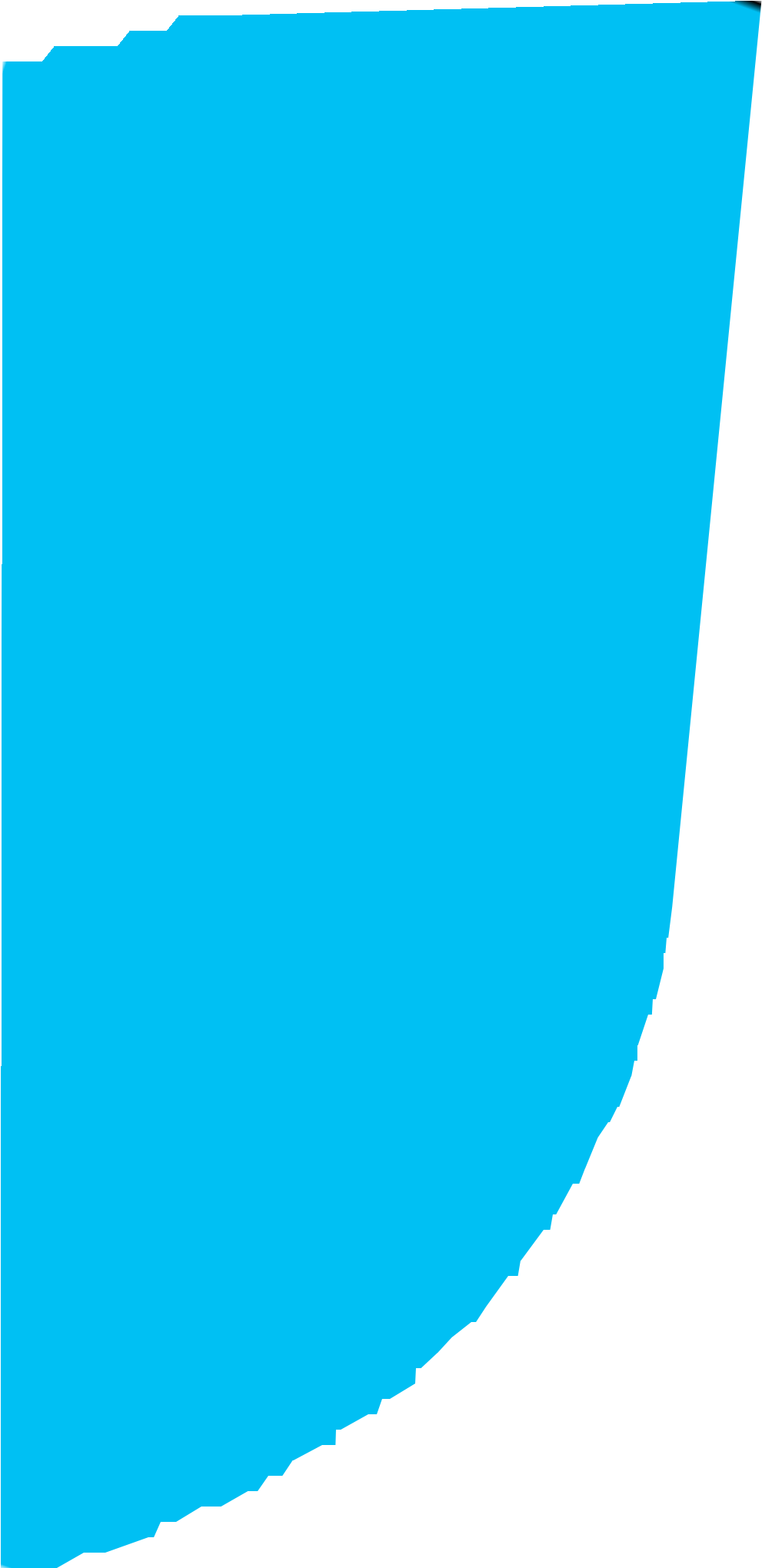
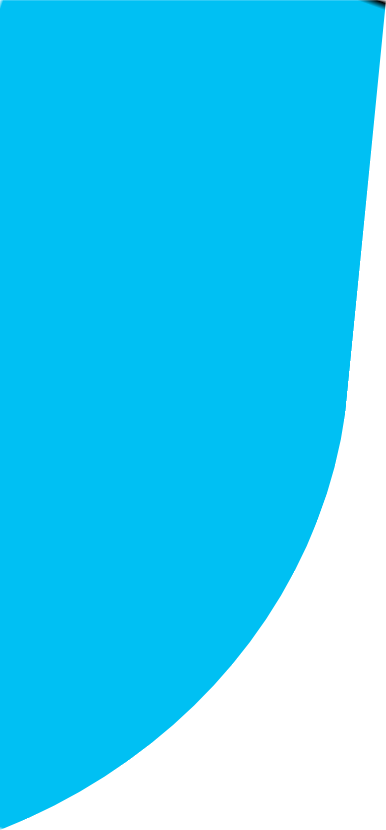
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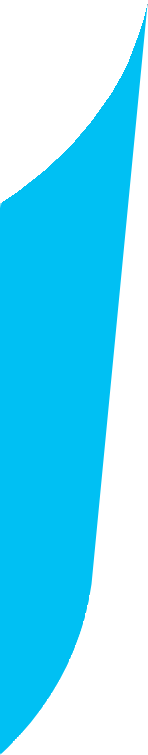
**BUILDING INFORMATION MODEL (BIM) PROTOCOL – Interim Security Variant**

