



Circular Letter No.: 2023.183

Issue Date: 28 April 2023

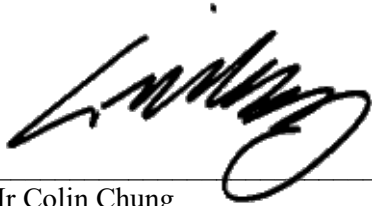
Application: BEAM Plus NB Version 2.0

Effective Date: 1 February 2024 [refer to paragraph 5]

IDCM 7b Measures to Reduce Site Emissions – Minimisation of Noise Pollution

1. The Environmental Protection Department (EPD) is introducing the cloud-based Construction Noise Management Plan (CNMP) platform to facilitate the upstream planning of construction noise management and early identification of quiet means and mitigation measures before work commencement.
2. To promote quiet construction in the Hong Kong built environment, the Technical Circular Letter hereby announces an update to the credit content for **IDCM 7b Measures to Reduce Site Emissions – Minimisation of Noise Pollution** under BEAM Plus NB v2.0.
3. The aim of the update is to introduce the practice of Construction Noise Impact Assessment (CNIA) to the normal credit requirements of IDCM 7b and the use of recognised quieter construction equipment/ methods during demolition and construction works to the additional BONUS credit requirements of IDCM 7b.
4. The requirements given in Section 1.3 and Section 2.2 of the BEAM Plus NB v2.0 Manual (2021 Edition) are hereby updated with the enclosures in Annex A and Annex B of this Technical Circular Letter respectively.
 - Pages Annex A-1 to A-8 shall replace all contents in Section 1.3 Summary of Credits specified in Pages 8 to 14 of the Manual; and
 - Pages Annex B-1 to B-13 shall replace all contents in Section 2.2 on IDCM 7 specified in Pages 69 to 78 of the Manual.
5. This Technical Circular Letter is in effect for all projects registered (i) **on or after the effective date** or (ii) **3 months on or after the official launch of EPD's cloud-based CNMP platform**, whichever is later.
6. For projects registered on or after the date of effect specified in paragraph 5 above but with certain demolition and/ or construction stage(s) commenced before this Technical Circular Letter comes into effect, such demolition and/or construction stage(s) could be exempted from adopting the updated assessment criteria. The Applicant shall provide substantiations including (i) declaration letter(s) endorsed by the project owner or contractor(s); and (ii) consent(s) or approval(s) issued by relevant statutory body showing the commencement date(s) of demolition and/ or construction works. Nevertheless, the remaining construction stage(s) of the project shall comply with the updated assessment criteria in Annex A and Annex B of this Technical Circular Letter.

7. For the ease of reading, the credit content in Pages Annex B-1 to B-13 of this Technical Circular Letter has incorporated the previously published Technical Circular Letter and FAQs for IDCM 7, which includes Technical Circular Letter No. 2022.182 and FAQs #130, #190, #191, #192, #193. The Applicant shall observe the respective Technical Circular Letter and FAQs for their issue dates and effective dates.



Ir Colin Chung
Chairperson of Standards Sub-committee

Obsolete

Annex A:
Updated Credit Content for Section 1.3 under BEAM Plus NB v2.0
1.3 Summary of Credits

| | Section | Credit Requirement | Extent of Application | Credit |
|----------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------|
| 1 | Integrated Design and Construction Management (IDCM) | | | 25 + 16 BONUS |
| IDCM P1 | Sustainability Champions - Project | <p>Prerequisite achieved for demonstrating that an accredited BEAM Professional (BEAM Pro) with a valid credential for BEAM Plus New Buildings is engaged as the Project BEAM Pro of the consultant team.</p> <p>The Project BEAM Pro shall:</p> <ol style="list-style-type: none"> 1) Act as the point of contact with the Hong Kong Green Building Council and the BEAM Society Limited for administrative matters relating to BEAM Plus certification; 2) Participate as one of the key project team members in the design and construction stages, with assistance of the Construction BEAM Pro (and Affiliates, if any) defined under IDCM 6 if any, to oversee the submission materials are in the compliance with relevant requirements of the BEAM Plus Manual. The Project BEAM Pro may also assume other roles in the consultant team of the project (The Project BEAM Pro, Design BEAM Pros under IDCM 1 and Construction BEAM Pros under IDCM 6 must be different personnel); 3) Create a BEAM Plus NB Certification Checklist including project goals, performance and BEAM Plus target rating; 4) Provide guidance to the project and construction teams regarding BEAM Plus principles, structure, timing, certification process and requirements of credits; and 5) Advise the Client on relevant professionals or parties on respective tasks to address relevant BEAM Plus certification requirements. | All buildings | Required |

