Build SG

BCA

Guidebook for
VIRTUAL TOP/CSC
360
CAPTURE

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INTRODUCTION

The construction industry is increasingly embracing technologies to enhance inspection processes. One such example is the utilisation of 360 Capture. This technology uses 360-degree photos and videos to create a virtual representation of project sites, enabling inspectors to conduct virtual inspections without the need to physically go to the project site.

Doing a 360 Capture of project sites is fast and easy with many off-the-shelf platforms available in the market. Simply attach a 360-degree camera to a helmet or selfie stick and walk the site as per normal. A digital twin of the construction site will then be created in the 360 platform to enable virtual inspections. This entire process can be completed within a day. A 360 Capture of the site can help Project Teams to track site progress, conduct site supervision and improve communication among project parties as well as regulators.

Compared to the tedious compilation of 2D photos, 360 Capture provides faster and better documentation of the site, with more comprehensive site details. This removes the need for inspectors to be physically at the site. However, there are situations where physical site inspections are still required (for example, when there is a need to take precise measurements or to witness live operations). Nevertheless, in such cases, 360 Capture is still useful as a means of hybrid inspections where the majority of the areas are inspected virtually with only focused areas being inspected physically. This is useful as it reduces the resources required for an inspection while still ensuring that all inspection objectives are met.

In summary, the adoption of the 360 Capture platform for site inspections holds the potential to enhance construction industry inspection processes, making inspections safer, more efficient, and more effective.

Pictures 1 and 2: Virtual inspections can be done using 360 capture devices to record site findings.

INTRODUCTION

360 Capture is accepted as an alternative form of inspection evidence by the Building Construction Authority (BCA) in lieu of physical inspection or as part of a hybrid inspection prior to TOP/CSC issuance. This will be rolled out in phases, starting with building typology with typical and standardised designs.

This guidebook has been developed to help industry practitioners in understanding how to use 360 Capture for TOP/CSC inspection purposes.

It is important for Supervising QPs and Project Teams to ensure due diligence and compliance with regulatory standards, even when utilising new technology. In addition, the requirements of the 360 Capture submissions should be met.

The provisions listed in this guidebook are not exhaustive and the Project Team should take reasonable steps and exercise due diligence in inspecting the building works pursuant to the BC Act, BC Regulations and SSP guidebook. It is the Project Team's responsibility to ensure that all relevant building regulations and standards are complied with.

Terms and Definitions

For the purpose of this guidebook, the definitions of key items are listed below.

- "Supervising QPs" refers to an individual responsible for overseeing the inspection process for a construction project. This individual typically holds professional qualifications and expertise relevant to the construction industry, such as an architect or engineer.

- "Project Team" refers to the group of individuals involved in the construction project.

- An "Operator" refers to an individual tasked to operate the 360 Capture equipment during 360 Capture.

- A "360 Capture" refers to the process of capturing a 360-degree field of view of the physical environment using specialised cameras.

- A "360 Capture platform" refers to a software solution or online platform that facilitates the capture, processing, and sharing of 360-degree images and videos.

- "Virtual Inspection" refers to the process of assessing and evaluating a physical environment remotely, typically using digital technologies and tools.

- "Process for Virtual TOP/CSC Inspection" refers to the procedures, steps, and guidelines that must be followed when conducting virtual inspections for the Temporary Occupation Permit (TOP) or Certificate of Statutory Completion (CSC) purposes.

- "Submission of 360 Capture" refers to the process of providing the captured 360-degree images or videos to the BCA for review and evaluation.