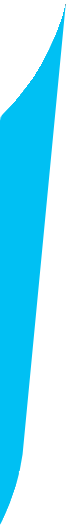
**CIC/BIM Secure Pro**







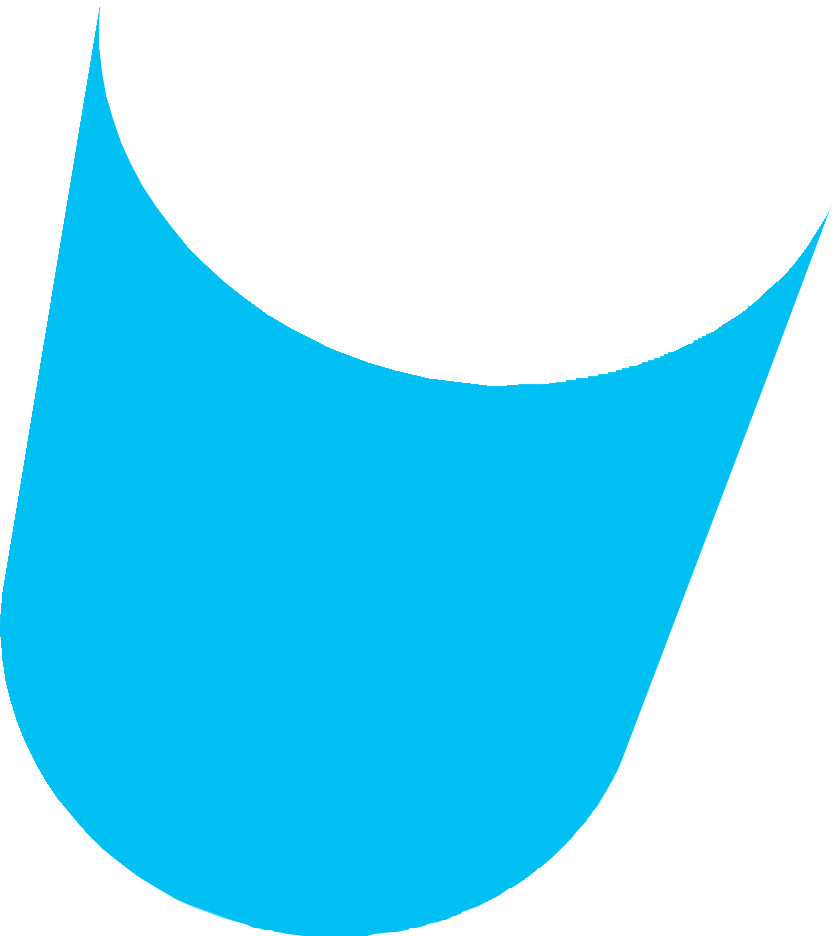


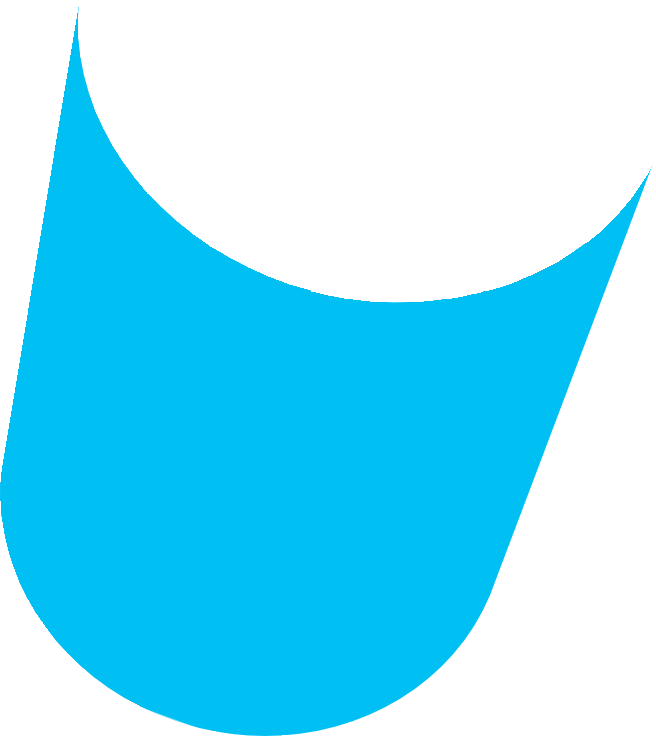


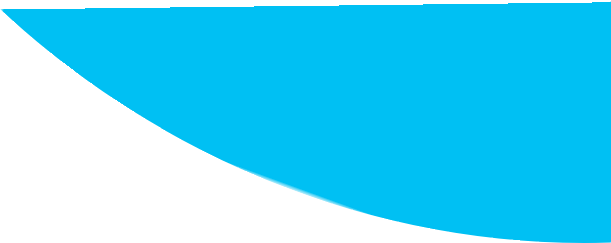


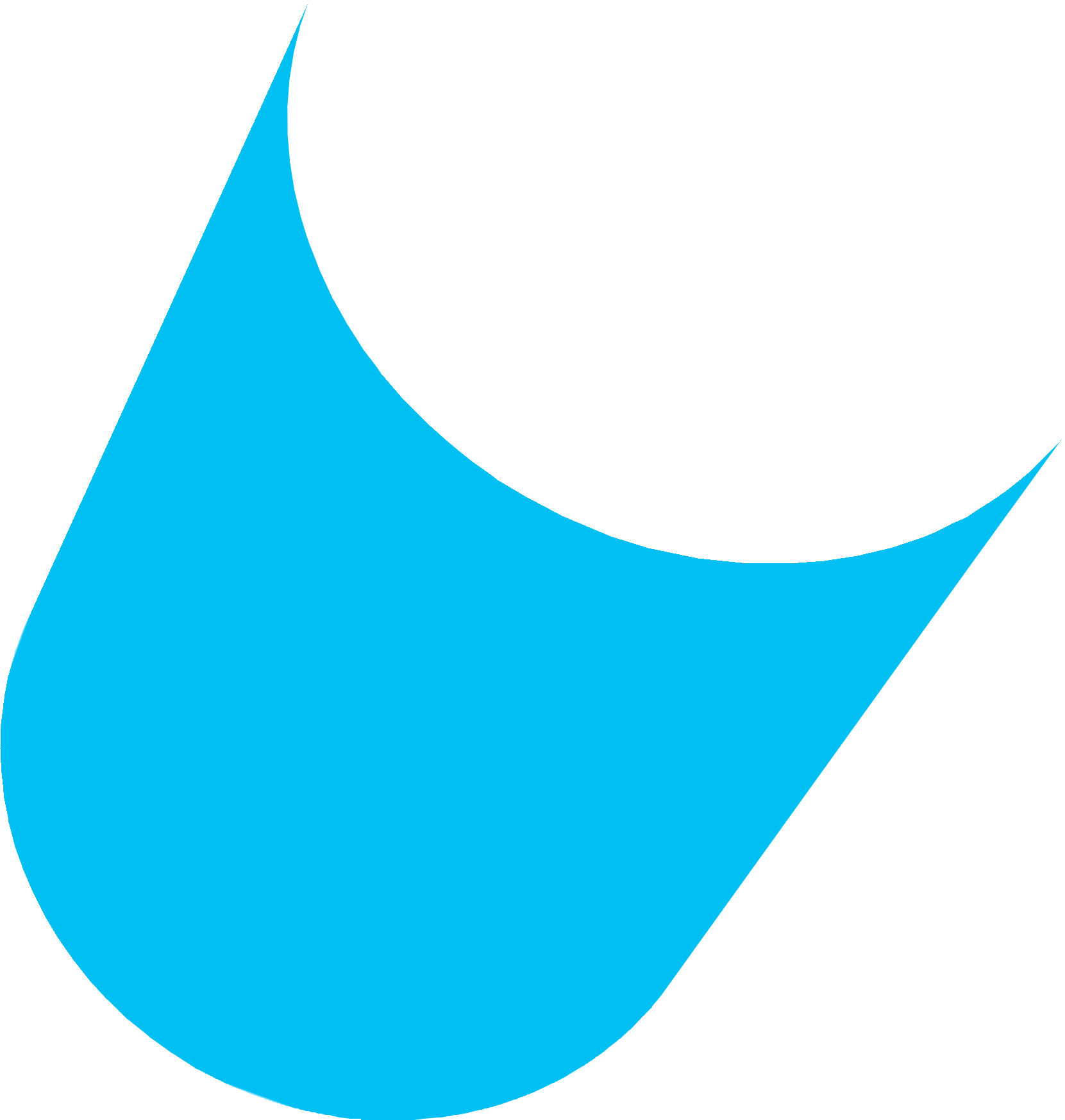


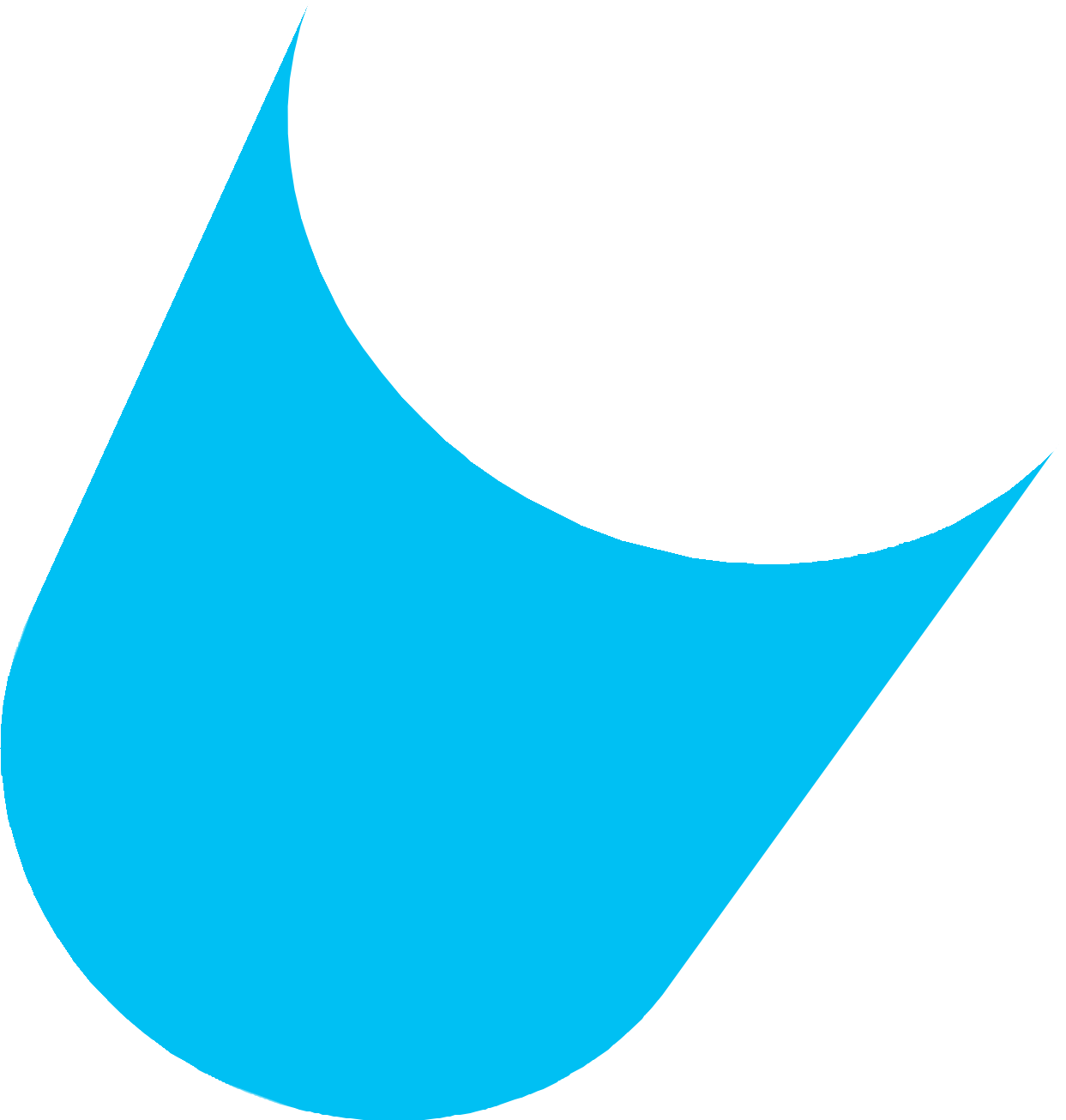


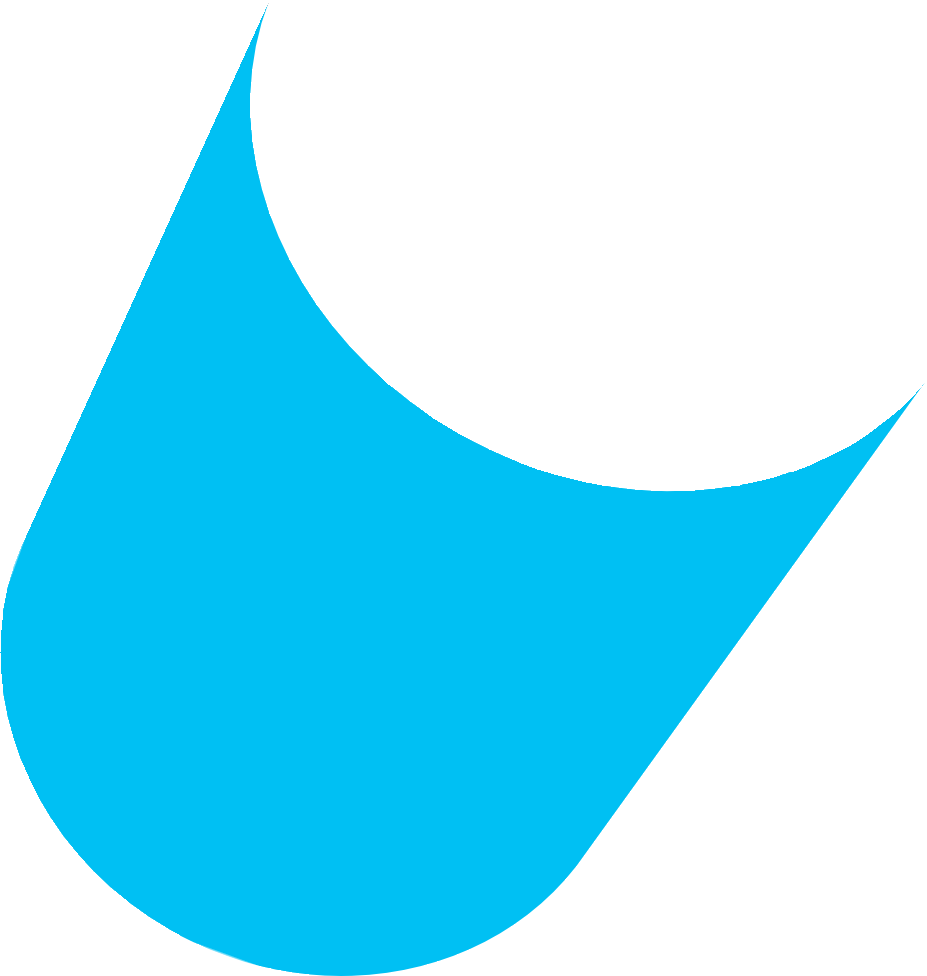


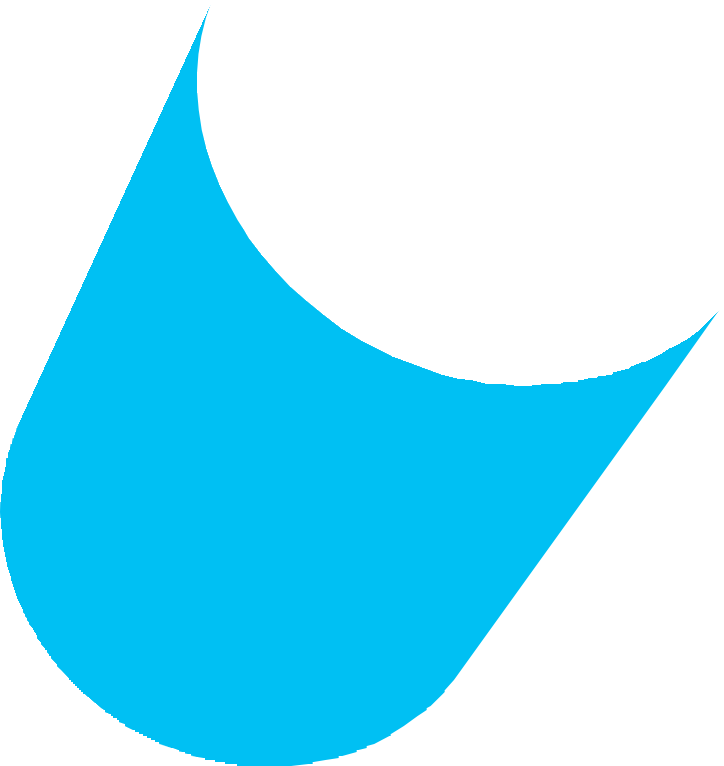




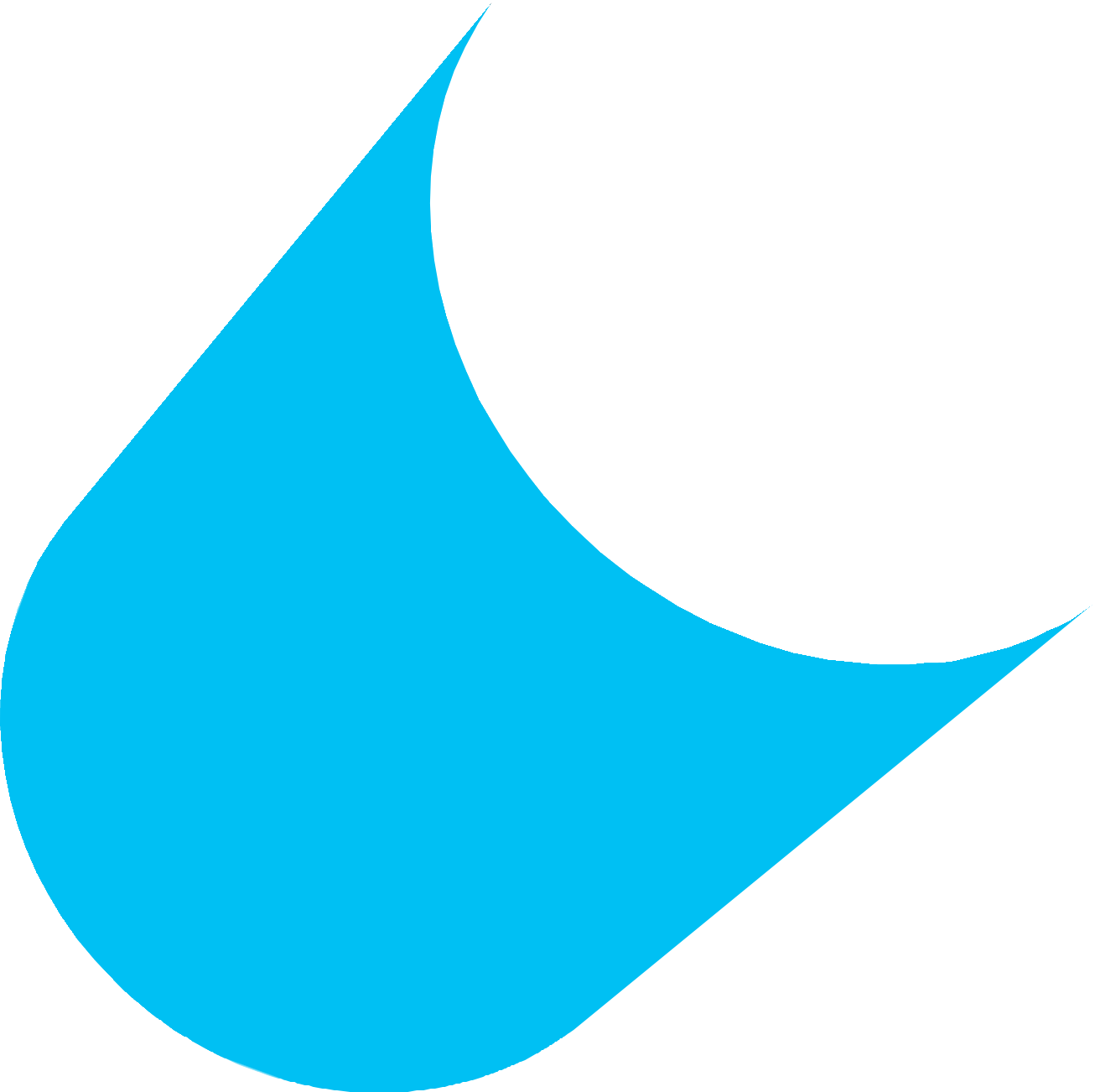


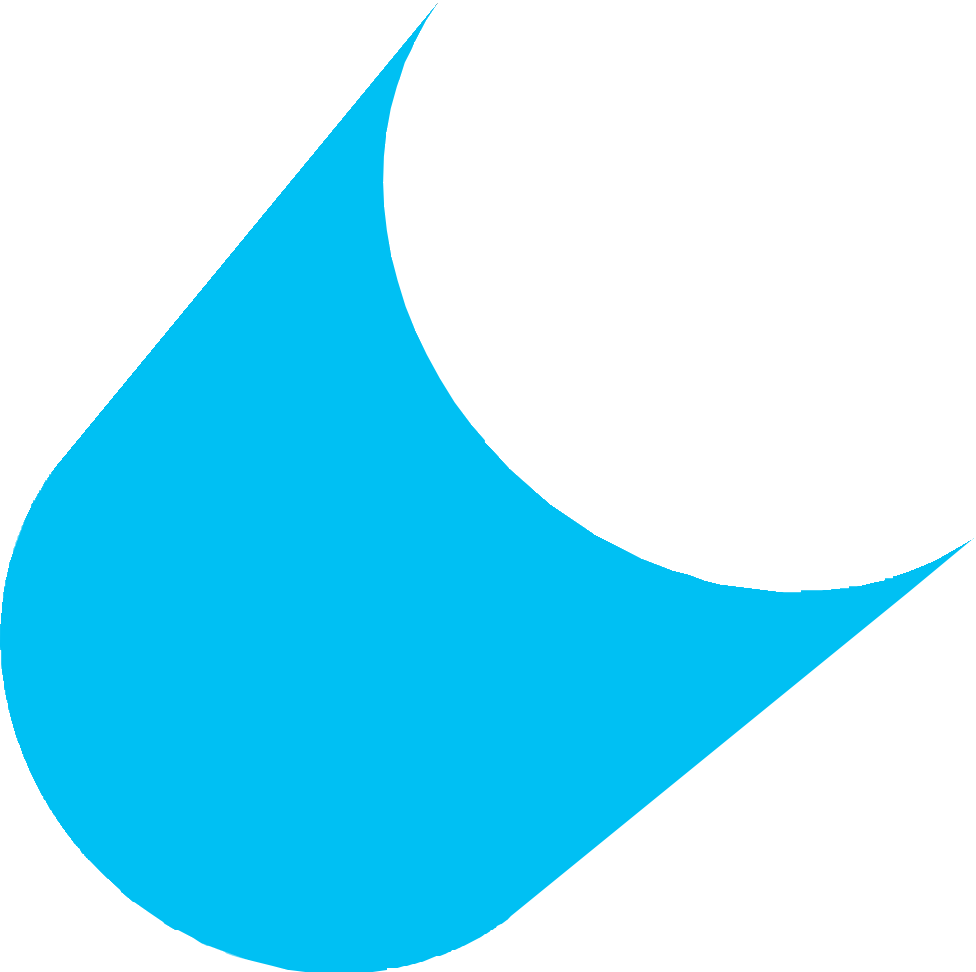


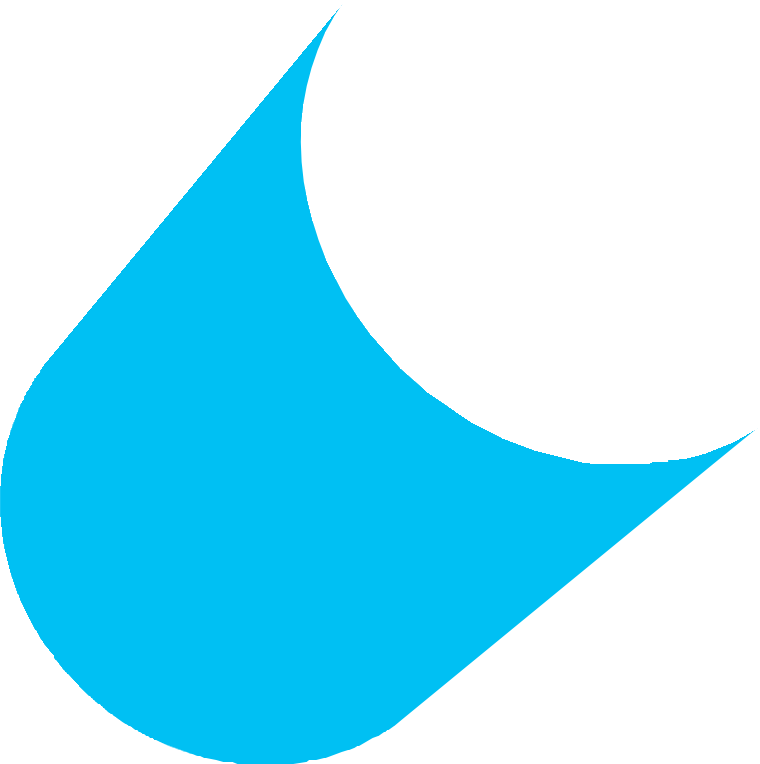


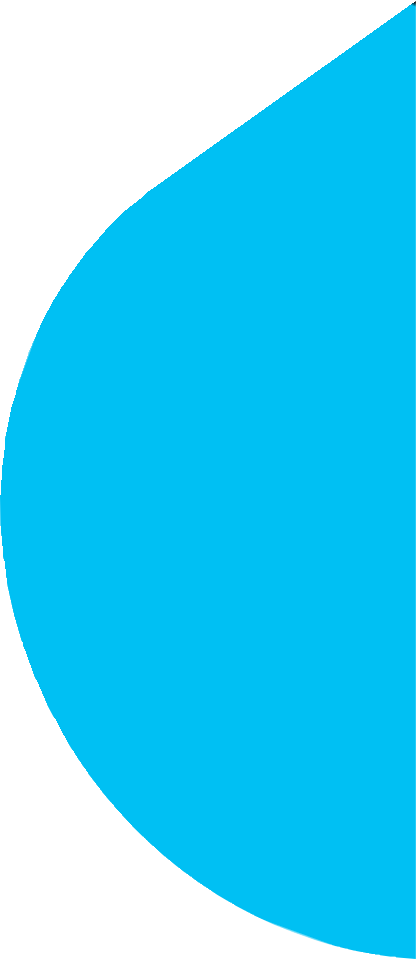


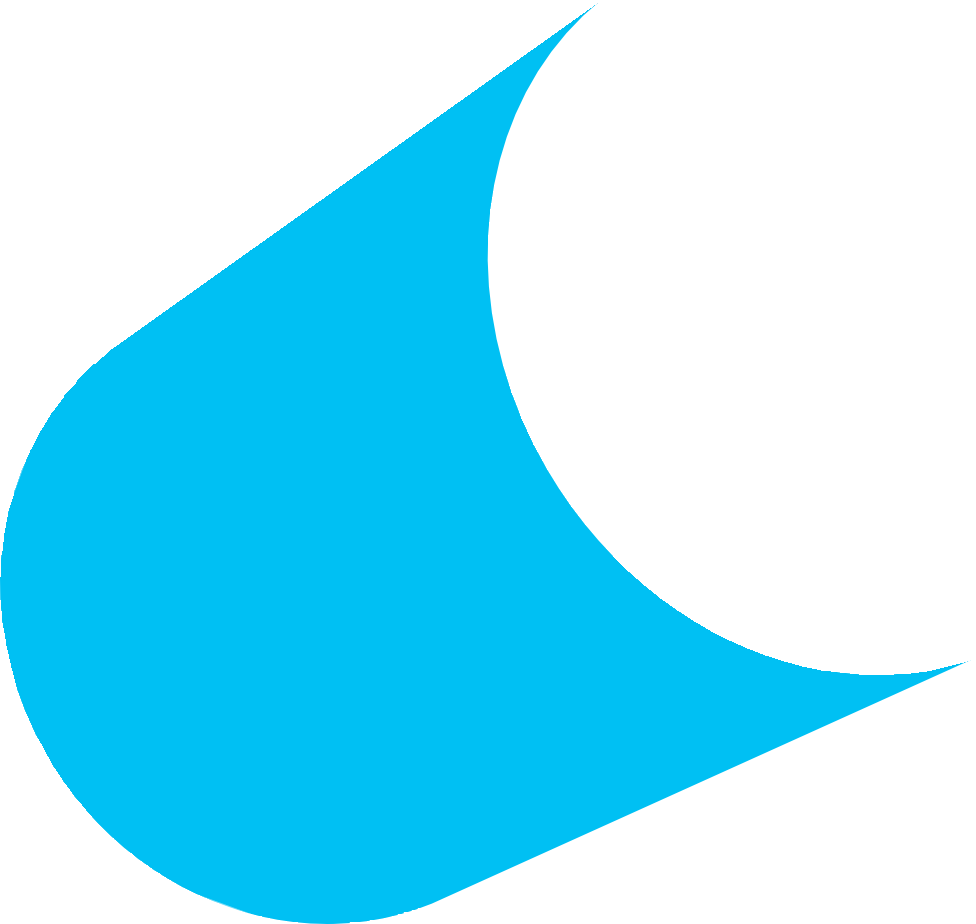


