

INTERNATIONAL STANDARD

ISO
11091

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Construction drawings — Landscape drawing practice

Dessins de construction — Pratique en matière de dessins de paysages



Reference number
ISO 11091:1994(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11091 was prepared by Technical Committee ISO/TC 10, *Technical drawings, product definition and related documentation*, Subcommittee SC 8, *Construction documentation*.

Annexes A and B of this International Standard are for information only.

Construction drawings — Landscape drawing practice

1 Scope

This International Standard establishes general rules and specifies graphical symbols and simplified representations for landscape drawing practice.

The graphical symbols and simplified representation are jointly referred to as conventions. The conventions given in International Standards which are applicable to landscape drawings are presented in annex A.

2 General rules

The extent of information shown on landscape drawings will depend on the degree of accuracy required by the type of work.

Production drawings shall be adequately dimensioned to allow for accurate setting out.

In certain circumstances it is desirable to make final adjustments on site (e.g. tree positions). In such cases drawings shall be suitably annotated.

Existing and proposed levels shall be shown, either as spot levels or as contours or both where appropriate. The vertical interval of contours and the spacing of grid levels depend on the character of the site and the nature of the project.

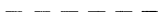
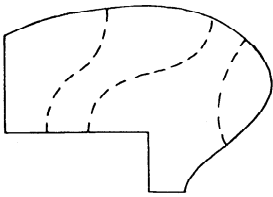
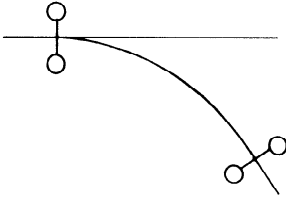
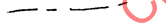
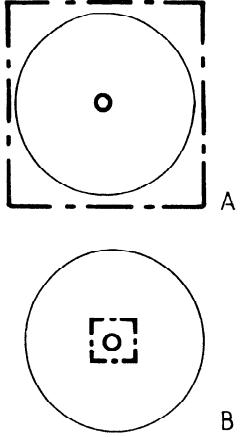
Similar areas shown on different drawings should be appropriately cross-referenced.

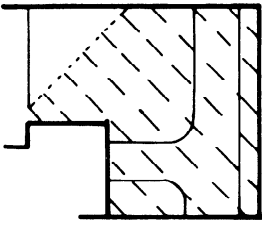
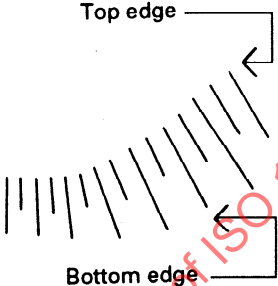
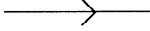
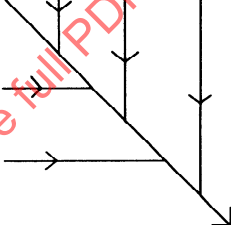
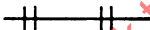
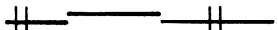
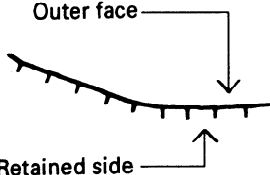
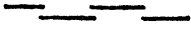
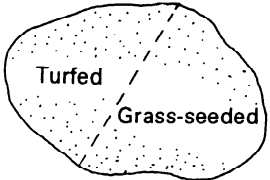
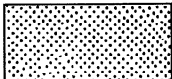
3 Conventions

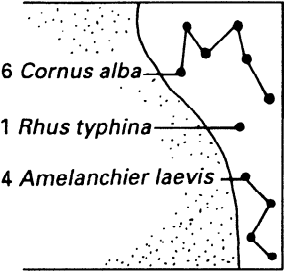
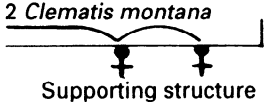
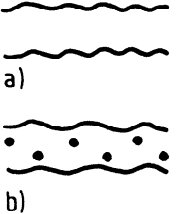
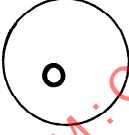
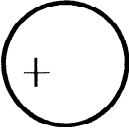
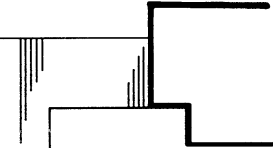
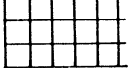
If necessary, the convention (graphical symbol or simplified representation) can be completed by

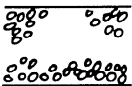
- text;
- designations or abbreviations explained on the drawing or associated documents;
- complementary additions to conventions in order to communicate further information.