Overview of workflow for virtual TOP/CSC inspection

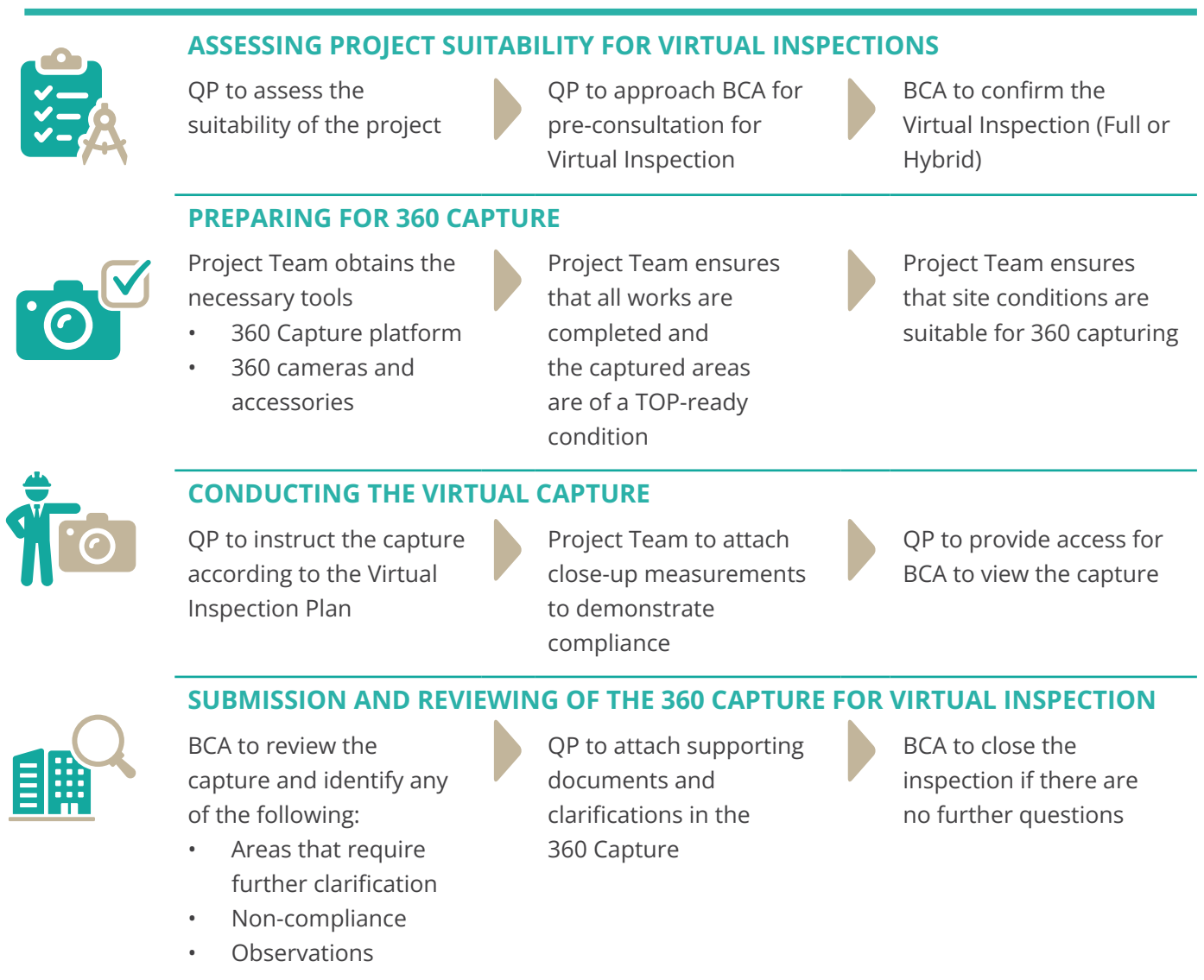The diagram below summarises the four key processes within Virtual Inspections.

ASSESSING PROJECT SUITABILITY FOR VIRTUAL INSPECTIONS

QP to assess the suitability of the project ▶ QP to approach BCA for pre-consultation for Virtual Inspection ▶ BCA to confirm the Virtual Inspection (Full or Hybrid)

PREPARING FOR 360 CAPTURE

Project Team obtains the necessary tools
- 360 Capture platform
- 360 cameras and accessories

▶ Project Team ensures that all works are completed and the captured areas are of a TOP-ready condition

▶ Project Team ensures that site conditions are suitable for 360 capturing

CONDUCTING THE VIRTUAL CAPTURE

QP to instruct the capture according to the Virtual Inspection Plan ▶ Project Team to attach close-up measurements to demonstrate compliance ▶ QP to provide access for BCA to view the capture

SUBMISSION AND REVIEWING OF THE 360 CAPTURE FOR VIRTUAL INSPECTION

BCA to review the capture and identify any of the following:
- Areas that require further clarification
- Non-compliance
- Observations

▶ QP to attach supporting documents and clarifications in the 360 Capture

▶ BCA to close the inspection if there are no further questions

Figure 1: Virtual inspections for TOP/CSC can be divided into four key processes which Project Teams must complete for the Virtual Inspection.