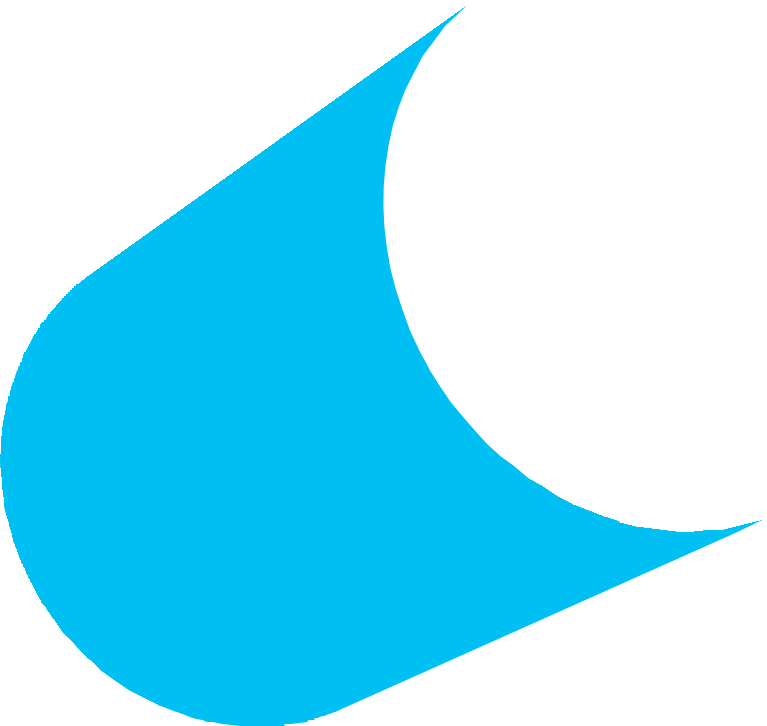


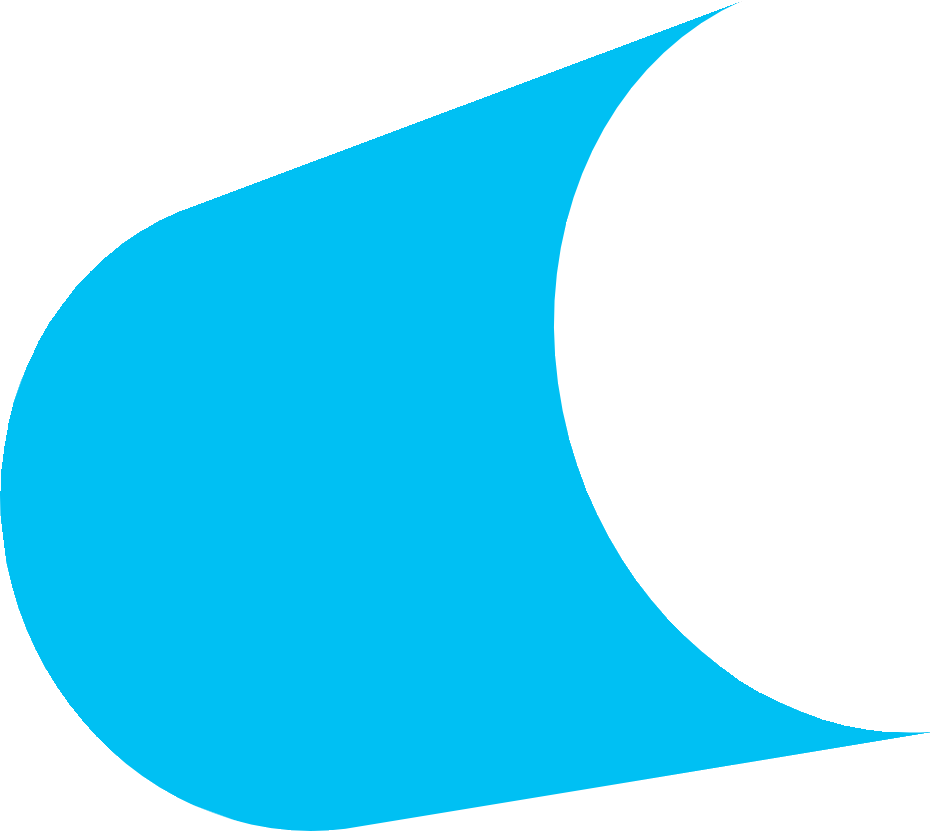


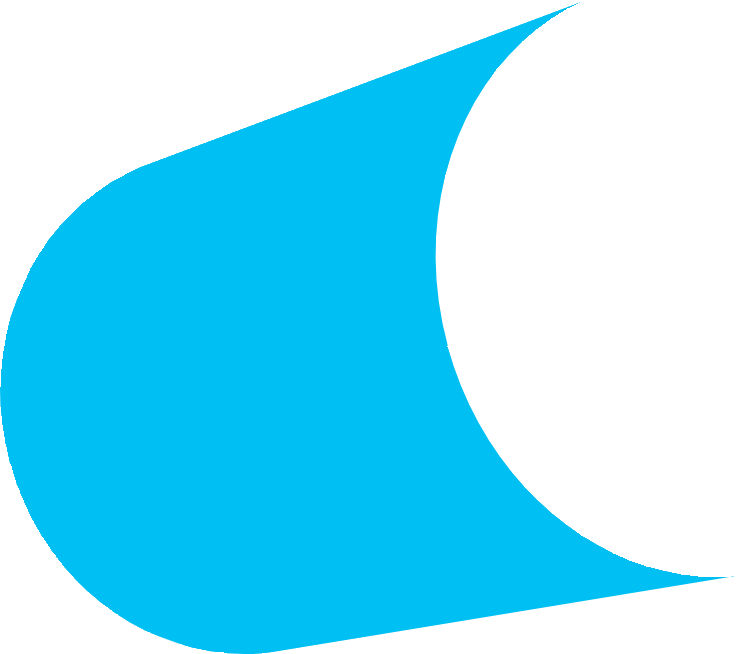




















*The CIC acknowledges the technical input and leadership provided by the*

*BIM Task Group in support of the production of CIC BIM documentation.*

The Interim Secure BIM Protocol has been drafted by Beale and Company on behalf of the CIC and the BIM Task Group

The Interim Secure BIM Protocol is based on the text of the 2013 CIC BIM Protocol. It will be superseded following the issue of a revised agreement which will incorporate Security Provisions in 2016

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# BUILDING INFORMATION MODEL (BIM) PROTOCOL

## CIC/BIM Secure Pro

**Interim Secure Edition**

##### Standard Protocol for use in projects using Building Information Models

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#### Introduction

The Interim Secure Variant of the CIC BIM Protocol has been developed specifically for use where the Employer has identified additional security requirements associated with digital information exchange. The Interim Secure Variant of the CIC Protocol should only be used in conjunction with PAS 1192-5.