| | Section | Credit Requirement | Extent of Application | Credit |
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| IDCM P2 | Environmental Management Plan | Prerequisite achieved for demonstrating that an Environmental Management Plan has been properly prepared. | All buildings | Required |
| IDCM P3 | Timber Used for Temporary Works | Prerequisite achieved for demonstrating that no virgin forest products are used for temporary works. | All buildings | Required |
| IDCM 1 | Sustainability Champions - Design | <p>1 credit for at least two (2) members from at least two (2) applicable core design disciplines shall be accredited BEAM Professionals with valid credentials for BEAM Plus New Buildings.</p> <p>1 additional BONUS credit for at least one (1) additional member, from an applicable core design discipline different from the disciplines counted in the above credit, shall be an accredited BEAM Professional with valid credentials for BEAM Plus New Buildings;</p> <p>Alternatively, At least two (2) additional members, of an applicable core design discipline different from the disciplines counted in the above credit, shall be accredited BEAM Affiliates with valid credentials for BEAM Plus New Buildings.</p> | All buildings | 1 + 1 additional BONUS |
| IDCM 2 | Complimentary Certification | <p>(a) BEAM Plus Neighbourhood (ND) 1 BONUS credit where the project is certified by BEAM Plus Neighbourhood (ND) certification.</p> <p>(b) BEAM Plus Interiors (BI) 1 BONUS credit for preparing the Project for BEAM Plus Interiors (BI) certification.</p> <p>(c) BEAM Plus Existing Buildings (EB) 1 BONUS credit for preparing the project for BEAM Plus Existing Buildings (EB) certification (Comprehensive Scheme).</p> | All buildings that are applicable for respective BEAM Plus certification tools. | 3 BONUS |
| IDCM 3 | Integrated Design Process | <p>(a) Early Consideration(s) of Integrated Building Design 1 credit for consideration of the integrated design process regarding whole-system thinking to explore the interrelationships among green building design strategies and systems in the conceptual design stage.</p> | All buildings | 4 |

| Section | Credit Requirement | Extent of Application | Credit | |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---|
| | <p>1 additional credit for organising at least one multi-disciplinary design charrette to formulate passive and active design strategies in the conceptual/ schematic design stages.</p> <p>(b) Early Design Consideration of Buildability/ Constructability</p> <p>1 credit for early design consideration of buildability to ease construction and save on-site materials/ labour before completion of the design development stage.</p> <p>(c) Design Consideration of Operation and Maintenance</p> <p>1 credit for design consideration of the long-term operation and maintenance needs of the building and its engineering services.</p> | | | |
| IDCM 4 | Life Cycle Costing | 1 credit for conducting life cycle costing for active systems. | All buildings | 1 |
| IDCM 5 | Commissioning | <p>2 credits for demonstrating (a) the appointment of commissioning authority (CxA) before tender stage and (b) providing a commissioning plan.</p> <p>1 credit for providing a commissioning review report before construction as described in part (c).</p> <p>1 credit for providing commissioning reports as described in part (d).</p> | All buildings | 4 |
| IDCM 6 | Sustainability Champions - Construction | <p>1 credit for at least two (2) accredited BEAM Professionals with valid credentials for BEAM Plus New Buildings are engaged by the main/ lead contractor of the project.</p> <p>Alternatively,</p> <p>1 credit for at least one (1) accredited BEAM Professional and two (2) accredited BEAM Affiliates, with valid credentials for BEAM Plus New Buildings are engaged by the main/ lead contractor of the project.</p> | All buildings | 1 |

| | Section | Credit Requirement | Extent of Application | Credit |
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| IDCM 7 | Measures to Reduce Site Emissions | <p>(a) Minimisation of Air Pollution</p> <p>1 credit for providing adequate monitoring and mitigation measures to minimise air pollution during construction (demolition and foundation are included, if any).</p> <p>(b) Minimisation of Noise Pollution</p> <p>1 credit for conducting Construction Noise Impact Assessment (CNIA) and providing adequate monitoring and mitigation measures based on the CNIA report to minimise noise pollution during construction (demolition and foundation are included, if any).</p> <p>1 additional BONUS credit for adopting at least two (2) recognised quieter construction equipment/ methods at each construction stage (demolition and foundation are included, if any).</p> <p>For exemplary performance, 1 additional BONUS credit for adopting at least two (2) recognised quieter construction equipment/ methods to achieve a noise reduction of minimum 3dB(A) at each construction stage (demolition and foundation are included, if any).</p> <p>(c) Minimisation of Water Pollution</p> <p>1 credit for providing adequate monitoring and mitigation measures to minimise water pollution during construction (demolition and foundation are included, if any).</p> <p>(d) Minimisation of Light Pollution</p> <p>1 credit for providing adequate mitigation measures to minimise light pollution during construction (demolition and foundation are included, if any).</p> | All buildings | 4+ 2 additional BONUS |
| IDCM 8 | Construction and Demolition Waste Recycling | <p>(a) Demolition Waste Recycling</p> <p>1 credit for demonstrating compliance with the Waste Management Plan and the application of proactive waste management provisions during demolition; and recycling at least 15% of demolition waste.</p> | <p>IDCM 8a</p> <p>All buildings requiring demolition which are under the Client's control</p> <p>IDCM 8b</p> <p>All buildings</p> | 2 + 4 additional BONUS |


| Section | Credit Requirement | Extent of Application | Credit |
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| | <p>1 additional BONUS credit for demonstration of recycling at least 30% of demolition waste.</p> <p>For exemplary performance, 1 additional BONUS credit for demonstration of recycling at least 60% of demolition waste.</p> <p>(b) Construction Waste Recycling</p> <p>1 credit for demonstrating compliance with the Waste Management Plan and the application of proactive waste management provisions during construction (foundation to be included, if any); and recycling of at least 15% of construction waste (foundation waste to be included, if any).</p> <p>1 additional BONUS credit for demonstration of recycling at least 30% of construction waste (foundation waste to be included, if any).</p> <p>For exemplary performance, 1 additional BONUS credit for demonstration of recycling at least 60% of construction waste (foundation waste to be included, if any).</p> | | |
| IDCM 9 | Construction IAQ Management | <p>1 credit for implementing a Construction IAQ Management Plan, undertaking a building 'flush out' or 'bake out', and replacement of all filters prior to occupancy.</p> <p>All areas to implementing a Construction IAQ Management Plan.</p> <p>All areas with central air-conditioning and ventilation systems for undertaking a building 'flush out' or 'bake out' and replacement of all filters prior to occupancy.</p> | 1 |
| IDCM 10 | Considerate Construction | <p>1 credit for demonstrating considerate measures to the neighbourhood, passers-by and workers. Good tree protection practices where tree preservation within the project site is required, should also be carried out.</p> <p>All buildings</p> | 1 |