Nonstandardized conventions shall be explained on the drawing.

Reference No.	Element	Convention	Applied example	Comment
3.1	Subdivision of plant beds/grass			Thin dashed line; areas may be hatched or shaded
3.2	Tangent point or point of transition			
3.3	Existing contour			Thin continuous or thin dashed line
3.4	Proposed contour			Thick continuous line For 3.3 and 3.4, the numerical value for level may be inserted on the contour line
3.5	No-cut no-fill line			Freehand thin chain line
3.6	Outline of areas to be protected			Thick chain line; area may be hatched or shaded Applied example shows: A = Tree to be protected B = Trunk to be protected
3.7	Outline of existing shrub and woodland areas			Thin continuous irregular line
3.8	Outline of proposed shrub and woodland areas			Thick continuous irregular line

Reference No.	Element	Convention	Applied example	Comment
3.9	General area to be removed			Thin dashed line; this symbol is an alternative to ISO 7518
3.10	Embankment			Thin line (shown only if contours are not used) Top and bottom edges may be indicated by thin continuous lines
3.11	Direction of flow, e.g. land drains/subsurface drains, etc.			Thin continuous line; arrow indicates direction of fall (cf. ISO 4067-6)
3.12	Fence			Thick/thin continuous lines Applied example is a combination of 3.12 and 3.13
3.13	Stile			Thick line
3.14	Retaining wall			Thick/thin continuous lines
3.15	Sheet pile			Thick line
3.16	Grass			May be designated by text instead of shading
3.17	Plant bed			Hard landscape drawings only (see figure A.2)

Reference No.	Element	Convention	Applied example	Comment
3.18	Proposed shrub/plant			Spread may be shown Number of species may be linked together with a thin line and annotated on drawing, or numbered by reference to a schedule For even distribution of large numbers (e.g. ground cover) individual dots are not essential (see figure A.1)
3.19	Climber			Species may be linked
3.20	Existing hedge to be retained			Thin irregular line
3.21	Proposed hedge			Thick irregular line a) Conventional b) Alternative showing plant positions
3.22	Existing tree			The crown circle is drawn with a thin line and the trunk circle with a thick line Trunk and crown circles shall be drawn approx. to scale; size of trunk to be measured as diameter 1 m above ground level
3.23	Proposed tree			The crown circle is drawn with a thick line and the cross with a thin line; circle is not drawn to scale and does not represent the crown at planting or at maturity
3.24	Tree pit			Thick line square border; thin dashed line for diagonals
3.25	Small unit paving			Thin line; pattern is representational only
3.26	Large unit paving			Thin line; pattern is representational only

Reference No.	Element	Convention	Applied example	Comment
3.27	Cobbles			Thin line; pattern is representational only
3.28	Hose point			Thick line
3.29	Sign			Extra-thick line; applied example shows sign fixed to two poles
3.30	Luminaire – any type			Thick line circle; thin line cross
3.31	Luminaire + wall bracket			Thick line circle + bracket; thin line cross
3.32	Pole + arm + luminaire			Thick line circle + arm + pole; thin line cross
3.33	Bollard + low-level luminaire			Thick line circle; thin line cross

4 Schedules

New planting should normally be scheduled.

Planting schedules may be split into trees, shrubs and other plants.

A planting schedule may contain the following information in the sequence listed below:

- name;
- classification/designation;
- root system;
- planting location;
- quantity.

Other information such as height, spread, form, cost, etc. may be included (see table 1).

Schedules may be prepared on separate sheets or may be included as additional information on the planting plan. If schedules are prepared on one or several sheets, each sheet should have its own title block placed below the schedule.