No other changes have been made to the text of the Protocol which is identical to the First Edition except for changes made in connection with PAS 1192-5.

A revision to the CIC BIM Protocol is being prepared for release in 2016. This interim variant will be superseded by the release of the Second Edition of the CIC BIM Protocol.

The BIM Protocol was originally commissioned by CIC as part of its response to the UK Government BIM Strategy. The Protocol was drafted for use on all common construction contracts and supports BIM working at Level 2. The Protocol identifies the Building Information Models that are required to be produced by members of the Project Team and puts into place specific obligations, liabilities and associated limitations on the use of the models. The Protocol can also be used by clients to require the adoption of particular ways of working – such as the adoption of a common naming standard.

The Interim Secure Variant enables the employer to highlight information that needs to be managed in a security-conscious way and to require the adoption of processes described in the Employer’s Built Asset Security Management Plan.

The Protocol adopts many of the core principles used in the preparation of the CIC Consultant Appointment and Schedules of Service, particularly that project teams perform better when there is clear responsibility for action and deliverables.

This introduction and guidance sets out the principles behind the drafting of the Protocol and provides guidance with regards to its completion and use

1. **General principles of information security and PAS 1192-5**

Building information modelling is likely to be used in connection with built assets and asset portfolios which are deemed to be sensitive. For these assets, proportionate processes need to be applied which reduce the risk of loss or disclosure of information that could impact the safety and security of the users of the asset and its services, the asset itself, asset information, and/or the benefits that the asset is intended to deliver.

Many projects include a baseline level of security. Employers expect that their consultants and contractors will keep sensitive material confidential and will adopt reasonable measures so that disclosure of information is controlled in a managed way. Sometimes employers will ask their project teams to sign non-disclosure agreements or confidentiality agreements to document these requirements.

PAS 1192:5 includes provisions for projects where the security requirements are greater than typical baseline-requirements and enables employers to require their project team members to manage information using defined processes. The Interim Secure Variant of the CIC BIM Protocol enables these processes to be defined contractually.

Details of the standard are given in the Introduction to PAS 1192-5:2015, commissioned by the Centre for the Protection of National Infrastructure (CPNI) and published by BSI. The key features of the standard are:

* The introduction of an assessment which helps to determine the extent to which additional security-minded measures might be required on a project;
* The documentation of the Employer’s Built Asset Security Strategy and Built Asset Security Management Plan
* The definition of the role of the employer and the role of the Built Asset Security Manager
* The implementation of policies, processes and procedures which address security requirements covering people, processes, technology and physical security
* The development of specific Information Requirements associated with security requirements which inform the application of BIM on a project

The Employer has a key role under PAS 1192-5 in undertaking the security assessment and defining the security requirements. The Interim Secure Variant of the BIM Protocol enables the Employer to impose contractual obligations which reflect these additional requirements.

1. **General principles adopted in the drafting of the Protocol**

The following principles have informed the drafting of the Protocol:

* The Protocol makes the minimum changes necessary to the pre-existing contractual arrangements on construction projects;
* The Protocol ensures that there is an obligation on parties to provide defined elements of their works/services using models;
* The Protocol ensures that Project Team Members are under obligations to comply with the employer’s security processes and procedures in providing their work/services;
* The Protocol is a contractual document which takes precedence over existing agreements; and
* The Protocol is flexible and should be suitable for use on all Level 2 BIM projects.

#### 3.How the Protocol works

3.1 Objective of the Protocol

The primary objective of the Interim Secure Variant of the Protocol is to enable the production of Building Information Models in accordance with PAS 1192-5 at defined stages of a project and to ensure that the employer’s other security-related requirements for the project are adhered to. The Protocol is aligned with Government BIM Strategy, and incorporates provisions which support the production of deliverables at defined project stages. The Protocol also provides for the appointment of the ‘Information Manager’ and the ‘Built Asset Security Manager’.

A further objective of the Protocol is that its use will support the adoption of effective security-minded, collaborative working practices in Project Teams. The encouragement of the adoption of common standards or working methods under PAS 1192-2 and PAS 1192-5 are examples of best practice that can be made an explicit contractual requirement under the Protocol.

All parties involved in the use, production or delivery of Models on the Project (the “Project Team Members”) are required to have a Protocol appended to their contracts. This will ensure that all parties producing and delivering Models adopt any common standards, processes and ways of working described in the Protocol and that all parties using the Models have a clear right to do so. The responsibility for ensuring that Protocols are in place is with the Employer named in each agreement.

Project Team Members may have to adopt different security requirements, depending upon their role. Whilst the wording of the Protocol should be identical for all Project Team Members, the specific security processes to be adopted by each Project Team Member will be defined in the Built Asset Security Management Plan and reflected in the Security Requirements in each Protocol.

3.2 Incorporation into contracts

The Protocol is intended to be expressly incorporated into all direct contracts between the Employer and the Project Team Members.

* + On a project with separate appointments, it will be appended to the appointments of members of the design team and to the building contract.
  + On a Design and Build project, it will initially be appended to the contracts of the design team entered into prior to appointment of the Contractor. When the Contractor is appointed, the Building Contract should make him responsible for providing the models and should include the Protocol. If all consultants are novated, the Protocol appended to the novated appointments will allocate responsibility between members of the design team. If some consultants are not novated, careful consideration should be given as to how the responsibilities under the Protocol will be allocated following novation.
* Project Team Members should arrange for the Protocol to be incorporated into sub- contracts which concern the use, production or delivery of Models to the extent required to ensure that the Project Team Member complies with the Protocol. This will also ensure the sub-contractors have the benefit of and are subject to the licences in clause 6.

The text of a model amendment which expressly incorporates the Protocol into direct contracts is included as the Model Enabling Amendment.

3.3 Permitted Purposes

A key area of concern for many information providers is that the wider use of data-rich BIM will make it harder to protect IPR. The Protocol uses a general concept of ‘Permitted Purpose’ to define the licenced uses of Models, rather than stating the specific uses of each model.

The Permitted Purpose is defined as: *“a purpose related to the Project (or the construction, operation and maintenance of the Project) which is consistent with the applicable Level of Detail of the relevant Model (including a Model forming part of a Federated Model) and the purpose for which the relevant Model was prepared”.*

In order for the definition to operate as intended it is important that the Levels of Detail are defined appropriately in Appendix 1 (Levels of Detail and the Model Production and Delivery Table).

3.4 Treatment of Intellectual Property

In light of industry concerns in respect of IPR and the increased collaboration involved in a BIM project, clause 6 of the Protocol clearly sets out the IPR provisions required to enable the Models to be used as intended and to protect the rights of the Project Team Members against infringement.

Clause 6.2 states that ‘any rights (including but not limited to any copyright)….shall remain vested in the Project Team Member’. If the Employer wants to own all Project IPR, then the Protocol will need to be amended and further changes may be required in the Project Team Agreements. The existing contractual arrangements will govern the copyright position in respect of other documents produced and delivered under the Agreement.

Clause 6.3 grants a licence to the Employer in respect of the Material (the electronic information contained in the Models produced by the Project Team Member) for the Permitted Purpose and clauses 6.6 and 6.7 grant a licence and sub-licence from the Employer to the Project Team Member in respect of other information contained in Models (including material provided by the Employer or on his behalf for inclusion in the Project Team Member’s Models) for the Permitted Purpose. This means that a Project Team Member will be granted a licence, via the Employer, to use the Models produced by an Other Project Team Member, subject to the terms of clause 6 and vice versa.

The licences in the Protocol include the right to grant a sub-licence on identical terms to members of the Project Team and their sub- contractors. If the Employer requires a licence to be granted to other parties in respect of the Material it will need a separate agreement from the Project Team Member. This may be in the form of a collateral warranty in favour of that third party, or the Agreement could expressly extend the benefit of the Protocol to a third party under the Contracts (Rights of Third Parties) Act 1999.

The licence granted by the Project Team Member can be revoked for non-payment to the extent that any licence in the Agreement can be and the sub-licence from the Employer is subject to any right of revocation in the licence granted to the Employer.

In order to protect the Project Team Member’s rights, the licences do not include the right to amend the Material/Models without consent (except in limited circumstances) or the right to reproduce any proprietary work contained in the Material/Models for any extension of the Project. If a wider licence is required additional specific consent could be provided by the Project Team Member Clauses 6.9 and 6.10 represent that the Project Team Member and the Employer have, or will procure the right to grant the licences and sub- licences in clause 6. It is important all parties keep a clear audit trail when obtaining a Model, or part of the Model, from a third party.

3.5 Electronic Data Exchange

The Protocol aims to remove the need for separate Electronic Data Exchange Agreements between the Project Team Members by addressing the principal risks associated with the provision of electronic data, in particular the risk of corruption following transmission. Clause 5.1 makes clear that, without prejudice to its obligations under the Agreement, the Project Team Member gives no warranty as to the integrity of electronic data. Clause 5.2 excludes liability for any corruption or unintended amendment etc. of the electronic data which occurs after the transmission of a Model by the Project Team Member, unless caused by a failure to comply with the Protocol.

3.6 Definition of the Models covered by the Protocol

Models which are scheduled in Appendix 1, the Model Production and Delivery Table (MPDT), are subject to the Protocol. Models which are not listed in the MPDT do not benefit from the provisions of the Protocol. Clause 4 introduces an obligation on the Project Team Member to produce and deliver the Models in respect of which it is identified as the “Model Originator” in Appendix 1. The completion of the MPDT is described in more detail in section 6. The MPDT should be drafted accurately, as it is a contractual document, and also because it defines the Models that Project Team Members are expected to produce for a particular stage or data drop and the Level of Detail that is required at this stage.