| | Section | Credit Requirement | Extent of Application | Credit |
|---------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------|
| IDCM 11 | Building Management Manuals | 1 credit for providing a fully documented Operations and Maintenance Manual and Energy Management Manual. | All buildings | 1 |
| IDCM 12 | Operator Training plus Chemical Storage and Mixing Room | 1 credit for providing training for operations and maintenance staff to the minimum specified; and demonstrating that adequate maintenance facilities are provided for chemical storage and mixing. | All buildings | 1 |
| IDCM 13 | Digital Facility Management Interface | 1 BONUS credit for providing a digital interface in addition to the project design metering provision for future facility management team to review the building operation performance. | All non-residential buildings and common areas of residential buildings | 1 BONUS |
| IDCM 14 | Occupant Engagement Platform | 1 BONUS credit for providing a digital platform to engage building occupants. | All non-residential buildings. | 1 BONUS |
| IDCM 15 | Document Management System | <p>(a) Project Team Document Management</p> <p>1 credit for demonstrating the use of document management systems within the design and construction teams.</p> <p>(b) Facility Management Team Document Management</p> <p>1 credit for demonstrating the use of document management platform by the building owner or building management company.</p> | All buildings | 2 |
| IDCM 16 | BIM Integration | <p>(a) Coordinated Use of BIM within Design Teams</p> <p>1 credit for the coordinated use of BIM among the design team.</p> <p>(b) Coordinated Use of BIM within Design and Construction teams</p> <p>1 additional BONUS credit for coordinated use of BIM among the design team and the contractors.</p> <p>(c) BIM for time</p> <p>1 BONUS credit for using the BIM model for scheduling, cost and quantity, schedules preparation and tracking the project budget.</p> <p>(d) BIM for Facility Management Use</p> <p>1 BONUS credit for updating the BIM model to as-built condition.</p> | All buildings | 1 + 1 additional BONUS + 2 BONUS |

| | Section | Credit Requirement | Extent of Application | Credit |
|----------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------|
| IDCM 17 | Design for Engagement and Education on Green Buildings | <p>1 credit for providing any two (2) education elements from the following list of green building design measures and provisions accredited by BEAM Plus and implemented in the project. The Project must achieve a rating of Bronze or above.</p> <ol style="list-style-type: none"> 1) Provide users with manuals for all green building design measures and provisions. 2) Provide educational signage system that is integrated with the major communal areas of the project to educate users and visitors about the benefits of the green building design measures and provisions. 3) Provide users a platform for sustainable living showcase demonstration, experience or sharing that are relevant to the enabling design measures and provisions in the project. e.g. websites, regular publications available to the public, newspapers or other means proposed by the Applicant. 4) Additional or alternative education element(s) proposed by the Applicant with substantiation demonstrating strategies compatible with the listed strategies for achieving the credit objective. <p>1 additional BONUS credit for providing four (4) education elements mentioned above on green buildings.</p> | All buildings | 1 + 1 additional BONUS |
| 2 | Sustainable Site (SS) | | | 20 + 19 BONUS |
| SS P1 | Minimum Landscaping Requirements | Prerequisite achieved for demonstrating compliance with minimum planting provisions in terms of viability and site coverage of greenery of at least 20% of the site. | All sites with a site area of 1,000 m ² or more. | Required |
| SS 1 | Pedestrian-oriented and Low Carbon Transport | <p>(a) Accessibility to Public Transport</p> <p>1 credit for achieving Accessibility Index of 15 or more for all buildings of a development.</p> | All buildings | 2 + 1 additional BONUS + 2 BONUS |

| Section | Credit Requirement | Extent of Application | Credit |
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| | <p>(b) Pedestrian-oriented Access</p> <p>1 credit for achieving 50% or more of the applicable pedestrian-oriented transport planning measures.</p> <p>1 additional BONUS credit for achieving 100% of the applicable pedestrian-oriented transport planning measures.</p> | | |
| | <p>(c) Cycling Facilities and Network Integration</p> <p>1 BONUS credit for providing cycling facilities within the Site and integrating with the public cycling network if a public cycling network exists or has been planned nearby.</p> | | |
| | <p>(d) Charging Facilities for Electric Vehicle (EV)</p> <p>1 BONUS credit for providing EV medium chargers for at least 50% of all parking spaces and EV charging-enabling for all parking spaces (including visitor car parks).</p> | | |

