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Our Ref. : APPBCA-2014-09 Building Plan and Management Group

31 Jul 2014

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Dear Sir/Madam

IMPLEMENTATION OF WATERMARK IMPRINT ON NON-BIM PLANS APPROVED BY BUILDING AND CONSTRUCTION AUTHORITY (BCA)

Objective

This circular is to inform the industry of the implementation of the watermark imprint on plans (both architectural and structural plans) which have been approved by BCA.

Background

- 2 In September 2013, BCA consulted the industry on the implementation of the watermark imprint on all approved plans to facilitate use of approved plan for construction.
- In implementing the watermark imprint on approved plans, the Commissioner of Building Control (CBC) will decrypt the submitted plan and imprint on it the "BCA Logo", with a unique serial number. After the imprinting, the CBC will encrypt the decrypted plan with his digital signature and send it to the QP via CORENET. Hence, when the QP receives the approved plan via CORENET, the plan will be encrypted with the CBC's digital signature only. As the CBC does not alter any details on the plan submitted by the QP, all the details on the plan approved by the CBC is exactly the same as the encrypted plan submitted by the QP, except for the inclusion of the "BCA Logo" imprint and the unique serial number.
- 4 From all the responses received during the consultation period, there was no objection to the above process.

Plan Submission Format

5 In order to implement the watermark imprint, Section 4.1.1 of the CORENET Submission Guidelines will be amended (please see **Annex A**). The key amendments include:

- a) All drawings must **not** contain reference files or external references;
- b) The PDF or DWF drawing submitted must be with colour in white background; and
- c) All PDF or DWF drawings converted from CAD drawings shall be saved in landscape orientation with the title block on the right hand side.

Implementation Date

- The watermark imprint initiative will be implemented from <u>01 October</u> <u>2014</u> onwards. Plans which are submitted/re-submitted to BCA for approval on or after this date must comply with the format as required in Section 4.1.1 of the CORENET Submission Guidelines. As compliance with the required format is essential for placing the watermark imprint without affecting the detail on the plans, any submission which is not in compliance will have to be returned.
- We will also like to remind QPs to supply a copy of every plan of the building works approved by the CBC with the watermark imprint to the site supervisors, the builder and the qualified person appointed to supervise those building works (if applicable), and to also keep and maintain at the site office a copy of the same approved plan with watermark imprint.

For Clarification

8 We would appreciate it if you could convey the contents of this circular to the members of your organisation. For clarification and feedback on the changes, you may email to bca_enquiry@bca.gov.sg or call the following hotline/contact persons. Thank you.

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Yours faithfully

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Annex A

4.1.1 CAD Requirements For Non BIM Submission

- 1. The e-Submission Applicant shall follow the standard layering, symbol, file naming convention format C, color and line type standard and the recommended scale to use for different types of plan as defined in the Code of Practice CP83 for Construction Computer Aided Design (CAD).
- 2. All drawings must not contain reference files or external references. .
- 3. Draft work and construction lines must not be included in the CAD files.
- 4. Limit of the drawing in each CAD file is the same as the boundary of the title block (i.e no information are included outside the title block).
- 5. There shall be only one drawing per CAD file. All drawings shall be the last saved view of the whole drawing complete with one title block
- 6 Raster images shall not be attached to the CAD file.
- 7. Using of Hatch pattern in the CAD files should be avoided. Where patterns are used in CAD drawings, legend for pattern with explanatory note shall be included in the drawing
- 8. Proprietary font (user created font) shall not be used in the preparation of the CAD drawing.
- 9. File of each floor plans of the same building structure should commence on the same coordinates to facilitate overlaying purposes.
- 10. The e-Submission Applicant shall prepare the CAD files in accordance to the layering guide required by regulatory authorities. Refer to Appendix A on the CAD layering requirements for the various regulatory authorities. Requirement of the individual regulatory authority shall take precedent on the requirements as stated in this section.
- 11. The PDF or DWF drawing submitted must be with colour in white background. The colour use for drawing elements must not be light colour as the background of pdf drawing is white.
- 12. All PDF or DWF, drawings converted from CAD drawings shall be saved in landscape orientation with the title block on the right hand side
- 13. If CAD files do not comply with the above requirement, the submission may be rejected.

CORENET e-Submission

Electronic Submission Guidelines

Version 1.0.1 (dated 01-07-14)

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Information and Contents set forth in the documentation are subjected to changes and will be release as Updates in subsequent version

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1 Introduction

Overview of CORENET e-Submission System

The CORENET e-Submission system (from here on referred to as the e-Submission System) is a computerised system that facilitates the submission, monitoring and archiving of building and marine project application forms, plans and reports. The System converge all the application forms concerning planning approvals, building approvals, structural approvals, structural building maintenance and certification from the various regulatory Authorities, forming a one-stop convenience point for submission.

All submission of plans, applications, reports and approvals are submitted electronically to the e-Submission System, which in turn will redirect the submissions to the respective Authorities. Upon receiving the necessary documents, the respective regulatory Authorities will process the application, sending the notices, certificates or permits via the e-Submission System. The e-Submission System provides an on-line project status tracking as well as information update and retrieval of project information. Refer to Appendix C on the list of submission forms that can be submitted via the e-Submission System.

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Purpose of this Document

This document outlines the specific procedures and requirements for electronic submission (ES) through the e-Submission System. These guidelines will assist the owners/developers as well as 'Qualified Persons' (QPs) such as Professional Engineers, Architects and Accredited Checkers, Registered Land Surveyor and licensed plumbers, licensed electricians, licensed gas workers and licensed building contractors in the submission of application to the regulatory bodies for approval.

All e-Submission Applicants must observe the ES guideline in order to reduce processing and approval time.

Definitions

For the purposes of this guideline, the following definitions shall apply.

1.1.1 Definitions in Document

Application

Application refers to the process of obtaining the necessary approval from the Authority to carry out any intended activities as required under the respective Act or Legislation. An application includes the submission of forms, drawings and other supporting documents.

Authority

The regulatory body in charge of processing the applications submitted by the e-Submission Applicants.

CAD file

CAD file is the digital file containing computer-aided design (CAD) models or related information.

Correspondence

The exchange of letters and supporting documents of an application between the e-Submission Applicant/Project members and the Authority and between the Authorities

FS

Acronym for Electronic Submission

ESPro

Electronic Submission for Professional Application

e-Submission Applicant

The person making an application or a development application comprising of forms, drawings, letters, reports and etc to the regulatory authority.

e-Submission Project Coordinator

The e-Submission Project coordinator is the project member appointed by the owner/developer to initiate the issuance of the project reference and to register the project and project members with the CORENET e-Submission system.

New Submission

The first submission of an application.

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Project

Project refers to activities (e.g. building works) intended to be carried out at a specific location/site and for which approval from the relevant Authority is required before such works can commence.

Project Reference

A unique reference number initiated by the e-Submission Project coordinator to identify the project. Once the e-Submission Project coordinator has initiated the number, all other QPs for the same project will follow that number when making subsequent submissions to other Authorities.

Project Stage

The various stages of a project are:

DC - Development Control or Planning

BP - Building Plan

CO - Construction

SV - Services

QP

A person who is registered as -

- (a) An architect under the Architects Act (Cap. 12) and has in force a practising certificate issued under that Act; or
- (b) A professional engineer under the Professional Engineers Act (Cap. 253) and has in force a practising certificate issued under that Act;

Submission

An act of forwarding all the necessary application-related digital documents via the CORENET e-Submission system to the Authority for consideration of approval.

Submission Mode

The mode of submissions are:

- Online
- Offline
- Manual

Submission Reference Number

This is a unique system generated transaction number for every submission made to CORENET e-Submission.

Submission Type

A submission could be of the following type:

- New submission
- Resubmission
- Correspondence

Supporting Documents

These include forms, CAD drawings, reports and any other files supporting the submission of an application.

Written Direction

This refers to directives issued by the Authority to the appropriate parties in connection with an application.

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2 Environment and Prerequisites

Hardware and Software Recommendations

- 1) e-Submission Applicants should have the following hardware
 - i. Pentium PC with 400 Mhz and above is recommended.
 - ii. Minimum 64 MB RAM.
 - iii. Modem with ADSL connection or higher is recommended.
 - iv. Hard disk with sufficient capacity (minimum 1 GB is recommended).
 - v. Netrust Smartcard Certificate version 3 and Smartcard Reader.
- 2) e-Submission Applicants should install the following software on the PC
 - i. Windows NT Ver 4.0/ Windows 98 or Windows 2000
 - ii. Access to the internet with Microsoft Internet Explorer ver5.x browser and above.
 - iii. ESPro application
 - iv. InternetForms Viewer v4.4.x and above
 - v. Digital Signer application (optional)
- e-Submission Applicants who require to send applications to URA should also install the following software on the PC –
 - i. EDAForm application (offline module)
 - ii. JRE 1.3 (this comes with the EDAForm application installation program)

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General Rules and Regulations

- 1. All types of submissions will be made in digital form electronically.
- 2. All the e-Submission Applicants have to register themselves with the e-Submission System in order to perform electronic submission.
- 3. The file names of the attached documents to the application must contain characters from a-z, 0-9 and _(underscore) only. Special characters like blank space, %,^,&,-,#,@,/,\,:, etc must not be used. The file names are not case sensitive. The length of the filename must not exceed 255 characters.
- 4. All the reports/letters must be prepared using the recommended format in section 4.1 on document preparation.
- 5. CAD files should be prepared using the recommended format in section 4.1 on document preparation and requirements in section 4.1.1.
- 6. All images must be saved in the recommended format in section 4.1 on document preparation.
- 7. For application with submission fee, the Authority will only grant approval to the application after the fee is paid in full. e-Submission Applicant should make arrangement to pay the submission fee after the application has been electronically submitted successfully. Refer to chapter 5 on making on-line payment.
- 8. The e-Submission Applicant shall ensure that the files are not corrupted, damaged or infected with computer virus before making electronic submission.

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Registration Process

Any person who intends to submit applications to the relevant regulatory Authorities through the e-Submission System is required to register as a user with the CORENET e-Submission System before his application can be made. Once the registration has been approved by the e-Submission System, the user can use his registered ID and password to submit his applications on-line or via the offline ESPro application.

Besides public users who submit applications through the CORENET e-Submission System, registered members of the project can also register as e-Submission users. This is to enable the project members to download submitted files and approval letters/notices that are accessible by them or check the application and project status.

All project members including e-Submission Project Coordinator who are required to sign application forms and supporting documents that have to be submitted to the respective regulatory Authorities would have to obtain Netrust certificates for digital signing. Refer to Section 2.1.3 on how to apply for a Netrust certificate.

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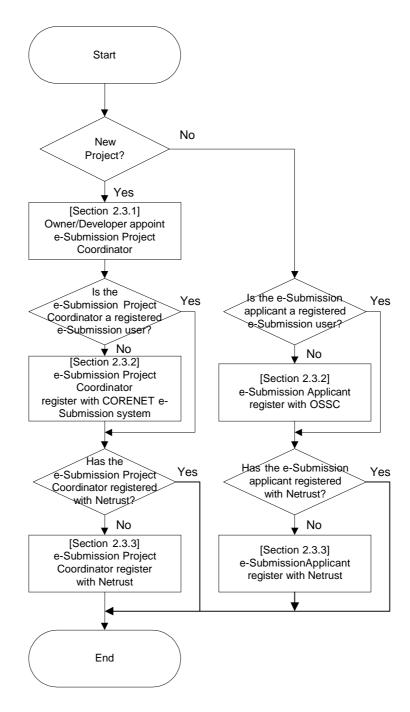


Figure 2.3.0.1 Registration Process Work Flow

Steps To Register

Step 1: Owner/Developer of the project appoint the e-Submission Project coordinator

The owner/developer of the project is required to appoint a e-Submission

Project coordinator to register the new project with the e-Submission System .

For projects relating to building works as defined in the Building Control Act, the

coordinator must be a Qualified Person (QP). Refer to section 2.1.1 on the role

of a e-Submission Project coordinator.

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Step 2: Register with CORENET e-Submission System

The e-Submission Project coordinator and the e-Submission Applicant is required to register with e-Submission system in order to make electronic submission. Refer to section 2.1.2 on the steps to register as a e-Submission user.

Step 3: Register with Netrust

The e-Submission Project coordinator, e-Submission Applicant, as well as project members who are required to sign application forms and supporting documents would have to obtain digital certification with Netrust Pte Ltd for the purposes of authentication. Refer to section 2.1.3 on the steps to apply for a digital certification.

The owner/developer of the project may obtain digital certification with Netrust Pte Ltd. Otherwise, he/she shall authorise the e-Submission Project coordinator or the e-Submission Applicant to sign on the application digitally on his/her behalf. Refer to section 4 on the Letter of undertaking for each application.

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2.1.1 Role of a e-Submission Project Coordinator

e-Submission Project coordinator is the person who initiates the issuance of the project reference and he must be a Qualified Person or a Licensed Worker. For projects relating to building works as defined in the Building Control Act, the coordinator must be the Qualified Person (QP) who prepares and submits the plans (i.e. architectural and structural drawings) to the Authority for consideration of approval.

The e-Submission Project coordinator's responsibilities also include the following:

- To add new project members to the project and to update the project members' details in e-Submission System (refer to Section 3 and Section 8),
- To apply to withdraw project if required (refer to Section 7) and
- To update the status of the project in the e-Submission System

The e-Submission project coordinator is required to close the project once there is no more submissions required for that project or when the project has attained a Temporary Occupancy Permit or Certificate Of Statutory Completion. He is able to update the status of the project by using the on-line function in the e-Submission System.

Once a new project is registered, the status of the project is set as "OPEN" by default. The project status that the e-Submission Project coordinator can select and update in the e-Submission on-line function are listed as shown:

Project Status Code	Description
CLOSE	Project is closed.
TOP	Project has attained Temporary Occupancy Permit.
CSC	Project has attained Certificate of Statutory Completion.

Besides the above project status, project that has been withdrawn is assigned a "WTH" status code automatically by the e-Submission system upon approval of project withdrawal by the approving regulatory authority.

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2.1.2 To Register as e-Submission User

To be able to submit applications to regulatory Authorities via the e-Submission System, applicants need to be registered as an e-Submission user first. To apply as an e-Submission user, the applicant needs to fill up an on-line registration form that is found at the CORENET e-Submission web site.

In this guideline, users who make submissions to regulatory Authorities via the e-Submission System will be referred to as e-Submission applicant.

Registration As e-Submission user

- 1. To register as an e-Submission user, user will have to log on to the e-Submission web site and fill up a registration form. Refer to Appendix A on the information required to enter in order to register as an e-Submission user.
- 2. Within the registration form, fields denoted with red asterisk (*) are mandatory and information are therefore compulsory to provide.
- 3. User is required to define a unique identification number of his own preference for logging into the e-Submission System main functions. A valid user id must not be less than 8 or more than 30 alphanumeric characters and it must be a combination of both alphabets and numbers. This unique ID will then be verified by the system against duplication of user IDs in the system database. If found to be duplicated, the user will be prompted to re-enter another user ID.
- 4. The system will also verify that the e-mail address entered is unique from other active e-Submission users' e-mail addresses. Otherwise, an error message will be prompted.
- 5. Once the e-Submission user account is successfully created, acknowledgement e-mail will be sent to the respective user to notify him/her. Users are advised to change their passwords before the expiry date.
- 6. The user account will be revoked if the user does not make any attempts to log on to the e-Submission System within a month after the registration.
- 7. All updates and transactions made to the e-Submission system are tracked in audit trail log.
- 8. The e-Submission applicant must ensure the NRIC number or passport number entered in the on-line registration function is the same as the one that has been registered in the ESPro application.

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2.1.3 To Obtain Digital Certification

A digital certificate is an electronic document that is digitally signed by an issuing Certification Authority using its unique private key. This allows senders to authenticate themselves to their recipients.

Netrust Pte Ltd, the Certification Authority recommended for the CORENET e-Submission System, offers digital certificates for individuals (personal certificates), members of organisations (corporate certificates), as well as servers.

In the case of the e-Submission System, the project coordinator and applicants are required to register with Netrust Pte Ltd to obtain either the Personal Digital Certificates or the Corporate Digital Certificates for authentication purpose. The same applies to project members who are also required to sign the application forms and supporting documents.

To Apply:-

To register for a Netrust digital certificate, the applicant needs to turn up personally with his/ her personal identification documents at the Netrust office for a face-to-face verification.

The following documents are required:

- The completed form of Netrust Digital Certificate Application Form.
- NRIC/Passport is required as the supporting document for verifying identity.

Netrust offers various classes of Digital Certificates, differentiated by the level of assurance they provide. NetID Certificates are issued on smart cards or other certified security tokens and provides the highest level of user and server security/ identification for electronic commerce and high value transactions. NetPass Certificates are issued on diskettes or stored on hard disks and can be used for lower-value transactions and authenticated access to online services.

For more details on Netrust products and the digital certificates' pricing, log on to Netrust website at www.netrust.com.sg.

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3 Project Registration

Before an application can be submitted, the e-Submission project coordinator has to first register the project with the e-Submission System. He is required to use a unique project reference to identify the project. Information on all the members involved in the projects will also have to be entered when creating the new project.

Once the project has been registered, all applications belonging to the project will then be submitted under the registered project reference number. The e-Submission project reference also has to be quoted in all the written direction replies and any other correspondences under the project.

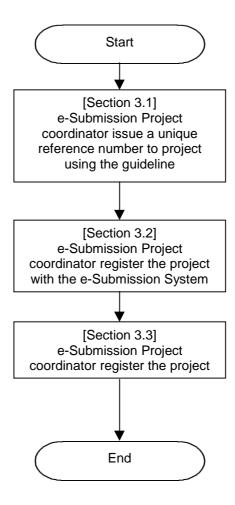


Figure 3.0.1 Project Registration Work Flow

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Guideline to Issue Project reference

The e-Submission Project coordinator shall assign his own reference number for a new project. Once the number has been assigned, he will use that number to make electronic submissions to all Authorities through the CORENET e-Submission System.

THE PROJECT REFERENCE NUMBER

The reference number will look like this:

A 1 2 3 4 - 0 0 0 1 - 2 0 0 1

The reference number has the following fields as shown in the above sample:

Project Reference prefix

A

Profession Registration Number

1234

Project Number

00001

Year

2001

Each e-Submission Project coordinator maintains his own set of reference numbers. For any particular submission, the project reference should be unique.

PROJECT REFERENCE PREFIX

This is a system generated prefix code depending on the profession of the e-Submission Project coordinator. For example, if the e-Submission Project coordinator is an architect, system will use A as the prefix followed by his registration number (e.g. A1234 if he is an architect and his registration number with the Board of Architects is 1234).



PROFESSION REGISTRATION NUMBER

If the e-Submission Project coordinator is a Qualified Person (QP), he will use his registration number with the Board of Architects if he is an architect, or his registration number with the Professional Engineer Board if he is a PE.

If the e-Submission Project coordinator is not a QP, e.g. licensed plumber or licensed gas worker, the profession registration number (e.g. S/12345 for Supply Installation or GA/1234/1998 for Gas worker) portion of the project reference will reflect his registration or licenses number with the Authority.



PROJECT NUMBER & YEAR

This is the serial number which the e-Submission Project coordinator assigns to the project. For example, he may assign 00001 to the first project of the year, and assign 00002 to the next project, and so on.

					-	0	0	0	0	1	-		

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It is important to note that the e-Submission Project coordinator must not assign the same number to more than one project.

The e-Submission Project coordinator will fill in the year that he is making the first submission for that particular project. For example, if he is submitting the first plan in 2001, he will complete this field with the year 2001. The subsequent plans, such as amendment plans, structural plans and M&E plans may be submitted in 2002 but the project number will be used throughout the whole life cycle of the project.



DIFFERENT E-SUBMISSION PROJECT COORDINATOR FOR THE SAME PROJECT

Once the reference number is generated for the project by the e-Submission Project coordinator, that reference number will remain with the project, no matter how many different project members are involved in the project. The same number will be retained even if the e-Submission Project coordinator is changed.

MID-STREAM PROJECTS

G00212-1997 shall be registered as

In the case of mid-stream projects where the reference number does not contain the professional registration number e.g. BP00135-1995 or G00212-1997, the e-Submission Project coordinator could register the project with e-Submission using his professional registration number and the mid-stream project reference with the following format:

BP00135-1995 shall be registered as

A 1 2 3 4 - 0 0 1 3 5 - 1 9 9 5

A 1 2 3 4 - 0 0 2 1 2 - 1 9 9 7

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To Register a New Project

Once the e-Submission Project coordinator has assigned a reference number for his project, he will use the ESPro application to register the project with the e-Submission System. He may refer to Appendix B on project profile template information that are required for registering a project.

Refer to the ESPro user manual for detail description on creating a new project.

After a project is registered with the e-Submission System and there is no submission made on the project for 3 months, the project will be de-registered automatically. The records on the de-registered project will be permanently removed from the e-Submission System and the e-Submission Project coordinator may re-use the same project reference number.

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To Register Project Members

The e-Submission Project coordinator is required to register the project members with the e-Submission System in order for the project members to have access to the project. The e-Submission Project coordinator can use the ESPro application to register the project members for a particular project.

Refer to the ESPro user manual for detail description to register project members.

To register the project member, the e-Submission Project coordinator is required to define the role of the member in the project. A project member may hold one or more roles.

Project Member Role Listing

Project Manager

Architect

Professional Engineer - Mechanical

Professional Engineer - Electrical

Professional Engineer - Civil & Structural

Accredited Checker

Accredited Checking Organisation

Owner

Owner - Management Corporation Strata Title

Tenant

Lessee

Developer

Builder

Registered Land Surveyor

Clerk of work

Contractor

Licensed Cable Detection Worker

Licensed Electrical Worker

Licensed Gas Service Worker

Licensed Water Service Worker

Plumbing Contractor

Registered Inspector – Architect

Registered Inspector – Mechanical

Resident Engineer

Site Supervisor

Safety Officer

Safety Supervisor

Desludging Contractor

Licensed Supplier

The classification of the project access includes the following:

- Project status query
- Make submission and query submission only

The project members are required to register as e-Submission users themselves in order to query and access the project information in the e-Submission system. Refer to section 2.1.2 on the steps to register as e-Submission user.