Table 1 — Typical tree-planting schedule

Name	Designation	Height/girth	Root system	Planting location			Quantity	Unit price	Total cost
				A1	A2	A3			
<i>Betula pendula</i> Tristis	Feathered	3,50 m/ 100 mm	Bare root		2	3	5		
<i>Robinia pseudoacacia</i>	Tall standard		Bare root	3			3		

5 Reference grid

A reference grid, where required for location purposes, should cover the entire site thus enabling all external work to be related to it. The grid intervals shall be chosen to suit the scale of the drawing.

References should be denoted by a cross in the same orientation as the grid and the positions given via two coordinates, each with the same number of digits, *x* (eastward) first and *y* (northward) second (see figure 1).

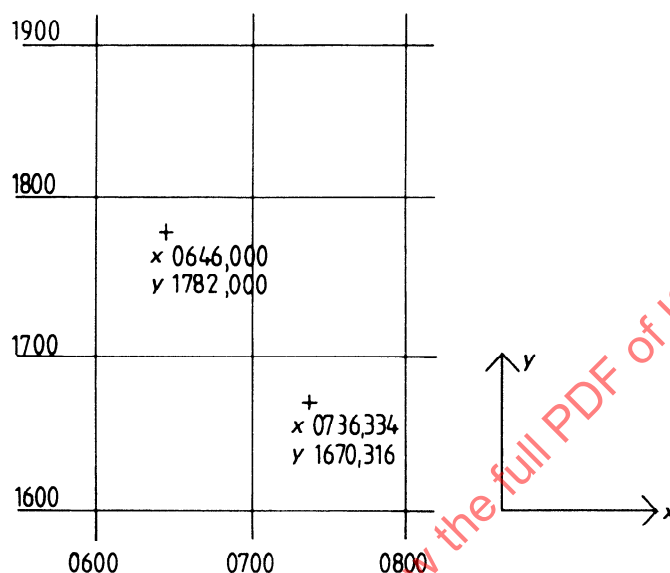


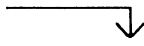
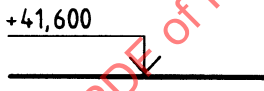
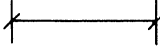
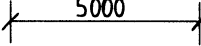
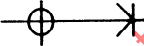
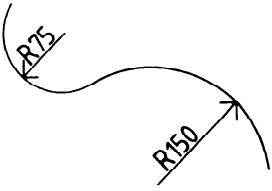
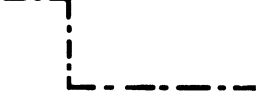
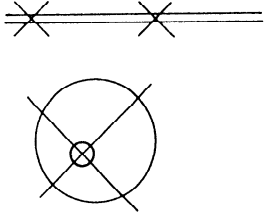
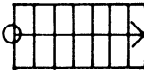
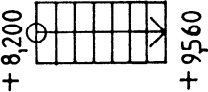
Figure 1 — Sample reference grid

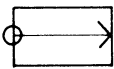
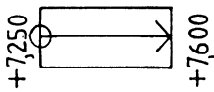
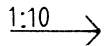
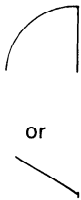
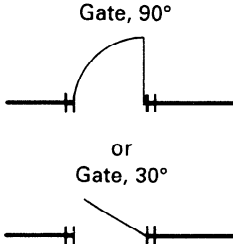
Annex A

(informative)