3.7 Change management

The Protocol and appendices are contract documents. Any change to the Protocol or appendices will result in a change to the contract terms. Any variations to the MPDT or Protocol should be subject to the Change Management procedure under the Agreement, as they may be a change to the scope of services/works. As the same Protocol and appendices are attached to all Project Team Agreements, Employers should try and ensure such procedures are consistent across all Project Team Agreements if possible.

3.8 Liability for use of Models

Given the concerns associated with the wider use of data on BIM Projects clause 7 excludes liability for any use of the Material/Models which are licensed and/or sublicensed in clause

6 which is not permitted by the relevant licence/ sub-licence.

3.9 Sensitive information

Sensitive information is defined in PAS 1192-5 and may need to be treated in a different way to other project information. The Sensitive Information on any project is to be specified in Part 1 of Appendix 3, Security Requirements, and in instructions issued by the Employer to reflect any additional requirements in relation to Sensitive Information. Measures defined by the Employer in connection with PAS 1192-5 are designed to reduce the risk of sensitive information being inappropriately stored, circulated or used. Procedures for managing Sensitive Information will be detailed in the Built Asset Security Management Plan, which is incorporated into contracts by reference in Appendix C.

In some circumstances access to Sensitive Information may be limited or it may be that the Sensitive Information is not included in the Project Team’s scope. The Interim Secure Variant of the CIC BIM Protocol therefore includes an obligation to comply with Part 1 of the Security Requirements regarding Sensitive Information and instructions given by the Employer in relation to the same (see below). In addition, the Interim Secure Variant provides at clause 1.2 that the definitions of a number of the terms in the Protocol and the way they are interpreted in the Protocol are subject to the obligations of the Project Team Member under clause 4.1.5 in relation to Sensitive Information.

#### Information Manager and Built Asset Security Manager

4.1 Information Manager

The Protocol requires the Employer to appoint a party to undertake the Information Management Role. This is expected to form part of a wider set of duties under an existing appointment and is likely to be performed either by the Design Lead or the Project Lead, which could be a consultant or contractor at different stages of the project. In some circumstances the Employer may appoint

a stand-alone Information Manager.

The Scope of Services for the Role of Information Management will need to be defined in the Appointment of the party undertaking the Information Management Role. Details of the scope of services of the Information Manager have been prepared by the CIC. There are two versions: a detailed version compatible with the CIC scope of services, and another simpler version suitable for incorporation with any appointment, these are published separately on the BIM Task Group website, www:bimtaskgroup.org.

The Information Manager has no design related duties. Clash detection and model coordination activities associated with a ‘BIM Coordinator’ remain the responsibility of the design lead. The principal responsibilities of the Information Manager can be summarised as:

* Managing the processes and procedures for information exchange on projects;
* Initiating and implementing the Project Information Plan and Asset Information Plan;
* Assisting in the preparation of Project Outputs, such as data drops; and
* Implementation of the BIM Protocol, including the updating of the MPDT.

The initial responsibility for the appointment of the Information Manager lies with the Employer, who must ensure that there is an Information Manager appointed (whether by the Employer or another party) at all times until completion of the Project, save to the extent that this is the responsibility of the relevant Project Team Member.

4.2 Built Asset Security Manager

The Interim Secure Variant of the BIM Protocol requires the Employer to appoint a party to undertake the Built Asset Security Manager Role. This role is described in PAS 1192-5. In effect, if a security assessment determines that additional security measures are required, then the Employer will need to appoint a Built Asset Security Manager to comply with PAS 1192-5. Appendix 3 of the Protocol enables the Employer to formalise the appointment of the Built Asset Security Manager with respect to contracts associated with the creation of a built -asset. CIC documents do not describe the scope of the appointment of a Built Asset Security Manager.

#### 5. Model Production and Delivery Table (Appendix 1)

The Model Production and Delivery Table (MPDT) is a key document as it both allocates responsibility for preparation of the Models and identifies the Level of Detail (“LOD”) that Models need to meet at the project stages or data drops stated in the table.

The LODs are to be defined in Appendix 1 and it is expected that this will be done by reference to a separate document/standard. A definition of LODs can be found in PAS 1192:2, and in the Digital Plan of Work developed by RIBA Enterprises and NBS. It is important that the LODs are defined appropriately as they determine both the content of a Model and the Permitted Purpose for which the Model can be used. Ideally the Models included in the MPDT will have been identified by Project Team Members in response to requirements set out in the Employers Information Requirements

The MPDT is to be included at Appendix 1 and should be prepared before the Agreement is concluded. The same MPDT should be included in the Protocol appended to all Project Team Agreements. The MPDT should be completed carefully on a Level 2 project, so as not to impose additional obligations than intended, or to omit models from the scope of the Protocol. Should any variations to the MDPT be introduced at a later date, the change will be subject to the same procedure as required under the Agreement.

An exemplar MPDT has been published on the BIM Task Group website. It uses APM Project Stages and references to Data Drops described in the UK Government BIM Strategy. The APM Project Stages provide the closest match between stages used on building and infrastructure project stages. The MPDT can be adapted to refer to other Project Stage references, such as the RIBA Plan of Work, or Network Rail’s GRIP.

If particular parts of a project are sensitive, it would be sensible not to include these areas in the MPDT. Alternatively it could be stated in the Security Requirements that information regarding certain parts of the Project will constitute Sensitive Information and that such information should not therefore be included in Models or shared in the Common Data Environment.

#### 6. Information Requirements (Appendix 2)

The Information Requirements (IR) has been included at Appendix 2 to the Protocol so that Project wide information requirements can be expressly incorporated into all Project Team Member Agreements. Clause 4.1.2 requires the Project Team Member to comply with the Information Requirements (including any protocols, procedures and processes set out therein). The Information Requirements define how a Model must be developed, although it will not change the substance of what each party must provide. Many of the requirements included in the IR will be taken from tender documents such as the Employer's Information Requirements. An exhibit of the Employer’s Information Requirements, with guidance notes, is available on the BIM Task Group website.

Appendix 2 contains an example of what might be included in an IR but the content of the IR is entirely flexible. The Information Requirements should be adapted to suit the needs of the Project. Once prepared, the IR will be appended to the Protocol attached to all Project Team Agreements. It is likely to be an evolving document and will be subject to the change control procedure under the Agreement.

It is the responsibility of the Information Manager to agree and issue the IR, which should be prepared before the Agreements are concluded, as otherwise the parties will have to rely on the other contractual arrangements, which may not address the items covered by the IR.

#### 7. Security Requirements (Appendix 3)

The Security Requirements have been included at Appendix 3 so that project-wide and appointment-specific information security management requirements can be expressly incorporated into the appointments of Project Team Members. As described above, these requirements are in addition to any typical requirements set out in a non-disclosure agreement/contract.

Clause 3.1.2 (c) and (d) require the Employer to ensure that the Security Requirements are reviewed and updated at each stage and that there is a person performing the Built Asset Security Management role at all times on the project.

The protocol also requires that Project Team Members must cooperate with the Built Asset Security Manager (Clause 4.1.4). The Project Team Member must also comply with requirements in connection with Sensitive Information (clause 4.1.5). This might, for example, require a Project Team Member to restrict the issue of some information to team members where such issue is not covered by security protocols and where issue is not necessary for other team members to complete their work. In addition, the Employer may give an instruction during the course of a project that certain information is now Sensitive Information and that additional requirements apply to that information. The Project Team Member’s entitlement following such an instruction will be assessed under the Agreement..

Clause 4.1.6 and 4.1.7 require the Project Team Member to comply with the project-specific processes and procedures set out in part 2 of Appendix 3 and the Employer’s general processes and procedures set out in Part 3 of Appendix 3. The Interim Secure Variant of the Protocol creates an obligation on the Project Team Member to support the Employer by complying with their Security Requirements, as are established in accordance with PAS 1192:5.

**8. Termination**

Given the significant potential consequences of a Project Team Member failing to comply with the Security Requirements, Clause 8 includes a tiered termination process to enable the Employer to

* anticipate a potential breach and request that action is taken to avoid the breach;
* request that a breach of the security related obligations is remedied and the consequences mitigated; and
* terminate if the Employer’s requests to avoid or remedy a breach are not complied with or the breach relates to Sensitive Information and/or cannot be remedied or mitigated.

This is further incentive for the Project Team Member to ensure they comply with the security related obligations under the Protocol.

#### Definition

‘BIM Protocol: the CIC Building Information Modelling Protocol Interim Secure Variant in the form attached at Appendix X.’

#### Incorporation into the definition of the Contract Documents

‘BIM Protocol’

#### Compliance with obligations, benefits of rights, limitations or exclusions of liability

‘The Employer and the Contractor shall:

1. comply with their respective obligations set out in the BIM Protocol;
2. have the benefit of any rights granted to them in the BIM Protocol; and
3. have the benefit of any limitations or exclusions of their liability contained in the BIM Protocol'

The specific amendments required to incorporate the Protocol should be considered on a contract by contract basis and legal advice should be sought in this regard.

Parties should consider whether any amendments are required to the scope of services of the members of the Project Team in addition to the Protocol to reflect the fact that BIM is being used.