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3.1.1 Definition of Project Members

Project Members	Definition	Reference
Accredited Checker	A person who is registered as an accredited checker under section 16 of the Building Control Act.	BCA
Accredited Checking Organisation	An organisation which is registered as an accredited checking organisation under Section 16A of the Building Control Act.	BCA
Architect	A person who is registered as an architect under the Architects Act (Cap. 12) and has in force a practising certificate issued under that Act.	BCA
Builder	Any person who undertakes, whether exclusively or in conjunction with any other business, to carry out any building works for his own account or for or on behalf of another person (referred to in this definition as A), but does not include any person who contracts with a builder for the execution by that person of the whole or part of any building works undertaken by the builder for or on behalf of A under a contract entered into by the builder with A.	BCA
	The builder is also the company or firm that is awarded the contract by the owner or developer to carry out the development project works which include marine project.	MPA
Clerk of Work	A type of site supervisor appointed by a qualified person for the purposes of Clause 24(i) of the Building Regulations.	BCA
Desludging Contractor (or Licensed Waste Contractor)	A contractor firm who is licensed by Ministry of the Environment (ENV) to collect and transport waste/sludge/ sewage for disposal in the Wastewater Reclamation Plants.	CBPU
Developer	Developer means any - person; group of persons, whether in partnership or otherwise; society, whether a co-operative society or otherwise; or company who or which engages in or undertakes development of lands.	URA
e-Submission Project coordinator	The e-Submission Project coordinator is the project member appointed by the owner/developer to initiate the issuance of the project reference and to register the project and project members with the e-Submission System.	Submission
Lessee	A person who leases properties.	JTC

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Project Members	Definition	Reference
Licensed Cable Detection Worker	A licensed cable detection worker conferred by EMA is entitled to perform cable detection work. To minimise damages to electricity cables, it is a mandatory requirement to perform cable detection work prior to the commencement of any earth works. He should inform or advise the earth works contractor, who engages him, of the location of the cables detected within the worksite.	ЕМА
Licensed Electrical Contractor	All electrical work must be undertaken or carried out by a licensed electrical contractor. Such electrical work includes new wiring, rewiring and extensions which have to be tested before the supply is turned on.	EMA
	No person may carry on any business or advertise or otherwise hold himself out as an electrical contractor unless he is licensed as an electrical contractor in respect of all the electrical work carried out or intended to be carried out in connection with or for the purposes of his business.	
	A license conferred by EMA entitles the holder to perform any electrical work on any electrical installation. The holder is also entitled to arrange for such work to be performed by licensed electrical workers under his employment.	
	A licensed electrical contractor shall ensure that electrical services performed by him comply with EMA and codes of practice.	
Licensed Electrical Worker	Electrical workers are licensed to ensure that only competent persons are allowed to design, install, repair, maintain and operate electrical installations.	EMA
	<u>Grades</u>	
	There are three grades of licenses for electrical workers, namely:- Licenses as Electricians Licenses as Electrical Technicians Licenses as Electrical Engineers	
	The grades of Electrical Workers and their authorization conferred under the respective PUB licenses are :- Grade Authorization Maintain/Operate Design Electrician 45kVA 45kVA Technician 150kVA 500kVA Engineer No limit Subject to license	
	conditions	

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Project Members	Definition	Reference
Licensed Gas Service Worker	Gas service workers are licensed to ensure that only competent persons carry out gas service work.	EMA
	No person is allowed, unless he holds a valid gas service worker license to : Perform or offer to carry out any gas service work - advertise or otherwise hold himself out as a gas service worker or as a person qualified to carry out gas service work.	
	A license conferred by EMA entitles the holder to construct, fix, alter, repair and renew gas pipes, fittings and appliances and to carry out any gas service work in any building or premises.	
Licensed Supplier (for portable toilets)	A portable toilet supplier who has an agreement with a ENV licensed Waste Contractor to carry out desludging of the portable toilets supplied by the firm.	CBPU

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Project	Members
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Definition

Reference

Licensed Water Service Plumber In Singapore, all applications for water supply and water service work must be made through licensed water service plumbers. Where the work involves the design of a pumping system or storage tank, a professional engineer must also be engaged to make the submission for PUB's approval before the licensed water service plumber can proceed with the work. The professional engineers and licensed water service plumbers shall comply with the Singapore Standard CP48: 1989 - Code of Practice For Water Services and the Public Utilities (Water Supply) Regulations in their submission and water service installation works.

Water service plumbers are licensed by PUB to ensure that good standards of plumbing work are maintained in customers' premises. There are currently more than 800 licensed water service plumbers in Singapore whom customers can select to carry out water service work in their premises. Licences are issued to water service plumbers who possess the necessary qualifications and experience to maintain quality service and standards in plumbing work and to ensure that their work does not cause water wastage or contaminate the water supply to customers.

PUB also conducts two training courses on water supply, ie. Water Service Plumber Course and Pipeline Detection Course. The Water Service Plumber Course is conducted to enable participants to acquire the necessary knowledge that will help them in their work as licensed water service plumbers. The Pipeline Detection Course is conducted to enable participants to acquire the necessary skills and techniques of pipeline detection.

PUB Water

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Project Members	Definition	Reference
Owner	In relation to — a) Any premises or building, means the person for the time being receiving the rent of the premises or building, whether on his own account or as agent or trustee or as receiver, or who would receive the same if the premises or building were let to a tenant and includes a mortgagee in possession; b) Premises to which the Control of Rent Act Cap. 58) applies, includes the tenant of the premises; c)The common property of any subdivided building, includes the management corporation established under the Land Titles (Strata) Act (Cap. 158) having control of the building or the person receiving any rent or charge for the maintenance of that common property or any body corporate constituted under an order made by the Minister under section 3 of the HUDC housing estate Act (Cap. 131); d)The common property of residential and commercial property in any housing estate of the Housing and Development Board, means that Board; and e)The common property of any building which is not subdivided, includes any person receiving any rent or charge for the maintenance and management of that common property;	BCA
Owner - Management Corporation Strata Title	Management Corporation, in relation to any one or more subdivided buildings shown on a strata title plan, means the management corporation incorporated for those buildings under Part IV or pursuant to any corresponding previous written law.	BCA
Plumbing Contractor	Plumbing Contractors who are registered with BCA (under Registration Head-ME 12) or Plumbers who are registered with the Singapore Sanitary & Plumbing Association to carry out plumbing and sanitary works.	CBPU
Professional Engineer – Civil & Structural	A professional engineer under the Professional Engineers Act (Cap. 253) in the civil and structural discipline and has in force a practising certificate issued under that Act;	BCA
Professional Engineer – Electrical	A professional engineer under the Professional Engineers Act (Cap. 253) in the electrical discipline and has in force a practising certificate issued under that Act;	BCA
Professional Engineer - Mechanical	A professional engineer under the Professional Engineers Act (Cap. 253) in the mechanical discipline and has in force a practising certificate issued under that Act;	BCA

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Project Members	Definition	Reference
Project Manager	A representative of the Owner/Developer/Client in the project monitoring the design/ development/ progress of the project.	SIA
Registered Inspector – Architect	An architect who is registered under the Fire Safety Act to be qualified and competent to inspect and certify fire safety works in projects	FSSB
Registered Inspector – Mechanical	An professional engineer who is registered under the Fire Safety Act to be qualified and competent to inspect and certify fire safety works in projects	FSSB
Registered Land Surveyor	The person registered as a land surveyor under the Land Surveyors Act and has in force a practising certificate issued under the Act.	URA
Resident Engineer	A type of site supervisor appointed by a qualified person for the purposes of section 10(1) or (2) of the Building Control Act.	BCA
Safety Officer	A person who possesses a valid certificate of registration as Safety Officer issued by Ministry of Manpower under the factories Act (Chapter 104)	CBPU
Safety Supervisor	A person who has attended the Safety Instruction Course (Manhole) or Building Construction Safety Supervisor Course (BCSS) conducted by Ministry of Manpower.	CBPU
Site Supervisor	A site supervisor of building works appointed under section 10 of the Building Control Act.	BCA
Tenant	A person who pays rent for the use of a room, building unit, building or land.	JTC/FSSB

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4 Submission Preparation

All submission of applications has to be carried out using the ESPro application or the on-line functions provided by the e-Submission System. Depending on the type of projects, most projects will be submitted using the ESPro application except for submissions like renewal of licenses and registration for Clerk-of-Work which should be submitted via the on-line functions.

After registering as an e-Submission user, the user has to download the ESPro and the related application forms for a one-time set-up on the user's local computer.

The preparation process for submission includes preparing plans, if any, filling up application forms and attaching any related documents and the prepared plans. Forms can be prepared using the ESPro or the on-line functions while the preparation of plans can only be done using relevant CAD software. These files are usually required to be digitally signed by the respective persons in-charge such as the e-Submission applicant himself, the owner/developer of the project, the developer and/or the qualified persons involved. To be able to sign a document digitally, project members who are required to sign the documents would have to register with Netrust Pte Ltd to obtain Netrust digital signature certificates. The ESPro application provides the tool for digital signing of the files before submission.

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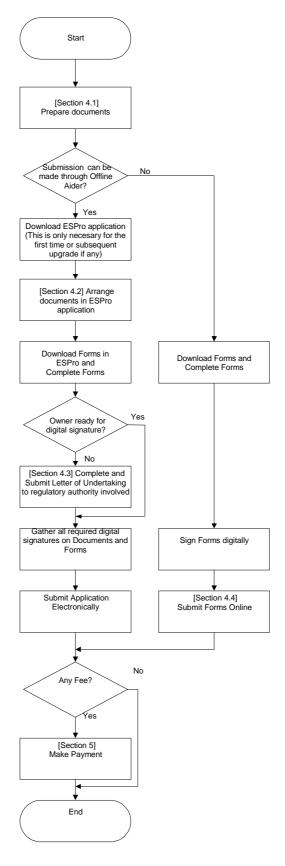


Figure 4.0.1 Submission Preparation Work Flow

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Steps To Prepare For Submission

Step 1: Prepare documents
Letter required for the submission;
CAD Files for the proposed development;
Scanned document and other supporting documents
Refer to section 4 on preparation guideline.

Step 2: Download ESPro Application

ESPro is an application that will assist the e-Submission Applicant to manage and prepare the documents offline. The program will encrypt and compress the data before transmitting the documents to the Authority via the internet.

Step 3: Arrange documents in ESPro

Documents required for submission by various Authorities must be properly arranged and packaged for submission. For submission through ESPro, the application has a structured folder concept to organise and arrange the document attachment. Refer to section 4 on the submission preparation.

Step 4: Download forms and complete forms

Different forms are required for submission to various Authorities. Refer to Appendix C on the list of submission forms available for download. Forms can be downloaded from the web site or through ESPro.

Step 5: Letter of undertaking

For owner/developer who choose to sign letter of undertaking for the submission, the e-Submission Applicant could download the form, complete the form with signatures and submit to the respective Authorities by hand, post or include the scanned copy in the submission.

Step 6: Gather all digital signatures on documents and forms

Digitally 'sign' your submissions for various Authorities to ensure the data security and integrity. We are using the services of the Certification Authority, Netrust Pte. Ltd, to support secure electronic transactions.

Step 7: Submit Application

If the submission is made through the ESPro or online, the e-Submission Applicant will be given a unique electronic submission number.

If there is a fee for that submission, the e-Submission Applicant and the owner/developer will be notified with an electronic mail on the payment amount so that he could proceed to make payment. The e-Submission system accepts the application and notifies the receiving Authorities as defined by the e-Submission Applicant.

Step 8: Make Payment

The e-Submission Applicant may make payment at the individual regulatory authority payment counter using the electronic submission number. Refer to chapter 5 for detail on fee payment.

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Preparing Documents and CAD Files for Submission

To submit application to the Authority for approval, the e-Submission Applicant is required to complete forms and prepare plans and other supporting documents.

The accepted/ valid file types and application to prepare the supporting plans and documents are as follows:

	File Type	Application	Version
Documents/Reports/ Text	DOC XLS TXT TXT RTF PDF HTML XFD	Microsoft Word97 Microsoft Excel97 Notepad Wordpad InternetForms Viewer	- - - - 4.0 4.0 4.4.x and above
CAD data format	EDA DXF	EDAForm -	1.0.0 AutoCAD release 14 and above
	DGN PDF *		AutoCAD release 14 and above
Image file	GIF JPEG TIFF BMP PDF	-	-

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^{*} Accepted by some regulatory authorities (please refer to Appendix H)

4.1.1 CAD Requirements For Non BIM Submission

- 1. The e-Submission Applicant should follow the standard layering, symbol, file naming convention format C, color and line type standard and the recommended scale to be use for different types of plan as defined in the Code of Practice CP83 for Construction Computer Aided Design (CAD).
- 2. All drawings must not contain reference files or external references.
- 3. Draft work and construction lines must not be included in the CAD files.
- 4. Limit of the drawing in each CAD file is the same as the boundary of the title block (i.e no information are included outside the title block).
- 5. There shall be only one drawing per CAD file. All drawings shall be the last saved view of the whole drawing complete with one title block."
- 6. Raster images shall not be attached to the CAD file.
- 7. Using of Hatch pattern in the CAD files should be avoided. Where patterns are used in CAD drawings, legend for pattern with explanatory note shall be included in the drawing.
- 8. Proprietary font (user created font) shall not be used in the preparation of the CAD drawing.
- 9. File of each floor plans of the same building structure should commence on the same coordinates to facilitate overlaying purposes.
- 10. The e-Submission Applicant shall prepare the CAD files in accordance to the layering guide required by regulatory authorities. Refer to Appendix D on the CAD layering requirements for the various regulatory authorities. Requirement of the individual regulatory authority shall take precedent on the requirements as stated in this section.
- 11. The PDF or DWF drawing submitted must be with colour in white background. The colour use for drawing elements must not be light colour as the background of pdf drawing is white
- 12. All PDF or DWF, drawings converted from CAD drawings shall be saved in landscape orientation with the title block on the right hand side
- 13. If CAD files do not comply with the above requirement, the submission may be rejected.

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4.1.2 Supporting Document Requirements

The e-Submission Applicant shall ensure that AutoText for Date and Time is not used in the document prepared for submission.

Field codes shall not be used in the document if the document is prepared using MSWord.

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Preparing Application for Offline Submission

ESPro is an application module developed to assist the e-Submission Applicant to manage and prepare the submission documents offline. The e-Submission Applicant can download forms template into the ESPro, complete the forms for submission, manage the supporting documents and CAD files, and make submission through the ESPro application. The ESPro application will encrypt and compress the data before transmitting the documents to the Authority via the Internet.

The e-Submission Applicant is able to download the ESPro installation software from the web site.

Refer to the ESPro user manual for detail guide to prepare and submit an application.

Upon submission of an application, the e-Submission System will issue a unique submission number for the application.

4.1.3 Integration with EDAform

The e-Submission Applicant can prepare and submit EDAform through the ESPro application. However, the EDAform application needs to be downloaded from the URA web site or the CORENET e-Submission web site and installed on the local hard disk separately from the ESPro application.

EDAform is treated like any other form templates that are stored in the ESPro's *Form Bin*. To fill an EDAform, the user needs to drag the EDAform template from the *Form Bin* and drop it to the *Work Area* of the ESPro and double-click the template to launch the EDAform.

Once the user has completed filling the EDAform, he is required to sign it digitally using ESPro's digital signature tool before submitting the completed EDAform via the e-Submission System to URA.

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Letter of Undertaking

The e-Submission Applicant is required to digitally sign the application forms and supporting documents for the various Authorities to ensure the data security and integrity. Some of the application forms or supporting documents may require the signature of the owner/developer. For owner/developer who is not ready for the electronic signature, he/she can choose to sign on the letter of undertaking for the application to allow the e-Submission Applicant to submit the application on his/her behalf.

Each owner/developer will issue a letter of undertaking for different Authorities for each application. The letter of undertaking would be valid for a single application. For consequent application, the owner/developer has to issue a new letter of undertaking accordingly.

The letter of undertaking could be scanned and submitted together with the application form or the original copy of the letter of undertaking can be submitted by hand or post to the respective regulatory Authority for reference.

Once the letter of undertaking is issued, the e-Submission applicant who prepares and makes submission on behalf of the owner or developer will sign the submission digitally. The regulatory Authority checks the authenticity of the signature by referring to the letter of undertaking and processes the application.

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Making On-line Submission

Simple form submission with no attachment can be made on-line. Appendix C gives a list of submission forms that can be made on-line.

All the on-line forms are hosted on the CORENET e-Submission homepage.

Steps To Make On-line Submission

- The e-Submission Applicant is required to logon to CORENET e-Submission homepage.
- 2. From the homepage, the e-Submission applicant login to the e-Submission System.
- 3. Thereafter, the e-Submission applicant needs to access the web page for online submissions and search for the on-line form he requires.
- 4. The e-Submission system will launch the application form for filling.
- Once the e-Submission applicant has completed filling the form, he needs to click a "Save" button on the form to save the form to his local hard disk.
- 6. If it is a requirement of the regulatory Authority to sign the form and/or other supporting documents, the e-Submission applicant has to sign the form and/or the supporting documents digitally using the Digital Signer Application.
- 7. The e-Submission applicant will then upload the form and the supporting documents to the e-Submission System and clicked a "Submit" button.
- 8. When the submission is successfully made, an acknowledgement page will be displayed.
- The e-Submission applicant is advised to print or save a copy of the form to his local computer for record.

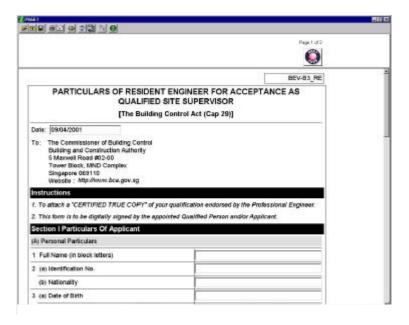


Figure 4.4.0.1 Sample Copy Of An On-line Form

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Request for File Replacement

At times, a submitted file could be corrupted or a wrong file could have been submitted to the e-Submission System. The receiving regulatory Authority would want the e-Submission applicant to resend the file and to replace the corrupted or unwanted file before the application can be processed.

The e-Submission System provides the function to allow the regulatory Authority to put up the request to replace a submitted file and to let the e-Submission applicant performs replacement of the submitted file if such a request is received.

Steps To Replace Files In the CORENET e-Submission System

- 1. When a regulatory Authority discovered that a file received through the electronic submission is corrupted or not acceptable for some reasons, the regulatory Authority will have to initiate a request to replace the file via the e-Submission function.
- 2. The e-Submission system will then send out an e-mail to the e-Submission applicant to replace the file and at the same time send out similar e-mails to inform those regulatory Authorities which are also recipients of the corrupted/ unwanted file.
- 3. The e-mails that are being sent contain the Submission Number and the name of the file to be replaced.
- 4. Upon receiving the e-mail, the e-Submission applicant is required to log on-line using his own e-Submission id to the e-Submission web site and use the on-line function to submit the replacement file. (Note: if it is required by the regulatory Authority to sign the replacement file, the e-Submission applicant has to sign the replacement file using the Digital Signer application first before submitting the file).
- 5. The request by the regulatory Authority to replace the corrupted file will appear as an outstanding task list in the e-Submission applicant's account once he login to the e-Submission System.
- 6. Once the e-Submission applicant clicks on the respective Submission Number that is displayed in the outstanding task list, the system will activate the function to allow the e-Submission applicant to submit the replacement file.
- 7. Returned messages will be displayed to inform the applicant that the replacement file has been submitted.
- 8. The e-Submission System will also track all updates and transactions of the file replacement in the e-Submission system audit trail log.
- 9. Before the new file can replace the corrupted/ unwanted file, it will be subjected to virus scan first. Once it is found virus free, it will be uploaded to the e-Submission document management system to overwrite the previous corrupted/ unwanted file.
- 10. After the corrupted/ unwanted file has been successfully replaced by the new file in the e-Submission system, the system will notified the e-Submission applicant and the respective regulatory Authorities via e-mail of the file replacement status.
- 11. The respective regulatory Authorities will then login to the e-Submission system to download the newly replaced file.

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Versions Control Policy

If there is any updates to the version of form templates, project profile information, code tables and the ESPro Application, the e-Submission System will notify all the e-Submission registered members via e-mail of the updates and inform them to synchronise their copies on their local computer. Updating project profile information and synchronisation of form templates and code tables functions are provided in the ESPro while upgrading the ESPro application can be done by downloading from the CORENET e-Submission web site.

The e-Submission Applicant has to ensure that he is using the latest version of the ESPro application to prepare the submission. He is required to ensure his own copy of project profile information and code tables and the versions of the submission forms prepared are most up to date. Applications made using earlier version of the ESPro, project profile information and/or submission forms will be rejected at the point of submission.

The synchronisation and updating process do not include transferring of data that the applicant had entered in the forms of earlier version which he had completed to the newly synchronised forms of latest version. The applicant himself has to re-enter the data all over again.

Upgrading ESPro Application

- 1. Whenever there is a new version of ESpro application, the e-Submission System will inform all its members via e-mails that the new version is ready for downloading at the CORENET e-Submission web site.
- 2. The e-Submission user will then log on to the web site to download the new version.

Form Templates Synchronisation

- 1. Similarly, whenever new versions of form templates are received from the regulatory Authorities, the e-Submission System will send out e-mails to inform its members.
- 2. The form templates synchronisation function can be triggered by the e-Submission Applicant himself by selecting the "Synchronise" function.
- 3. The function will not synchronise those forms found in the "Work Area" and the "Submitted Area" of the ESPro during the synchronisation process. It will only synchronise those form templates located in the form bin.
- 4. When the e-Submission applicant clicks the "Send Submission" button to initiate the submission, the ESPro application will first check the version of the forms to be submitted. If any of the application forms to be submitted are found not of the latest version, the submission process will stop and the whole submission will not go through. An error message will be prompted to inform the applicant that the completed forms are of a lower version.

Code Tables Synchronisation

- 1. The e-Submission System will notify its members via e-mails of any updates to the code tables used by the ESPro.
- 2. The code table synchronisation function can be triggered by the e-Submission Applicant himself by selecting the "Synchronise" function.
- 3. The function will not check the codes entered in any completed forms on whether they are most up to date since the forms could already be signed and the data should not be tempered with.

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Update Project Profile Information

- 1. The e-Submission members assigned under the project will be notified via e-mails of any changes to the project profile information.
- 2. The e-Submission Applicant himself can activate the function in the ESPro application to update his copy of project profile information by selecting the "Update Project Profile" function.
- 3. The function will only update the project profile in the local copy of database.
- 4. To update project profile in forms found at the "Work Area", the user has to open each form individually. The system will first prompt the user whether to proceed to update the project information and if the user chooses to do so, the system will trigger the function to update the project profile automatically.
- 5. The function will not update the project profile information of those forms found in the "Submitted Area" of the ESPro as it is required to maintain data integrity.

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5 Fee Payment

For any submission made to regulatory authorities via the e-Submission System, the e-Submission system will issue a unique Submission Number to the e-Submission Applicant. If the submission requires fee payment, the e-Submission System will send a notification via e-mail to the e-Submission Applicant the total amount payable to each regulatory authority concerned.

All submission fee payments to regulatory authorities via the e-Submission System can be made by Interbank GIRO, GIRO-On-Demand or Cheque.

For GIRO or GIRO-On-Demand, the e-Submission Applicant need to authorise the regulatory authorities to which the submission was made once by filling in the GIRO or GoD application forms provided by the regulatory authorities. Once the bank has approved the applications, all future submission fee payments will be deducted from the e-Submission Applicant's account automatically (Interbank GIRO) or upon the e-Submission Applicant's instructions (GoD).

To pay by cheque, the e-Submission Applicant need to write on the reverse of the cheque the e-Submission Number, the e-Submission Applicant's name and/or the e-Submission Applicant's company name and send the cheque together with a copy of the acknowledgement email sent to him on the application fee, to the respective regulatory authorities by mail or at the regulatory authorities' payment counter.

* URA's requirements for payment of processing sees for submission thru e-Submission System

You can pay by cheque or Interbank GIRO. The cheque should reach URA within 2 working days from the date of submission. For GIRO payment, you are required to complete and sign a Direct Debit /Credit Authorisation Form and return it to URA for further processing.