Annex B:
Updated Credit Content for Section 2.2 under BEAM Plus NB v.2.0

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|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 Integrated Design and Construction Management | 2.2 Green Construction Practices |
| | IDCM 7 Measures to Reduce Site Emissions  |
| Extent of Application | All buildings |
| Objective | Minimise pollution (air, noise, water discharge and light) during the demolition (if any), construction of buildings and the infrastructure serving buildings. |
| Credits Attainable | 4 + 2 additional BONUS |
| Credit Requirement | <p>(a) Minimisation of Air Pollution</p> <p>1 credit for providing adequate monitoring and mitigation measures to minimise air pollution during construction (demolition and foundation are included, if any).</p> <p>(b) Minimisation of Noise Pollution</p> <p>1 credit for conducting Construction Noise Impact Assessment (CNIA) and providing adequate monitoring and mitigation measures based on the CNIA report to minimise noise pollution during construction (demolition and foundation are included, if any).</p> <p>1 additional BONUS credit for adopting at least two (2) recognised quieter construction equipment/ methods at each construction stage (demolition and foundation are included, if any).</p> <p>For exemplary performance, 1 additional BONUS credit for adopting at least two (2) recognised quieter construction equipment/ methods to achieve a noise reduction of minimum 3dB(A) at each construction stage (demolition and foundation are included, if any).</p> <p>(c) Minimisation of Water Pollution</p> <p>1 credit for providing adequate monitoring and mitigation measures to minimise water pollution during construction (demolition and foundation are included, if any).</p> <p>(d) Minimisation of Light Pollution</p> <p>1 credit for providing adequate mitigation measures to minimise light pollution during construction (demolition and foundation are included, if any).</p> <p>Note:</p> <p>1) For normal credit, partial credit shall be awarded for individual construction stage (i.e. demolition, foundation and superstructure in a default ratio of 1:1:3). The Applicant may submit justification and propose an alternative ratio based on the relative pollution control extent and resource demand in various construction stages. For a project that covers all 3 stages, the partial credit attainable for demolition, foundation and superstructure are 0.2, 0.2 and 0.6 respectively. Similarly, for a project where demolition is not required or not under the Client's control, the partial credit attainable for foundation and superstructure are 0.25 and 0.75 respectively.</p> <p>2) All applicable stages must be included in the partial credit calculation.</p> |

Assessment**(a) Minimisation of Air Pollution**

1. Proactive dust control provisions shall be referred to Good Housekeeping Checklist in Appendix 4.1 of Hong Kong Construction Association's Best Practice Guide for Environmental Protection on Construction Sites [1]. Checklist of dust control provisions is provided in the prescribed form.

2. Provide baseline monitoring measurements for point(s) as prescribed in IDCM P2.

Provide baseline monitoring measurement report to demonstrate the followings:

- 2.1. Description and locations of air sensitive receivers (ASRs);
- 2.2. Details of baseline monitoring measurement period, measurement results of baseline 1-hour Total Suspended Particulates (TSP) and identification of action levels; and
- 2.3. Calibration certificates of the measurement instruments.

Provide extracts of tender documents, contract conditions and/ or specifications highlighting the clause requiring the contractors to provide baseline monitoring measurements if construction has not yet commenced at the PA stage.

3. Prepare monthly environmental management reports throughout the construction period to demonstrate the following:

- 3.1. Implementation of monitoring and mitigation measures to minimise air pollution as defined in *Environmental Management Plan (EMP)* under IDCM P2;
- 3.2. There are no convictions or complaints about air emissions from site, that have been upheld by the Environmental Protection Department or Police leading to the issue of a fine or prosecution;
- 3.3. Implementation of proactive dust control provisions with the completed prescribed forms;
- 3.4. Total Suspended Particulates (TSP) levels are satisfactory according to IDCM P2, Assessment 1) 1.3; and
- 3.5. Measurement of 24-hour TSP levels is NOT required.

The report(s) should be reviewed and endorsed by the Construction BEAM Pro (or Construction BEAM Affiliate) as defined under IDCM 6 or the Project BEAM Pro as defined under IDCM P1 [2].

4. For a project that is a designated project (DP) under the Environmental Impact Assessment (EIA) Ordinance:

1 Hong Kong Construction Association (HKCA), Best Practice Guide for Environmental Protection on Construction Sites. [ONLINE]. Available at: <https://www.epd.gov.hk/epd/english/greenconstruction/links/links.html>. [Accessed April 2021].

2 If demolition/ foundation/ superstructure work was commenced before 4 September 2019 (the release of BEAM Plus New Buildings Version 2.0), the endorsement by the Construction BEAM Pro as defined under IDCM 6/ Project BEAM Pro as defined under IDCM P1 on the monthly environmental management reports of such stage can be exempted from the assessment of the credits. Notwithstanding, these documents shall be endorsed by a suitably qualified person (e.g. contractor's representative).

- 4.1. For DPs with dust monitoring requirement, the Applicants should provide the EM&A Report(s) submitted to EPD as required under the EIA Ordinance with the dust monitoring results, to replace the monthly environmental management reports as stated above.
 - 4.2. In case the project assessment boundary is only a part of a DP listed in the EIA Ordinance, the Applicant should highlight the relevant environmental monitoring data in the EM&A Report(s) of the DP that are related to the project assessment area for BEAM Plus assessment.
 - 4.3. For DPs with no requirement on dust monitoring, no environmental monitoring is required for BEAM Plus Assessment. Supporting documents (e.g. EM&A manual or EIA report with relevant sections highlighted) shall be provided to substantiate the claim of no requirement on dust monitoring.
5. For non-designated projects with no nearby ASR, dust monitoring is not required when the Applicant demonstrates that no existing and planned ASR is identified within 500m measured from the nearest point of the assessment boundary.
 - 5.1. Provide a map of the project site and its surroundings, with clear illustration showing no ASR within the above-mentioned distance and a declaration letter from the Construction BEAM Pro as defined under IDCM 6 or the Project BEAM Pro as defined under IDCM P1 confirming the study.
 - 5.2. The Applicant shall make reference to relevant authoritative guidance such as EPD's "Technical Memorandum on Environmental Impact Assessment (EIA) Process" (Annex 12) when identifying the ASR(s).
 - 5.3. If the planned ASR(s) will not be ready for occupation before the completion of construction works, it may not be necessary to consider for BEAM Plus Assessment.
6. Completed prescribed form endorsed by the Construction BEAM Pro (or Construction BEAM Affiliate) as defined under IDCM 6 or the Project BEAM Pro as defined under IDCM P1 shall be submitted for all projects to demonstrate the implementation of proactive dust control provisions.
7. Provide extracts of tender documents, contract conditions and/ or specifications highlighting the clause requiring the contractors to provide monthly environmental management/ EM&A report(s) if construction (demolition and foundation to be included, if any) has not yet commenced or have commenced but not yet completed prior to PA stage, to demonstrate the commitment to provide environmental management report/ measures implementation throughout the demolition/ foundation/ superstructure period.