PART 1

ASSESSING PROJECT SUITABILITY FOR VIRTUAL INSPECTION

In preparation of the Virtual Inspection, the Supervising QP will determine the project's suitability and then submit a request to the Building and Construction Authority (BCA), to confirm that the inspection can be carried out virtually (either fully virtual or as a hybrid).

1 TYPE OF PROJECTS ACCEPTED

1.1 The use of 360 Capture is accepted for either a Full Virtual Inspection or a Hybrid Inspection. Supervising QPs should assess the project before expressing their intention for Virtual Inspections.

1.2 The type of projects accepted for Full Virtual Inspections are:

• Newly erected landed houses by a Developer *(as in landed development built for sales instead of own stay);*

• Newly erected industrial building with typical floor plans;

• Parks and standalone structures (shelters, bus stops, linkways, etc.);

• Newly erected HDB residential blocks in partial TOP phases *(Note: this refers to HDB blocks under the second partial phase and beyond only. The first and last residential blocks and all mixed-use spaces would still be required to be inspected via a physical site inspection.)*; and

• A&A works in localised areas *(Note: QP to arrange for discussion with the BCA Officer on their case on the areas that can be conducted via Virtual Inspections for larger A&A works).*

1.3 In a Hybrid Inspection, the Project Team can record 360 Capture for the whole project but only selected areas will be accepted for the Virtual Inspection. This will be supplemented by physical inspections by BCA for the remaining areas. The type of projects applicable for Hybrid Inspection are:

• Residential buildings in private condominium projects that are of typical design;

• Hotel room floors in commercial projects that are of typical design;

• Office spaces in commercial projects that are of typical design; and

• Institutional projects, for example, schools and nursing homes, that are of typical design.

1.4 Projects are to arrange for a pre-consultation on Virtual Inspection with BCA. BCA will review the use of 360 Capture (Full or Hybrid) on a case-by case basis.

The Project Team is to assess the suitability and set up a discussion to propose the areas for Virtual Inspection to BCA, prior to the Virtual Inspection application.

*Please refer to BCA website for the latest list of projects that are acceptable for Virtual Inspection.

2   PRE-CONSULTATION

Booking of pre-consultation

QP is to book a pre-consultation session with BCA for Virtual Inspections.

QP can contact the BCA Processing Officer or at https://www2.bca.gov.sg/feedback/

The pre-consultation session could be arranged any time before the inspection booking date. BCA may reject the Virtual Inspection request if the pre-consultation is scheduled less than three days from the booking date.

Areas to be scanned

All Non-Typical areas in the project must be scanned. This also includes landscape areas and common spaces within the project boundary.

For Typical designed areas, the QP shall select the floors/areas to be proposed for the Virtual Inspection. Please note that with regards to the selection of floors, the QP must consider the following:
a)   A minimum of three typical floors (one for every 10 floors) are to be selected in each building for the Virtual Inspection.
b)   Selected floors should be spread out within that building.
c)   A scan of any roof with maintenance access in the building must be included.
d)   All other additional Non-Typical floors must be included whenever applicable (e.g. common area, external areas, etc.).

Virtual Inspection Plan

To facilitate the Virtual Inspection, a Virtual Inspection Plan is required. Projects are allowed to split their TOP application into different scanning phases, in accordance with the Virtual Inspection Plan.

The QP can also split the project into different virtual scans submission for submission in the time frame of not more than three months. The QP is to indicate the Typical and Non-Typical areas in each submission and list the areas that would be scanned.

Process for Submitting a Virtual Inspection Plan

Step 1:   The Qualified Person (QP) contacts BCA to arrange a pre-consultation meeting regarding the Virtual Inspection for the project.

Step 2:   Prepare relevant documents and initial plans for discussion. This includes the site layout, details on Typical and Non-Typical areas within the project, and the proposed scan areas.

Step 3:   During the pre-consultation, BCA will discuss with the team the feasibility and any other specific requirements for conducting Virtual Inspections on the project.

Step 4:   Based on the pre-consultation feedback, the QP is to prepare a Virtual Inspection Plan that includes:
- A list of all areas intended for scanning.
- A detailed timeline if the inspection is split into multiple submissions.
- Visual indications of scan zones on the Building Plan, clearly marking Typical and Non-Typical areas.

Step 5:   Submit the Virtual Inspection Plan to the BCA Officer, including the Building Plan with coloured zones. Highlight any areas that may require additional scans or close-up verifications.

Step 6:   Await feedback or approval on the initial submission. BCA may request for some adjustments or additional requirements.