Upon receipt of your submission from e-Submission System, URA will send you a transaction reply slip with a unique reference number. For cheque payment, please print a copy of the transaction reply slip and send it with the cheque to URA

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6 Sending Correspondence

In a project cycle or during the processing of an application, the e-Submission Applicant may be required to submit correspondence to the various Authorities. An example of a correspondence is the reply to a written direction. This reply may include CAD files and/or other supporting documents.

Correspondence can be submitted via the ESPro application. The e-Submission Applicant is required to enter the reference submission number when submitting the correspondence. Refer to the ESPro user manual for detail guide to prepare and submit a correspondence.

Upon submission of the correspondence, a new correspondence number will be generated for the correspondence.

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7 Withdrawal of Project/ Submissions

Withdrawal of Project

At times, on-going projects may need to be withdrawn. However, a project cannot be withdrawn without the approval of the *approving regulatory Authority*. To withdraw a project, the e-Submission Project Coordinator must follow the procedure describe in this section.

After a project has been withdrawn, no new submission can be made under the withdrawn project. All existing submissions under the withdrawn project that are still in the processing status are also deemed withdrawn by the regulatory authority.

Procedure To Withdraw Project

- 1. To withdraw a project, the e-Submission Project Coordinator will first login to the e-Submission system to access the on-line function to request for withdrawal of project.
- 2. The e-Submission Project Coordinator will have to select the Project reference of the project to be withdrawn and to identify the approving regulatory Authority that will approve the withdrawal of the project.
- 3. The e-Submission Project Coordinator will also have to attach the relevant supporting documents in this application.
- 4. After the application has been submitted, the e-Submission System would send an e-mail to inform the selected approving regulatory Authority of the application to withdraw the project. At the same time, the e-Submission System will also send e-mails to all the regulatory Authorities that have received submissions on the project and all the project members to inform that an application to withdraw the project has been made to the selected approving regulatory Authority.
- 5. Once the e-mail has been received, the approving regulatory Authority has to download the attached documents of the application from the e-Submission System to process the application.
- 6. One major deciding factor for approving the withdrawal of project depends on whether building works have started. If building works have started, the project is usually not allowed to be withdrawn.
- 7. After the withdrawal application has been processed, the officer-in-charge of the approving regulatory Authority has to login to the e-Submission system to update the approval status. He can also attach the reply letter and enter his comments in this function.
- 8. If approval has been granted to withdraw the project by the approving regulatory Authority, e-mails to inform the withdrawal of the project will be sent by the e-Submission system to all the project members and the regulatory Authorities that have received submissions on the project.
- 9. Once a project has been withdrawn, no submissions can be made on the project.

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Withdrawal of Submission

The owner/developer of a project may instruct the e-Submission Applicant to change an initial proposal which has already been submitted to the relevant regulatory Authority for approval. This would entail the need to withdraw the submission.

The procedure describes here is to be followed for application for withdrawal of a particular submission:

Procedure To Withdraw Submission

- 1. The e-Submission Applicant login to the e-Submission system to access the on-line function for application of withdrawal of submission.
- 2. The e-Submission Applicant has to select the Submission Number of the submission to be withdrawn and the regulatory Authority that will approve the request to withdraw the submission. He also has to attach the relevant supporting documents to be submitted to the approving regulatory Authority.
- 3. The e-Submission system will then send an e-mail to inform the selected approving regulatory Authority to process the withdrawal application. At the same time, the system will also send emails to all the other regulatory Authorities that have received submissions on the project and all the project members to inform that an application has been made to the selected regulatory Authority to withdraw the submission.
- 4. The selected approving regulatory Authority will then log on to the e-Submission system to download the attached documents to process.
- 5. After the application has been processed, the officer-in-charge of the approving regulatory Authority has to login to the e-Submission system to update the submission status accordingly. He can also enter his comments and attach reply letter and any other documents to be sent to the applicant.

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8 Addition, Removal and Change of Project Members

In any projects, there could be more than one qualified persons involved. Depending on the policy of the regulatory Authorities that have been consulted during the development of the project, if there is a reappointment of the qualified persons in-charged of the project, it is usually a requirement for the outgoing and in-coming qualified person to notify the regulatory authorities of the change by filling a standard form provided by the regulatory Authorities. This is usually required to ensure a proper hand over by the out-going qualified persons and that the in-coming qualified persons have the appropriate experiences and qualifications to take over the tasks.

Besides the qualified persons, other project members might join, resign or relinquish their project roles from the project during the project cycle. The e-Submission Project coordinator is responsible to add or remove project members and to change the project members' information. This section defines the procedure to add or remove members and to change the project members' roles within the e-Submission system.

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Procedure to Change e-Submission Project Coordinator

Owners/Developers of projects registered under the e-Submission system may change their e-Submission Project Coordinators during the various stages of the project cycle.

Since the e-Submission Project Coordinator is required to be a Qualified Person or a Licensed Worker whom regulatory Authorities held responsible for any issues regarding the project he co-ordinates, the resignation or re-appointment of the e-Submission Project Coordinator would therefore required the approving regulatory Authority to approve first.

The following describes the procedure to change the e-Submission Project Coordinator:-

- 1. Before the change takes place, the incoming e-Submission Project Coordinator has to register as an e-Submission user first.
- 2. Thereafter, he has to identify the approving regulatory Authority and notify the Authority of the intended reappointment of the e-Submission Project Coordinator and to state when the change will take place. This notification is to be done by using an on-line form provided in the e-Submission System. Main information that has to be given in the form includes the project ID, name of out-going e-Submission Project Coordinator, details of the incoming project coordinator and the effective date of change.
- 3. Supporting documents such as the in-coming e-Submission Project Coordinator's qualification certificates, endorsement letter from the owner/developer of the project and the list of outstanding tasks and project status provided by the out-going e-Submission Project Coordinator may be required to be attached with the application depending on requirement from the approving regulatory Authorities.
- 4. The e-Submission System will dispense the notification to change the e-Submission Project Coordinator to those regulatory Authorities involved in the project as at that point of time.
- 5. Once the approving regulatory Authority (the one that has the authority to approve the change of project coordinator) accepts the change requested, the approving regulatory Authority has to update the approval status in the e-Submission system.
- 6. The e-Submission system will then automatically update the in-coming e-Submission project coordinator's information to the project profile within the e-Submission system and the out-going e-Submission project coordinator's details will be defunct.
- 7. Thereafter, the e-Submission system will notify all the project members and respective regulatory Authorities that have received submission on the project of the change in project profile information.

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Procedure to Change Other Project Members

Except for the change of the e-Submission Project Coordinator of a project which is required to notify the respective regulatory Authorities that have been consulted, change of other project members holding different degree of responsibilities within the project may or may not be required to notify the respective regulatory Authorities. This would depend on the policies of individual regulatory Authorities.

Project Members	Regulatory Authority/Project member responsible to update e-Submission when there is a change
Accredited Checker	BCA / HDB / LTA / JTC
Accredited Checking Organisation	BCA / HDB / LTA / JTC
Architect	BCA / HDB / LTA / JTC
Builder	BCA / HDB / LTA / JTC
Clerk of Work	BCA / HDB / LTA / JTC
Developer	BCA / HDB / LTA / JTC
Licensed Cable Detection Worker	EMA
Licensed Electrical Contractor	EMA
Licensed Electrical Worker	EMA
Licensed Gas Service Worker	PowerGas
Licensed Water Service Plumber	PUB Water
Safety Officer	e-Submission Project coordinator
Safety Supervisor	e-Submission Project coordinator
Desludging Contractor (or Licensed Waste	e-Submission Project coordinator
Contractor) Plumbing Contractor	e-Submission Project coordinator
Licensed Supplier (for portable toilets)	e-Submission Project coordinator
Owner	BCA / HDB / LTA / JTC
Owner – Management Corporation Strata Title	BCA / HDB / LTA / JTC
Lessee	e-Submission Project coordinator
Tenant	e-Submission Project coordinator
Professional Engineer	BCA / HDB / LTA / JTC
Project Manager	e-Submission Project coordinator
Registered Inspector - Architect	e-Submission Project coordinator
Registered Inspector – Mechanical	e-Submission Project coordinator
Registered Land Surveyor	e-Submission Project coordinator
Resident Engineer	BCA/ e-Submission Project coordinator
Site Supervisor	e-Submission Project coordinator

Table 8.2.1 List Of Project Member Roles In e-Submission System

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8.1.1 Adding New Members

New project member might be recruited to join a project to fill a new role or to replace another project member of his role in the project. The following describes the procedure to be followed to add a new project member's information to the project profile: -

- 1. The e-Submission Project Coordinator has to login to the e-Submission System to access the function to add new members.
- 2. The new project member's details such as his name, NRIC number and address are required to be provided.
- 3. The e-Submission Project Coordinator is also required to enter which role the new project member is going to fill in the project. The new project member may have more than one role in the project.
- 4. If the role that the new member is going to take up requires a professional certification, the professional registration number is also required to be entered.
- 5. For the roles such as Architect, Profession Engineers and Accredited Checkers, the e-Submission system will check that the professional certificate has not expired by validating against the system code tables.
- 6. Once the new project member's information has been entered and saved, the e-Submission system will send e-mails to inform all respective project members of the new addition to the project profile information and also notify all the regulatory Authorities that have received submissions on the project.
- 7. If the new project member requires to liaise with the regulatory Authorities, he will need to log on to the e-Submission web site to register as an e-Submission user first.

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8.1.2 Updating Members' Information

An existing project member could have been appointed to take on additional roles in the project or his personal information could have changed during the project development. These changes should be updated to the project profile that the e-Submission Project Coordinator has entered initially when he registered the project with e-Submission system.

The procedure to update project members' information is described below :-

- 1. To update a project member's information, the e-Submission Project Coordinator has to login to the e-Submission system to access the function for updating members' information.
- 2. First, he would have to select which project member's information he is going to update
- 3. The e-Submission Project Coordinator will then be able to proceed to update the member's details and/or add the member's new role.
- 4. After the member's details have been updated and submitted to the e-Submission system, the e-Submission system will validate whether the member has a valid license if a new role such as a Qualified Person, Accredited Checker or a Licensed Worker has been added to his details.
- 5. Thereafter, the e-Submission system will inform all the respective project members and all the regulatory Authorities that have received submissions on the project via e-mail that the project profile has been modified.

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8.1.3 Removal/ Re-appointment of Project Member

During the project cycle, some project members might resign from the project or relinquish their roles in the project. To remove a project member's record or appoint a project member to replace another project member's role in the project, the e-Submission project coordinator has to comply with the following procedure:

- 1. To remove a project member's record or to replace a member's role, the e-Submission Project Coordinator has to use the e-Submission on-line function.
- 2. The e-Submission Project Coordinator has to first select the name of the member to be removed from the project or whose role is to be replaced in the project. The function will list the selected member's information on the screen.
- Once the request is submitted to the e-Submission system, the system will defunct the out-going member's records in the project profile if the selected member only holds one role in the project
- 4. If the selected member holds more than one role in the project, the e-Submission Project Coordinator would have to defunct all the roles one by one first before the whole record of the selected member will be removed.
- 5. However, before the selected member's record/ role can be defunct, the e-Submission system will first check whether the relinquishment/ re-appointment of the out-going project member's role requires approval by a regulatory Authority (refer to Section 8).
- 6. If approval is not required, the e-Submission system will send e-mails to inform all the respective regulatory Authorities and the other project members of the change in the project profile information.
- 7. If approval is required, the function will display a new screen for the e-Submission Project Coordinator to indicate who will replace the role of the out-going member.

Replace Member Role

- i. Before any person could take over an existing member's role in the project, the e-Submission Project Coordinator has to add the new member's information to the project profile first by using the "Add New Members" on-line function (refer to Section 8). In order for the new member to take over the out-going member's role, the new member's role in the project profile should also be the same as the one that the out-going member holds.
- ii. In the "Replace Member's Role" function, the e-Submission Project Coordinator will have to select the approving regulatory Authority first.
- iii. He will also have to select from a project member list (whose roles are similar to the outgoing member) the name of the project member who will replace the outgoing member.
- iv. Thereafter, the e-Submission Project Coordinator is required to attach the relevant supporting documents, if any, to be submitted to the approving regulatory Authority.
- v. Specific e-mail to the selected approving regulatory Authority requesting approval for the re-appointment/ relinquishment of the selected project members will be sent. The e-Submission system will also inform the other regulatory Authorities that have received submissions on the project via e-mails.

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- vi. Once the approving regulatory Authority has processed and accepted the re-appointment/ relinquishment request, the approving regulatory Authority has to update the approval status in the e-Submission system.
- vii. The e-Submission system will again notify all the respective regulatory Authorities that have received submissions on the project and the other project members of the change in project member information.

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9 Submitted Documents Access Control Policy

Because the CORENET e-Submission System serves as a submission centre for various regulatory Authorities, it receives many documents from different sources at various stages of a project cycle. A comprehensive document access control policy needs to be enforced to protect data integrity and privacy. This section defines the access control policy of the submitted documents.

Access Control Policy for e-Submission Applicant

The e-Submission Applicant who makes the submission will have the FULL access rights to the documents he had submitted and also those documents sent to him by the regulatory Authorities, e.g. replies and written direction. He is therefore considered the owner of the documents.

The e-Submission Applicant has READ access right on the documents and he will also have the privilege to grant READ access of the submitted documents he owned to the respective members of the project.

Access Control Policy for Project Members

Project members can only access the submitted documents granted by the e-Submission Applicant.

Access Control Policy for the Replacing Project Member

A project member who is appointed to take over the role of another project member will automatically be granted READ access by default to the documents submitted by the member whose role was replaced by him.

In the event that a member who is the owner of several submitted documents has resigned from the project completely, the e-Submission Project Coordinator will have the authority to re-assign the ownership of the submitted documents to another project member.

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Appendix A e-Submission User Registration Template

User Registration					
User ID	I	*, Alphanumeric (30)			
User name		*, Alphanumeric (50)			
Password		*, Alphanumeric (20)			
Enter NRIC number ?	C Yes*				
	○ No				
NRIC number / Passport number		*, Alphanumeric (50)			
Email address		1			
	4	*, String(50)			
Telephone number		*, Numeric(12)			
Telephone extension		<pre><optional>, 9(4)</optional></pre>			
Fax number	ſ	- <optional>, Numeric (12)</optional>			
Pager number		Topilonals, Namono (12)			
	4	<pre><optional>, Numeric (12)</optional></pre>			
Mobile phone number		<pre><optional>, Numeric (12)</optional></pre>			

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Appendix B Project Profile Template

CORENET e-SUBMISSION – PROJECT PROFILE				
Section I Particulars	of Project			
Project Details				
Project reference	*, String(35)			
Project Title	*, String (1000)			
Project Category	*, String (200)			
Project Classification	*, String (200)			
Land Ownership	*, String (200)			
Project Commencement Date	<optional>, Date, DD/MM/YYYY</optional>			
Project Completion Date	<optional>, Date, DD/MM/YYYY</optional>			
Address [Multiple Project Add	ress is allowed]			
Building Name	<optional>, String (100)</optional>			
House / Block No	<optional>, String (10)</optional>			
Level No	<optional>, String (3)</optional>			
Unit No	<optional>, String (10)</optional>			
Road Name	Optional>, String (200)			
Postal Code	Optional>, String (6), Length = 6			

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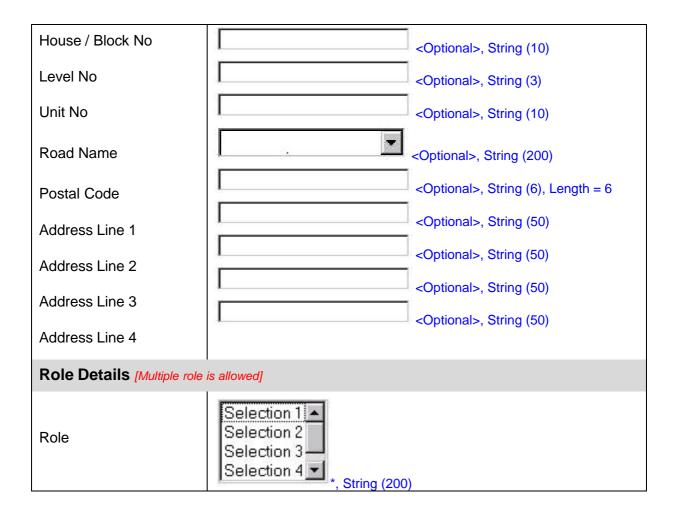
Site Details					
Road Name		Optional>, String (200)			
		Optional>, String (200)			
		<optional>, String (200)</optional>			
	L .	<optional>, String (200)</optional>			
Site Description	<pre><optional>, String (255)</optional></pre>				
Lot Details [Multiple Lot is allowed]					
MK/TS *, String (200)	Lot/Plot No(s) *, String (10)	Partial Lot Indicator *, String (1), Y/N			

Note: Either Address or Site Details or Lot Details must be entered to describe the location of the project during registration of project.

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CORENET e-SUBMISSION - PROJECT MEMBER PROFILE Particulars of Project Member Section II **Personal Details** Name *, String (66) (As in NRIC / Passport) **Project Coordinator** Yes No *, String (1) Indicator **Identification Type** *, String (1) , <V=NRIC No= 'Y' ,Passport No = 'N'> NRIC / Passport No *, String (50) Registration No / <Optional>, String (10) License No Profession <Optional>, String (50) *, String (66) Firm Name <Optional>, String (66) Designation *, Number(12) Telephone No <Optional>, Number(4) Telephone Extension No <Optional>, Number(12) Mobile Phone No <Optional>, Number(12) Pager No <Optional>, Number(12) Fax No *, String (50) **Email Address 1** <Optional>, String (50) Email Address 2 **Address Details** Formatted Unformatted *, String (1), Y/N Address Type **Building Name** <Optional>, String (100)

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Appendix C Submission Forms Listing

C-1 BCA Submission Forms

S/No	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
1.	NOTIFICATION OF APPOINTMENT / AUTHORIZATION OR QUALIFIED PERSON(S) / ACCREDITED CHECKER / BUILDER / STRUCTURAL ENGINEER		BCA-LU- NAPPQP01.DOC	ESPro
2.	REQUEST FOR PRE-SUBMISSION CONSULTATIONS	BPD_BP01	BCA-BP-PCBP01.XFD	ESPro
3.	RECORD OF PRE-SUBMISSION CONSULTATION	BPD_BP01 APPENDIX 1	BCA-BP-PCBP01- A1.DOC	ESPro
4.	REQUEST FOR A BUILDING PLAN MEETING	BPD_BP02	BCA-BP- RQBPMEETG.XFD	ESPro
5.	APPLICATION FOR APPROVAL OF BUILDING PLANS	BPD_BP03	BCA-BP- BPAPPV01.XFD	ESPro
6.	PLAN FEE COMPUTATION FOR BUILDING PLANS/STRUCTURAL PLANS	BPD_BP03 APPENDIX 1	BCA-BP-BPAPPV01- A1.XFD	ESPro
7.	OTTV CALCULATION FORMAT IN RESPECT OF AIR-CONDITIONED PLANS (BY QUALIFIED PERSON WHO PREPARED THE CALCULATION)	BPD_BP04	BCA-BP- FOTTV01.XFD	ESPro
8.	CALCULATION OF OVERALL THERMAL TRANSFER VALUE OF BUILDING ENVELOPE	BPD_BP04 APPENDIX 1	BCA-BP-FOTTV- A1.DOC	ESPro
9.	SUMMARY OF ENVELOPE AREA CALCULATION	BPD_BP04 APPENDIX 2	BCA-BP-FOTTV- A2.DOC	ESPro
10.	DESCRIPTION AND TECHNICAL SPECIFICATIONS OF OPAQUE WALL OF THE BUILDING ENVELOPE	BPD_BP04 APPENDIX 3	BCA-BP-FOTTV- A3.DOC	ESPro
	DESCRIPTION AND TECHNICAL SPECIFICATIONS OF FENESTRATION OF THE BUILDING ENVELOPE	BPD_BP04 APPENDIX 4	BCA-BP-FOTTV- A4.DOC	ESPro
12.	APPLICATION FOR MODIFICATION / WAIVER OF BUILDING REGULATIONS	BPD_BP05	BCA-BP-WVBP01.XFD	ESPro
13.	BUILDING PLAN (A/A TO CONVENTIONAL BUILDINGS)	BPD_BP06	BCA-BP-BPAA01.XFD	ESPro
14.	LETTER OF UNDERTAKING ON SEWERAGE AND DRAINAGE REQUIREMENTS ON BUILDING PLAN PROPOSAL TO CBPU, POLLUTION CONTROL DEPARTMENT	BPD_BP06 APPENDIX 1	BCA-BP-BPAA01- A1.DOC	ESPro
15.	NOTICE OF APPEAL	BPD_BP07	BCA-BP- NCAPPEAL.XFD	ESPro
16.	APPLICATION FOR WITHDRAWAL OF PLANS OF BUILDING WORKS	BPD_BP08	BCA-BP-WDLBP.XFD	ESPro
17.	APPLICATION FOR PERMIT TO ERECT TEMPORARY BUILDINGS	BPD_BP09	BCA-BP-PMTTB.XFD	ESPro
18.	SUBMISSION OF BUILDABILITY SCORE CALCULATIONS	BPD_BS01	BCA-BP-BS01.DOC	ESPro
19.	SUBMISSION OF AS-BUILT BUILDABILITY SCORE CALCULATIONS	BPD_BS03	BCA-BP-BS03.DOC	ESPro

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S/No	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
20.	NOTIFICATION OF APPOINTMENT OF QP AND PROJECT REFERENCE NUMBER AND TITLE	BPD_QP01	BCA-BP-COQP01.XFD	ESPro
21.		BPD_QP02	BCA-BP-QPRBW.XFD	ESPro
22.	NOTICE OF TERMINATION OF QP APPOINTMENT	BPD_QP03	BCA-BP- NCQPTERM.XFD	ESPro
23.	SUMMARY REPORT ON THE BUILDING WORKS CARRIED OUT UNDER THE QP'S SUPERVISION UNTIL THE DATE OF TERMINATION	BPD_QP03 APPENDIX 1	BCA-BP-NCQPTERM- A1.DOC	ESPro
24.	ENDORSEMENTS ON BUILDING PLAN - PE		BCA-BP-ENBPPE.XFD	ESPro
25.	APPLICATION FOR APPROVAL OF STRUCTURAL PLANS	BEV/A1	BCA-BE- STAPPV01.XFD	ESPro
26.	SUBMISSION OF STRUCTURAL BUILDABILITY SCORE CALCULATIONS	BEV/A1_BS02 BEV/A1_BS02 APPENDIX 1	BCA-BE-BS02.DOC	ESPro
27.	DECLARATION BY QUALIFIED PERSON FOR STRUCTURAL WORKS FOR THE APPROVAL OF STRUCTURAL PLAN (RETAINING WALL) RELATED TO S/N 3	BEV/A1 RW	BCA-BE-STAPPV01- RW.XFD	ESPro
28.	LETTER OF UNDERTAKING ON RETAINING WALL PROPOSAL TO CBPU, POLLUTION CONTROL DEPARTMENT	BEV/A1 RW APPENDIX 1	BCA-BE-STAPPV01- A1.DOC	ESPro
29.	ACCREDITED CHECKER CERTIFICATE	BEV/A2	BCA-BE-STAPPV01- ACC.XFD	ESPro
30.	RESUBMISSION FOR APPROVAL OF STRUCTURAL PLANS	BEV/A3	BCA-BE- REAPPVSP.XFD	ESPro
31.	APPLICATION FOR EXTENSION OF TIME TO COMPLY WITH WRITTEN DIRECTION	BEV/A4	BCA-BE-EXTWD.XFD	ESPro
32.	APPLICATION FOR WITHDRAWAL OF STRUCTURAL PLANS	BEV/A5	BCA-BE-WDLSP.XFD	ESPro
33.	JOINT APPLICATION FOR PERMIT TO CARRY OUT BUILDING WORKS	BEV/B1_1	BCA-BE- PMTBW01.XFD	ESPro
34.	JOINT APPLICATION FOR PERMIT TO CARRY OUT BUILDING WORKS	BEV/B1_2	BCA-BE- PMTBW02.XFD	ESPro
35.	JOINT APPLICATION FOR PERMIT TO CARRY OUT BUILDING WORKS	BEV/B1_3	BCA-BE- PMTBW03.XFD	ESPro
36.	JOINT APPLICATION FOR PERMIT TO CARRY OUT BUILDING WORKS	BEV/B1_4	BCA-BE- PMTBW04.XFD	ESPro
37.	DECLARATION ON THE PLANNING APPROVAL STATUS OF THE BUILDING PROJECT AT THE TIME OF SUBMISSION OF JOINT APPLICATION FOR PERMIT TO COMMENCE DEMOLITION/SITE FORMATION/PILING/STRUCTURAL/BUILDIN G WORKS	BEV/B1 APPENDIX 1	BCA-BE-PMTBW- A1.XFD	ESPro
38.	BUILDING PROJECT DATA REQUIRED RESEARCH & STATISTICS BY URA	BEV/B1 APPENDIX 2	BCA-BE-PMTBW- A2.XFD	ESPro
39.	QUARTERLY PROGRESS REPORT FOR STRUCTURAL WORKS	BEV/B2	BCA-BE- QPRST01.XFD	ESPro
40.	SCHEDULE OF STRUCTURAL WORKS FOR THE NEXT QUARTER	BEV/B2 APPENDIX 1	BCA-BE-QPRST01- A1.DOC	ESPro