Additional ISO conventions and sample landscape drawings

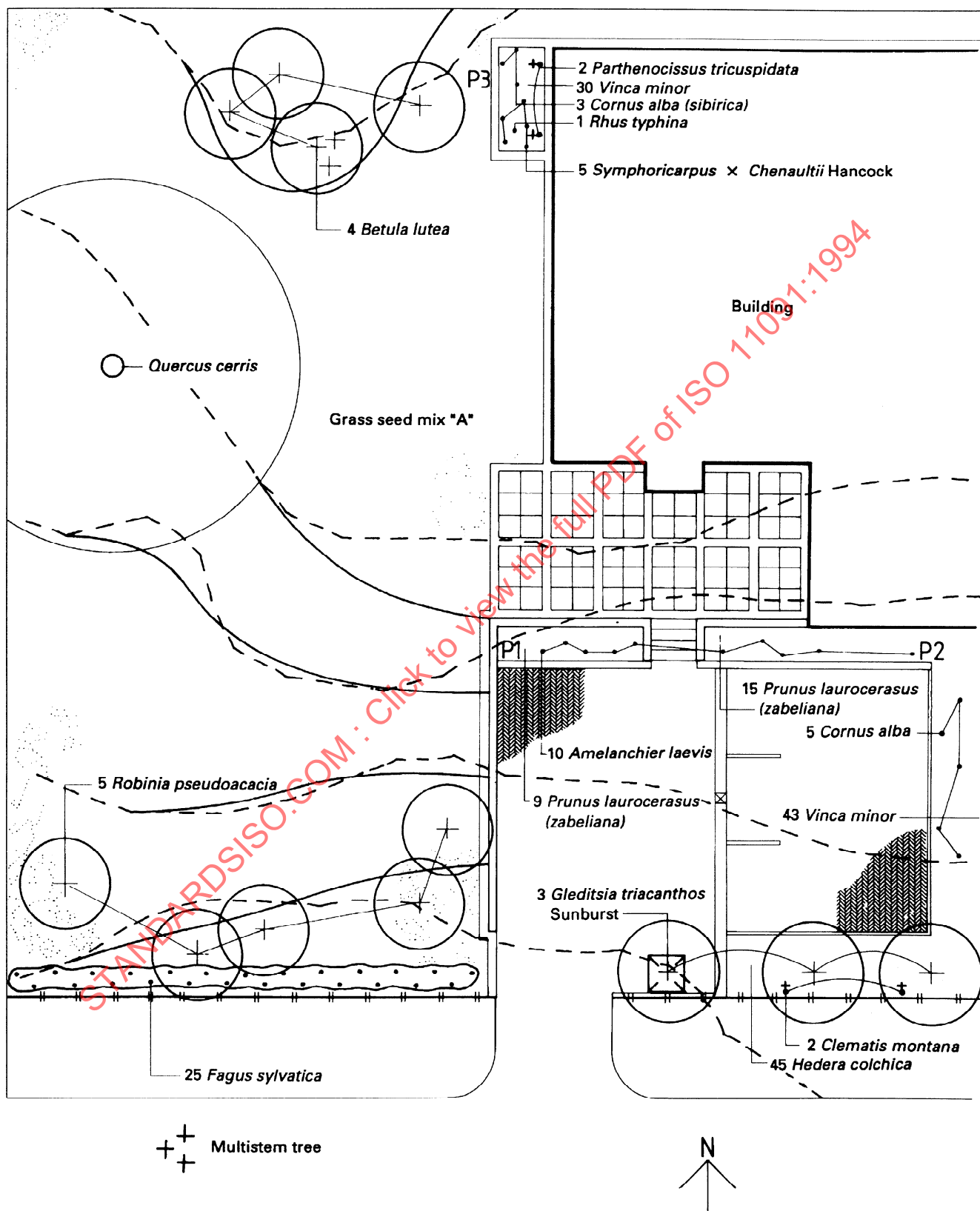
A.1 Existing ISO conventions relevant to landscape drawing

Reference No.	Element	Convention	Applied example	Comment/reference
A.1.1	Original level no longer valid	(+0,000)	(+2,500)	ISO 129
A.1.2	New level	+0,000	+3,500	ISO 129
A.1.3	Level on section			ISO 129
A.1.4	Datum point on plan			ISO 129
A.1.5	Single dimension line			ISO 129
A.1.6	Running dimension			ISO 129
A.1.7	Radius dimension			ISO 129
A.1.8	Contract boundary			Extra-thick chain line (ISO 4067-6)
A.1.9	Existing objects to be removed			ISO 7518
A.1.10	Steps/stairs			Arrowhead indicates top riser; top and bottom levels may be indicated, or steps may be numbered upwards with 1 for the first step (ISO 7519)

Reference No.	Element	Convention	Applied example	Comment/reference
A.1.11	Ramp			Arrowhead indicates top level; top and bottom levels may be indicated (ISO 7519)
A.1.12	Direction of fall			Slope may be indicated with ratio of inclination (ISO 4067-1)
A.1.13	Door/gate			Applied examples show gate in fence (ISO 7519)