Step 7:   Make revisions to the Virtual Inspection Plan based on the BCA Officer's feedback.

Step 8:   If multiple virtual scans are planned, specify the planned submission date for each scan, keeping within the maximum of three months for all the virtual scan submissions.

Step 9:   Resubmit the revised Virtual Inspection Plan to the BCA Officer, including:
- A completed plan that outlines multiple or single submissions.
- The finalised Building Plan indicating all different Virtual Scan zones.

Step 10:   Upon BCA's acceptance of the plan, the QP is to prepare and proceed with Virtual Inspection according to the outlined schedule.

Step 11:   For each virtual scan submission, QP shall update the remarks in the approved Virtual Inspection Plan to track the progress of the submission.
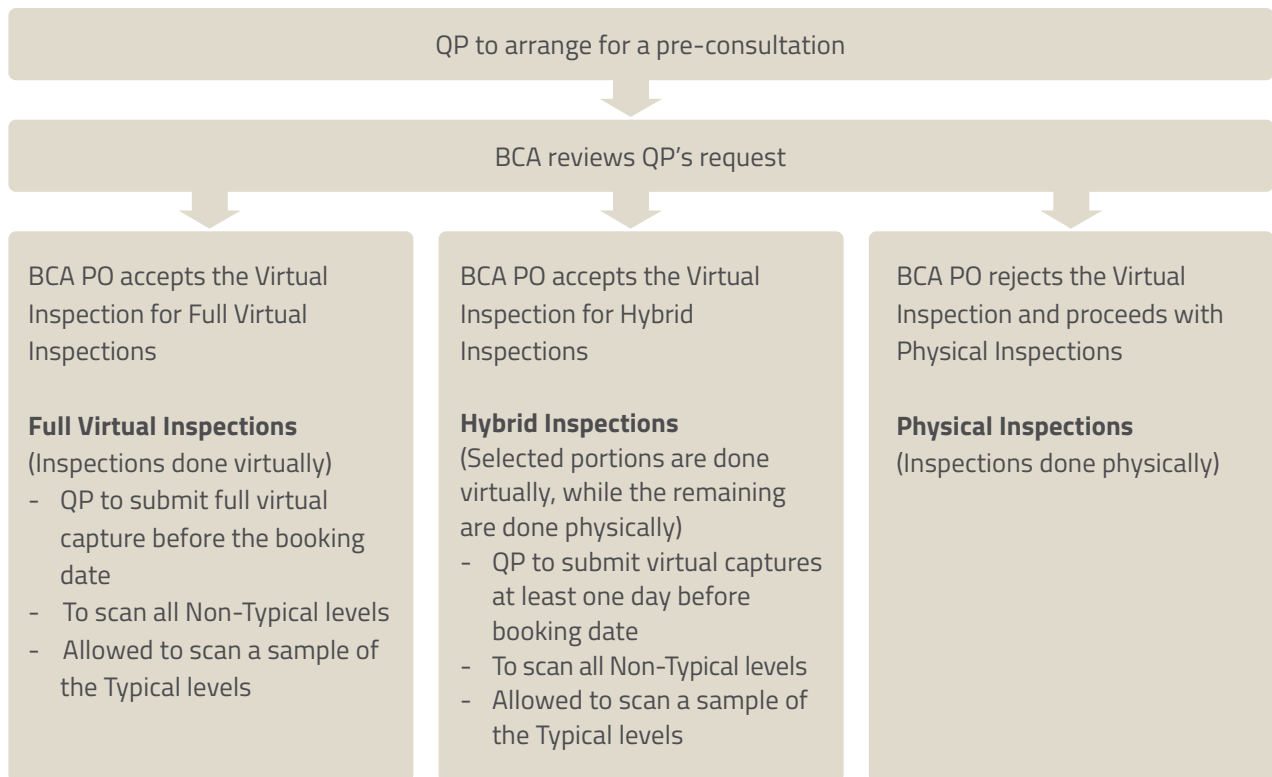
A sample template is as follows:

Type of Inspection	Areas Covered in this submission	Areas that would be scanned	Expected Submission Date	Remarks
Virtual Scan 1	Typical Design • Typical Office from floors 5 to 8	• Sample Office Level 5 • Sample Office Level 7	XX ***Note*** *Max three months from last scan/physical inspection*	Submitted on XX
Virtual Scan 2	Typical Design • Floors 1 to 4 Non-Typical Design • All common areas	• Sample Floor 2 and 4 • All common areas	YY	Current Submission
Physical Inspection	• Common areas • Restricted areas ***Note*** *Restricted Area or/and other area BCA needs to validate the scan*	NA	ZZ ***Note*** *This date has to be booked in the system*	***Note*** *Please remove this row if no physical inspection is required*