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S/No	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
41.	APPLICATION FOR COW	BEV/B3_COW	BCA-BE- COWAQS01.XFD	Online
42.	DETAILS OF PAST SITE SUPERVISION EXPERIENCE	BEV/B3_COW APPENDIX 1	BCA-BE- COWAQS02.DOC	Online
43.	APPLICATION FOR RE	BEV/B3_RE	BCA-BE- REAQS01.XFD	Online
44.	NOTICE OF TERMINATION/ APPOINTMENT OF SITE SUPERVISOR	BEV/B4	BCA-BE-NCTASS.XFD	ESPro
	CERTIFICATE OF SUPERVISION OF PILING WORKS AND NOTICE OF COMPLETION BY QUALIFIED PERSON FOR STRUCTURAL WORKS	BEV/C1	BCA-BE- QPCTPW.XFD	ESPro
	CERTIFICATE OF SUPERVISION OF STRUCTURAL WORKS BY QP FOR STRUCTURAL WORKS	BEV/C2	BCA-BE- QPCTSSW.XFD	ESPro
47.	SUBMISSION OF CERTIFICATE OF AS- BUILT STRUCTURAL PLANS/CALCULATIONS	BEV/C3	BCA-BE-CTASST.XFD	ESPro
48.	BUILDER CERTIFICATE OF COMPLETION OF BUILDING WORKS	BC/BC	BCA-BE- BRCTBW.XFD	ESPro
49.	ENDORSEMENTS ON AS-BUILT PILING PLAN - AC		BCA-BE- ENABPPAC.XFD	ESPro
50.	ENDORSEMENTS ON AS-BUILT PILING PLAN - QP		BCA-BE- ENABPPQP.XFD	ESPro
51.	ENDORSEMENTS ON AS BUILT STRUCTURAL PLAN - AC		BCA-BE- ENABSPAC.XFD	ESPro
52.	ENDORSEMENTS ON AS-BUILT STRUCTURAL PLAN - QP		BCA-BE- ENABSPQP.XFD	ESPro
53.	ENDORSEMENTS ON STRUCTURAL PLAN - AC		BCA-BE-ENSPAC.XFD	ESPro
54.	ENDORSEMENT ON STRUCTURAL PLAN - PE		BCA-BE-ENSPPE.XFD	ESPro
55.	ENDORSEMENT ON STRUCTURAL PLAN - QP		BCA-BE-ENSPQP.XFD	ESPro
56.	APPLICATION FOR TOP/CSC	BPD_CSC01	BCA-CSC- TOPCSC01.XFD	ESPro
57.	CERTIFICATE OF SUPERVISION OF BUILDING WORKS	BPD_CSC02	BCA-CSC- CSPBW.XFD	ESPro
58.	CERTIFICATE OF SUPERVISION OF LIGHTING PROTECTION SYSTEM	BPD_CSC03	BCA-CSC-CSPLP.XFD	ESPro
59.	CERTIFICATE OF SUPERVISION OF INSTALLATION OF ESCALATOR(S) / LIFT(S	BPD_CSC04	BCA-CSC-CSPLE.XFD	ESPro
60.	CERTIFICATE OF SUPERVISION OF AIRCORNDITIONING/ MECHANICAL VENTILATION SYSTEM(S)	BPD_CSC05	BCA-CSC- CSPACMVS.XFD	ESPro
61.	CERTIFICATE OF SUPERVISION FOR TEMPORARY BUILDING WORKS	BPD_CSC06	BCA-CSC- CTSTBW.XFD	ESPro
62.	DECLARATION BY QP FOR TOP/CSC APPLICATION	BPD_CSC07	BCA-CSC- TOPCSCDQP.XFD	ESPro
63.	REQUEST FOR SITE INSPECTION DATE UNDER THE ADVANCE BOOKING SYSTEM	BPD_CSC09	BCA-CSC-RQSI.XFD	ESPro
64.	REQUEST FOR CONSULATION ON CIVIL DEFENCE SHELTER REQUIREMENT		BCA-CD- PLAN01	ESPro

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S/No	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
65.	APPLICATION FOR APPROVAL OF CIVIL DEFENCE SHELTER PLANS		BCA-CD- CD-PLAN02	ESPro
66.	APPLICATION FOR APPROVAL OF COMMISSIONING OF CIVIL DEFENCE SHELTER (FOR HOUSEHOLD/STOREY SHELTER AND TRANSIT SHELTER ONLY)		BCA-CD- COMM01	ESPro
67.	APPOINTMENT OF STRUCTURAL ENGINEER	SF_EIED_SIS/SF _D2	BCA-EIED- STEVIFSI.XFD	ESPro
68.	VISUAL INSPECTION CERTIFICATION - NON STRUCTURAL / MINOR STRUCTURAL DEFECTS	SF_EIED_SIS/SF _D3	BCA-EIED- VSICT01.XFD	ESPro
69.	VISUAL INSPECTION CERTIFICATION - STRUCTURAL DEFECTS SUSPECTED IN LOCALISED AREAS / WHOLE BUILDING	SF_EIED_SIS/SF _D4	BCA-EIED- VSICT02.XFD	ESPro
70.	STRUCTURAL INSPECTION CERTIFICATION - DEFECTS SUSPECTED ARE NON STRUCTURAL	SF_EIED_SIS/SF _D5	BCA-EIED- STICT01.XFD	ESPro
71.	STRUCTURAL INSPECTION CERTIFICATION - DEFECTS SUSPECTED WHICH ARE STRUCTURAL OF SIGNIFICANCE	SF_EIED_SIS/SF _D6	BCA-EIED- STICT02.XFD	ESPro
72.	VISUAL INSPECTION CERTIFICATION - SUPERVISION OF REMEDIAL WORKS	SF_EIED_SIS/SF _D7	BCA-EIED- VSICT03.XFD	ESPro
73.	NOTIFICATION OF COMMISSIONING TEST FOR CIVIL DEFENCE SHELTER (FOR PUBLIC SHELTER ONLY)		BCA-CD-NCOM01	ESPro

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C-2 ENV - CBPU Submission Forms

S/No	Submission Form Title	Original	e-Submission	
		Form Name	Form Name	Type
1.	APPLICATION FOR DEVELOPMENT CONTROL(DC) CLEARANCE ON ENVIRONMENT HEALTH MATTER	FORM DC CLEARANCE	ENV-CBPU- DCCLREH.XFD	ESPro
2.	APPLICATION FOR DEVELOPMENT CONTROL(DC) CLEARANCE ON POLLUTION CONTROL MATTER	FORM DC CLEARANCE	ENV-CBPU- DCCLRPC.XFD	ESPro
3.	APPLICATION FOR DEVELOPMENT CONTROL(DC) CLEARANCE ON SEWERAGE MATTER	FORM DC CLEARANCE	ENV-CBPU- DCCLRSD.XFD	ESPro
4.	APPLICATION FOR DEVELOPMENT CONTROL(DC) CLEARANCE ON DRAINAGE MATTER	FORM DC CLEARANCE	ENV-CBPU- DCCLRDD.XFD	ESPro
5.	APPLICATION FOR CLEARANCE CERTIFICATE FOR PLAN ON ENVIRONMENTAL HEALTH FOR PROVISION OF TEMPORARY SANITARY FACILITIES AT CONSTRUCTION SITE	FORM CONSTRUCTION SITE TEMPORARY TOILET(EH)- ANNEX	ENV-CBPU- CLRTSFEH.XFD	ESPro
6.	APPLICATION FOR CLEARANCE CERTIFICATE FOR BUILDING PLAN ON ENVIRONMENTAL HEALTH	FORM BP (EH) - ANNEX 1	ENV-CBPU- CLRBPEH.XFD	ESPro
7.	CERTIFICATE OF COMPLETION AND INSPECTION FOR BUILDING PLAN ON ENVIRONMENTAL HEALTH	FORM CSC_EH	ENV-CBPU- CSCBPEH.XFD	ESPro
8.	APPLICATION FOR CLEARANCE OF TOP	FORM TOP - ANNEX 6	ENV-CBPU- CLRTOP01.XFD	ESPro
9.	APPLICATION FOR COMPLIANCE CERTIFICATE	FORM CSC - ANNEX 7	ENV-CBPU- CLRCSC01.XFD	ESPro
10.	CHECKLIST FOR DC PLANS	FORM CBPU-DC- 99	ENV-CBPU- DCCLR01.DOC	ESPro
11.	APPLICATION ON ENVIRONMENTAL HEALTH MATTER		ENV-CBPU- PCWVEH.XFD	ESPro
12.	DRAINAGE INTERPRETATION PLAN(DIP) AND SEWERAGE INTERPRETATION PLAN(SIP) ELECTRONIC APPLICATION FORM	FORM SIP/DIP	ENV-CBPU- SIPDIP.XFD	ESPro

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C-3 ENV - PCD Submission Forms

S/No	Submission Form Title	Original Form Name		Submission Type
1.	APPLICATION FOR CLEARANCE CERTIFICATE FOR BUILDING PLAN ON POLLUTION CONTROL FOR INDUSTRIAL PLANT WORKS	FORM BP (PC) - ANNEX 2	ENV-PCD- CLRBPPC.XFD	ESPro
2.	CHECKLIST FOR BUILDING PLAN ON POLLUTION CONTROL	FORM PCDCHECKLIST 99	ENV-PCD- CLRBPPC01.DOC	ESPro
3.	APPLICATION FORM FOR PROPOSED USE OF INDUSTRIAL PREMISES	FORM IA	ENV-PCD- DCINDPM.XFD	ESPro
4.	APPLICATION FOR CLEARANCE CERTIFICATE FOR DETAILED PLAN ON POLLUTION CONTROL EQUIPMENT	FORM DP (POLLUTION CONTROL EQUIPMENT)	ENV-PCD-DPPCE.XFD	ESPro
5.	HAZARDOUS SUBSTANCES LICENSE/PERMIT APPLICATION FORM		ENV-PCD- HAZSUBPMT.XFD	ESPro
6.	GUIDANCE NOTES FOR FILLING OF HAZARDOUS SUBSTANCES LICENSE/ PERMIT APPLICATION FORM		ENV-PCD- HAZSUBPMT01.DOC	ESPro
7.	PRE-CONSULTATION AND WAIVER APPLICATION ON POLLUTION CONTROL MATTER		ENV-PCD- PCWVPC.XFD	ESPro

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C-4 FSSB Submission Forms

S/No.	Submission Form Title	Original	e-Submission	Submission
0,710		Form Name		Туре
1.	APPLICATION FOR APPROVAL OF PLANS OR BUILDING WORKS CONTAINING FIRE SAFETY MEASURES	FORM FSB-BP	FSSB-0-FSPBP01.XFD	ESPro
2.	MEANS OF ESCAPE CALCULATIONS		FSSB-0-FSPBP02.XLS	ESPro
3.	APPLICATION FOR APPROVAL OF PLANS FOR FIRE PROTECTION SYSTEM/ AIR CONDITIONING AND MECHANICAL VENTILATION	FORM FSB-ME	FSSB-0- FSPME01.XFD	ESPro
4.	APPLICATION FOR MODIFICATION / WAIVER OF FIRE SAFETY REQUIREMENTS	FORM FSB-W1	FSSB-0-WVFSR.XFD	ESPro
5.	RECORD OF WORKS FOR MINOR ADDITION/ ALTERATION SUBMISSION	FORM FSB-MAA	FSSB-0-RWMAA.XFD	ESPro
6.	APPLICATION TO THE COMMISSIONER SCDF FOR FIRE SAFETY CERTIFICATE/ TEMPORARY FIRE PERMIT	FORM FSB-FSC 1	FSSB-0- CSCDFSC01.XFD	ESPro
7.	CERTIFICATE OF SUPERVISION OF FIRE SAFETY WORKS (FIRE SAFETY MEASURES)	FORM FSB-FSC 2	FSSB-0-SFSW.XFD	ESPro
8.	APPOINTMENT OF REGISTERED INSPECTOR (RI)	FORM FSB-FSC- RI-APPT	FSSB-0-RIAPPT.XFD	ESPro
9.	RELINQUISHMENT OF REGISTERED INSPECTOR (RI)	FORM FSB-FSC- RI-RELQ	FSSB-0-RIRELQ.XFD	ESPro
10.	REGISTERED INSPECTION'S INSPECTION CERTIFICATION (A)	FORM FSB-RI- FORM 1	FSSB-0-RIIC01.XFD	ESPro
11.	REGISTERED INSPECTION'S INSPECTION CERTIFICATE (B)	FORM FSB-RI- FORM 2	FSSB-0-RIIC02.XFD	ESPro
12.	PRE-SUBMISSION CONSULTATIONS	FORM FSB- CONS	FSSB-0-PCBP01.XFD	ESPro
13.	NOTICE OF TERMINATION OF APPOINTMENT OF QP	FORM FSB-TS	FSSB-0- NCQPTERM.XFD	ESPro
14.	APPLICATION FOR WITHDRAWAL OF PLANS OF FIRE SAFETY WORKS	FORM FSB-WTH	FSSB-0-WDLFSW.XFD	ESPro
15.	DECLARATION FORM	FORM FSB-DEC	FSSB-0-DEC.DOC	ESPro

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C-5 HDB – Architectural Submission Forms

S	/No	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
	1.	ADVICE TO QP ON BUILDING	FORM	HDB-BCU(A)-QP01-	ESPro
		REGISTRATION NUMBER	HDB/BPN/A1- ANNEX I	A1.DOC	
	2.	INFORMATION ON U-VALUE CALCULATION	FORM	HDB-BCU(A)-	ESPro
			HDB/BPN_BFS/C L-6- ANNEX III	HB01.XFD	
	3.	NOTICE OF CHANGE/ APPOINTMENT OF QUALIFIED PERSON	FORM BA/ BPN/QP-01	HDB-BCU(A)- QP02.XFD	ESPro

Submission to HDB(ARCH) using BCA forms

S/No	o Submission Form Title	e-Submission Form Name
4.	APPLICATION FOR TOP/CSC	BCA-CSC-TOPCSC01
5.	CERTIFICATE OF SUPERVISION OF BUILDING WORKS	BCA-CSC-CSPBW
6.	DECLARATION BY QP FOR TOP/CSC APPLICATION	BCA-CSC-TOPCSCDQP

Submission to HDB(ARCH) using FSSB forms

S/No	Submission Form Title	e-Submission Form Name
7.	APPLICATION TO THE COMMISSIONER SCDF FOR FIRE SAFETY CERTIFICATE/ TEMPORARY FIRE PERMIT	FSSB-0-CSCDFSC01
8.	CERTIFICATE OF SUPERVISION OF FIRE SAFETY WORKS (FIRE SAFETY MEASURES)	FSSB-0-SFSW
9.	APPLICATION FOR APPROVAL OF PLANS FOR BUILDING WORKS CONTAINING FIRE SAFETY MEASURES	FSSB-0-FSPBP01

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C-6 HDB – Civil Engineering Submission Forms

S/NoSubmission Form Title		Original Form Name		
1.	APPLICATION FOR APPROVAL OF SITE FORMATION/ PILING/ STRUCTURAL/ RETAINING WALL PLANS AND CALCULATIONS	FORM HDB/BCU/CE/A1	HDB-CE- STAPPV01.XFD	ESPro
2.	DECLARATION BY A QP FOR STRUCTURAL WORKS FOR THE APPROVAL OF STRUCTURAL PLAN(RETAINING WALL)	FORM HDB/BCU/CE/A1- RW	HDB-CE- QPDSPRW.XFD	ESPro
3.	FIRE SAFETY (BUILDING FIRE SAFETY) ACT & REGULATIONS DECLARATION (TO BE SUBMITTED TOGETHER WITH FORM HDB/BCU/CE/A1)	FORM HDB/BCU/CE/A1_ QPD	HDB-CE-FSARD.XFD	ESPro
4.	ACCREDITED CHECKER'S CERTIFICATE	FORM HDB/BCU/CE/A2	HDB-CE-ACCT.XFD	ESPro
5.	JOINT APPLICATION FOR PERMIT TO CARRY OUT BUILDING WORKS	FORM HDB/BCU/CE/B1	HDB-CE-PMTBW.XFD	ESPro
6.	DECLARATION ON THE PLANNING APPROVAL STATUS	FORM HDB/BCU/CE/B1- Appendix 1	HDB-CE-PAPPV.XFD	ESPro
7.	QUARTERLY PROGRESS REPORT FOR STRUCTURAL WORKS	FORM HDB/BCU/CE/B2	HDB-CE- QPRST01.XFD	ESPro
8.	SCHEDULE OF STRUCTURAL WORKS FOR THE NEXT QUARTER	FORM HDB/BCU/CE/B2- Appendix1	HDB-CE-SSW.DOC	ESPro
9.	PARTICULAR OF RESIDENT ENGINEER FOR ACCEPTANCE AS QUALIFIED SITE SUPERVISOR	FORM HDB/BCU/CE/B3- RE	HDB-CE-REAQS.XFD	Online
10.	PARTICULAR OF CLERK OF WORK FOR ACCEPTANCE AS QUALIFIED SITE SUPERVISOR	FORM HDB/BCU/CE/B3- C/W	HDB-CE- COWAQS.XFD	Online
11.	DETAILS OF PAST SITE SUPERVISION EXPERIENCE	FORM HDB/BCU/CE/B3- C/W-APPENDIX 1	HDB-CE-PSSEX.DOC	ESPro
12.	NOTICE OF TERMINATION/ APPOINTMENT OF SITE SUPERVISOR	FORM HDB/BCU/CE/B4	HDB-CE-NCTASS.XFD	ESPro
13.	CERTIFICATE OF SUPERVISION OF PILING WORKS AND NOTICE OF COMPLETION BY QP FOR STRUCTURAL WORKS	FORM HDB/BCU/CE/C1	HDB-CE- QPCTPW.XFD	ESPro
14.	CERTIFICATE OF SUPERVISION OF STRUCTURAL WORKS BY QP FOR STRUCTURAL WORKS	FORM HDB/BCU/CE/C2	HDB-CE- QPCTSSW.XFD	ESPro
15.	SUBMISSION CERTIFICATE OF AS-BUILT STRUCTURAL PLANS/ CALCULATIONS	FORM HDB/BCU/CE/C3	HDB-CE-CTASST.XFD	ESPro
16.	BUILDER CERTIFICATE OF COMPLETION OF BUILDING WORKS	FORM HDB/BCU/CE/C4	HDB-CE- BRCTBW.XFD	ESPro
17.	CERTIFICATE OF SUPERVISION OF CIVIL ENGINEERING WORKS	FORM HDB/BCU/CE/D1	HDB-CE- PECTSCEW.XFD	ESPro
18.	ENDORSEMENTS ON STRUCTURAL PLAN - AC		HDB-CE-ENSPAC.XFD	ESPro
19.	ENDORSEMENTS ON STRUCTURAL PLAN - QP		HDB-CE- ENSPQP.XFD	ESPro

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C-7 HDB – Electrical & Mechanical Engineering Submission Forms

S/No:	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
1.	DECLARATION OF ADDITION & ALTERATION WORKS FOR M&E SERVICES	FORM HDB/BCU/EME/A &A/FPMV	HDB-EME- AAMV01.XFD	ESPro
2.	APPLICATION FOR THE APPROVAL OF PLANS FOR AIR-CONDITIONING/ MECHANICAL VENTILATION SYSTEMS	FORM HDB/BCU/EME/M V	HDB-EME- ACMV01.XFD	ESPro
3.	FIRE SAFETY CHECKLIST FOR AIR- CONDITIONING/ MECHANICAL VENTILATION PLANS SUBMISSION (GENERAL)	FORM HDB/BCU/EME/F S-MV	HDB-EME- ACMV01G.XFD	ESPro
4.	FIRE SAFETY CHECKLIST FOR AIR- CONDITIONING/ MECHANICAL VENTILATION PLANS SUBMISSION (SMOKE EXTRACT SYSTEM)	FORM HDB/BCU/EME/M V-SE	HDB-EME- ACMV01SE.XFD	ESPro
5.	APPLICATION FOR THE APPROVAL OF PLANS FOR FIRE PROTECTION SYSTEMS	FORM HDB/BCU/EME/F P	HDB-EME-FP01.XFD	ESPro
6.	FIRE SAFETY CHECKLIST FOR FIRE PROTECTION PLAN SUBMISSION PART I (GENERAL)	FORM HDB/BCU/EME/F P-G	HDB-EME-FP01G.XFD	ESPro
7.	FIRE SAFETY CHECKLIST FOR FIRE PROTECTION PLAN SUBMISSION PART 2A (SPRINKLER SYSTEM)	FORM HDB/BCU/EME/F P-S	HDB-EME-FP01S.XFD	ESPro
8.	FIRE SAFETY CHECKLIST FOR FIRE PROTECTION PLAN SUBMISSION PART 2B (WET RISER SYSTEM)	FORM HDB/BCU/EME/F P-W	HDB-EME-FP01W.XFD	ESPro
9.	FIRE SAFETY CHECKLIST FOR FIRE PROTECTION PLAN SUBMISSION PART 2C (AUTOMATIC FIRE ALARM SYSTEM)	FORM HDB/BCU/EME/F P-A	HDB-EME-FP01A.XFD	ESPro
10.	,	FORM HDB/BCU/EME/IC	HDB-EME- CLRMVFS.XFD	ESPro
11.	SAFETY WORKS (WET RISER/ DRY RISER/ SPRINKLER/ AUTOMATIC FIRE ALARM SYSTEM)	FORM HDB/BCU/EME/F S(3)	HDB-EME- CTFSW01.XFD	ESPro
12.	CERTIFICATION OF SUPERVISION OF FIRE SAFETY WORKS (AIR-CONDITIONING/ MECHANICAL VENTILATION SYSTEMS)	FORM HDB/BCU/EME/F S(4)	HDB-EME- CTFSW02.XFD	ESPro
13.	CERTIFICATION OF SUPERVISION OF LIGHTNING PROTECTION SYSTEM	FORM HDB/BCU/EME/B P-C3	HDB-EME-CTLPS.XFD	ESPro
14.	CERTIFICATION OF SUPERVISION OF AIR- CONDITIONING/ MECHANICAL VENTILATION SYSTEMS	FORM HDB/BCU/EME/B P-C4	HDB-EME- CTACMV.XFD	ESPro
15.	CERTIFICATION OF SUPERVISION OF ESCALATOR/ LIFT INSTALLATION	FORM HDB/BCU/EME/B P-C5	HDB-EME-CTELI.XFD	ESPro
16.	CHANGE OF PROFESSIONAL DUTY	FORM HDB/BCU/EME/C OPE	HDB-EME- COPE01.DOC	ESPro

