.

1. Design Specifics and Core Elements

Within EI120 class, it is felt that specific design criteria and core elements should be incorporated, where appropriate. ***Each cross-country should have at least 6 different core fence types.***

- There should be a correct correlation between course distance, jumping efforts and terrain.
- The course should have at least four minimum jumpable width fences, two of which should be in a combination, or related distance. Narrow fences are considered a core fence type.
- A water jump is essential and is a core element.
- A course should have a drop of between 1.50m and 2.00m and is core element.
- Simple bounces are recommended. As with all classes the correct site for a bounce is paramount.
- Open Corners and parallels are strongly recommended. Corners are considered a core fence type. 75° to 80° is appropriate.
- A ditch is considered a core fence type and the course must incorporate at least two ditches, either an open ditch within a coffin or as an integral part of a fence ie. Trakehner or elephant trap.



- A minimum of 20% of fences should have Top Spread (greater than 1.40m). Top spread fences are core fences types.
- Vertical and more upright fences are considered essential for riders and horse to demonstrate their skills. They are considered core fence types and should be used appropriately and with the use of frangible pins.

At E120 level a designer should be encouraged to use the full spectrum of questions and distances ie: split lines, curving lines and bounces.

2. Combinations

There should be a **minimum of seven combinations or related distances** within the course, excluding the water fence and wherever possible not before fence 4. **(A Combination is defined as elements with two or less non-jumping strides in between. Related distances refer to distances above two non-jumping strides.)**

Combinations are related fences should appropriately demanding and technically challenging and consist of several elements. Elements can be straight, partially offset, parallel, or placed on a curve. At least three of the combinations should be made up of three elements and two should include a narrow test

When bending E120 horses and riders from one jumping effort to another, follow the guideline in the introduction.

Distances

(i) A bounce (two similar fences on flat ground or uphill) is recommended. Differentiating both elements of the bounce is strongly advised (ie: colour). Fences with significant top spread (over 30cm) should not be used within a bounce.

(ii) The balance of combinations should be varied in technicality and the questions that are asked. Particular use should be made of natural terrain and features to test competitors' ability to judge speed and approach and accuracy. Where shadow and poor light are evident, pale colours should be used.

3. Alternatives

Where alternatives are deemed to be necessary, they should, where possible, be asking the same question as the direct route ie: accuracy, be of similar nature, but take longer to execute.

4. Water Obstacles

A water obstacle is essential at E120 level. Competitors should be expected to negotiate a variety of options, designs and distances. A designer should be more inventive with fence designs associated with and placed in water ie. narrow fences, brush and corners.



There should be a minimum of two efforts connected with the water one of which must have height (over 30cm).

Competitors can be expected to jump down into water off a step and over an obstacle with height into water. The maximum drop for EI120 (2.00m) should be used with care into water. Most often the drop determines the height of the obstacle.

Steps out of water should be significant in height (Suggested maximum 1.10m). The placing of a pole at the base of the step and painting the top of the step a defining colour is always helpful.

5. Narrow Fences

At EI120 we should be asking the horse and rider the ultimate test of accuracy and honesty. The minimum jumpable width should be **1.10m** wide.

The use of narrow fences is essential at this level and should be included in at least two combinations.

6. Tables

All tables should either be filled in with a sloping front face, with such face sloping away from the horse on the take-off side of the fence (this would be appropriate for the traditional sleeper tables or churn stands) or, in the case of picnic tables, that the top line should have a vertical face of at least 0.25m and that a seat should be in front of the table, also having a vertical face of at least 0.25m.

Seats must not be placed on the landing side of a table, as this may present a false ground line.

7. Verticals

Care should be given to the positioning of verticals/uprights.

8. Breakable Devices

Breakable devices must be used on all fences, which meet the current criteria.

**11. Arena Eventing And Fences not on Grass**

If you are running an event where cross country portables cannot be pegged down due to the surface, ie: sand arenas, water, the fences will need to be ballasted (weighted) down to stabilise and avoid the fence from moving.

There are a few ways in which this could be constructed using weights inside the fence at the base, such as concrete blocks, slabs, water containers, steel weights etc.