Note

-   If the project is submitting only one scan, please remove the excess rows.
-   The Virtual Inspection Plan is also to be accompanied with the Building Plan with the different Virtual Scan zones coloured out.
-   Comments would be recorded within the 360 Capture platform but only one Written Advice would be sent out at the final scan or Physical inspection.
-   During each submission, the same approved Virtual Inspection Plan is to be submitted but the QP is to update the status in the remark's column.

3   REQUEST FOR VIRTUAL TOP/CSC INSPECTION

3.1   The process to request for virtual TOP/CSC inspection is as follow:

QP to arrange for a pre-consultation

BCA reviews QP's request

BCA PO accepts the Virtual Inspection for Full Virtual Inspections	BCA PO accepts the Virtual Inspection for Hybrid Inspections	BCA PO rejects the Virtual Inspection and proceeds with Physical Inspections
Full Virtual Inspections (Inspections done virtually) - QP to submit full virtual capture before the booking date - To scan all Non-Typical levels - Allowed to scan a sample of the Typical levels	**Hybrid Inspections** (Selected portions are done virtually, while the remaining are done physically) - QP to submit virtual captures at least one day before booking date - To scan all Non-Typical levels - Allowed to scan a sample of the Typical levels	**Physical Inspections** (Inspections done physically)

3.2   The Qualified Person (QP) is required to contact BCA for the pre-consultation on Virtual Inspection either through https://www2.bca.gov.sg/feedback/ or by reaching out to the BCA Processing Officer directly.

3.3   BCA will respond to the Supervising QP within three working days after receiving the Virtual Inspection Plan and will confirm the following:
   a)   Acceptance of the Virtual TOP/CSC Inspection or,
   b)   Acceptance of the Virtual TOP/CSC Inspection but with additional areas to capture or a need for a Hybrid Inspection; or
   c)   Rejection of the Virtual Inspection and a physical site inspection to proceed on the booked date.

3.4   The Supervising QP will book an inspection in the BCA system when works are completed and ready for inspection. The completed and signed BCA-CSC-TOPCSCDQP (QP Declaration Form) and the completed and signed BCA-CSC-CSPBW (Certificate of Supervision) must be submitted at least three working days before the booked/inspection date.

PART 2

PREPARING FOR 360 CAPTURE

Prior to the 360 Capture, the Project Team is required to prepare the site by completing all outstanding works and conducting proper housekeeping to ensure the site is ready for the capture process. All necessary hardware and software to enable the 360 Capture must also be obtained. The QP must also ensure all Project Teams and operators understand their tasks for the virtual captures.

4   360 CAPTURE PLATFORM AND EQUIPMENT

4.1   The minimum performance requirements to ensure that the 360 Captures are acceptable for TOP/CSC Inspection purposes are as follows:

Equipment: 360 camera	
S/N	**Description**
01	Utilise a high-quality 360 camera compatible with Android and iOS devices.
02	Ensure the camera supports at least 6K resolution, is suitable for low-light conditions, and is equipped with dual one-inch CMOS sensors.
03	Battery capacity must be able to support at least 60-90 minutes of continuous video capture.
04	Employ a camera featuring six-axis stabilisation and a proprietary image stabilisation algorithm for smooth videos.
Equipment: 360 Capture platform	
S/N	**Description**
01	Ensure that the platform allows users to capture 360 Capture using most 360 cameras.
02	The platform must be able to capture by continuous capture, by spot captures, or by mixed captures. • For large areas, continuous capture must be used. • For smaller areas such as a toilet unit, spot capture is allowed. However, the operator must ensure the spot capture is able to clearly capture all four sides of the room, the floor and ceiling. • Mixed capture refers to the utilisation of both types of capturing methods.
03	The platform must be able to tie every photo and capture to an uploaded building plan.
04	The platform should allow for comments and additional photo evidence to be attached to the 360 Capture.
05	External parties (e.g. BCA inspectors) must be able to access the 360 Capture.
06	For the purpose of a TOP/CSC inspection, BCA inspectors must be able to tag comments on the 360 Capture.
07	QPs must be able to attach evidence of compliance (e.g. photo, video) to show the rectification of BCA comments.
08	Users must be able to generate a report on all the comments to facilitate proper documentation.