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C-8 HDB – Structural Engineering Submission Forms

S/No	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
1.	APPLICATION FOR APPROVAL OF STRUCTURAL PLANS	FORM HDB/BCU/SE/A1	HDB-SE- STAPPV01.XFD	ESPro
2.	DECLARATION BY A QP FOR STRUCTURAL WORKS FOR THE APPROVAL OF STRUCTURAL PLAN (RETAINING WALL)	FORM HDB/BCU/SE/A1- RW	HDB-SE- QPDSPRW.XFD	ESPro
3.	LETTER OF DECLARATION BY QP FOR STRUCTURAL WORKS FOR THE APPROVAL OF STRUCTURAL PLAN (RETAINING WALL)	FORM HDB/BCU/SE/A1- RW- APPENDIX 1	HDB-SE- QPLSPRW.DOC	ESPro
4.	ACCREDITED CHECKER'S CERTIFICATE	FORM HDB/BCU/SE/A2	HDB-SE-ACCT.XFD	ESPro
5.	JOINT APPLICATION FOR PERMIT TO CARRY OUT BUILDING WORKS	FORM HDB/BCU/SE/B1	HDB-SE-PMTBW.XFD	ESPro
6.	DECLARATION ON THE PLANNING APPROVAL STATUS OF THE BUILDING PROJECT AT THE TIME OF SUBMISSION OF JOINT APPLICATION FOR PERMIT TO COMMENCE DEMOLITION/SITE FORMATION/RC PILING/STRUCTURAL/BUILDING WORKS	FORM HDB/BCU/SE/B1- APPENDIX 1	HDB-SE-PAPPV.XFD	ESPro
7.	BUILDING PROJECT DATA REQUIRED FOR RESEARCH & STATISTICS BY URA	FORM HDB/BCU/SE/B1- APPENDIX 2	HDB-SE-BPDRS.XFD	ESPro
8.	FOR PILING AND EXCAVATION WORKS	FORM HDB/BCU/SE/B1- APPENDIX 3	HDB-SE-PEW.XFD	ESPro
9.	QUARTERLY PROGRESS REPORT FOR STRUCTURAL WORKS	FORM HDB/BCU/SE/B2	HDB-SE- QPRST01.XFD	ESPro
10.	SCHEDULE OF STRUCTURAL WORKS FOR THE NEXT QUARTER	FORM HDB/BCU/SE/B2- APPENDIX 1	HDB-SE-SSW.DOC	ESPro
11.	PARTICULARS OF RESIDENT ENGINEER FOR ACCEPTANCE AS QUALIFIED SITE SUPERVISOR	FORM HDB/BCU/SE/B3- RE	HDB-SE-REAQS.XFD	Online
12.	PARTICULARS OF CLERK-OF-WORK FOR ACCEPTANCE AS QUALIFIED SITE SUPERVISOR	FORM HDB/BCU/SE/B3- COW	HDB-SE- COWAQS.XFD	Online
13.	DETAILS OF PAST SITE SUPERVISION EXPERIENCE	FORM HDB/BCU/SE/B3- COW-APPENDIX 1	HDB-SE-PSSEX.DOC	ESPro
14.	NOTICE OF TERMINATION/ APPOINTMENT OF SITE SUPERVISOR	FORM HDB/BCU/SE/B4	HDB-SE-NCTASS.XFD	ESPro
15.	CERTIFICATE OF SUPERVISION OF RC PILING WORKS AND NOTICE OF COMPLETION BY THE QP FOR STRUCTURAL WORKS	FORM HDB/BCU/SE/C1	HDB-SE- QPCTPW.XFD	ESPro
	CERTIFICATE OF SUPERVISION OF STRUCTURAL WORKS BY THE QP FOR STRUCTURAL WORKS	FORM HDB/BCU/SE/C2	HDB-SE- QPCTSSW.XFD	ESPro
	SUBMISSION CERTIFICATE OF AS-BUILT STRUCTURAL PLANS/ CALCULATIONS	FORM HDB/BCU/SE/C3	HDB-SE-CTASST.XFD	ESPro
18.	BUILDER CERTIFICATE OF COMPLETION OF BUILDING WORKS	FORM HDB/BCU/SE/C4	HDB-SE- BRCTBW.XFD	ESPro

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S/No	Submission Form Title	Original Form Name	e-Submission Form Name	
19.	ENDORSEMENTS ON STRUCTURAL PLAN - AC	HDB-S	SE-ENSPAC.XFD	ESPro
20.	ENDORSEMENTS ON STRUCTURAL PLAN - QP	HDB-S	SE-ENSPQP.XFD	ESPro
21.	ENDORSEMENTS ON BUILDING PLAN - QP	HDB-S	SE-ENBPQP.XFD	ESPro

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C-9 IDA Submission Forms

S/No	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
1.	SUBMISSION OF BUILDING PROJECTS FOR TELECOMMUNICATION FACILITY APPROVAL	TFCC(IDA)1	IDA-0-BPT01.XFD	ESPro
2.	SUBMISSION OF HDB RESIDENTIAL BUILDING PROJECTS FOR TELECOMMUNICATION FACILITY APPROVAL	TFCC(IDA)2	IDA-0-BPT02.XFD	ESPro

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C-10 JTC Submission Forms

S/N	oSubmission Form Title	Original Form Name	e-Submission Form Name	Submission Type
1.	SELF DECLARATION - PLAN ENDORSEMENT	BCU (JTC) PEN SD-01	JTC-BCU- PENSD01.XFD	ESPro
2.	NON URA LODGEMENT CASESELF DECLARATION - PLAN ENDORSEMENT	BCU (JTC) PEN SD-02	JTC-BCU- PENSD02.XFD	ESPro
3.	URA LODGEMENT CASESELF DECLARATION - PLAN ENDORSEMENT	BCU (JTC) PEN SD-03	JTC-BCU- PENSD03.XFD	ESPro

Submission to JTC using BCA forms

S/No	Submission Form Title	e-Submission Form Name
4.	REQUEST FOR PRE-SUBMISSION CONSULTATIONS	BCA-BP-PCBP01
5.	RECORD OF PRE-SUBMISSION CONSULTATION	BCA-BP-PCBP01-A1
6.	REQUEST FOR A BUILDING PLAN MEETING	BCA-BP-RQBPMEETG
7.	APPLICATION FOR APPROVAL OF BUILDING PLANS	BCA-BP-BPAPPV01
8.	PLAN FEE COMPUTATION FOR BUILDING PLANS/STRUCTURAL PLANS	BCA-BP-BPAPPV01-A1
9.	OTTV CALCULATION FORMAT IN RESPECT OF AIR- CONDITIONED PLANS (BY QUALIFIED PERSON WHO PREPARED THE CALCULATION)	BCA-BP-FOTTV01
10.	CALCULATION OF OVERALL THERMAL TRANSFER VALUE OF BUILDING ENVELOPE	BCA-BP-FOTTV-A1
11.	SUMMARY OF ENVELOPE AREA CALCULATION	BCA-BP-FOTTV-A2
12.	DESCRIPTION AND TECHNICAL SPECIFICATIONS OF OPAQUE WALL OF THE BUILDING ENVELOPE	BCA-BP-FOTTV-A3
13.	DESCRIPTION AND TECHNICAL SPECIFICATIONS OF FENESTRATION OF THE BUILDING ENVELOPE	BCA-BP-FOTTV-A4
14.	APPLICATION FOR MODIFICATION / WAIVER OF BUILDING REGULATIONS	BCA-BP-WVBP01
15.	NOTICE OF APPEAL	BCA-BP-NCAPPEAL
16.	APPLICATION FOR WITHDRAWAL OF PLANS OF BUILDING WORKS	BCA-BP-WDLBP
17.	APPLICATION FOR PERMIT TO ERECT TEMPORARY BUILDINGS	BCA-BP-PMTTB
18.	NOTIFICATION OF APPOINTMENT OF QP AND PROJECT REFERENCE NUMBER AND TITLE	BCA-BP-COQP01
19.	QUARTERLY REPORT ON PROGRESS OF BUILDING WORKS	BCA-BP-QPRBW
20.	NOTICE OF TERMINATION OF QP APPOINTMENT	BCA-BP-NCQPTERM
21.	SUMMARY REPORT ON THE BUILDING WORKS CARRIED OUT UNDER THE QP'S SUPERVISION UNTIL THE DATE OF TERMINATION	BCA-BP-NCQPTERM-A1

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S/No	Submission Form Title	e-Submission
	APPLICATION FOR APPROVAL OF STRUCTURAL PLANS	Form Name
22.	APPLICATION FOR APPROVAL OF STRUCTURAL PLANS	BCA-BE-STAPPV01
23.	DECLARATION BY QUALIFIED PERSON FOR STRUCTURAL WORKS FOR THE APPROVAL OF STRUCTURAL PLAN (RETAINING WALL) RELATED TO S/N 3	BCA-BE-STAPPV01-RW
24.	LETTER OF UNDERTAKING ON RETAINING WALL PROPOSAL TO CBPU, POLLUTION CONTROL DEPARTMENT	BCA-BE-STAPPV01-A1
25.	ACCREDITED CHECKER'S CERTIFICATE	BCA-BE-STAPPV01-ACC
26.	JOINT APPLICATION FOR PERMIT TO CARRY OUT BUILDING WORKS - APPLICANT AND QUALIFIED PERSON FOR ARCHITECTURAL WORKS	BCA-BE-PMTBW01
27.	JOINT APPLICATION FOR PERMIT TO CARRY OUT BUILDING WORKS - BUILDER	BCA-BE-PMTBW02
28.	JOINT APPLICATION FOR PERMIT TO CARRY OUT BUILDING WORKS - QUALIFIED PERSON FOR STRUCTURAL WORKS	BCA-BE-PMTBW03
29.	JOINT APPLICATION FOR PERMIT TO CARRY OUT BUILDING WORKS - SITE SUPERVISOR	BCA-BE-PMTBW04
30.	DECLARATION ON THE PLANNING APPROVAL STATUS OF THE BUILDING PROJECT AT THE TIME OF SUBMISSION OF THE JOINT APPLICATION FOR PERMIT TO COMMENCE DEMOLITION/ SITE FORMATION/ PILING/ STRUCTURAL/ BUILDING WORKS	BCA-BE-PMTBW-A1
31.	BUILDING PROJECT DATA REQUIRED RESEARCH & STATISTICS BY URA	BCA-BE-PMTBW-A2
32.	QUARTERLY PROGRESS REPORT FOR STRUCTURAL WORKS	BCA-BE-QPRST01
33.	SCHEDULE OF STRUCTURAL WORKS FOR THE NEXT QUARTER	BCA-BE-QPRST01-A1
34.	NOTICE OF TERMINATION/ APPOINTMENT OF SITE SUPERVISOR	BCA-BE-NCTASS
35.	CERTIFICATE OF SUPERVISION OF PILING WORKS AND NOTICE OF COMPLETION BY QUALIFIED PERSON FOR STRUCTURAL WORKS	BCA-BE-QPCTPW
36.	CERTIFICATE OF SUPERVISION OF STRUCTURAL WORKS BY QP FOR STRUCTURAL WORKS	BCA-BE-QPCTSSW
37.	SUBMISSION OF CERTIFICATE OF AS-BUILT STRUCTURAL PLANS/CALCULATIONS	BCA-BE-CTASST
38.	BUILDER'S CERTIFICATE OF COMPLETION OF BUILDING WORKS	BCA-BE-BRCTBW
39.	APPLICATION FOR TOP/CSC	BCA-CSC-TOPCSC01
40.	CERTIFICATE OF SUPERVISION OF BUILDING WORKS	BCA-CSC-CSPBW
41.	CERTIFICATE OF SUPERVISION OF LIGHTNING PROTECTION SYSTEM	BCA-CSC-CSPLP
42.	CERTIFICATE OF SUPERVISION FOR INSTALLATION OF ESCALATORS / LIFT(S)	BCA-CSC-CSPLE
43.	CERTIFICATE OF SUPERVISION OF AIR-CONDITIONING & MECHANICAL VENTILATION SYSTEM(S)	BCA-CSC-CSPACMVS
44.	CERTIFICATE OF SUPERVISION FOR TEMPORARY BUILDING WORKS	BCA-CSC-CTSTBW
45.	DECLARATION BY QP FOR TOP/CSC APPLICATION	BCA-CSC-TOPCSCDQP

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S/No	Submission Form Title	e-Submission Form Name
46.	REQUEST FOR SITE INSPECTION DATE UNDER THE ADVANCE BOOKING SYSTEM	BCA-CSC-RQSI
47.	APPOINTMENT OF STRUCTURAL ENGINEER	BCA-EIED-STEVIFSI
48.	VISUAL INSPECTION CERTIFICATION - NON STRUCTURAL / MINOR STRUCTURAL DEFECTS	BCA-EIED-VSICT01
49.	VISUAL INSPECTION CERTIFICATION - STRUCTURAL DEFECTS SUSPECTED IN LOCALISED AREAS / WHOLE BUILDING	BCA-EIED-VSICT02
50.	STRUCTURAL INSPECTION CERTIFICATION - DEFECTS SUSPECTED ARE NON STRUCTURAL	BCA-EIED-STICT01
51.	STRUCTURAL INSPECTION CERTIFICATION - DEFECTS SUSPECTED WHICH ARE STRUCTURAL OF SIGNIFICANCE	BCA-EIED-STICT02
52.	VISUAL INSPECTION CERTIFICATION - SUPERVISION OF REMEDIAL WORKS	BCA-EIED-STICT03

Submission to JTC using CBPU forms

S/No	Submission Form Title	e-Submission Form Name
53.	CERTIFICATE OF SUPERVISION AND INSPECTION OF M&E EQUIPMENT FOR SEWERAGE INSTALLATION	ENV-SEW-CSIMEESEWI
54.	CERTIFICATE OF COMPLETION AND INSPECTION FOR BUILDING PLAN ON ENVIRONMENTAL HEALTH	ENV-CBPU-CSCBPEH
55.	PRE-CONSULTATION AND WAIVER APPLICATION ON ENVIRONMENTAL HEALTH MATTER	ENV-CBPU-PCWVEH
56.	APPLICATION TO WORK IN PUBLIC SEWERAGE SYSTEM	ENV-SEW-QPPWSEW
57.	CERTIFICATE OF SUPERVISION AND INSPECTION FOR DRAINAGE WORKS	ENV-DD-CSIDRA
58.	CERTIFICATION OF COMPLETION OF EXTERNAL DRAINAGE WORKS	ENV-DD-CCEXTDRA
59.	CERTIFICATION OF COMPLETION OF INTERNAL DRAINAGE WORKS	ENV-DD-CCINTDRA
60.	NOTICE FOR COMMENCEMENT OF SANITARY AND SEWERAGE WORKS	ENV-SEW-NCSANSEW
61.	CERTIFICATE OF SUPERVISION AND INSPECTION FOR SANITARY/SEWERAGE WORKS	ENV-SEW-CSISEW01
62.	ANNEX A – DECLARATION BY QP ON CHARGEABLE SANITARY APPLIANCE INSTALLED.	ENV-SEW-CSISEW02
63.	APPLICATION FOR CLEARANCE CERTIFICATE FOR BP ON PC FOR INDUSTRIAL PLANT WORKS	ENV-PCD-CLRBPPC
64.	APPLICATION FOR CLEARANCE CERTIFICATE FOR BUILDING PLAN ON ENVIRONMENTAL HEALTH	ENV-CBPU-CLRBPEH
65.	CHECKLIST FOR BUILDING PLAN ON POLLUTION CONTROL	ENV-PCD-CLRBPPC01
66.	APPLICATION FOR CLEARANCE OF TOP	ENV-CBPU-CLRTOP01
67.	APPLICATION FOR CLEARANCE OF CSC	ENV-CBPU-CLRCSC01

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Submission to JTC using FSSB forms

S/No	Submission Form Title	e-Submission Form Name
68.	REGISTERED INSPECTOR'S INSPECTION CERTIFICATION (A)	FSSB-0-RIIC01
69.	REGISTERED INSPECTOR'S INSPECTION CERTIFICATE (B)	FSSB-0-RIIC02
70.	APPLICATION TO THE COMMISSIONER SCDF FOR FIRE SAFETY CERTIFICATE/ TEMPORARY FIRE PERMIT	FSSB-0-CSCDFSC01
71.	CERTIFICATE OF SUPERVISION OF FIRE SAFETY WORKS (FIRE SAFETY MEASURES)	FSSB-0-SFSW
72.	APPOINTMENT OF REGISTERED INSPECTOR (RI)	FSSB-0-RIAPPT
73.	RELINQUISHMENT OF REGISTERED INSPECTOR (RI)	FSSB-0-RIRELQ
74.	APPLICATION FOR APPROVAL OF PLANS FOR BUILDING WORKS CONTAINING FIRE SAFETY MEASURES	FSSB-0-FSPBP01
75.	PRE-SUBMISSION CONSULTATION/CONSULTATION	FSSB-0-PCBP01
76.	RECORD OF WORKS FOR MINOR ADDITION/ ALTERATION SUBMISSION	FSSB-0-RWMAA
77.	APPLICATION FOR APPROVAL OF PLANS FOR FIRE PROTECTION WORKS & AIR-CONDITIONING & MECHANICAL VENTILATION SYSTEMS	FSSB-0-FSPME01
78.	APPLICATION FOR MODIFICATION / WAIVER OF FIRE SAFETY REQUIREMENTS	FSSB-0-WVFSR

Submission to JTC using LTA forms

S/No	Submission Form Title	e-Submission Form Name
79.	APPLICATION FOR SUBMISSION OF BUILDING PLAN	LTA-RT-BPSUBM01
80.	APPLICATION FOR SUBMISSION OF STREET PLAN	LTA-RT-STRPLN
81.	APPLICATION FOR APPROVAL OF PROPOSAL AND PLANS FOR PROVISION OF PARKING PLACES AND PARKING SPACES	LTA-VP-VPARK01
82.	APPLICATION UNDER PARKING PLACES ACT (CHAP 214) THE PARKING PLACES (PROVISION OF PARKING PLACES AND PARKING SPACES) RULES	LTA-VP-VPARK02
83.	APPLICATION FOR CSC CLEARANCE OF PROPOSAL AND PLANS FOR PROVISION OF PARKING PLACES AND PARKING SPACES	LTA-VP-VPARK04
84.	LODGEMENT FOR APPROVAL OF PROPOSAL AND PLANS FOR PROVISION OF OPEN SURFACE PARKING PLACES AND PARKING SPACES	LTA-VP-VPARK05
85.	APPLICATION FOR MODIFICATION / WAIVER OF PARKING PLACES (PROVISION OF PARKING PLACES AND PARKING SPACES) RULES	LTA-VP-VPARK06

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Submission to JTC using NPARKS forms

S/No	Submission Form Title	e-Submission Form Name
86.	APPLICATION FOR DC SUBMISSION	NPARKS-0-DCS01
87.	APPLICATION FOR BUILDING PLAN (BP) SUBMISSION	NPARKS-0-BPS01
88.	CHECKLIST FOR BP SUBMISSION FOR EXTERNAL WORKS, SWA SECTION 18 ROADS, PROMENADES, PEDESTRIAN MALLS	NPARKS-0-BPS05
89.	APPLICATION FOR CERTIFICATE STATUTORY COMPLETION (CSC) SUBMISSION	NPARKS-0-CSC01
90.	CHECKLIST FOR CSC SUBMISSION FOR ENTRANCE CULVERT AND/OR SWA SECTION 18 ROAD	NPARKS-0-CSC05

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C-11 LTA Submission Forms

S/No	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
1.	DUTIES OF QUALIFIED PERSON	FORM LTA/RAIL1-DQP	LTA-RAIL-ATT1- DQP.DOC	ESPro
2.	EXEMPTION OF RP-RA REGULATION	FORM LTA/RAIL2- EXEMPT	LTA-RAIL-ATT2- ERPRAR.DOC	ESPro
3.	TRACK ACCESS	FORM LTA/RAIL3- ACCESS	LTA-RAIL-ATT3- TA.DOC	ESPro
4.	SUBMISSION OF BUILDING PROPOSAL IN RAILWAY CORRIDOR	FORM LTA/DBC/RAIL- BP-RC	LTA-RAIL-BPRC.XFD	ESPro
5.	SUBMISSION OF BUILDING PROPOSAL IN RAILWAY PROTECTION ZONE	FORM LTA/DBC/RAIL- BP-RPZ	LTA-RAIL-BPRPZ.XFD	ESPro
6.	APPLICATION FOR CLEARANCE OF CERTIFICATE OF STATUTORY COMPLETION OF BUILDING WORKS	FORM LTA/DBC/RAIL- CSC-BW	LTA-RAIL- CTSBW.XFD	ESPro
7.	SUBMISSION OF CERTIFICATE OF SUPERVISION OF PILING WORKS IN RAILWAY PROTECTION ZONE	FORM LTA/DBC/RAIL- CSC-PW	LTA-RAIL- CTSPW.XFD	ESPro
8.	SUBMISSION OF CERTIFICATE OF SUPERVISION OF STRUCTURAL WORKS IN RAILWAY PROTECTION ZONE	FORM LTA/DBC/RAIL- CSC-SW	LTA-RAIL-CTSST.XFD	ESPro
9.	SUBMISSION OF DEVELOPMENT PROPOSAL IN RAILWAY CORRIDOR	FORM LTA/DBC/RAIL- DP-RC	LTA-RAIL-DPRC.XFD	ESPro
10.	SUBMISSION OF DEVELOPMENT PROPOSAL IN RAILWAY PROTECTION ZONE	FORM LTA/DBC/RAIL- DP-RPZ	LTA-RAIL-DPRPZ.XFD	ESPro
11.	SUBMISSION OF ENGINEERING WORK IN RAILWAY CORRIDOR	FORM LTA/DBC/RAIL- EW-RC	LTA-RAIL-EWRC.XFD	ESPro
12.	SUBMISSION OF ENGINEERING WORK IN RAILWAY PROTECTION ZONE	FORM LTA/DBC/RAIL- EW-RPZ	LTA-RAIL- EWRPZ.XFD	ESPro
	APPLICATION FOR EXEMPTION OF RAILWAY PROTECTION / RESTRICTED ACTIVITIES REGULATIONS	FORM LTA/DBC/RAIL- EXEMPT	LTA-RAIL- EXEMPT.XFD	ESPro
	APPLICATION FOR VERIFICATION OF RESERVE LINES AND DRILLING POSITIONS	FORM LTA/DBC/RAIL- SURVEY	LTA-RAIL- RESLNDP.XFD	ESPro
	SUBMISSION OF UNDERTAKING TO SUPERVISE CRANE OPERATION WITHIN RAILWAY PROTECTION & SAFETY ZOMES	FORM LTA/DBC/RAIL- SUPV-1	LTA-RAIL- SUPVRPZ02.XFD	ESPro
16.	APPLICATION FOR TRACK ACCESS	FORM LTA/DBC/RAIL- ACCESS	LTA-RAIL- TRKACC.XFD	ESPro
	ASSET MASTER RECORD	FORM LTA/RT1- ASSET	LTA-RT-ATT1- AMR.DOC	ESPro
18.		FORM LTA/RT2- ROADATA	LTA-RT-ATT2-RD.DOC	ESPro
19.	SUBMISSION OF BUILDING PLAN	FORM LTA/RT/BP-1	LTA-RT- BPSUBM01.XFD	ESPro
20.	APPLICATION FOR CONTINUATION OF AN EXISTING STREET UNDER SECTION 20(1) OF THE STREET WORKS ACT	FORM LTA/RT- S20	LTA-RT- CONEXSTR.XFD	ESPro