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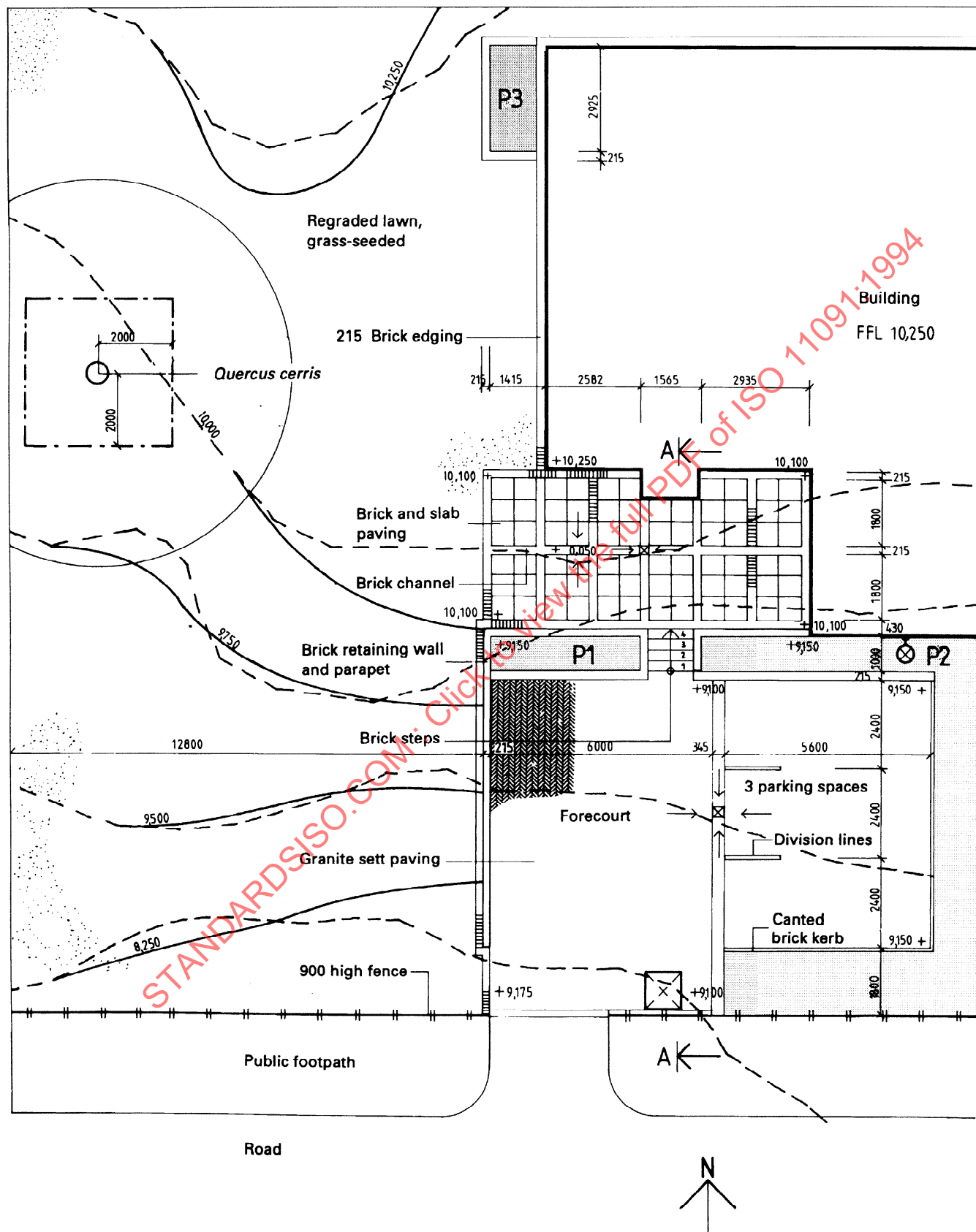
A.2 Sample planting plan using conventions in this International Standard



NOTE — Refer to plant schedules for sizes and other specific requirements

Figure A.1 — Planting plan

A.3 Sample hard landscape drawing using conventions in this International Standard



NOTE — All symbols in accordance with this International Standard with the exception of: ☒ Gully.

Figure A.2 — Hard landscape drawing