4.2   As different 360 Capture platforms may perform differently to achieve the same requirements, please seek your solution provider's best practices and user guides. If there are any requirements that the solution provider may not be able to meet, the QP should highlight these concerns to BCA prior to the 360 Capture.

5   SITE PREPARATION

5.1   Like in a physical inspection, the Project Team must ensure that all works are completed and cleaned up in a TOP-ready condition. Incomplete works seen in the capture will be rejected. In addition, the capture should be done under optimum conditions to ensure high quality captures and imagery.

5.2   Please also ensure good housekeeping is done at the inspection location, especially if the operator is using a handheld device and may be less aware of their surroundings. The safety of all workers, including the operator, must be prioritised.

Dim or poorly lit spaces
Employ a supplementary light source to achieve optimal indoor low-light area image quality. This additional illumination can be provided by an LED light or spotlight mounted alongside the 360 cameras on a monopod or hard hat.
For very dark spaces, utilise "High Exposure" mode. Stand or hold the camera still or mount it on a tripod while capturing in this mode.

6   OPERATOR PREPARATION

6.1   The Project Team must equip the operator with the relevant tools required for the Virtual Inspection process, such as a 360 camera and measuring tape for close-up measurements.

PART **3**

CONDUCTING THE VIRTUAL CAPTURE

The Project Team shall ensure that preparations are made in accordance with the Virtual Inspection Plan before conducting a Virtual Inspection. During the Virtual Inspection, the Supervising QP must also provide additional close-up measurements to demonstrate compliance to the codes. Once completed, the Supervising QP will submit the capture to BCA for the Virtual Inspection.

7   REQUIREMENTS FOR 360 CAPTURE

7.1   For both Full Virtual Inspections and Hybrid Inspections, the QP must capture the areas as listed in the Virtual Inspection Plan using 360 Capture tools. This will include all external areas as drawn in the approved building plan. The 360 scans must be done no later than three months from the capture submission date.

7.2   The Supervising QP shall also ensure that:

a)   All works to be captured in the Virtual Inspection process must not deviate from the approved plans;

b)   The latest approved building plan (with the primary accessibility route drawn up) is used in the 360 Captures;

c)   All works in the areas under the Virtual Inspection process must be fully completed; and

d)   All areas in the selected floor have been captured in the 360 scans.

7.3   Additional supporting evidence must be documented in compliance with the Code when conducting the 360 Capture following the Virtual Inspection Plan. The Supervising QP is to attach:

a)   Adequate close-up measurements in the 360 Capture platform (please refer to 6.4 as a guide)

b)   Any approved waivers for this project

7.4   The Supervising QP may use the provided links below as a guide for conducting virtual site inspections. These links cover five distinct typologies, offering checklists tailored to each type. The Supervising QP is still responsible for ensuring that all necessary aspects of the inspection are thoroughly addressed, guaranteeing that the project's specific requirements are met.

- New Erected HDB: Virtual Inspection checklist (HDB)
- New Erected Condominium: Virtual Inspection checklist (Condominium)
- New Erected / A&A Factory: Virtual Inspection checklist (Industrial)
- New Erected Office Building: Virtual Inspection checklist (Office)
- New Park: Virtual Inspection checklist (Parks)
- New Healthcare Project: Virtual Inspection checklist (Healthcare)

*Note: Depending on the project, BCA may request for additional evidence of compliances for other clauses if necessary. QP can also attach additional photos to demonstrate compliance with other clauses.

8   360 CAPTURE PROCESS

8.1   The Supervising QP shall ensure the use of appropriate equipment and adopt best practices for 360 Capture (see 3.1).

8.2   Please refer to your solution provider's user guides on how to operate their system regarding Capture techniques, best practices, and guidelines.

8.3   When conducting the Capture, the Project Team must ensure that clear communication of instructions has been given to the operator.