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S/No	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
21.	APPLICATION FOR CERTIFICATE OF STATUTORY COMPLETION	FORM LTA/RT- CSC	LTA-RT-CSC.XFD	ESPro
22.	SUBMISSION OF STREET PLAN	FORM LTA/RT/BP-2	LTA-RT-STRPLN.XFD	ESPro
23.	APPLICATION FOR TAKING OVER OF NEW STREET	FORM LTA/RT- TO	LTA-RT-TO.XFD	ESPro
24.	GROSS FLOOR AREA BREAKDOWN BY USAGE	FORM LTA/VP1- GFA	LTA-VP-ATT1- GFA.DOC	ESPro
25.	COMPUTATION OF PARKING REQUIREMENT	FORM LTA/VP2- COMPUTE	LTA-VP-ATT2- COMPR.XFD	ESPro
26.	NUMBER OF PARKING SPACES PROVIDED	FORM LTA/VP3- SPACES	LTA-VP-ATT3- SPACES.DOC	ESPro
27.	CHECKLIST FOR PARKING LAYOUT	FORM LTA/VP4- CHECKLIST	LTA-VP-ATT4- CHKPL.DOC	ESPro
28.	SCHEDULE FOR MODIFICATION-WAIVER	FORM LTA/VP5- SCHEDULE	LTA-VP-ATT5- SCHMW.DOC	ESPro
29.	APPLICATION FOR APPROVAL OF PROPOSAL AND PLANS FOR PROVISION OF PARKING PLACES AND PARKING SPACES - FOR CHANGE OF USE PROPOSAL	FORM LTA/VP-1	LTA-VP- VPARK01.XFD	ESPro
30.	APPLICATION FOR APPROVAL OF PROPOSAL AND PLANS FOR PROVISION OF PARKING PLACES AND PARKING SPACES - FOR DEVELOPMENT PROPOSALS OTHER THAN CHANGE OF USE	FORM LTA/VP-2	LTA-VP- VPARK02.XFD	ESPro
31.	SEARCH FOR PARKING STATISTICS	FORM LTA/VP-3	LTA-VP- VPARK03.XFD	Online
32.	APPLICATION FOR CSC CLEARANCE OF PROPOSAL AND PLANS FOR PROVISION OF PARKING PLACES AND PARKING SPACES	FORM LTA/VP-4	LTA-VP- VPARK04.XFD	ESPro
33.	LODGEMENT FOR APPROVAL OF PROPOSAL AND PLANS FOR PROVISION PARKING PLACES AND PARKING SPACES	FORM LTA/VP-5	LTA-VP- VPARK05.XFD	ESPro
34.	APPLICATION FOR MODIFICATION / WAIVER OF PARKING PLACES (PROVISION OF PARKING PLACES AND PARKING SPACES) RULES	FORM LTA/VP-6	LTA-VP- VPARK06.XFD	ESPro

Submission to LTA using BCA forms

S/No	Submission Form Title	e-Submission Form Name
35.	REQUEST FOR PRE-SUBMISSION CONSULTATIONS	BCA-BP-PCBP01
36.	RECORD OF PRE-SUBMISSION CONSULTATION	BCA-BP-PCBP01-A1
37.	REQUEST FOR A BUILDING PLAN MEETING	BCA-BP-RQBPMEETG
38.	APPLICATION FOR APPROVAL OF BUILDING PLANS	BCA-BP-BPAPPV01

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S/No	Submission Form Title	e-Submission Form Name
39.	PLAN FEE COMPUTATION FOR BUILDING PLANS/STRUCTURAL PLANS	BCA-BP-BPAPPV01-A1
40.	OTTV CALCULATION FORMAT IN RESPECT OF AIR- CONDITIONED PLANS (BY QUALIFIED PERSON WHO PREPARED THE CALCULATION)	BCA-BP-FOTTV01
41.	·	BCA-BP-FOTTV-A1
42.	SUMMARY OF ENVELOPE AREA CALCULATION	BCA-BP-FOTTV-A2
43.	DESCRIPTION AND TECHNICAL SPECIFICATIONS OF OPAQUE WALL OF THE BUILDING ENVELOPE	BCA-BP-FOTTV-A3
44.	DESCRIPTION AND TECHNICAL SPECIFICATIONS OF FENESTRATION OF THE BUILDING ENVELOPE	BCA-BP-FOTTV-A4
45.	APPLICATION FOR MODIFICATION / WAIVER OF BUILDING REGULATIONS	BCA-BP-WVBP01
46.	DECLARATION FOR SUBMISSION OF BUILDING PLAN (A/A TO CONVENTIONAL BUILDINGS)	BCA-BP-BPAA01
47.	LETTER OF UNDERTAKING ON SEWERAGE AND DRAINAGE REQUIREMENTS ON BUILDING PLAN PROPOSAL TO CBPU, POLLUTION CONTROL DEPARTMENT	BCA-BP-BPAA01-A1
48.	NOTICE OF APPEAL	BCA-BP-NCAPPEAL
49.	APPLICATION FOR WITHDRAWAL OF PLANS OF BUILDING WORKS	BCA-BP-WDLBP
50.	APPLICATION FOR PERMIT TO ERECT TEMPORARY BUILDINGS	BCA-BP-PMTTB
51.	NOTIFICATION OF APPOINTMENT OF QP AND PROJECT REFERENCE NUMBER AND TITLE	BCA-BP-COQP01
52.	QUARTERLY REPORT ON PROGRESS OF BUILDING WORKS	BCA-BP-QPRBW
53.	NOTICE OF TERMINATION OF QP APPOINTMENT	BCA-BP-NCQPTERM
54.	SUMMARY REPORT ON THE BUILDING WORKS CARRIED OUT UNDER THE QP'S SUPERVISION UNTIL THE DATE OF TERMINATION	BCA-BP-NCQPTERM- A1
55.	APPLICATION FOR APPROVAL OF STRUCTURAL PLANS	BCA-BE-STAPPV01
56.	DECLARATION BY QUALIFIED PERSON FOR STRUCTURAL WORKS FOR THE APPROVAL OF STRUCTURAL PLAN (RETAINING WALL) RELATED TO S/N 3	BCA-BE-STAPPV01-RW
57.	LETTER OF UNDERTAKING ON RETAINING WALL PROPOSAL TO CBPU, POLLUTION CONTROL DEPARTMENT	BCA-BE-STAPPV01-A1
58.	ACCREDITED CHECKER'S CERTIFICATE	BCA-BE-STAPPV01- ACC
59.	SUBMISSION OF STRUCTURAL BUILDABILITY SCORE CALCULATIONS BY QUALIFIED PERSON FOR STRUCTURAL WORKS	BCA-BE-STBSCALSW
60.	CALCULATIONS OF STRUCTURAL BUILDABILITY SCORE	BCA-BE-STBSCALSW- A1
61.	SUBMISSION OF STRUCTURAL BUILDABILITY SCORE CALCULATIONS BY QUALIFIED PERSON FOR ARCHITECTURE WORKS	BCA-BE-STBSCALAW
62.	JOINT APPLICATION FOR PERMIT TO CARRY OUT BUILDING WORKS - APPLICANT AND QUALIFIED PERSON FOR ARCHITECTURAL WORKS	BCA-BE-PMTBW01

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S/No	Submission Form Title	e-Submission Form Name
63.	JOINT APPLICATION FOR PERMIT TO CARRY OUT BUILDING WORKS - BUILDER	BCA-BE-PMTBW02
64.	JOINT APPLICATION FOR PERMIT TO CARRY OUT BUILDING WORKS - QUALIFIED PERSON FOR STRUCTURAL WORKS	BCA-BE-PMTBW03
65.	JOINT APPLICATION FOR PERMIT TO CARRY OUT BUILDING WORKS - SITE SUPERVISOR	BCA-BE-PMTBW04
66.	DECLARATION ON THE PLANNING APPROVAL STATUS OF THE BUILDING PROJECT AT THE TIME OF SUBMISSION OF THE JOINT APPLICATION FOR PERMIT TO COMMENCE DEMOLITION/ SITE FORMATION/ PILING/ STRUCTURAL/ BUILDING WORKS	BCA-BE-PMTBW-A1
67.	BUILDING PROJECT DATA REQUIRED RESEARCH & STATISTICS BY URA	BCA-BE-PMTBW-A2
68.	QUARTERLY PROGRESS REPORT FOR STRUCTURAL WORKS	BCA-BE-QPRST01
69.	SCHEDULE OF STRUCTURAL WORKS FOR THE NEXT QUARTER	BCA-BE-QPRST01-A1
70.	APPLICATION FOR COW	BCA-BE-COWAQS01
71.	DETAILS OF PAST SITE SUPERVISION EXPERIENCE	BCA-BE-COWAQS02
72.	APPLICATION FOR RE	BCA-BE-REAQS01
73.	NOTICE OF TERMINATION/ APPOINTMENT OF SITE SUPERVISOR	BCA-BE-NCTASS
74.	CERTIFICATE OF SUPERVISION OF PILING WORKS AND NOTICE OF COMPLETION BY QUALIFIED PERSON FOR STRUCTURAL WORKS	BCA-BE-QPCTPW
75.	CERTIFICATE OF SUPERVISION OF STRUCTURAL WORKS BY QP FOR STRUCTURAL WORKS	BCA-BE-QPCTSSW
76.	SUBMISSION OF CERTIFICATE OF AS-BUILT STRUCTURAL PLANS/CALCULATIONS	BCA-BE-CTASST
77.	BUILDER'S CERTIFICATE OF COMPLETION OF BUILDING WORKS	BCA-BE-BRCTBW
78.	ENDORSEMENTS ON AS-BUILT PILING PLAN - AC	BCA-BE-ENABPPAC
79.	ENDORSEMENTS ON AS-BUILT PILING PLAN - QP	BCA-BE-ENABPPQP
80.	ENDORSEMENTS ON AS BUILT STRUCTURAL PLAN - AC	BCA-BE-ENABSPAC
81.	ENDORSEMENTS ON AS BUILT STRUCTURAL PLAN - QP	BCA-BE-ENABSPQP
82.	ENDORSEMENTS ON STRUCTURAL PLAN - AC	BCA-BE-ENSPAC
83.	ENDORSEMENTS ON STRUCTURAL PLAN - PE	BCA-BE-ENSPPE
84.	ENDORSEMENTS ON STRUCTURAL PLAN - QP	BCA-BE-ENSPQP
85.	APPLICATION FOR TOP/CSC	BCA-CSC-TOPCSC01
86.	CERTIFICATE OF SUPERVISION OF BUILDING WORKS	BCA-CSC-CSPBW
87.	CERTIFICATE OF SUPERVISION OF LIGHTNING PROTECTION SYSTEM	BCA-CSC-CSPLP

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S/No	Submission Form Title	e-Submission Form Name
88.	CERTIFICATE OF SUPERVISION FOR INSTALLATION OF ESCALATORS / LIFT(S)	BCA-CSC-CSPLE
89.	CERTIFICATE OF SUPERVISION OF AIR-CONDITIONING & MECHANICAL VENTILATION SYSTEM(S)	BCA-CSC-CSPACMVS
90.	CERTIFICATE OF SUPERVISION FOR TEMPORARY BUILDING WORKS	BCA-CSC-CTSTBW
91.	DECLARATION BY QP FOR TOP/CSC APPLICATION	BCA-CSC-TOPCSCDQP
92.	REQUEST FOR SITE INSPECTION DATE UNDER THE ADVANCE BOOKING SYSTEM	BCA-CSC-RQSI
93.	APPOINTMENT OF STRUCTURAL ENGINEER	BCA-EIED-STEVIFSI
94.	VISUAL INSPECTION CERTIFICATION - NON STRUCTURAL / MINOR STRUCTURAL DEFECTS	BCA-EIED-VSICT01
95.	VISUAL INSPECTION CERTIFICATION - STRUCTURAL DEFECTS SUSPECTED IN LOCALISED AREAS / WHOLE BUILDING	BCA-EIED-VSICT02
96.	STRUCTURAL INSPECTION CERTIFICATION - DEFECTS SUSPECTED ARE NON STRUCTURAL	BCA-EIED-STICT01
97.	STRUCTURAL INSPECTION CERTIFICATION - DEFECTS SUSPECTED WHICH ARE STRUCTURAL OF SIGNIFICANCE	BCA-EIED-STICT02
98.	VISUAL INSPECTION CERTIFICATION - SUPERVISION OF REMEDIAL WORKS	BCA-EIED-STICT03

Submission to LTA using FSSB forms

S/No	Submission Form Title	e-Submission Form Name
99.	REGISTERED INSPECTOR'S INSPECTION CERTIFICATION (A)	FSSB-0-RIIC01
100.	REGISTERED INSPECTOR'S INSPECTION CERTIFICATE (B)	FSSB-0-RIIC02
101.	APPLICATION TO THE COMMISSIONER SCDF FOR FIRE SAFETY CERTIFICATE/ TEMPORARY FIRE PERMIT	FSSB-0-CSCDFSC01
102.	CERTIFICATE OF SUPERVISION OF FIRE SAFETY WORKS (FIRE SAFETY MEASURES)	FSSB-0-SFSW
103.	APPOINTMENT OF REGISTERED INSPECTOR (RI)	FSSB-0-RIAPPT
104.	RELINQUISHMENT OF REGISTERED INSPECTOR (RI)	FSSB-0-RIRELQ
105.	APPLICATION FOR APPROVAL OF PLANS FOR BUILDING WORKS CONTAINING FIRE SAFETY MEASURES	FSSB-0-FSPBP01
106.	DETERMINATION OF NO OF PERSONS PROVIDED WITH MEANS OF ESCAPE AT EACH NON-RESIDENTIAL STOREY	FSSB-0-FSPBP02
107.	PRE-SUBMISSION CONSULTATION/CONSULTATION	FSSB-0-PCBP01
108.	RECORD OF WORKS FOR MINOR ADDITION/ ALTERATION SUBMISSION	FSSB-0-RWMAA
109.	APPLICATION FOR APPROVAL OF PLANS FOR FIRE PROTECTION WORKS & AIR-CONDITIONING & MECHANICAL VENTILATION SYSTEMS	FSSB-0-FSPME01

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S/No Submission Form Title	e-Submission Form Name
110. NOTICE OF TERMINATION OF APPOINTMENT OF QP	FSSB-0-NCQPTERM
111. APPLICATION FOR MODIFICATION / WAIVER OF FIRE SAFETY REQUIREMENTS	FSSB-0-WVFSR
112. APPLICATION FOR WITHDRAWAL OF PLANS OF FIRE SAFETY WORKS	FSSB-0-WDLFSW

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C-12 NPARKS Submission Forms

S/No	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
1.	PRE-CONSULTATION	FORM PC APPLN	NPARKS-0- PCS01.XFD	ESPro
2.	CHECKLIST FOR OPEN SPACE, ROADSIDE COVERED LINKWAY, ETC	FORM PC CH- LIST	NPARKS-0- PCS02.DOC	ESPro
3.	CHECKLISTS FOR PRELIMINARY PLAN SUBMISSION FOR LTA ROAD	FORM PR CH- LIST LTA	NPARKS-0- PPS01.DOC	ESPro
4.	APPLICATION FOR DC SUBMISSION	FORM DC APPLN	NPARKS-0- DCS01.XFD	ESPro
5.	CHECKLIST FOR DC SUBMISSION FOR DEVELOPMENTS WITHIN TREE CONSERVATION AREAS OR ON VACANT LAND	FORM DC CH- LIST TCA	NPARKS-0- DCS02.DOC	ESPro
6.	CHECKLIST FOR DC SUBMISSION FOR CONVENTIONAL HOUSING DEVELOPMENT WITH OPEN SPACE PROVISION	FORM DC CH- LIST OS	NPARKS-0- DCS03.DOC	ESPro
7.	CHECKLIST FOR DC SUBMISSION FOR PEDESTRIAN OVERHEAD BRIDGE	FORM DC CH- LIST POB	NPARKS-0- DCS04.DOC	ESPro
8.	CHECKLIST FOR DC SUBMISSION FOR GOVERNMENT PROJECT	FORM DC CH- LIST GOV	NPARKS-0- DCS05.DOC	ESPro
9.	APPLICATION FOR BUILDING PLAN (BP) SUBMISSION	FORM BP APPLN	NPARKS-0- BPS01.XFD	ESPro
10.	CHECKLIST FOR BP SUBMISSION FOR DEVELOPMENTS WITHIN TREE CONSERVATION AREAS OR ON VACANT LANDS	FORM BP CH- LIST TCA	NPARKS-0- BPS02.DOC	ESPro
11.	CHECKLIST FOR BP SUBMISSION FOR CONVENTIONAL HOUSING DEVELOPMENT WITH OPEN SPACE PROVISION	FORM BP CH- LIST OS	NPARKS-0- BPS03.DOC	ESPro
12.	CHECKLIST FOR BP SUBMISSION FOR GOVERNMENT PROJECTS	FORM BP CH- LIST GOV	NPARKS-0- BPS04.DOC	ESPro
13.	CHECKLIST FOR BP SUBMISSION FOR EXTERNAL WORKS, SWA SECTION 18 ROADS, PROMENADES, PEDESTRIAN MALLS	FORM BP CH- LIST SWA	NPARKS-0- BPS05.DOC	ESPro
14.	CHECKLIST FOR BP SUBMISSION FOR PEDESTRIAN OVERHEAD BRIDGE	FORM BP CH- LIST POB	NPARKS-0- BPS06.DOC	ESPro
15.	CHECKLIST FOR BP SUBMISSION FOR ROADSIDE COVERED LINKWAY	FORM BP CH- LIST COV	NPARKS-0- BPS07.DOC	ESPro
16.	APPLICATION FOR CERTIFICATE STATUTORY COMPLETION (CSC) SUBMISSION	FORM CSC APPLN	NPARKS-0- CSC01.XFD	ESPro
17.	CHECKLIST FOR CSC SUBMISSION FOR DEVELOPMENTS WITHIN TREE CONSERVATION AREAS	FORM CSC CH- LIST TCA	NPARKS-0- CSC02.DOC	ESPro
	CHECKLIST FOR CSC SUBMISSION / HANDING OVER FOR OPEN SPACE WITHIN CONVENTIONAL HOUSING DEVELOPMENT	FORM CSC CH- LIST OS	NPARKS-0- CSC03.DOC	ESPro
19.	CHECKLIST FOR CSC SUBMISSION FOR GOVERNMENT & STATUTORY BOARD PROJECT (WITHIN THE PREMISES)	FORM CSC CH- LIST GOV	NPARKS-0- CSC04.DOC	ESPro
20.	CHECKLIST FOR CSC SUBMISSION FOR ENTRANCE CULVERT AND/OR SWA SECTION 18 ROAD	FORM CSC CH- LIST SWA	NPARKS-0- CSC05.DOC	ESPro

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S/No	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
21.	CHECKLIST FOR CSC SUBMISSION /	FORM CSC CH-	NPARKS-0-	ESPro
	HANDING OVER OF PLANTING FOR	LIST POB	CSC06.DOC	
	PEDESTRIAN OVERHEAD BRIDGE			

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C-13 PowerGas Submission Forms

S/No	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
1.	APPLICATION FOR THE SUPPLY OF GAS	FORM G1	PWRGAS-0-G1.XFD	ESPro
2.	APPLICATION FOR FINAL PRESSURE TEST OF GAS INSTALLATION	FORM G2	PWRGAS-0-G2.XFD	ESPro
3.	CERTIFICATE OF FINAL PRESSURE TEST	FORM G2A	PWRGAS-0-G2A.DOC	ESPro
4.	REQUEST FOR CHARGE-IN/TURN-ON OF GAS	FORM G3	PWRGAS-0-G3.XFD	ESPro
5.	PE CONSENT LETTER	FORM LOC1	PWRGAS-0- LOC1.DOC	ESPro
6.	OWNER CONSENT LETTER	FORM LOC2	PWRGAS-0- LOC2.DOC	ESPro
7.	APPLICATION FOR THE APPROVAL OF GAS PIPE INSTALLATION PLAN	FORM PH-G1	PWRGAS-0- PHG1.XFD	ESPro
8.	APPOINTMENT OF PROFESSIONAL ENGINEER FOR GAS PIPE INSTALLATION	FORM PH-G1A	PWRGAS-0- PHG1A.DOC	ESPro
9.	APPOINTMENT OF DESIGNATED REPRESENTATIVE (DR) FOR GAS PIPE INSTALLATION	FORM PH-G1B	PWRGAS-0- PHG1B.DOC	ESPro
10.	APPLICATION FOR FINAL PRESSURE TEST OF GAS PIPE INSTALLATION	FORM PH-G2	PWRGAS-0- PHG2.XFD	ESPro
11.	CERTIFICATE OF FINAL PRESSURE TEST	FORM PH-G2A	PWRGAS-0- PHG2A.DOC	ESPro
12.	REQUEST FOR CHARGE-IN/TURN-ON OF GAS SUPPLY	FORM PH-G3	PWRGAS-0- PHG3.XFD	ESPro
13.	REQUEST FOR CHARGE-IN/TURN-ON OF GAS SUPPLY TO THE GAS MAINS LAID BY POWERGAS LTD	FORM PH-G3A	PWRGAS-0- PHG3A.DOC	ESPro

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C-14 PUB – Drainage Submission Forms