As a guideline, the following should be used:

Frame Height of Fence	Stabilising Base Weight (+/- 10%)
Up to 75cm	250kg
75-85cm	500kg
85-95cm	750kg
95-105cm	1000kg
1.05m – 1.10m	1250kg
1.10m – 1.20m	1500kg

Note: Half the weight of the concrete is needed if fences are pinned (ie: Mims Pins)

**12. Assessment Form: EI80, EI90, EI100, EI105 AND EI110**

The following is the assessment form used when accrediting Course Designers up to EI110 level

Understanding	Comments	Assessment Level				
		5	4	3	2	1
Understanding balance and flow (marks x 2)						
Fence placement						
The setting out of distances between related fences and combinations (marks x 2)						
Appropriate use of terrain						
Appropriate use of varying fence profiles. Understanding horse stride patterns and how they are affected by the 'big stuff'; (marks x 2)						



Understanding	Comments	Assessment Level				
		5	4	3	2	1
Understanding of the principles behind the varying levels of competition and the suitability of the course(s) for the level(s) of competition (marks x 2)						
Ground preparation and maintenance						
General comments, to include the Candidate's creative ability, general attitude and ability to work within a team (marks x 2)						
Knowledge of the Cross Country Manual and Guidelines (marks x 2)						
Fence construction/ choice of materials/ breakable devices (marks x 2)						



Understanding	Comments	Assessment Level				
		5	4	3	2	1
Fence dressing and overall look of course						
Budgeting						
Understanding planning and emergency access						

Level	Skills and Abilities	Grading
5	Experienced	Development is above the requirements
4	Capable	Development clearly meets the requirements
3	Acceptable	Development meets the requirements to a limited extent
2	Partial	Development is below the requirements
1	Minimal	Development is well below the requirements

PASS MARK REQUIREMENTS

Non-Restricted Course Designer	70% or more
Restricted Course Designer Pass	65% or more
Fail (any candidate)	64% or less

**13. Accreditation of EI115 AND EI120 Course Designers**

Accredited EI110 Course Designers who wish to be accredited to EI115 level Course Designers must contact Head Office in the first instance

Accredited EI115 Course Designers who wish to be accredited to EI120 level Course Designers must contact Head Office in the first instance.

14. EI Course Designer and Builders Committee

Course Designers and Builders Committee		
Danny Duloherly	Course Designer/Builder	086 2581909
Peter Fell	Course Designer/Builder	086 8560666
Dereck Hamilton	Course Designer/Builder	086 8276330

15. Approved Course Designer Assessors

NAME		LEVEL	CONTACT DETAILS
Mike Etherington-Smith	BE List A	FEI 3*/4*	Via Eventing Ireland
Jonathan Clissold	BE List A	FEI 3*/4*	Via Eventing Ireland
Ian Stark	BE List A	FEI 3*/4*	Via Eventing Ireland

NAME		LEVEL	CONTACT DETAILS
Peter Fell	List A	FEI 3*/4*	086 8560666
Paul Brady	List A	FEI 3*/4*	086 8353345

**16. Costs of Accreditation**

CD Level	Track	Candidate	Cost	Assessor Required
List A	EI120	EI CD	€250	List A
List B	EI115	EI CD	€250	List A
List C	EI110	EI CD	€100	List A
List D	Up to EI105	EI CD	EI Subsidised	List A
List D	Up to EI105	Affiliate	€200	List A

Notes:

- Restricted = Designs tracks at one venue only per year up to EI110 level
- Professional = Designs tracks at two or more venues per year
- For List B and List A, the National Course Designer must be actively designing tracks at more than one venue per year



17. Additional Resources

The following forms can be found on the Eventing Ireland website under Downloads or Forms (depending on your browser). Please remember to be logged in to view.

<http://www.eventingireland.com/Downloads/tabid/103/PID/625/CategoryID/75/CategoryName/CourseDesigner/Default.aspx>

- Fence Description Form
- Fence Measurement Form
- Course Designer Guidelines
- Breakable Devices Order Form

Further information is also available on the FEI website:

www.fei.org

Breakable Devices: <http://inside.fei.org/fei/disc/eventing/risk-management/devices>

FEI Cross Country Guidelines: <https://inside.fei.org/fei/disc/eventing/rules> and search Cross Country Guide For Officials.



18. Contact Information

Measuring Wheels and Measuring Sticks

Hitechniques

Unit 17 Block Q, Greenogue Business Park, Rathcoole, Co Dublin

Tel: 01 257 2323

Pittman Traffic and Safety Equipment

Athy Business Campus, Athy, Co Kildare

Tel: 01 531 2777

Breakable Devices and Accessories (MIM Clips and BE Pins)

Cetag Ltd

Unit 13, Ashbourne Business Centre, Ballybin Road, Ashbourne
Co Meath

Contact: Paul Coady

Tel: 01 8357187

Mobile 087 2416163

www.cetag.ie

Fence Fixings

Spirafix System

Smart Equine

Killossery Lodge Stud, Rolestown, Swords, Co. Dublin

Office hours, Monday to Friday, 9am to 5pm

Tel: Ciaran : 086 3399580

Jenny: 087 8568638

Email: help@smart-equine.com



NOTES