8.4   The Capture must follow the requirements set out in the approved Virtual Inspection Plan. Some of the best practices are as follows:

Photo/Video Capturing	
01	Leverage the solution platform AI to automatically map every image captured twice per second to floor plans during passive video capture (approximately 120 images per minute).
02	Maintain camera stability by utilising accessories such as an extension arm, monopod, or hard hat mount (more than 20 cm above head) to facilitate smooth walkthroughs and image captures.
03	Position the camera in the centre of the path or space, maintaining a minimum distance of 2 metres from walls.
04	Capture each area within a 5–10 metre radius.
05	Remain at key areas for 2–3 seconds to allow the camera to capture sufficient images.
06	Maintain a normal walking speed; avoid running or jumping as the camera will continue scanning while walking.
07	When transitioning between very bright and very dark spaces, slow down to allow the camera to adjust. Alternatively, initiate a new capture session when switching between bright and dark environments.
08	Avoid capturing in rain as raindrops can obstruct the camera lens.
09	To protect the 360 cameras from overheating, especially during hot days, cease capturing, turn off the camera, and allow it to cool down. Choose cooler times for capturing, such as early mornings or late afternoons.

9   END OF THE VIRTUAL INSPECTION SESSION

9.1   After the end of each capture, the Project Team shall perform a self-check as follows:
    a)   Verify that the captured locations are accurately mapped onto the digital plan;
    b)   Ensure additional photos of the close-up measurements are provided to show compliance to the Approved Document and Accessibility Code; and
    c)   Review and ensure that the virtual capture of the project is in order.

10   SCANNING 360 CAPTURE TO SHOW SITE READINESS

10.1   BCA may request projects to conduct a 360 Capture scan to show the site readiness before the inspection or re-inspection.

10.2   The Supervising QP must make arrangements to capture and submit the 360 Capture of the project for:
   a)   All common areas (eg. E-deck, roof garden)
   b)   One sample of the Carpark for each building
   c)   One sample of the Roof for each building
   d)   Two samples of the Typical Floor for each building (if it is for residential floors, the capture is to also show each unit type.)

10.3   Close-up measurements are not required for captures on site-readiness.

10.4   For re-inspections, if comments were given by the BCA officer during the inspection, the Supervising QP is required to attach photos to highlight the compliance.

10.5   For cases in which a 360 Capture to show Site Readiness was requested, the capture must be submitted at least one full working day before the booking date, or the booking would be lapsed.

PART **4**

SUBMISSION AND REVIEWING OF THE 360 CAPTURE FOR VIRTUAL INSPECTION

The 360 Capture is to be submitted to BCA upon completion. The BCA PO will assess the captured footage to identify areas that require clarification, instances of non-compliance, or observations. The Supervising QP will be required to provide clarification and attach supporting documents. Once all clarifications are deemed satisfactory, the BCA PO will close the inspection process.

11   SUBMITTING THE 360 CAPTURE TO BCA

11.1   Once the capture is satisfactory to the Project Team, the Supervising QP is to email BCA PO and alert him/ her that the site capture is ready for the inspection.

•   The email should also contain the key instructions to enable the BCA PO to log in to their system to audit and give comments on the Virtual Inspection.

•   For Partial Virtual Scan Submission, the Supervising QP must also submit the BCA-CSC-TOPCSCDQP (QP Declaration Form) and the Virtual Inspection Plan (refer to Chapter 2).

For the QP declaration, the QP is to indicate in the Project description: "{Project title}
This Virtual Scan Submission is for {list all the areas covered in this scan} only".

•   The BCA TOP Processing Officer (PO) will review the 360 Capture and issue comments on the Virtual Site Inspection to the Supervising QP for follow-ups within **three working days** from the submission of the Virtual Inspection Instruction Form.

12   REVIEW OF THE 360 CAPTURE BY BCA

12.1   The BCA TOP PO will review the submitted Capture and provide comments based on the items observed. The following type of comments will be tagged in the Capture for the QP to follow up.

12.2   An official reply for the inspection will be sent based on the comments in the 360 Capture but the Project Team can proceed to perform the necessary rectifications.

BCA comments	QP/Project Team's reply
Non-compliance	**Rectified** (Photo evidence of rectification to be attached)
Observation	**Rectified** (Photo evidence of rectification to be attached)
Clarification	**Clarified** (Photo evidence in response to required clarification to be attached)

* Project Team should work with the vendor to provide the status/tag for standardised communication on the 360 platform.

12.3   If the QP is using the 360 platform to respond to the BCA TOP PO's comments, the response must use the following standardised tags.
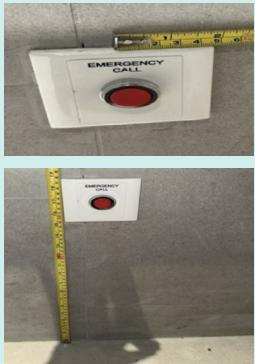
13   DOCUMENTATION OF VIRTUAL INSPECTION

13.1   The QP must generate a site inspection closure report which should contain:

a)   All BCA comments on the <u>Non-compliance</u> and <u>Observation</u> items

b)   All rectifications to these items

c)   All unresolved clarifications*

  * All clarifications must be answered but the resolved clarifications need not be in this report.