S/No	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
8.	APPLICATION FOR CLEARANCE CERTIFICATE FOR DETAILED PLAN ON DRAINAGE WORKS	FORM DP (DRA) - ANNEX 5	PUB-DD- CLRDPDRA01.XFD	ESPro
9.	CERTIFICATE OF SUPERVISION AND INSPECTION FOR DRAINAGE WORKS	FORM SC/DRA	PUB-DD-CSIDRA.XFD	ESPro
	CERTIFICATION OF COMPLETION OF INTERNAL DRAINAGE WORKS	FORM CINT/DRA	PUB-DD- CCINTDRA.XFD	ESPro
10.	CERTIFICATION OF COMPLETION OF EXTERNAL DRAINAGE WORKS	FORM CEXT/DRA	PUB-DD- CCEXTDRA.XFD	ESPro
11.	CHECKLIST FOR APPLICATION FOR CERTIFICATE OF STATUTORY COMPLETION CLEARANCE FOR DRAINAGE WORKS	FORM CSCDR	PUB-DD-CSCDR.DOC	ESPro
12.	PRE-CONSULTATION AND WAIVER APPLICATION ON DRAINAGE MATTER		PUB-DD- PCWVDRA.XFD	ESPro

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C-15 PUB – Sewerage Submission Forms

S/No	Submission Form Title	Original	e-Submission	Submission
		Form Name	Form Name	Туре
1.	APPLICATION FOR CLEARANCE CERTIFICATE FOR DETAILED PLAN ON SEWERAGE (*SANITARY/SEWER WORKS)	FORM DP (SEW: SANITARY/SEWE R) - ANNEX 3	PUB-SEW- CLRDPSEW01.XFD	ESPro
2.	SUPPLEMENTARY INFORMATION TO APPLICATION FOR CLEARANCE CERTIFICATE FOR SEWERAGE (M&E) WORKS	FORM M&E APPL/SEW	PUB-SEW- CLRSEWME.XFD	ESPro
3.	APPLICATION FOR CLEARANCE CERTIFICATE FOR DETAILED PLAN ON SEWERAGE (M&E WORKS)	FORM DP (SEW: M&E) - ANNEX 4	PUB-SEW- CLRDPSEW02.XFD	ESPro
4.	CHECKLIST FOR SEWERAGE (M&E) PLAN SUBMISSION	FORM SD - M&E APPLICATION CHECKLIST	PUB-SEW- CLRSEWME01.DOC	ESPro
5.	CERTIFICATE OF SUPERVISION AND INSPECTION FOR SANITARY/ SEWERAGE WORKS	FORM C/QP/SEW	PUB-SEW- CSISEW01.XFD	ESPro
6.	ANNEX A - DECLARATION BY QP ON CHARGEABLE SANITARY APPLIANCE INSTALLED	FORM C/QP/SEW	PUB-SEW- CSISEW02.XFD	ESPro
7.	ANNEX C - RP/ SEWERAGE CONTRACTOR CONFIRMATION OF COMPLETION OF SANITARY/SEWERAGE WORKS	FORM C/QP/SEW	PUB-SEW- CSISEW03.XFD	ESPro
8.	ANNEX D - QP REPORT ON RP INFRINGEMENT TO ENV REQUIREMENTS	FORM C/QP/SEW	PUB-SEW- CSISEW04.XFD	ESPro
9.	CERTIFICATE OF SUPERVISION AND INSPECTION OF M&E EQUIPMENT FOR SEWERAGE INSTALLATION	FORM C1/QP/SEW	PUB-SEW- CSIMEESEWI.XFD	ESPro
10.	NOTICE OF COMMENCEMENT OF MINOR SANITARY WORKS BY REGISTERED PLUMBER	FORM RP 1/SEW	PUB-SEW- RPNCMSAN01.XFD	ESPro
11.	NOTICE OF COMPLETION OF MINOR SANITARY WORKS BY REGISTERED PLUMBER	FORM RP 2/SEW	PUB-SEW- RPNCMSAN02.XFD	ESPro
12.	-	FORM RP 3/SEW	PUB-SEW- LOURPMC01.XFD	ESPro
13.	LETTER OF UNDERTAKING BY REGISTERED PLUMBER/MAIN CONTRACTOR TO MAINTAIN/REMOVE TEMPORARY HOLDING TANK/PORTABLE CHEMICAL TOILETS AT CONSTRUCTION SITE AFTER COMPLETION OF PROJECT	FORM RP 4/SEW	PUB-SEW- LOURPMC02.XFD	ESPro
	NOTICE FOR COMMENCEMENT OF SANITARY AND SEWERAGE WORKS	FORM A/QP/SEW	PUB-SEW- NCSANSEW.XFD	ESPro
	APPLICATION TO WORK IN PUBLIC SEWERAGE SYSTEM	FORM B/QP/SEW	PUB-SEW- QPPWSEW.XFD	ESPro
16.	PRE-CONSULTATION AND WAIVER APPLICATION ON SEWERAGE MATTER		PUB-SEW- PCWVSEW.XFD	ESPro

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C-16 PUB – Water Submission Forms

S/No	Submission Form Title	Original Form Name	e-Submission Form Name	Submission Type
1.	APPLICATION FOR PRE-PLANNING CONSULTATION	FORM-PPC	PUBWTR-0- PPC01.XFD	ESPro
2.	NOTIFICATION FOR WATER SERVICE WORK	FORM-PE-NOT	PUBWTR-0- WSW01.XFD	ESPro
3.	APPLICATION FOR CERTIFICATE OF SATISFACTORY COMPLETION	FORM-PE-CSC	PUBWTR-0- CSC01.XFD	ESPro
4.	COVER LETTER FOR CERTIFICATE OF SATISFACTORY COMPLETION	LETTER-PE-CSC	PUBWTR-0- CSC02.DOC	ESPro
5.	NOTIFICATION OF WATER SERVICE WORK FOR LICENSED WATER SERVICE PLUMBER	FORM-P-NOT	PUBWTR-0- WLP01.XFD	ESPro
6.	COVER LETTER FOR CERTIFICATE OF SATISFACTORY COMPLETION	LETTER-P-CSC	PUBWTR-0- CSC03.DOC	ESPro
7.	APPLICATION FOR CERTIFICATE OF SATISFACTORY OF WATER SERVICE WORK BY LICENSED WATER SERVICE PLUMBER	FORM-P-CSC	PUBWTR-0- WSW02.XFD	ESPro
8.	APPLICATION FOR POTABLE WATER SUPPLY	FORM-PWS	PUBWTR-0- PWS01.XFD	ESPro
9.	FORM FOR RESIDENTIAL CATEGORY	FORM-RC	PUBWTR-0- RCG01.XFD	ESPro
10.	FORM FOR NON-MANUFACTURING CATEGORY	FORM-NMC	PUBWTR-0- NMC01.XFD	ESPro
11.	FORM FOR MANUFACTURING CATEGORY	FORM-MC	PUBWTR-0- MCG01.XFD	ESPro
12.	FORM FOR TEMPORARY SUPPLY	FORM-TS	PUBWTR-0- TSP01.XFD	ESPro
13.	APPLICATION FOR LICENSE AS A WATER SERVICE WORKER	FORM WSP	PUBWTR-0- WSP01.XFD	Online
14.	APPLICATION FOR RENEWAL OF LICENSE	FORM R	PUBWTR-0- WSR01.XFD	Online

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C-17 URA Submission Forms

S/NoSu	Ibmission Form Title	Original Form Name	e-Submission Form Name	Submission Type
	LECTRONIC DEVELOPMENT PPLICATION FORM	EDAFORM	EDAFORM.EDA	ESPro

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Appendix D CAD Layering Requirements

D-1 List of Layers to be Extracted for Submission to BCA

The element names in this list are arranged in alphabetical order.

CD refers to civil defence shelter plans including architectural and structural, electrical, mechanical And sanitary services plans.

Elem	Element Name		Description of Elements	l BP	ST	CD
S/No	Main Sub		Decompliant of Liements	+ -:-		
Project	_		ements			
1.	ANOT-		Annotations for entire CAD sheet including texts, dimension and hatch patterns.	✓	✓	✓
2.	ANOTE	ENDO	Plan endorsement	1	√	1
3.	ANOTO		Grids	1	√	1
4.	ANOTE		Revision notes		√	✓
5.	ANOTH		Handicap symbols	1		√
6.	ANOTS		Symbols	1	1	1
7.	ANOTT		Title block	1	1	1
8.	ANOT		View-ports of CAD file	1	1	1
9.	AREAC		Area calculations		1	√
10.	AREAE		Building block area		✓	✓
11.	AREAC		Communal open space area	√		√
12.	FCLTF		Food outlets	√		√
13.	FCLTM		Market	√		√
14.	FCLTP		Location of swimming pool	1		√
15.	FCLTP		Location of industrial processes	1		1
16.	FCLTT		Public toilets	1		<u>,</u>
17.	SPAC-		Space usage	1	1	1
18.	CDSH-		Public shelter layout, bounds of proteection			√
19.	CDSHZ		Zones of protection, CD rooms label			√
Substru	icture e	lements		•	•	
20.	BEAM-		Beams	T	√	√
21.	COLN-		Columns	1	✓	1
22.	FLOR-		Floors	√	✓	✓
23.	FOUN-		Foundation		✓	✓
24.	PCAP-		Pile caps		√	√
25.	PILE		Piles		√	✓
26.	REIN		Reinforcement		√	√
27.	RETW-		Retaining walls	1	√	√
28.	SIGN		Signage	1	✓	✓
29.	SLAB-		Floor slabs	1	✓	✓
30.	SLABP		Concrete plinth for equipment	1	✓	√
31.	SLABO		Slab openings	1	√	√
32.	WALL-		Walls	1	✓	√
33.	WALLO		Wall openings	1	✓	√
34.	WALLS		Structural walls	1	✓	√
	Superstructure elements					
35.	BEAM		Beams	 ✓	√	✓
36.	BLDG-		Building	 '	√	·
37.	CHNY-		Chimneys	<u> </u>	√	· ✓
38.	COLN-		Columns	 	→	→
39.	CLAD-		Cladding	 	→	✓
			Doors	 		√
	DOOR.					
40. 41.	DOOR		Fire rated doors	 		√

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Fler	Element Name		Description of Elements	BP	ST	CD
S/No	Main	Sub	Description of Elements	<u> </u>	0.	00
43.	FLOR-		Floors	1	1	1
44.	FLORL		Floor/platform level	1	✓	✓
45.	HANR-		Handrails	1	✓	1
46.	MTAL-		Miscellaneous metal parts	√	√	1
47.	RAMP-		Ramps	✓	✓	√
48.	RALG-		Railings	✓	✓	√
49.	REIN		Reinforcement		✓	✓
50.	RETW-		Retaining walls	✓	✓	✓
51.	ROOF-		Roofs	✓	✓	✓
52.	SIGN		Signage	✓	✓	✓
53.	SPAC-		Space usage	✓		✓
54.	SLAB		Floor slabs	✓	✓	✓
55.	SLABO		Slab openings	✓	✓	✓
56.	SLABP		Concrete plinth for equipment	✓		✓
57.	SLABS		Slab rises/drops	✓	✓	✓
58.	STEL		Steel structures	✓	√	✓
59.	STRC-		Staircases	√	√	√
60.	STRCH		Handrail of staircases	√	√	√
61.	STRCL		Staircase landings	√	✓	√
62.	STRCS		Staircase steps	√	•	✓
63.	STRCV		Staircase walk-lines	*	√	√
64. 65.	TIMB		Miscellaneous timber parts Walls	✓	✓	∨
66.	WALLE		Fire rated walls	✓	√	∨
67.	WALL		Wall openings	∀	→	▼
68.	WALLE		Parapet walls	✓	√	▼
69.	WALLE		Partition walls	✓	→	→
70.	WALLS		Structural walls	<i>'</i>	·	<i>'</i>
71.	WIND-		Windows	1	-	1
72.	WINDS		Skylight	1		1
73.	CDST-		Structural openings in CD shelters			1
74.			Openings for MCTs, pipe sleeves, puddle			
	CDSTC	PEN	flanges, opening label, etc			✓
75.	CDSTE	OOR	CD doors, louvres, hatches, valves, etc			✓
Air-con	ditionin	g and n	nechanical ventilation system (ACMV) elen	nents		
76.	CDMV-		Ventilation to CD shelters			✓
77.	CDMVI	DUCT	Ductwork, return & supply air diffusers, fans			✓
78.	CDMVI	PRES	Overpressure regime and airflow, differential			√
	3571	0	pressure gauges			
79.	CDMV	AHUE	Air-handling equipment, gas filters; gas-tight shut-off valves			✓
80.	CDMV	CWAT	Air-conditioning chillers, cooling towers, pump			✓
Sanitar	y & plun	nhina c	sets, pipework			
	y & piun SANIE		-	·		·
81. 82.	SANIE	WL I	Sanitary equipment CD decontamination system, CD drinking	_		
	CDPL-		system, CD 'hygiene' system, pumpsets, pipework, tanks, shower heads, drinking points, wash basins, taps, sinks, wash troughs	✓		✓
Electric			elements			
83.	ESCR-		Escalators/people movers	✓	\	✓
84.	LIFT		Lifts	✓	✓	✓
85.	CDEL-		CD electrical installations			✓
86.	CDELG	SENS	Generator(s) and related cooling system, Generator fuel system (underground fuel tanks, fuel pipe routings, etc)			✓

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Elei	ment Name	Description of Elements	BP	ST	CD
S/No	Main Sub				
87.	CDELSWIT	Electrical switchboards and main cable support			√
	CDELSWII	system (eg ladders, trunkings, trays, etc)			•
88.	CDELLGTN	Lighting, switches, power outlets and circuits			✓
89.	CDELDMON	CD-door monitoring system			✓
90.		Telephone and bell system, Public address			
	CDELPUBA	system, Intercom system, MATV/Cable TV			✓
		system			
91.	CDELEMON	Equipment Monitoring System, control panel			✓
Fire pro	tection system	elements		•	•
92.	DOORFIRE	Fire rated doors	✓		√
93.	SIGN	Signage	√	√	√
94.					Ė
J 1.	WALLFIRE	Fire rated walls	✓		✓
Other s	ervices installa	tions elements			
95.	POOL	Swimming pool	✓		✓
96.	SIGN	Signage	✓	✓	✓
Externa	al works elemer				1
97.	BRDG	Bridges	√	—	
98.	CPRK	Car-parking lot	<i>'</i>	•	Ż
90. 99.	FIREENGA	. •	▼	 	▼
99. 100.	FIREENGA	Fire engine access ways	✓		
		Fire engine hard-standing			✓
101.	HSUR	Landscaping hard surfaces	✓		✓
102.	LNSP	Landscape and tree planting	✓		✓
103.	LNSPBUFF	Green buffer line	✓		✓
104.	LNSPVERG	Planting verge	\		✓
105.	PATH	Footpaths, walkways	✓	✓	✓
106.	PGRD	Playground, park facilities	✓		✓
107.	POOL	Swimming pool	✓	√	✓
108.	RAILZONE	Railway protection corridor	1		✓
109.	RALG	Railings	1	√	/
110.	RETW	Retaining walls	<i>-</i>	√	_
111.	ROAD	Roadways	→	· /	Ż
112.	ROADBSHL	Bus Shelter	<i>'</i>	<u> </u>	Ť
				✓	
113.	ROADWIDL	Road widening lines	✓	V	✓
114.	SDRN	Surface water drainage	✓		✓
115.	SDRNGTTR	Surface water drainage gutters	✓		✓
116.	SDRNLEVL	Surface drainage invert level		✓	
117.	SDRNPIPE	Surface water drainage pipes/culverts	✓		✓
118.	SDRNRESV	Drainage reserve	✓	✓	✓
119.	SEWRDEEP	Deep tunnel sewers and drop shafts		✓	✓
120.	SEWRLEVL	Sewerage invert level		✓	✓
121.	SIGN	Signage	✓	✓	✓
122.	SITE	Site, external works	✓	✓	✓
123.	SITEBNRY	Site boundary	1	✓	✓
124.	SITECADA	Cadastral information	·	√	
125.	SITEKPLN	Key plan	→	·	
126.	SITENRTH	North point	▼	<i>'</i>	
127.	SITESTBK	Building setback	✓	√	✓
128.	SITEWALL	Boundary wall, site fencing	✓	√	✓
129.	TOPOCONT	Site contour lines and elevations		✓	✓
130.	TOPOCROS	Cross sections		✓	✓
131.	TOPOGRAD	Site gradients	✓	✓	✓
132.	TOPOLONG	Longitudinal sections		✓	
133.	TOPOPLVL	Platform level	✓	✓	✓
	TOPOSLOP	Embankment	1	1	✓

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D-2 List of Layers to be Extracted for Submission to ENV - Environmental Health Department

The element names in this list are arranged in alphabetical order.

S/No	Element	Description of elements				
	name	·				
	Main Sub					
	PROJECT INFORMATION ELEMENTS					
1.	ANOTENDO	Plan endorsement				
2.	ANOTGRID	Grids				
3.	ANOTTBLK	Title block				
4.	AREACALC	Area calculations				
5.	AREABDBA	Building Block area				
6.	AREABEDB	Area to be deducted from building coverage				
7.	FCLTFOOD	Food outlets				
8.	FCLTMRKT	Market				
9.	FCLTPOOL	Location of swimming pool				
10.	FCLTRCDS	Refuse collection disposal system				
11.	FCLTTOIL	Public toilets				
12.	SPAC RUCTURE ELEME	Space usage				
13.	COLN	Columns				
14.	FLOR	Floors				
15.	WALL	Walls				
16.	WALLOPEN STRUCTURE ELE	Wall openings				
		=				
17.	CEIL	ceilings				
18.	COLN	Columns				
19.	FIXR	Fictures				
20.	FNSH	Finishes				
21.	FLOR	Floors				
22.	RAMP	Ramps				
23.	ROOF	Roofs				
24.	SPAC	Space usage				
25.	SLAB	Floor slabs				
26.	SLABOPEN	Slab openings				
27.	SLABSTEP	Slab rises/ drops				
28.	WALL	Walls				
29.	WALLPARP	Parapet walls				
30.	WALLPRTN	Partition walls				
31.	WIND	Windows				
32.	WINDSKYL	Skylight				
AIR-CO	NDITIONING AND	MECHANICAL VENTILATION SYSTEM (ACMV) ELEMENTS				
33.	ACONEXHA	Air-conditioning exhaust air system				
34.	MEVS	Mechanical exhaust/ ventilation system				
SANITA	RY AND PLUMBI	_				
35.	SANI	Sanitary system				
36.	SANIDRAN	Sanitary drainage				
		,				

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S/No	Element name	Description of elements		
37.	SANIEQPT	Sanitary equipment		
38.	SANIFIXR	Sanitary fixtures		
39.	SANIPIPE	Sanitary pipes		
40.	SANIPITS	Sumps/ pits / hatch-boxes		
41.	SANIVENT	Sanitary vent pipes		
ELECTR	ICAL INSTALLA	TIONS ELEMENTS		
42.	LIFT	Lifts		
OTHER :	SERVICES INSTA	LLATIONS ELEMENTS		
43.	FCLTRCDS	Refuse collection disposal system		
44.	POOL	Swimming pool		
EXTERN	EXTERNAL WORKS ELEMENTS			
45.	FCLTRCDS	Refuse collection disposal system		
46.	POOL	Swimming pool		
47.	ROAD	Roadways		
48.	SITEBNRY	Site boundary		
49.	SITEKPLN	Key plan		
50.	SITENRTH	North Point		
51.	SITESTBK	Building setback		
52.	SITEWALL	Boundary wall, site fencing		
53.	TOPOCONT	Site contour lines and elevations		
54.	TOPOCROS	Cross sections		
55.	TOPOGRAD	Site gradients		
56.	TOPOLONG	Longitudinal sections		
57.	TOPOPLVL	Platform level		
58.	TOPOPONT	Spot level point for earthworks computation		

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D-3 List of Layers to be Extracted for Submission to ENV - Pollution Control Department

The element names in this list are arranged in alphabetical order.

S/No	Element	Description of elements
	name	
	Main Sub	
	CT INFORMATION	
1.	ANOT	Annotations for entire CAD sheet including texts, dimension and hatch patterns
2.	ANOTENDO	Plan endorsement
3.	ANOTGRID	Grids
4.	ANOTREVN	Revision notes
5.	ANOTHCAP	Handicap symbols
6.	ANOTSYBL	Symbols
7.	ANOTTBLK	Title block
8.	ANOTVPRT	View ports of CAD file
9.	AREACALC	Area calculations
10.	AREABDBA	Building Block area
11.	FCLT	Facilities (for inspection)
12.	FCLTAPCE	Air pollution control eqipment
13.	FCLTPRCS	Location of industrial processes
14.	FCLTSEWR	Sewerage facility
15.	SPAC	Space usage
SUPERS	STRUCTURE ELE	MENTS
16.	BLDG	Building
17.	CHNY	Chimneys
18.	FLORLEVL	Floor/ platform level
19.	ROOF	Roofs
20.	SLABPLNH	Concrete plinth for equipment
		MECHANICAL VENTILATION SYSTEM (ACMV) ELEMENTS
21.	ACONEQPT	Air-conditioning system equipment
22.	ACONEXHA	Air-conditioning exhaust air system
23.	CWAT	Chilled/ condenser water system
24.	MEVS	Mechanical exhaust/ ventilation system
	RY AND PLUMBI	
25.	SANI	Sanitary system
26.	SANIDRAN	Sanitary drainage
27.	SANIEQPT	Sanitary equipment
28.	SANIFIXR	Sanitary fixtures
29.	SANIPIPE	Sanitary pipes
30.	SANIPITS	Sumps/ pits / hatch-boxes
31.	SANIVENT	Sanitary vent pipes
	OTECTION SYST	
32.	SPRK	Fire sprinkler system
		ALLATIONS ELEMENTS
33.	COMA	Compressed air system

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S/No	Element name	Description of elements
34.	EQPT	Equipment
35.	FUEL	Fuel system piping
36.	FUELEQPT	Fuel equipment
37.	FUELPIPE	Fuel piping
38.	MEDG	Medical gas system
39.	MHAN	Material handling system
40.	GASP	Gas supply
41.	OTHR	Other installations
42.	PRCS	Industrial processes
43.	REFR	Refrigeration system
44.	SIGN	Signage
45.	STEM	Steam system
46.	VCUM	Vacuum system
EXTERN	AL WORKS ELE	MENTS
47.	LNSPBUFF	Green buffer line
48.	SDRN	Surface water drainage
49.	SDRNGTTR	Surface water drainage gutters
50.	SDRNLEVL	Surface drainage invert level
51.	SDRNPIPE	Surface water drainage pipes/ culverts
52.	SDRNRESV	Drainage reserve
53.	SEWRDEEP	Deep tunnel sewers and drop shafts
54.	SEWRLEVL	Sewerage invert level
55.	SEWRMAJR	Major/main sewers and manholes for diameter 300mm - 900mm
56.	SEWRMINR	Minor sewers and manholes for diameter < 300mm
57.	SEWRPRSS	Sewer distribution system and overflow pipes
58.	SEWRTREF	Trade effluent
59.	SEWRTRNK	Trunk sewers and manholes for diameter > 900mm
60.	SIGN	Signage
61.	SITE	Site, external works
62.	SITEBNRY	Site boundary
63.	SITECADA	Cadastral information
64.	SITEKPLN	Key plan
65.	SITENRTH	North Point
66.	SITESTBK	Building setback
67.	SITEWALL	Boundary wall, site fencing
68.	TOPOBORE	Bore-holes
69.	TOPOCONT	Site contour lines and elevations
70.	TOPOCROS	Cross sections
71.	TOPOGRAD	Site gradients
72.	TOPOLONG	Longitudinal sections
73.	TOPOPLVL	Platform level
74.	TOPOPONT	Spot level point for earthworks computation
75.	TOPOSLOP	Embankment
L	l	

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D-4 List of Layers to be Extracted for Submission to FSSB

The element names in this list are arranged in alphabetical order.