(b) Minimisation of Noise Pollution

1. Proactive noise control provisions shall refer to section 6.9 of Hong Kong Construction Association's Best Practice Guide for Environmental Protection on Construction Sites. Checklist of noise control provisions are provided in the prescribed forms.

2. Conduct Construction Noise Impact Assessment (CNIA) before the commencement of the site work in each construction stage (demolition and foundation to be included, if any) to determine the resultant noise levels, and ensure the resultant noise levels will not exceed the noise criteria according to IDCM P2, Assessment 1) 1.3. Provide a CNIA report for each construction stage.

Provide extracts of tender documents, contract/ brief conditions and/ or specifications highlighting the clause requiring the consultants/ contractors to conduct CNIA before the commencement of the site work if construction (demolition and foundation to be included, if any) has not yet commenced at PA stage.

3. The cloud-based Construction Noise Management Plan (CNMP) platform developed by EPD can be used to conduct the quantitative construction noise assessment.
4. Provide a Construction Noise Management Plan (CNMP) for each construction stage (demolition and foundation to be included, if any) to demonstrate the corresponding plan and noise mitigation measures have been updated (if necessary) based on the CNIA report (as per the latest design and site conditions).

Provide extracts of tender documents, contract/ brief conditions and/ or specifications highlighting the clause requiring the contractors to update the corresponding plan and noise mitigation measures in the CNMP based on the CNIA report if construction (demolition and foundation to be included, if any) has not yet commenced at PA stage.

5. The CNIA report(s) and CNMP(s) shall be reviewed and endorsed by:
 - a Corporate Member of Hong Kong Institute of Acoustics; or
 - a Member of HKIE (Building Services, Mechanical or Environmental Discipline) with relevant experience in environmental noise; or
 - a Professional Member with relevant experience in environmental noise or Certified Noise Modelling Professional of Hong Kong Institute of Qualified Environmental Professional.
6. No CNIA report and CNMP is required when no existing and planned noise sensitive receiver (NSR) is identified within 300m measured from the nearest point of the assessment boundary.

7. Provide baseline monitoring measurements for point(s) as prescribed in submitted Environmental Management Plan in IDCM P2.

Provide baseline monitoring measurement report to demonstrate the followings:

- 7.1. Description and locations of noise sensitive receivers (NSRs);
- 7.2. Details of baseline monitoring measurement period, measurement result of baseline noise levels and identification of noise limit levels; and
- 7.3. Calibration certificates of the measurement instruments.

Provide extracts of tender documents, contract conditions and/ or specifications highlighting the clause requiring the contractors to provide baseline monitoring measurements if construction (demolition and foundation to be included, if any) has not yet commenced at PA

stage.

8. Prepare monthly environmental management reports throughout the construction period to demonstrate the following:
 - 8.1. Implementation of monitoring and mitigation measures to minimise noise pollution as defined in the *Environmental Management Plan (EMP)* under IDCM P2;
 - 8.2. There are no convictions or complaints about noise emissions from site, that have been upheld by the Environmental Protection Department or Police leading to the issue of a fine or prosecution;
 - 8.3. Implementation of proactive noise control provisions with the completed prescribed form; and
 - 8.4. Noise levels that complied with the noise level limitation according to IDCM P2, Assessment 1) 1.3.

The report(s) shall be reviewed and endorsed by the Construction BEAM Pro (or Construction BEAM Affiliate) as defined under IDCM 6 or the Project BEAM Pro as defined under IDCM P1 [3].

9. For a project that is a designated project (DP) under the Environmental Impact Assessment (EIA) Ordinance:
 - 9.1. For DPs with noise monitoring requirement, the Applicants should provide the EM&A Report(s) submitted to EPD as required under the EIA Ordinance with the noise monitoring results, to replace the monthly environmental management reports as stated above.
 - 9.2. In case the project assessment boundary is only a part of a DP listed in the EIA Ordinance, the Applicant should highlight the relevant environmental monitoring data in the EM&A Report(s) of the DP that are related to the project assessment area for BEAM Plus assessment.
 - 9.3. For DPs with no requirement on noise monitoring, no environmental monitoring is required for BEAM Plus Assessment. Supporting documents (e.g. EM&A manual or EIA report with relevant sections highlighted) shall be provided to substantiate the claim of no requirement on noise monitoring.
10. For non-designated projects with no nearby NSR, noise monitoring is not required when the Applicant demonstrates that no existing and planned NSR is identified within 300m measured from the nearest point of the assessment boundary.
 - 10.1. Provide a map of the project site and its surroundings, with clear illustration showing no NSR within the above-mentioned distance and a declaration letter from the Construction BEAM Pro as defined under IDCM 6 or the Project BEAM Pro as defined under IDCM P1 confirming the study.

3 If demolition/ foundation/ superstructure work was commenced before 4 September 2019 (the release of BEAM Plus New Buildings Version 2.0), the endorsement by the Construction BEAM Pro as defined under IDCM 6/ Project BEAM Pro as defined under IDCM P1 on the monthly environmental management reports of such stage can be exempted from the assessment of the credits. Notwithstanding, these documents shall be endorsed by a suitably qualified person (e.g. contractor's representative).

