

| Document Code | Title  | Author; Organisation                     | Version | Date       |
|---------------|--|--|---------|------------|
| IFC4RV - B01A | IFC4 Reference View Certification - Beam-01A | K. Hausknecht, B. Barutcu, M.Weise; AEC3 | v2.1    | 22.11.2018 |



## BEAM-01A

Beam-01A tests the architectural exchange requirements for beams.

A detailed description of the test Beam-01A is provided in the following drawings and schedules. Values given in the schedule will take precedence over vague descriptions in drawings.

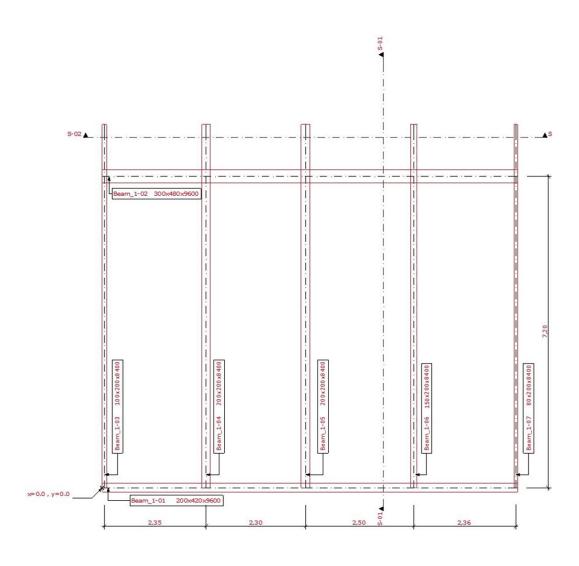
Required objects and mandatory concepts are listed in the "Attachment A - Mandatory Concepts". For each object, name must be given exactly as stated in the attachment in order to be able to perform a check. Values should also be provided according to the attachment.

Name of IFC export file shall be "Beam\_01A\_<software abbreviation>.ifc" The final delivery has to include the IFC file and the native file (following above naming convention).

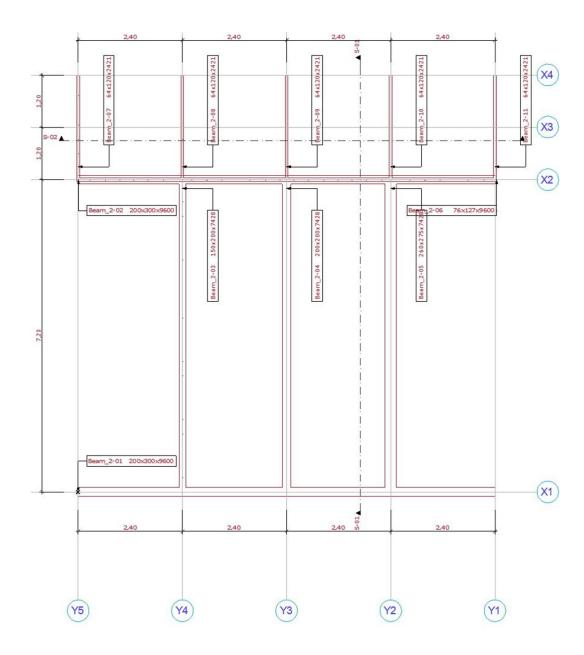




## **Drawings**





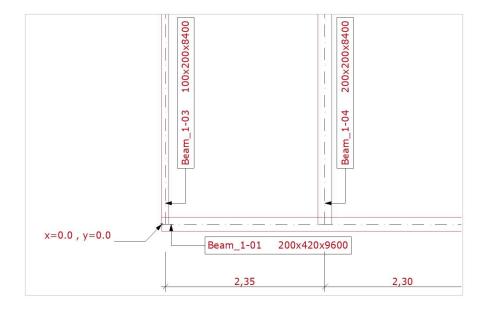


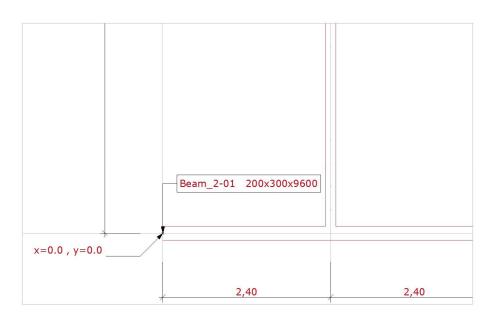
First Floor



## **Origin of Project Coordinate System**

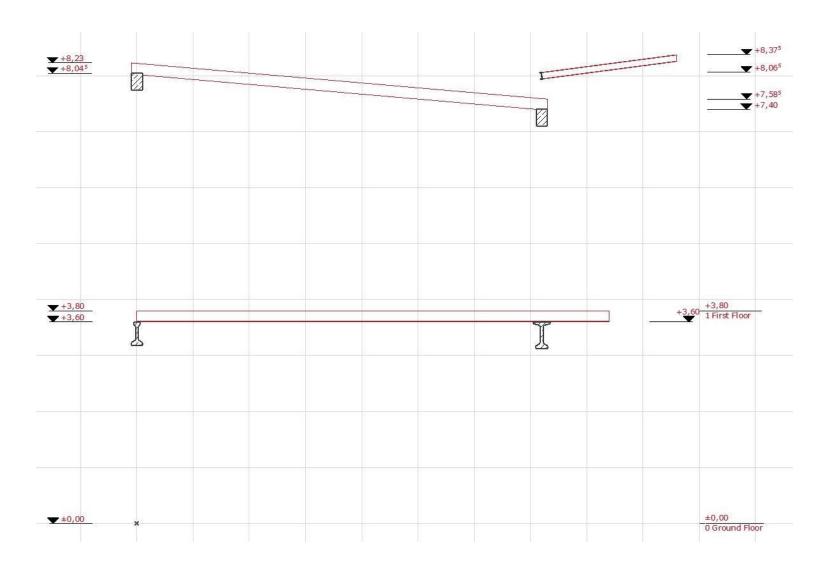
Ground Floor: First Floor:







## Section





|              |  | Name*     | Profile**  | Top Edge<br>(m) | Total Width<br>(mm) | Total Height<br>(mm) | Length (m) | Angle<br>(Slope) | Rotation<br>(Roll) |
|--------------|--|-----------|--|-----------------|---------------------|----------------------|------------|------------------|--------------------|
| Ground Floor | 200 200 30 30 00 00 00 00 00 00 00 00 00 00 0    | Beam_1-01 | Arbitrary Profile                                  | 3,6             | 200                 | 420                  | 9,6        | 0°               | 0°                 |
|              | 300<br>000<br>105 20 20 105 00 088<br>40, 220 40 | Beam_1-02 | Arbitrary Profile 2                                | 3,6             | 300                 | 480                  | 9,6        | 0°               | 0°                 |
|              | 100  | Beam_1-03 | I Shape Profile IPE 200 (DIN 1025-5)               | 3,8             | 100                 | 200                  | 8,4        | 0°               | 0°                 |
|              | 200  | Beam_1-04 | Rectangle Hollow Profile  QRO 200x16  (EN 10210-2) | 3,8             | 200                 | 200                  | 8,4        | 0°               | 0°                 |



|             |     | Name*     | Profile**                                       | Top Edge<br>(m) | Total Width (mm) | Total Height<br>(mm) | Length (m) | Angle<br>(Slope) | Rotation<br>(Roll) |
|-------------|-----|-----------|---|-----------------|------------------|----------------------|------------|------------------|--------------------|
|             | 200 | Beam_1-05 | L Shape Profile<br>L 200x200x20<br>(EN 10056-1) | 3,8             | 200              | 200                  | 8,4        | 0°               | 0°                 |
|             | 700 | Beam_1-06 | Z Shape Profile<br>Z 200 (DIN 1027)             | 3,8             | 150              | 200                  | 8,4        | 0°               | 0°                 |
|             | 500 | Beam_1-07 | U Shape Profile UPE 200 (DIN 1026-2)            | 3,8             | 80               | 200                  | 8,4        | 0°               | 0°                 |
| First Floor | 200 | Beam_2-01 | Rectangle Profile                               | 8,045           | 200              | 300                  | 9,6        | 0°               | 0°                 |



|  |     | Name*     | Profile**  | Top Edge<br>(m) | Total Width<br>(mm) | Total Height<br>(mm) | Length (m) | Angle<br>(Slope) | Rotation<br>(Roll) |
|--|-----|-----------|--|-----------------|---------------------|----------------------|------------|------------------|--------------------|
|  | 200 | Beam_2-02 | Rectangle Profile  | 7,4             | 200                 | 300                  | 9,6        | 0°               | 0°                 |
|  | 150 | Beam_2-03 | Rectangle Profile 2  | 8,23            | 150                 | 200                  | 7,428      | 5°               | 0°                 |
|  | 200 | Beam_2-04 | Rectangle Profile 3  | 8,23            | 200                 | 200                  | 7,428      | 5°               | 0°                 |
|  | 260 | Beam_2-05 | I Shape Profile 2<br>(welded profile)<br>IS 206/275/8/10/4 | 8,305           | 260                 | 275                  | 7,428      | 5°               | 0°                 |



|      | Name*     | Profile**                              | Top Edge<br>(m) | Total Width<br>(mm) | Total Height<br>(mm) | Length (m) | Angle<br>(Slope) | Rotation<br>(Roll) |
|------|-----------|--|-----------------|---------------------|----------------------|------------|------------------|--------------------|
| 021  | Beam_2-06 | I Shape Profile 3 IPE 120 (DIN 1025-5) | 8,064           | 64                  | 120                  | 9,6        | 0°               | 7,5°               |
| 021  | Beam_2-07 | I Shape Profile 3 IPE 120 (DIN 1025-5) | 8,376           | 64                  | 120                  | 2,421      | 7,5°             | 0°                 |
| 130  | Beam_2-08 | I Shape Profile 3 IPE 120 (DIN 1025-5) | 8,376           | 64                  | 120                  | 2,421      | 7,5°             | 0°                 |
| 021  | Beam_2-09 | I Shape Profile 3 IPE 120 (DIN 1025-5) | 8,376           | 64                  | 120                  | 2,421      | 7,5°             | 0°                 |
| 1 64 | Beam_2-10 | I Shape Profile 3 IPE 120 (DIN 1025-5) | 8,376           | 64                  | 120                  | 2,421      | 7,5°             | 0°                 |



|            | Name*     | Profile**         | Top Edge<br>(m) | Total Width<br>(mm) | Total Height<br>(mm) | Length (m) | Angle<br>(Slope) | Rotation<br>(Roll) |
|------------|-----------|-------------------|-----------------|---------------------|----------------------|------------|------------------|--------------------|
| <b>—</b> + | Beam_2-11 | I Shape Profile 3 | 8,376           | 64                  | 120                  | 2,421      | 7,5°             | 0°                 |
| 120        |           | IPE 120           |                 |                     |                      |            |                  |                    |
| *          |           | (DIN 1025-5)      |                 |                     |                      |            |                  |                    |
| + 64       |           |                   |                 |                     |                      |            |                  |                    |

<sup>\*</sup> Object name must be given as stated in the "Attachment A – Mandatory Concepts".

<sup>\*\*</sup> This section describes only the geometry of the profile. The profile name must be given as stated in the "Attachment A – Mandatory Concepts".