13.2   The closure report must be submitted along with all the other TOP/CSC documents before the TOP/CSC certification can be issued.

13.3   Most 360 Capture platforms should be able to generate a closure report in which all comments could be documented together with the corresponding rectification. A suggested template could be as follows:

S/n	Location	BCA's Comment	Photos	Rectification Photo	Remarks
1	Toilet	5.6.4.3(a) located between 150mm and 300mm from either the front or side edges of the water closet as illustrated in Fig 49(c), 51(c), and 53(c)			

FREQUENTLY ASKED QUESTIONS (FAQ)

1   **What kind of projects are currently eligible for Full Virtual Inspections?**
    Projects such as newly-erected landed houses by a Developer, industrial buildings with typical floor plans, and HDB residential blocks in partial TOP phases are accepted at the current stage.

2   **What types of projects are suitable for Hybrid Virtual Inspections?**
    Residential buildings in private condominium and HDB projects, hotel room floors, office spaces in commercial projects, and A&A works in localised areas are suitable for Hybrid Virtual Inspections.

3   **What are the situations in which physical inspections will still be required?**
    Currently, physical inspections may be necessary for a non-typical layout or when the Virtual Inspection submission has been found to not meet the minimum required standards.

4   **What is the process for requesting for a Virtual Inspection?**
    The supervising QP needs to book an inspection through the Portal and complete the Virtual Inspection Plan for submission to the BCA Processing Officer for review. Refer to the flowchart in Section 3 of this guidebook for full details.

5   **What is the submission process after a Virtual Inspection?**
    The supervising QP completes the Virtual Inspection Instruction Form for submission to the BCA Processing Officer for review when ready.

6   **How fast can a 360 Capture of the virtual site be completed?**
    Depending on the system used, most capture processes can be completed within a day.

7   **Are there any regulatory considerations when using Virtual Inspections through the 360 Capture platform?**
    The platform is designed to complement and not replace the existing regulatory requirements. The Project Team must still adhere to all local building regulations and Code of Standards.

8   **Can the 360 Capture platform integrate with existing site inspection workflow, or does it require a complete overhaul of current processes?**
    The platform is designed to streamline and integrate with existing site inspection workflows, ensuring a smooth transition without the need for a complete overhaul of established processes.

9   **Will the 360 Capture platform completely replace traditional physical site inspections in the future?**
    360 Capture inspections will complement and provide a flexible and efficient alternative to current processes.

10 **What is the cost structure associated with the adoption of the 360 Capture platform, and are there different pricing plans available?**
Users can seek advice from solution providers to choose a plan that aligns with their specific needs, providing cost-effectiveness and scalability. BCA strongly recommends that Project Teams maximise the benefits of 360 Capture by using it for progress monitoring or internal checks and reporting, not just for regulatory inspection clearances.

11 **Will there be any training provided for using the 360 Capture platform?**
The guidebook lays out the general instructions and requirements for 360 Capture. The 360 Capture solution providers will be able to provide additional technical details and training.

12 **What are the key requirements for the 360 Capture equipment?**
Utilise a high-quality 360 camera with at least 6K resolution, suitable for low-light conditions, and equipped with dual 1-inch CMOS sensors. Refer to the table in Section 4 of this guidebook for full details.

13 **Can the 360 Capture platform be customised to accommodate specific industry or project equirements for site inspections?**
Yes, the 360 Capture platform is designed to be flexible and customisable to meet specific industry or project needs. The users should seek advice from the solution providers if additional cost is required.

14 **How secure is the data captured through the 360 Capture platform?**
Each 360 Capture platform should have their own safeguards to ensure data is secured.

15 **Is there a limit to the number of users who can access the 360 Capture platform for site inspections?**
This will be different from system to system. Most platforms can accommodate multiple users to capture, comment on and review the captures.

Feedback

This guidebook will be updated progressively from the First Edition published on December 2024. We welcome your comments about this guidebook to help us continue to develop and improve it. Please provide your input at https://go.gov.sg/vifeedback or scan the QR code on the right.