- 10.2. The Applicant shall make reference to relevant authoritative guidance such as EPD's "Technical Memorandum on Environmental Impact Assessment (EIA) Process" (Annex 13) when identifying the NSR(s).
- 10.3. If the planned NSR(s) will not be ready for occupation before the completion of construction works, it may not be necessary to consider for BEAM Plus Assessment.
11. Completed prescribed form endorsed by the Construction BEAM Pro (or Construction BEAM Affiliate) as defined under IDCM 6 or the Project BEAM Pro as defined under IDCM P1 shall be submitted for all projects to demonstrate the implementation of proactive noise control provisions.
12. Provide extracts of tender documents, contract conditions, and/ or specifications highlighting the clause requiring the contractors to provide monthly environmental management/ EM&A report(s) if construction (demolition and foundation to be included, if any) has not yet commenced or have commenced but not yet completed prior to PA stage, to demonstrate the commitment to provide environmental management report/ measures implementation throughout the demolition/ foundation/ superstructure period.
13. Complete a checklist to demonstrate the adoption of at least 2 recognised quieter equipment/ methods at each construction stage (demolition and foundation to be included, if any) if additional BONUS credit(s) is / are targeted.
14. The second additional BONUS credit will be granted for providing:
- 14.1. a Construction Noise Impact Assessment (CNIA) report to identify the resultant noise levels before any mitigation measure; and
- 14.2. a construction noise assessment report to demonstrate a noise reduction of minimum 3dB(A) after adopting the proposed two or more recognised quieter equipment/ methods, as compared to the resultant noise levels under unmitigated scenario. The worst-affected NSR(s) for each building type shall be identified and selected for the assessment. The resultant noise levels after the mitigation measures shall not exceed the noise criteria according to IDCM P2, Assessment 1) 1.3.

The CNIA report and construction noise assessment report shall be provided for each construction stage (demolition and foundation to be included, if any).

In case there is no existing and planned NSR within 300m measured from the nearest point of the assessment boundary, the Applicant shall extend the study area (beyond 300m) if the second additional BONUS credit is targeted.

The CNIA report(s) and construction noise assessment report(s) shall be reviewed and endorsed by the qualified professional as stated in IDCM 7b, Assessment (b) 5.

15. Provide extracts of tender documents, contract/ brief conditions and/ or specifications highlighting the clause requiring the contractors to adopt recognised quieter construction equipment/ methods during construction, if construction (demolition and foundation to be included, if any) has not yet commenced or have commenced but not yet completed prior to PA stage (for additional BONUS credits).

In case the second additional BONUS credit is targeted, highlight the clause requiring a noise reduction of minimum 3dB(A) after adopting the recognised quieter equipment/ methods.

(c) Minimisation of Water Pollution

1. Proactive wastewater management provisions shall be referred to Environmental Protection Department's Practice Note for Professional Persons on Construction Site Drainage [4]. Checklist of wastewater management provisions is provided in the prescribed forms.
2. Provide monitoring measurements fulfilling permit requirement as prescribed in IDCM P2, Assessment 1) 1.3.
3. Prepare monthly environmental management reports throughout the construction period to demonstrate the following:
 - 3.1. Implementation of monitoring and mitigation measures to minimise water pollution as defined in *Environmental Management Plan (EMP)* under IDCM P2;
 - 3.2. There are no convictions or complaints about water pollution from site, that have been upheld by the Environmental Protection Department or Police leading to the issue of a fine or prosecution;
 - 3.3. Implementation of proactive wastewater control provisions with completed prescribed form; and
 - 3.4. Wastewater discharge qualities fulfilling permit requirement according to IDCM P2, Assessment 1) 1.3. Copy of the discharge license issued by EPD and testing reports of the discharge water samples by accredited laboratory shall be provided as substantiation.

The report(s) shall be reviewed and endorsed by the Construction BEAM Pro (or Construction BEAM Affiliate) as defined under IDCM 6 or the Project BEAM Pro as defined under IDCM P1 [5].
4. Provide extracts of tender documents, contract conditions, and/ or specifications highlighting the clause requiring the contractors to provide monthly environmental management report(s) if construction (demolition and foundation to be included, if any) has not yet commenced or have commenced but not yet completed prior to PA stage, to demonstrate the commitment to provide environmental management report/ measures implementation throughout the demolition/ foundation/ superstructure period.

4 Environmental Protection Department – Practice Note for Professional Persons ProPECC PN 1/94. Construction Site Drainage. [ONLINE]. Available at: http://www.epd.gov.hk/epd/sites/default/files/epd/english/resources/pub/publications/files/pn94_1.pdf. [Accessed April 2021]

5 If demolition/ foundation/ superstructure work was commenced before 4 September 2019 (the release of BEAM Plus New Buildings Version 2.0), the endorsement by the Construction BEAM Pro as defined under IDCM 6/ Project BEAM Pro as defined under IDCM P1 on the monthly environmental management reports of such stage can be exempted from the assessment of the credits. Notwithstanding, these documents shall be endorsed by a suitably qualified person (e.g. contractor's representative).