* 1. **DEFINITIONS**
     1. In this Protocol unless the context otherwise requires, the following words and phrases shall have the following meanings:
        1. **Agreement** means the agreement between the Employer and the Project Team Member to which this Protocol is attached.
        2. **Built Asset Security Management Role** means a role which includes, inter alia, the establishment and management of the policies, processes and procedures set out in the Security Requirements in connection with:
           1. the Project; and
           2. any information associated with the Project.
        3. **Built Asset Security Manager** means the person who is appointed by the Employer or the owner of the built asset which is the subject of the Project to perform the Built Asset Security Management Role.
        4. **Employer** means the person appointing the Project Team Member pursuant to the Agreement and any valid assignee of the Employer’s rights and obligations under this Protocol, subject to the terms of such assignment.
        5. **Federated Model** means a Model consisting of connected but distinct individual Models.
        6. **Information Management Role** means a role in connection with the Project which includes, inter alia, the establishment and management of the processes, protocols and procedures set out in the Information Requirements.
        7. **Information Manager** means the person appointed, initially by the Employer, to perform the Information Management Role.
        8. **Information Requirements** means the document attached to this Protocol at Appendix 2 setting out the way in which Models shall be produced, delivered and used on the Project, including any processes, protocols and procedures referred to therein.
        9. **Level of Detail** means the level of detail required for a Model as specified in Appendix 1 attached to this Protocol.
        10. **Material** means all information in any electronic medium prepared by or on behalf of the Project Team Member comprised in:
            1. the Specified Models; and
            2. the Federated Models, to the extent that these comprise Specified Models or to the extent that the Project Team Member owns any additional rights in any Federated Model, excluding any material forming part thereof which is provided to the Project Team Member by or on behalf of the Employer.
        11. **Model** means a digital representation of part of the physical and/or functional characteristics of the Project.
        12. **Model Production and Delivery Table** means the table attached to this Protocol at Appendix 1 specifying the subject matter of each Model, the person who is to produce and deliver each Model (described in the table as “Model Originator”) at each Stage and the Level of Detail for each Model at each Stage.
        13. **Other Project Team Member** means any person having responsibilities in relation to the production, delivery and/or use of Models and appointed by the Employer in relation to the Project, excluding the Project Team Member.
        14. **Permitted Purpose** means a purpose related to the Project (or the construction, operation and maintenance of the Project) which is consistent with the applicable Level of Detail of the relevant Model (including a Model forming part of a Federated Model) and the purpose for which the relevant Model was prepared.
        15. **Project** means the project to which the Agreement relates.
        16. **Project Agreement** means any agreement entered into between the Employer and an Other Project Team Member in relation to the Project.
        17. **Project Team Member** means the person appointed by the Employer pursuant to the Agreement.
        18. **Project Team Models** means any Models which Other Project Team Members produce and deliver as specified in the Model Production and Delivery Table and any Federated Models (or any part thereof) produced and delivered by Other Project Team Members.
        19. **Protocol** means this building information modelling protocol for security minded projects including Appendix 1, 2 and 3.
        20. **Security Requirements** means the document attached to this Protocol at Appendix 3 setting out the Employer’s security requirements for carrying out the Project in a security-minded way, including any policies, processes and procedures referred to therein.
        21. **Sensitive Information** means information which is specified in:
            1. part 1 of the Security Requirements; and/or
            2. any instruction issued under clause 4.1.5 of this Protocol.
        22. **Specified Models** means the Model or Models which the Project Team Member is to produce and deliver as specified in the Model Production and Delivery Table.
        23. **Stage** shall have the meaning stated in Appendix 1.
     2. Notwithstanding clause 1.1, in this Protocol the definitions of:
        1. Model;
        2. Specified Models;
        3. the Project Team Models,
        4. the Federated Models; and
        5. the Material;

and any references to such definitions and/or the information forming part thereof are subject to clause 4.1.5 of this Protocol in respect of any Sensitive Information forming part of the same.

* 1. **PRIORITY OF CONTRACT DOCUMENTS**
  2. This Protocol forms part of the Agreement. In the event of a conflict or inconsistency between the terms of this Protocol and any other documents contained in and/or forming part of the Agreement, except where the Protocol states otherwise, the terms of this Protocol shall prevail.
  3. In the event of any conflict or inconsistency between a Model prepared and delivered in accordance with this Protocol and any document or information extracted from such Model, except where the Information Requirements states otherwise, the Model shall prevail.
  4. **OBLIGATIONS OF THE EMPLOYER**
  5. The Employer shall:
     1. arrange for a protocol in substantially the same terms as this Protocol and for the obligations set out herein to be incorporated into all Project Agreements;
     2. save to the extent that such obligations are within the scope of the Project Team Member’s obligations under any other part of the Agreement:
        1. ensure that until the end of the Project the Information Requirements and the Model Production and Delivery Table are reviewed and updated at each Stage;
        2. ensure that the appointment of the Information Manager shall be changed or renewed as necessary to ensure that there is at all times until the end of the Project a person performing the Information Management Role;
        3. ensure that until the end of the Project the Security Requirements are reviewed and updated at each Stage; and
        4. ensure that the appointment of the Built Asset Security Manager shall be changed or renewed as necessary to ensure that there is at all times until the end of the Project a person performing the Built Asset Security Management Role.
  6. **OBLIGATIONS OF THE PROJECT TEAM MEMBER**
  7. The Project Team Member shall:
     1. produce the Specified Models (excluding any material forming part of the same which is provided to the Project Team Member by or on behalf of the Employer) to the Level of Detail specified in the Model Production and Delivery Table using the level of skill and care required under the Agreement;
     2. subject to events outside its reasonable control, (including the acts or omissions of the Employer, Other Project Team Members and any third party but excluding the Project Team Member’s sub-contractors), use reasonable endeavours to:
        1. deliver the Specified Models at the Level of Detail specified in the Model Production and Delivery Table at the Stage specified therein and in accordance with the Information Requirements;
        2. use the Project Team Models in accordance with any procedures therefor in the Information Requirements;
        3. comply with the Information Requirements;
     3. subject to clause 4.1.5 in respect of any Sensitive Information contained in the Security Requirements, arrange for this Protocol to be incorporated into any sub-contracts that it enters into in relation to the Project to the extent required to enable the Project Team Member to comply with this Protocol;
     4. co-operate with the Built Asset Security Manager;
     5. comply with Part 1 of the Security Requirements and any reasonable instructions the Employer may issue to the Project Team Member in respect of any Sensitive Information. The Project Team Member’s entitlement (if any) following any instruction issued in accordance with this clause 4.1.5 after the date of the Agreement shall be assessed in accordance with the Agreement;
     6. comply with Part 2 of the Security Requirements (and the policies, processes and procedures identified therein); and
     7. comply with Part 3 of the Security Requirements (and the policies, processes and procedures identified therein) and not cause or contribute to any breach by the Employer of the same (to the extent that such polices, processes and procedures relate to the Project Team Member’s obligations under the Agreement and have been provided to the Project Team Member).
  8. **ELECTRONIC DATA EXCHANGE**
     1. Without prejudice to the Project Team Member’s obligations under this Protocol and the Agreement, the Project Team Member does not warrant, expressly or impliedly, the integrity of any electronic data delivered in accordance with this Protocol.
     2. The Project Team Member shall have no liability to the Employer in connection with any corruption or any unintended amendment, modification or alteration of the electronic data in a Specified Model which occurs after it has been transmitted by the Project Team Member, save where such corruption, amendment, modification or alteration is a result of the Project Team Member’s failure to comply with this Protocol.
  9. **USE OF MODELS**
     1. The Employer and the Project Team Member agree that any provisions in the Agreement concerning the copyright (or any other rights) in and licence to use the Material, the Federated Models, the Project Team Models, any material forming part of the Specified Models which is provided to the Project Team Member by or on behalf of the Employer and any proprietary work contained therein shall be varied to the extent necessary so that sub- clauses 6.2 to 6.8 apply to the Material, the Federated Models, the Project Team Models, any material forming part of the Specified Models which is provided to the Project Team Member by or on behalf of the Employer and any proprietary work contained therein but if there are no such provisions sub-clauses 6.2 to 6.8 shall apply.
     2. Any rights (including but not limited to any copyright) subsisting in the Material and any proprietary work contained in the Material shall, as the case may be, vest or remain vested in the Project Team Member.
     3. Subject to clause 6.4 and 6.5, the Project Team Member grants to the Employer a non- exclusive licence and, to the extent that the Material and any rights subsisting therein are owned by third parties, a sub-licence, (including the right to grant sub-licences on identical terms to Other Project Team Members, which shall include the right to grant sub-sub- licences on identical terms to Other Project Team Members’ sub-contractors) to transmit, copy and use the Material and any proprietary work contained in the Material for the Permitted Purpose.
     4. The licence and sub-licence (if any), granted in clause 6.3 may be suspended or revoked in the event of non-payment to the extent that any licence in the Agreement provides for such suspension or revocation.
     5. The licence in clause 6.3 shall not include the right to:
        1. Amend or modify the Material without the Project Team Member’s written consent (not to be unreasonably withheld), save where such amendment or modification is:
           1. provided for in the Information Requirements; or
           2. made for the Permitted Purpose following the termination of the Project Team Member’s employment under the Agreement; or
        2. Reproduce any proprietary work contained in the Material for any extension of the Project.
     6. Subject to clause 6.8 and any right of revocation contained in the licence granted to the Employer in respect of the same, the Employer grants to the Project Team Member a non- exclusive sub-licence (including the right to grant sub-sub-licences on identical terms to the Project Team Member’s sub-contractors) to transmit, copy and use for the Permitted Purpose:
     7. any material forming part of the Specified Models which is provided to the Project Team Member by or on behalf of the Employer;
     8. the Project Team Models (and any part thereof);
     9. any Federated Model (and any part thereof); and
     10. any proprietary work contained in the same, to the extent that the same or any rights subsisting therein are owned by Other Project Team Members or any other third party.
  10. Insofar as the Employer owns:
      1. any material forming part of the Specified Models which is provided to the Project Team Member by or on behalf of the Employer;
      2. the Project Team Models (or any part thereof);
      3. any Federated Model (or any part thereof);
      4. any proprietary work contained in the same; or
      5. any rights subsisting in any of the above,

subject to clause 6.8, the Employer grants to the Project Team Member a non-exclusive licence (including the right to grant sub-licences on identical terms to the Project Team Member’s sub-contractors) to transmit copy and use the same for the Permitted Purpose.