(d) Minimisation of Light Pollution

1. Provide evidence demonstrating that external light control measures have been implemented during construction (demolition and foundation are included, if any). External light control measures shall include all of the following:
 - 1.1. Operating hours for light
 - 1.1.1. Switch off external lighting (essential light and feature light not included) when not needed or after operating hours.
 - 1.1.2. Switch off feature lighting (e.g. hoarding lighting) after 11p.m.
 - 1.1.3. Maintain only essential light (e.g. lighting for safety and security) at the acceptable level as required.
 - 1.2. Automatic controls for lighting
 - 1.2.1. Incorporate automatic control (e.g. timer switch) to switch off the external lighting when not needed or after operating hours.
 - 1.3. Lighting nuisance control measures
 - 1.3.1. Position and aim the lighting at hoarding properly to avoid overspill of light to the outside area being lit up.
 - 1.3.2. For lighting up vertical structures (e.g. signs & hoarding), direct the beam to the structures and avoid overspill of light.
 - 1.3.3. Provide lighting with appropriate shields, baffles, louvers and cut-off features to prevent light overspill to nearby residence and into the sky, and glare from the light source.
 - 1.4. Prevention of glare to road users
 - 1.4.1. Ensure the external lighting along site boundary is appropriately positioned, aimed or shielded so that illumination of nearby roads will not be adversely affected.
2. Provide extracts of tender documents, contract conditions and/ or specification highlighting the clause requiring the contractors to provide external light control measures if construction (demolition and foundation to be included, if any) has not yet been commenced or have commenced but not yet completed prior to PA stage, to demonstrate the commitment to provide environmental management report/ measures implementation throughout the demolition/ foundation/ superstructure period.
3. Demonstrate implementation of external light control measures with the completed prescribed form.
 The implementation records with completed prescribed form shall be reviewed and endorsed by the Construction BEAM Pro (or Construction BEAM Affiliate) as defined under IDCM 6 or the Project BEAM Pro as defined under IDCM P1 [6].

6 If demolition/ foundation/ superstructure work was commenced before 4 September 2019 (the release of BEAM Plus New Buildings Version 2.0), the endorsement by the Construction BEAM Pro as defined under IDCM 6/ Project BEAM Pro as defined under IDCM P1 on the monthly environmental management reports of such stage can be exempted from the assessment of the credits. Notwithstanding, these documents shall be endorsed by a suitably qualified person (e.g. contractor's representative).

Submittals**(a) Minimisation of Air Pollution**

| Supporting Documents <i>Please provide softcopies with filename prefix as indicated on the leftmost column below.</i> | | PA | FA |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------|
| IDCM_07a_00 | BEAM Plus NB submission template for IDCM 7a | ✓ | ✓ |
| IDCM_07a_01 | Baseline monitoring measurement report [or] Extracts of tender documents, contract conditions and/ or specifications highlighting the clause requiring the contractors to provide baseline monitoring measurements | ✓* ✓ | ✓ - |
| IDCM_07a_02 | A total of 3 [^] monthly environmental management/ EM&A reports at a minimum with at least 1 report for each of the construction stages with the completed prescribed form [IDCM-07-1_Form] [or] Extracts of tender documents (e.g. specifications) specifying the requirements of monthly environmental management/ EM&A report(s) (if applicable) | ✓* ✓ | ✓ - |
| IDCM_07a_03 | Summary of baseline and impact monitoring for construction air quality [Appendix A] [or] Evidence (e.g. EM&A manual or EIA report) substantiating no requirement on dust monitoring (For designated project with no requirement on dust monitoring) [or] Map of the project site and its surroundings showing no ASR; and Declaration letter from the Construction BEAM Pro/ Project BEAM Pro (For non-designated project with no nearby ASR) | ✓* ✓* ✓* | ✓ ✓ ✓ |
| * Evidence of compliance with credit requirements for construction works started not less than 3 months prior to PA (first submission) shall be submitted in PA. ^ If there are less than 3 construction stages, a minimum total of 3 monthly reports should still be submitted, with at least 3-month interval between each | | | |

report (e.g. if the first submitted report is dated September 2019, the next report to be submitted should be dated December 2019 or later). In case the whole demolition and construction programme is less than 9 months, an interval less than 3 months between each set of record is acceptable, but the Applicant shall ensure the submitted records are in a reasonable interval.

(b) Minimisation of Noise Pollution

| Supporting Documents <i>Please provide softcopies with filename prefix as indicated on the leftmost column below.</i> | | PA | FA |
|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------|
| IDCM_07b_00 | BEAM Plus NB submission template for IDCM 7b | ✓ | ✓ |
| IDCM_07b_01 | Baseline monitoring measurement report [or] Extracts of tender documents, contract conditions and/ or specifications highlighting the clause requiring the contractors to provide baseline monitoring measurements | ✓* ✓ | ✓ - |
| IDCM_07b_02 | A total of 3 [^] monthly environmental management/ EM&A reports at a minimum with at least 1 report for each of the construction stages with the completed prescribed form [IDCM-07-2_Form] [or] Extracts of tender documents (e.g. specifications) specifying the requirements of monthly environmental management/ EM&A report(s) (if applicable) | ✓* ✓ | ✓ - |
| IDCM_07b_03 | Summary of baseline and impact monitoring for construction noise [Appendix B] [or] Evidence (e.g. EM&A manual or EIA report) substantiating no requirement on noise monitoring (For designated project with no requirement on noise monitoring) [or] Map of the project site and its surroundings showing no NSR; and Declaration letter from the Construction BEAM Pro/ Project BEAM Pro | ✓* ✓* ✓* | ✓ ✓ ✓ |

| | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|
| | (For non-designated project with no nearby NSR) | | |
| IDCM_07b_04 | Examination schedule [#] for any educational institution(s) identified as noise sensitive receiver(s) (if applicable) | ✓* | ✓ |
| IDCM_07b_05 | Endorsed Construction Noise Impact Assessment (CNIA) report and Construction Noise Management Plan (CNMP) | ✓* | ✓ |
| | [or] Extracts of tender documents, contract/ brief conditions and/ or specifications highlighting the clause requiring the consultants/ contractors to conduct CNIA before the commencement of the site work and provide a CNMP based on the CNIA report | ✓ | - |
| IDCM_07b_06 | CV of the professional endorsing the CNIA report, CNMP and construction noise assessment report | ✓* | ✓ |
| IDCM_07b_07 | Checklist on the adoption of at least 2 recognised quieter construction equipment/ methods for each construction stage [Form S-A] | ✓* | ✓ |
| | [or] Extracts of tender documents, contract/ brief conditions and/ or specifications highlighting the clause requiring the contractors to adopt at least 2 recognised quieter construction equipment/ methods during each construction stage (for additional BONUS credits only) | ✓ | - |
| IDCM_07b_08 | Endorsed construction noise assessment report | ✓* | ✓ |
| | [or] Extracts of tender documents, contract/ brief conditions and/ or specifications highlighting the clause requiring the contractors to adopt at least 2 recognised quieter construction equipment/ methods during each construction stage to achieve a noise reduction of minimum 3dB(A) (for second additional BONUS credit only) | ✓ | - |
| <p>* Evidence of compliance with credit requirements for construction works started not less than 3 months prior to PA (first submission) shall be submitted in PA.</p> <p>^ If there are less than 3 construction stages, a minimum total of 3 monthly reports should still be submitted, with at least 3-month interval between each report (e.g. if the first submitted report is dated September 2019, the next</p> | | | |

report to be submitted should be dated December 2019 or later). In case the whole demolition and construction programme is less than 9 months, an interval less than 3 months between each set of record is acceptable, but the Applicant shall ensure the submitted records are in a reasonable interval.

Construction Noise Limit Level for School: 70 dB(A) (Normal School Days)/ 65dB(A) (Examination Period)

(c) Minimisation of Water Pollution

| Supporting Documents <i>Please provide softcopies with filename prefix as indicated on the leftmost column below.</i> | | PA | FA |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|
| IDCM_07c_00 | BEAM Plus NB submission template for IDCM 7c | ✓ | ✓ |
| IDCM_07c_01 | A total of 3 [^] monthly environmental management reports at a minimum with at least 1 report for each of the construction stages with the completed prescribed form [IDCM-07-3_Form] | ✓* | ✓ |
| | [or] Extracts of tender documents (e.g. specifications) specifying the requirements of monthly environmental management report(s) (if applicable) | ✓ | - |
| IDCM_07c_02 | Summary of construction wastewater discharge monitoring result [Appendix C] | ✓* | ✓ |
| <p>* Evidence of compliance with credit requirements for construction works started not less than 3 months prior to PA (first submission) shall be submitted in PA.</p> <p>[^] If there are less than 3 construction stages, a minimum total of 3 monthly reports should still be submitted, with at least 3-month interval between each report (e.g. if the first submitted report is dated September 2019, the next report to be submitted should be dated December 2019 or later). In case the whole demolition and construction programme is less than 9 months, an interval less than 3 months between each set of record is acceptable, but the Applicant shall ensure the submitted records are in a reasonable interval.</p> | | | |

(d) Minimisation of Light Pollution

| Supporting Documents <i>Please provide softcopies with filename prefix as indicated on the leftmost column below.</i> | | PA | FA |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|
| IDCM_07d_00 | BEAM Plus NB submission template for IDCM 7d | ✓ | ✓ |
| IDCM_07d_01 | A total of 3 [^] implementation records at a minimum with at least 1 set of record for each of the construction stage with completed prescribed form [Appendix D] | ✓* | ✓ |

| | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|
| | [or] Extracts of tender documents (e.g. specifications) specifying the requirements of external light control measures (if applicable) | ✓ | - |
| <p>* Evidence of compliance with credit requirements for construction works started not less than 3 months prior to PA (first submission) shall be submitted in PA.</p> <p>^ If there are less than 3 construction stages, a minimum total of 3 monthly reports should still be submitted, with at least 3-month interval between each report (e.g. if the first submitted report is dated September 2019, the next report to be submitted should be dated December 2019 or later). In case the whole demolition and construction programme is less than 9 months, an interval less than 3 months between each set of record is acceptable, but the Applicant shall ensure the submitted records are in a reasonable interval.</p> | | | |

Remarks**(a) Additional Information**

Buildings Department. PNAP ADV-4, Control of Environmental Nuisance from Construction Sites. [ONLINE]. Available at: <https://www.bd.gov.hk/doc/en/resources/codes-and-references/practice-notes-and-circular-letters/pnap/ADV/ADV004.pdf>. [Accessed April 2021].

Environmental Protection Department. Air - Guidelines & References. [ONLINE]. Available at: http://www.epd.gov.hk/epd/english/environmentinhk/air/guide_ref/air_guidelines.html. [Accessed April 2021].

Environmental Protection Department. Noise - Guidelines & References. [ONLINE]. Available at: https://www.epd.gov.hk/epd/english/environmentinhk/noise/guide_ref/noise_guidelines.html. [Accessed April 2021].

Environmental Protection Department. Good Practices on Mitigating Construction Noise. [ONLINE]. Available at: https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. [Accessed April 2021].

Environment Bureau. Guidelines on Industry Best Practices for External Lighting Installations. [ONLINE]. Available at: http://www.enb.gov.hk/sites/default/files/en/node78/guidelines_ex_lighting_install_eng.pdf. [Accessed April 2021].

(b) Related Credit**IDCM P2 *Environmental Management Plan***

The related prerequisite credit encourages a high standard of environmental management during construction.