* 1. The licence and sub-licence (if any) granted in clauses 6.6 and 6.7 shall not include the right to:
     1. amend or modify a Model without the written consent (not to be unreasonably withheld) of the Employer or the Other Project Team Member who produced and delivered that Model (or the relevant part thereof), save where such amendment or modification is:
        1. provided for in the Information Requirements; or
        2. in respect of material produced or delivered by an Other Project Team Member, made for the Permitted Purpose following the termination of the Other Project Team Member’s employment under the Agreement; or
     2. reproduce any proprietary work contained in a Model for any extension of the Project.
  2. The Project Team Member represents to the Employer that it has, or that it will procure, the right to grant either a licence or sub-licence in the form granted in clause 6.3 in respect of the Material and any proprietary work contained therein.
  3. The Employer represents to the Project Team Member that it has, or that it will procure, the right to grant either a sub-licence in the form granted in clause 6.6 or a licence in the form granted in 6.7 in respect of:
     1. the Project Team Models (and any part thereof);
     2. any Federated Model (and any part thereof) which does not form part of the Material;
     3. any material forming part of the Specified Models which is provided to the Project Team Member by or on behalf of the Employer; and
     4. any proprietary work contained in the same.
  4. **LIABILITY IN RESPECT OF A MODEL**
     1. The Employer and the Project Team Member agree that any provisions in the Agreement concerning the use of the Material, the Federated Models, the Project Team Models, any material forming part of the Specified Models which is provided to the Project Team Member by or on behalf of the Employer and any proprietary work contained therein shall be varied to the extent necessary to give effect to clauses 7.2 and 7.3 but if there are no such provisions clauses 7.2 and 7.3 shall apply.
     2. The Project Team Member shall have no liability to the Employer arising out of any modification or amendment to, or any transmission, copying or use of the Material, or any proprietary work contained therein, by the Employer, an Other Project Team Member, or any other third party, other than that permitted by clause 6.3.
     3. The Employer shall have no liability to the Project Team Member arising out of any modification or amendment to, or any transmission, copying or use of the Project Team Models, or any material forming part of the Specified Models which is provided to the Project Team Member by or on behalf by the Employer, or any Federated Models, or any proprietary work contained in the same, sublicensed or licensed by the Employer pursuant to clauses 6.6 and 6.7, by the Project Team Member or any third party, other than that permitted by clause 6.6 or 6.7 (as applicable).
  5. **TERMINATION**
     1. Without prejudice to the Employer’s rights under the Agreement:
        1. if the Built Asset Security Manager has reasonable grounds to consider that the Project Team Member is likely to breach clauses 4.1.5, 4.1.6 and/or 4.1.7 of this Protocol, the Employer may give notice to the Project Team Member requiring that steps are taken to prevent the breach within a reasonable period as specified in the notice. If the Project Team Member has not taken such steps within the specified period the Employer may terminate the Project Team Member’s employment under the Agreement immediately by further written notice; and
        2. if the Project Team Member breaches clauses 4.1.3, 4.1.4, 4.1.5, 4.1.6 and/or 4.1.7 of this Protocol, the Employer may at its discretion:
           1. give notice to the Project Team Member requiring that steps are taken to remedy the breach and/or mitigate the consequences of the same within a reasonable period as specified in the notice. If the Project Team Member has not taken such steps within the specified period the Employer may terminate the Project Team Member’s employment under the Agreement forthwith by written notice to the Project Team Member; and/or
           2. terminate the Project Team Member’s employment under the Agreement forthwith by written notice to the Project Team Member if the breach relates to Sensitive Information, is not capable of remedy and/or the consequences of the breach cannot be mitigated.
     2. Without prejudice to the Employer’s rights under the Agreement, following any termination under clause 8.1 of this Protocol the Project Team Member shall:
        1. immediately stop providing any works and/or services under the Agreement and take all steps necessary to ensure that its sub-contractors (of any tier) do the same;
        2. not be entitled to any further payment (other than of any sums which are due and payable under the Agreement as a result of with work and/or services provided prior to the date of termination), including but not limited to any costs or losses incurred after or as a result of termination; and
        3. comply with (and ensure that its subcontractors and suppliers of (any tier) comply with) all instructions of the Employer in relation to the termination of the Project Team Member’s employment, including but not limited to taking any steps necessary to comply with the Security Requirements and/or to mitigate the consequences of any breach of this Protocol.
     3. Clauses 1, 2, 3, 4.1.4, 4.1.5, 4.1.6, 4.1.7, 5, 6, 7 and 8.2 of this Protocol shall continue to apply following termination of the Project Team Member’s employment under the Agreement.

**Levels of Detail and the Model Production and Delivery Table**

*This is a framework for*

*a Model Production and Delivery Table. The parties may choose any other appropriate format and attach it to this Appendix.*

The Levels of Detail are as follows:

|  |  |  |
| --- | --- | --- |
| LOD 1 |  | STAGE 1 |
| LOD 2 |  | STAGE 2 |
| LOD 3 |  | STAGE 3 |
| LOD 4 |  | STAGE 4 |
| LOD 5 |  | STAGE 5 |
| LOD 6 |  | STAGE 6 |
| LOD 7 |  | STAGE 7 |

The Stages are as follows:

*An editable version of the BIM Protocol Appendices are provided on the CIC Website: cic.org.uk/publications/ and the BIM Level 2 website: bim-level2.org/*

**Specimen Model Production and Delivery Table**

Showing models required at different project stages

**LOD definitions (from PAS 1192)**

1. Brief
2. Concept
3. Developed Design 4 Production
4. Installation
5. As constructed

**Stage definitions (from APM)**

0 Strategy 1 Brief

1. Concept
2. Definition 4 Design
3. Build & Commission
4. Handover & Closeout

(production information)

**Model Originators identified by name**

1. In use

7 Operation and end of life

**Drop 1 Drop 2a Drop 2b Drop 3 Drop 4**

Stage 1 Stage 2 Stage 2 Stage 3 Stage 6

**Overall form and content**

Model Originator

Level of Detail

Model Originator

Level of Detail

Model Originator

Level of Detail

Model Originator

Level of Detail

Model Originator

Level of Detail

**Design strategies**

|  |  |
| --- | --- |
| Architect Architect | 1  1 |
|  |  |

|  |  |
| --- | --- |
| Architect Architect | 2  2 |
|  |  |
| Architect | 2 |
|  |  |

|  |  |
| --- | --- |
| Contractor Contractor | 2  2 |
|  |  |
| Contractor Contractor Contractor | 2  2  2 |

|  |  |
| --- | --- |
| Contractor Contractor | 6  6 |
|  |  |
| Contractor Contractor Contractor | 6  6  6 |

|  |  |
| --- | --- |
| Architect Architect Architect Architect | 2  2  2  2 |
|  |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Fire |  | Contractor | 2 |  | Contractor | 3 |  | Contractor | 6 |
| Physical security |  | Contractor | 2 |  | Contractor | 3 |  | Contractor | 6 |
| Disabled access |  | Contractor | 2 |  | Contractor | 3 |  | Contractor | 6 |
| Maintenance access |  | Contractor | 2 |  | Contractor | 3 |  | Contractor | 6 |
| BREEAM |  | Contractor | 2 |  | Contractor | 3 |  | Contractor | 6 |

**Performance**

|  |  |
| --- | --- |
| Architect Architect Architect | 1  1  1 |
|  |  |

|  |  |
| --- | --- |
| Architect Str Eng MEP Eng | 2  2  2 |
|  |  |

|  |  |
| --- | --- |
| Contractor Contractor Contractor | 2  2  2 |
|  |  |

|  |  |
| --- | --- |
| Contractor Contractor Contractor Contractor Contractor Contractor Contractor | 3  3  3  3  3  3  3 |
|  |  |
| Contractor | 3 |

|  |  |
| --- | --- |
|  |  |
| Contractor Contractor Contractor Contractor | 6  6  6  6 |
|  |  |
| Contractor | 6 |

Building Structural MEP systems

Regulation compliance analysis

Thermal Simulation Sustainability Analysis Acoustic analysis

4D Programming Analysis

5D Cost Analysis Services Commissioning

**Elements, materials components**

|  |  |
| --- | --- |
| Architect MEP Eng | 2  2 |
|  |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Building |  | Contractor | 2 |  | Contractor | 3 |  | Contractor | 6 |
| Specifications |  | Contractor | 2 |  | Contractor | 3 |  | Contractor | 6 |
| MEP systems |  | Contractor | 2 |  | Contractor | 3 |  | Contractor | 6 |

**Construction proposals**

**Health and safety**

|  |  |
| --- | --- |
|  |  |
| Contractor | 6 |

*This is a framework of a generic Security Requirements. Parties may choose to include further detail if they require.*

*An editable version of the BIM Protocol Appendices are provided on the*

*BIM Task Group Website:*

[**www.bimtaskgroup.org**](http://www.bimtaskgroup.org/)

**Information Requirements**

1. **Standards**

The following standard(s) shall apply:

1. **Parties**
   1. The parties involved in the Project are:
   2. The role of Information Manager shall be performed by the following person or persons for the following stages:

*Stages Person*

1. **Employer’s Information Requirements**
   1. The Common Data Environment shall be
   2. The Models shall be developed using the following versions of the following software:
   3. The Models shall be delivered by the persons listed below in the following formats:

*Person File format*

* 1. Files and layers shall be named and numbered in accordance with
  2. The following units, annotation, dimensions, abbreviations and symbols shall be used in developing a Model
  3. The following co-ordinate system shall be used
  4. The zoning requirements are as follows
  5. Data drops shall take place in accordance with the [Employer's Information Requirements/ Execution Plan]. To the extent that the [Employer's Information Requirements/Execution Plan] requires a particular piece of information to be extracted from a Model in more than one format at any particular stage, all such formats shall be extracted from the same Model.

1. **Project Procedures**
   1. The following protocols/procedures shall apply to the Project:
      1. Spatial Co-ordination protocol;
      2. Model approval/information exchange protocol;
      3. Archiving procedures;
      4. Security requirements and access rights procedures;
      5. [Other]
   2. Resolution of conflicts

*specify any circumstances in which information extracted from a Model will take precedence over the Model.*

*This is a framework of a generic Security Requirements. Parties may choose to include further detail if they require.*

**Security Requirements**

1. **Sensitive Information**

1.1 The following information is Sensitive Information:

1.2 The Employer’s requirements in respect of the Sensitive Information are as follows:

1. **Project Specific Security Requirements**
   1. The Built Asset Security Information Requirements applicable to the Project Team Member are as follows:

[Refer to the Built Asset Security Information Requirements included in the EIRs. See paragraph 10 PAS 1192.5.]

2.2 The Employer’s Baseline Security Requirements are:

[See PAS 1192-5 (5.6). The contractual obligations under the Agreement should be considered carefully (see paragraph 11.4 of PAS 1192:5) and referred to here if necessary]

1. **Employer’s Policies and Procedures** 
   1. Employer’s Standards

* PAS1192-5
* [any other Employer specific security standards (see PAS 1192-5, 11.4.4)]

* 1. Security Manager

The Security Manager shall be the following person

3.3 Built Asset Security Management Plan

The Built Asset Security Management Plan is contained in the following document

[See Paragraph 8 of PAS 1192:5]

3.4 Security Breach/Incident Management Plan is contained in the following document

[See Paragraph 9 of PAS 1192:5]