S/No	Elemer	nt	Description of elements
	Main	Sub	
PROJE	T CT INFOR	I RMATION	I N ELEMENTS
1.	ANOT		Annotations for entire CAD sheet including texts dimensions and hatch patterns
2.	ANOTE	NDO	Plan endorsement
3.	ANOTG		Grids
4.	ANOTRI		Revision notes
5.	ANOTH	CAP	Handicap symbols
6.	ANOTS		Symbols
7.	ANOTTE		Title Block
8.	ANOTVE		View-ports of CAD file
9.	AREACA		Area calculations
10.	AREABI		Building Block Area
11.	AREAB		Aea to be deducted from building coverage
12.	AREAC	OSA	Communal open space area
13.	AREADI		Area to be deducted from communal open space
14.	FCLT		Facilities (for inspection)
15.	FCLTAN		Fire hydrants*bollards
16.	FCLTAP		Air pollution control equipment
17.	FCLTFO		Food outlets
18.	FCLTFU		Fuel burning equipment
19.	FCLTLIN	ıK	Link-way between buildings
20.	FCLTMF		Market
21.	FCLTPC		Location of swimming pool
22.	FCLTPR		Location of industrial processes
23.	FCLTRO	DS	Refuse collection disposal system
24.	FCLTSE	WR	Sewerage Facility
25.	FCLTTO	IL	Public toilets
26.	SPAC	-	Space usage
SUBST	RUCTURI	ELEME	ENTS
27.	BEAM		Beams
28.	COLN	-	Columns
29.	DOOR		Doors
30.	FLOR	-	Floors
31.	FOUN	-	Foundation
32.	PCAP	-	Pile caps
33.	PILE		Piles
34.	REIN		Reinforcement
35.	RETW	-	Retaining walls
36.	SITECO	NT	Site contour lines and elevations
37.	SITECR	os	Cross sections
38.	SITEGR	AD	Site gradients
37.	SITECR	os	Cross sections

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S/No	Element name	Description of elements
39.	SITELONG	Longitudinal sections
40.	SLAB	Floor slabs
41.	SLABOPEN	Slab openings
42.	SLABSTEP	Slab rises/drops
43.	STRC	Staircases
44.	STRCHANR	Handrail of staircases
45.	STRCLNDG	Staircase landings
_	STRCSTEP	Staircase steps
		Walls
		Wall openings
	WALLSTRU	Structural walls
	TRUCTURE ELE	MENTS
		Beams
		Building
	CHNY	Chimneys
	CEIL	Ceilings
-	COLN	Columns
	DOOR	Doors
	DOORFIRE	Fire rated doors
	FIXR	Fixtures
	FLOR	Floors
59.	FLORLEVE	Floor/platform level
	FURT	Furniture
_		Handrails
		Miscellaneous metal parts
63.	RAMP	Ramps
	RALG	Railings
	REIN	Reinforcement
66.	RETW	Retaining walls
	ROOF	Roofs
68.	SPAC	Space usage
		Floor slabs
	SLABOPEN	Slab openings
	SLABSTEP	Slab rises/drops
	STEL	Steel structures
	STRC	Staircases
		Handrail of staircases
	STRCLNDG	Staircase landings
	STRCSTEP	Staircase steps
	STRCWLIN	Staircase walk-lines
		Walls
	WALLFIRA	Fire rated walls
	WALLOPEN	Wall openings
		Parapet walls
		Partition walls
	WALLSTRU	Structural walls
84.	WIND	Windows

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S/No	Element name	Description of elements			
85.	WINDSKYL	Skylight			
AIR-CON	AIR-CONDITIONING AND MECHANICAL VENTILATION SYSTEM (ACMV) ELEMENTS				
86.	ACON	Air-conditioning including heating and related ventilation system			
87.	ACONDUCT	Air-conditioning system duct			
88.	ACONEQPT	Air-conditioning system equipment			
89.	ACONEXHA	Mechanical exhaust system			
90.	ACONREDF	Return air diffusers			
91.	ACONSUDF	Supply air diffusers			
_		Chilled/condenser water system			
93.	FANS	Electrical fans			
94.	MEVS	Mechanical exhaust/ventilation system			
95.	MEVSSMOK	Smoke control system			
96.	MEVSSPUR	Smoke purging system			
_	MEVSSTRC	Staircase pressurisation system			
	RY & PLUMBING				
		Domestic hot and cold water system			
		Domestic cold water piping			
	DWATEQPT	Domestic hot and cold water equipment			
101.	DWATHOPI	Domestic hot water piping			
102.	SANI	Sanitary system			
103.	SANIDRAN	Sanitary drainage			
104.	SANIEQPT	Sanitary equipment			
105.	SANIFIXR	Plumbing fixtures			
	SANIPIPE	Sanitary pipes			
		Sanitary vent pipes			
ELECTR	ICAL INSTALLA	TIONS ELEMENTS			
	ANTE	TV antenna system			
		Document conveyor system			
110.	ELEC	Electrical power system			
111.	ELECBUSB	Electrical power bus-bar trunking			
	ELECCABT	Electrical cable trays			
113.	ELECCIRC	Electrical circuits			
114.	ELECEMER	Emergency power supply			
115.	ELECEQPT	Electrical equipment			
	ELECSWIT	Electrical switchboards			
	ELECTRKG	Electrical trunking			
118.	ELECUNDR	Electrical underground conduit			
	ESCR	Escalators/people movers			
	LIFT	Lifts			
	LIGT	Lighting			
	LIGTCIRC	Lighting circuits			
	LIGTSWIT	Lighting switches			
	LGTN	Lightning protection system			
		Paging system			
		Public address system			
		Public address system speakers			
128.	SECU	Security system			

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S/No	Element name	Description of elements				
129.	TCOM	Telecommunication installations				
130.	TCOMCABL	Telecommunication cables				
FIRE PR	FIRE PROTECTION SYSTEM ELEMENTS					
131.	DOORFIRE	Fire rated doors				
132.	FIRE	Fire protection system				
133.	FIREALAM	Fire alarms				
134.	FIREDAMP	Fire dampers				
135.	FIREDRIS	Fire protection dry risers				
136.		Fire engine access ways				
137.	FIREENGH	Fire engine hard-standing				
138.	FIREEQPT	Fire protection equipment				
139.	FIREHEAT	Fire protection heat detectors				
140.	FIREHREL	Fire protection hose reels				
141.	FIREHYDT	Fire hydrants				
	FIRESMOK	Fire protection smoke detectors				
_	FIREWRIS	Fire protection wet risers				
		Fire sprinkler system				
		Fire rated walls				
OTHER:	SERVICES INSTA	ALLATIONS ELEMENTS				
146.	BAMS	Building automation management system				
147.	COMA	Compressed air system				
148.	DCON	Document conveyor system				
	EQPT	Equipment				
		Refuse collection disposal system				
151.	FUEL	Fuel system piping				
152.	FUELEQPT	Fuel equipment				
153.	FUELPIPE	Fuel piping				
		Medical gas system				
155.	MHAN	Material handling system				
156.	GASP	Gas supply				
157.	OTHR	Other installations				
158.	POOL	Swimming pool				
159.	PRCS	Industrial process				
160.	REFR	Refrigeration system				
	STEM	Steam system				
	VCUM	Vacuum system				
	WATR	Water supply installations				
		Water supply installations for fire protection system				
	IAL WORKS ELE					
	CPRK	Car-parking				
	FCLTRCDS	Refuse collection disposal system				
	FIREENGA	Fire engine access ways				
	FIREENGH	Fire engine hard-standing				
	HSUR	Landscaping hard surfaces				
	LNSP	Landscape and tree planting				
171.	LNSPBUFF	Green buffer line				
172.	LNSPVERG	Planting verge				

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S/No	Element name	Description of elements
173.	PATH	Footpaths*walkways
174.	PGRD	Playground*park facilities
175.	POOL	Swimming pool
176.	RAIL	Railways
177.	RAILZONE	Railway protection corridor
178.	RALG	Railings
179.	RETW	Retaining walls
180.	ROAD	Roadways
181.	ROADWIDL	Road widening lines
182.	SDRN	Surface water drainage
183.	SDRNGTTR	Surface water drainage gutters
184.	SDRNPIPE	Surface water drainage pipes*culverts
185.	SDRNRESV	Drainage reserve
186.	SEWRDEEP	Deep tunnel sewers and drop shafts
187.	SEWRPRSS	Sewer distribution system and overflow pipes
188.	SEWRMAJR	Major/main sewers and manholes for diameter 300mm - 900mm
189.	SEWRMINR	Minor sewers and manholes for diameter < 300mm
190.	SEWRTREF	Trade effluent
191.	SEWRTRNK	Trunk sewers and manholes for diameter > 900mm
192.	SITE	Site external works
193.	SITEBNRY	Site boundary
194.	SITEBORE	Bore-holes
195.	SITECADA	Cadastral information
196.	SITECONT	Site contour lines and elevations
197.	SITECROS	Cross sections
198.	SITEGRAD	Site gradients
199.	SITELONG	Longitudinal sections
200.	SITENRTH	North point
201.	SITESTBK	Building setback
202.	SITEWALL	Boundary wall*site fencing

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D-5 List of Layers to be Extracted for Submission to IDA

S/No	Element name	Description of elements
	Main Sub	
1.	ANOT	Annotations for entire CAD sheet including texts, dimension and hatch patterns.
2.	ANOTENDO	Plan endorsement
3.	ANOTGRID	Grids
4.	ANOTREVN	Revision notes
5.	ANOTSYBL	Symbols
6.	ANOTTBLK	Tittle block
7.	BEAM	Beams
8.	BLDG	Building
9.	BRDG	Bridges
10.	CEIL	Ceiling
11.	COLN	Columns
12.	CPRK	Car-parking lot
13.	CPRKLEVL	Car parking lot spot level
14.	DOOR	Doors
15.	DOORFIRE	Fire related doors
16.	ELECCABT	Electrical cable trays
17.	ELECEQPT	Electrical equipment
18.	ELECSWIT	Electrical switchboards
19.	ELECTRKG	Electrical trucking
20.	FCLTFOOD	Food outlets
21.	FCLTMRKT	Market
22.	FCLTPOOL	Location of swimming pool
23.	FIREENGA	Fire engine access ways
24.	FIREENGH	Fire engine hard-standing
25.	FLOR	Floors
26.	FLORLEVL	Floor/platform level
27.	FUEL	Fuel system piping
28.	LIFT	Lifts
29.	LNSP	Landscape and tree planting
30.	PATH	Footpaths, walkways
31.	PGRD	Playground, park facilities
32.	RAIL	Railways
33.	RETW	Retaining walls
34.	ROAD	Roadways
35.	ROADBSHL	Bus shelter
36.	ROADLEVL	Road spot level
37.	ROADWIDL	Road widening lines
38.	ROOF	Roofs
39.	SDRN	Surface water drainage
40.	SDRNLEVL	Surface drainage invert level
41.	SDRNPIPE	Surface water drainage pipes/culverts
42.	SDRNRESV	Drainage reserve

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S/No	Element name	Description of elements
43.	SEWRDEEP	Deep tunnel sewers and drop shafts
44.	SEWRMAJR	Major/main sewers and manholes for diameter 300mm – 900mm
45.	SEWRTRNK	Trunk sewers and manholes for diameter > 900mm
46.	SITEBNRY	Site boundary
47.	SITEKPLN	Key plan
48.	SITENRTH	North point
49.	SITESTBK	Building setback
50.	SITEWALL	Boundary wall, site fencing
51.	SLAB	Floors slabs
52.	SLABOPEN	Slab openings
53.	SLABSTEP	Slab rise/drops
54.	SPAC	Space usage
55.	STRC	Staircases
56.	STRCLNDG	Staircases landings
57.	TCOM	Telecommunications installations
58.	TCOMCABL	Telecommunication cables
59.	TOPOCONT	Site contour lines and elevations
60.	TOPOGRAD	Site gradients
61.	TOPOSLOP	Embankment
62.	TVAN	TV antenna system, cable TV System
63.	WALL	Walls
64.	WALLFIRE	Fire related walls
65.	WALLOPEN	Wall openings
66.	WALLPARP	Parapet walls
67.	WALLPRTN	Partition walls
68.	WALLSTRU	Structural walls
69.	WIND	Windows

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D-6 List of Layers to be Extracted for Submission to NParks

S/No	Element name	Description of elements
	Main Sub	
1.	LNSPETRE	Existing Tree
2.	LNSPEPAL	Existing Palm
3.	LNSPESHB	Existing Shrub
4.	LNSPEHED	Existing Hedges
5.	LNSPPTRE	Proposed Tree
6.	LNSPPPAL	Proposed Palm
7.	LNSPESHB	Proposed Shrub
8.	LNSPPHED	Proposed Hedges
9.	LNSPETURF	Turfing
10.	LNSPARTN	Aeration Area
11.	LNSPTRGH	Aeration Trough
12.	LNSPBUFF	Green Buffer
13.	PRGDOUTL	Open Space Outline
14.	PRGDCALC	Open Space Size Calculation
15.	LNSPVERG	Planting Verge
16.	LNSPGRAD	Planting Verge Gradient
17.	SITE	Site, External Works
18.	SITECADA	Cadastral Information
19.	SITEBNRY	Site Boundary
20.	SITEKPLN	Key Plan
21.	SITENRTH	North Point
22.	SITEBASE	Basement Outline
23.	SITEWALL	Boundary Wall
24.	SITEBLDG	Building Outline
25.	SITESTBK	Building Setback
26.	SITEDRAN	Drain
27.	SITE	Diversion of Existing Services
28.	TOPOCONT	Existing Level
29.	TOPOPLVL	Proposed Level (Platform Level)
30. 31.	TOPOPONT	Spot Level Point for Earthworks Gradient
32.	TOPOGRAD TOPOSLOP	Embankment
33.	TOPOSLOP	Cross Section
34.	TOPOLONG	Longitudinal Sections
35.	ROADVERG	Roadside Planting Verge
36.	FIREENGH	Fire Engine Hardstanding
37.	FIREENGA	Fire Engine Access Ways
38.	FIREHYDT	Fire Hydrant
39.	ROADCPRK	Open Carparks
40.	ROADWIDL	Road Reserve Line
41.	ROADTLGT	Traffic Lights
42.	ROAD	Roadways
43.	SDRN	Roadside Drain, Scupper Drain/pipe
44.	SDRNRESV	Drainage Reserve
45.	PATH	Footpaths, Walkways
46.	PATHWALK	Covered Walkways
47.	SEWRDEEP	Deep Tunnel Sewers & Drop Shaft
48.	SEWRLEVL	Sewerage Invert Level
49.	SEWRMAJR	Major/Main Sewers & Manholes for Diameter 300m-900m
50.	SEWRMINR	Minor Sewers & Manholes for Diameter <300m
51.	ELEC	Electrical Post
52.	ELEC	OG Box

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S/No	Element name	Description of elements
53.	ELEC	Traffic Control Box
54.	LIGT	Lamp Post
55.	LIGT	Lighting Control Box
56.	CPRK	Covered carparks
57.	RETWWALL	Retaining Wall
58.	SIGN	Signage
59.	BRDG	Covered Overhead Bridge
60.	TVAN	SCV box
61.	ANOT	Annotations for entire CAD sheet including texts, dimension
62.	ANOTENDO	Plan Endorsement
63.	ANOTGRID	Grids
64.	ANOTTBLK	Title Block
65.	RAIL	Railways
66.	RAILZONE	Railway Protecting Zone
67.	RAMP	Ramp

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D-7 List of Layers to be Extracted for Submission to PowerGas

The element names in this list are arranged in alphabetical order.

S/No	Element name		Description of elements
	Main	Sub	
1.	ANOT-		Annotations for entire CAD sheet including texts, dimension and hatch patterns
2.	ANOTGRID		Grids
3.	ANOTREVN		Revision notes
4.	ANOTS	SYBL	Symbols
5.	ANOT	TBLK	Tittle block
6.	BEAM-		Beams
7.	BLDG-		Building
8.	CEIL	-	Ceilings
9.	COLN-		Columns
10.	CLAD-		Cladding
11.	CPRL-		Car-parking lot
12.	CPRKI	EVL	Car parking lot spot level
13.	DOOR-		Doors
14.	DOOR	FIRE	Fire rated doors
15.	DWAT-		Domestic hot and cold water systems
16.	DWAT	EQPT	Domestic hot and cold water equipment
17.	DWATHOPI		Domestic hot water piping
18.	FCLTPOOL		Location of swimming pool
19.	FIRED	RISE	Fire protection dry risers
20.	FIREE	NGH	Fire engine hard-standing
21.	FIREH	REL	Fire protection hose reels
22.	FIREH	YDT	Fire hydrants
23.	FIREW	RIS	Fire protection wet risers
24.	FLOR-		Floors
25.	FLORL	.WVL	Floor/platform level
26.	GASP-		Gas supply
27.	LIFT	-	Lifts
28.	LNSP-		Landscape and tree planting
29.	MEVS	STRC	Staircase pressurization system
30.	PATH-		Footpaths, walkways
31.	PGRD-		Playground, park facilities
32.	POOL-		Swimming pools
33.	RETW-		Retaining walls
34.	ROAD	LEVL	Road spot level
35.	ROOF-		Roofs
36.	SDRNI	EVL	Surface drainage invert level
37.	SITEB	NRY	Site boundary
38.	SITEK	PLN	Key plan
39.	SITEN	RTH	North Point
40.	SITEW	ALL	Boundary wall, site fencing

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S/No	Element name	Description of elements
41.	SLAB	Floor slabs
42.	SLABOPEN	Slab openings
43.	STRC	Staircases
44.	STRCLNDG	Staircase landing
45.	TOPOCONT	Site contour lines and elevations
46.	TOPOPLVL	Platform level
47.	WALL	Walls
48.	WALLFIRE	Fire rated walls
49.	WALLOPEN	Wall openings
50.	WALLPARP	Parapet walls
51.	WALLPRTN	Partition walls
52.	WALLSTRU	Structural walls
53.	WIND	Windows

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D-8 List of Layers to be Extracted for Submission to PUB - Drainage Department

The element names in this list are arranged by classification.

S/No	Element		Description of elements
	naı Main	ne Sub	
PROJEC 1.	ANOTE		N ELEMENTS Plan endorsement
2.	ANOTO		Grids
3.	ANOTS		Symbols
4.	ANOTI		Title block
	UCTURE		
5.	FLOR-		Floors
6.	RETW-		Retaining walls
	TRUCTU	IRE ELE	
7.	BLDG-		Building
8.	FLOR-		Floors
9.	FLORL	.EVL	Floor/ platform level
10.	RAMP-		Ramps
11.	RETW-		Retaining walls
12.	ROOF-		Roofs
13.	STRC-		Staircase leading to basement
EXTERN	AL WOR	KS ELE	MENTS
14.	BRDG-		Bridges
15.	CPRK-		Car-parking lot
16.	CPRKL	EVL	Car parking lot spot level
17.	FIREE	NGH	Fire engine access ways
18.	FIREE	NGH	Fire engine hard- standing
19.	HSUR-		Landscaping hard surfaces
20.	LNSBU	JFF	Green buffer line
21.	LNSPN	IVERG	Planting verge
22.	PATH-		Footpaths, walkways
23.	PGRD-		Playground, park facilities
24.	RAIL	-	Railways
25.	RAILZ	ONE	Railway protection corridor
26.	RETW-		Retaining walls
27.	ROAD-		Roadways
28.	ROADI	BSHL	Bus shelter
29.	ROADO	CLVL	Road hump crest level
30.	ROADI	_EVL	Road spot level
31.	ROADI	WIDL	Road widening lines
32.	SDRN-		Surface water drainage
33.	SDRNO	STTR	Surface water drainage gutters
34.	SDRNL	.EVL	Surface drainage invert level
35.	SDRNF	PIPE	Surface water drainage pipes/ culverts
36.	SDRNF	RESV	Drainage reserve

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S/No	Element name	Description of elements
37.	SITE	Site, external works
38.	SITEBNRY	Site boundary
39.	SITECADA	Cadastral information
40.	SITEKPLN	Key plan
41.	SITENRTH	North point
42.	SITEWALL	Boundary wall, site fencing
43.	TOPBORE	Bore- holes
44.	TOPGRAD	Site gradients
45.	TOPOLONG	Longitudinal sections
46.	TOPOPLVL	Platform level
47.	TOPOPONT	Spot level point for earthworks computation
48.	TOPOSLOP	Embankment

The element names in this list are arranged in alphabetical order.

Element name	Description of elements
Main Sub	
	Plan endorsement
ANOTGRID	Grids
ANOTREVN	Revision notes
ANOTSYBL	Symbols
ANOTTBLK	Title block
CPRK	Car- parking lot
CPRKLEVL	Car parking lot spot level
FLOR	Floors
FLORLEVL	Floor/ platform level
PATH	Footpaths, walkways
PGRD	Playground, park facilities
RAMP	Ramps
RETW	Retaining walls
ROAD	Roadways
ROADBPST	Bus stop post
ROADSHL	Bus shelter
ROADCLVL	Road hump crest level
ROADLEVL	Road spot level
ROADMARK	Traffic markings on road
ROADWIDL	Road widening lines
ROOF	Roofs
SDRN	Surface water drainage
SDRNLEVL	Surface drainage invert level
SDRNPIPE	Surface water drainage pipes/ culverts
SDRNESV	Drainage reserve
SITE	Site, boundary
SITECADA	Cadastral information
SITEKPLN	Key plan
SITESTBK	Building setback
	Main Sub ANOTENDO ANOTGRID ANOTREVN ANOTSYBL ANOTTBLK CPRK CPRKLEVL FLOR FLORLEVL PATH PGRD RAMP ROADBPST ROADSHL ROADCLVL ROADLEVL ROADMARK ROADWIDL ROOF SDRN SDRN SDRNLEVL SDRNPIPE SDRNESV SITE SITECADA SITEKPLN

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S/No	Element name	Description of elements
	Main Sub	
31.	SITEWALL	Boundary wall, site fencing
32.	SLAB	Floor slabs
33.	STRC	Staircase leading to basement
34.	TOPOCONT	Site contour lines and elevations
35.	TOPOCROS	Cross sections
36.	TOPOGRAD	Site gradients
37.	TOPOLONG	Longitudinal sections
38.	TOPOPLVL	Platform level
39.	TOPOPONT	Spot level point for earthworks computation
40.	TOPOSLOP	Embankment

Mapping of elements in CP 80: 1999- 'Code of practice for classification of construction cost information to cad layers'

Group elements	Elements	Sub-elements	CAD Layers
Substructure	Basement		FLOR
Superstructure	Roof	Roof drainage	ROOF
External works	Surface treatments	Boundary wall, fences	SITEWALL
		and gates	
		Landscaping	LNSP
		Swimming pools	POOL
		Tennis courts	PGRD
		Squash courts	PGRD
		BBQ pits	PGRD
		Playgrounds	PGRD
		Footpaths	PATH
		Driveways, open	CPRK
		carparks and	
		entrances	
		Covered carparks	CPRK
		Covered overhead	BRDG
		bridge	
		Covered walkways	PATH
		Fire engine access	ROAD
		Road widening	ROADWIDL
		Turfing	LNSP
		Lakes	LNSP
		Fountains	HSUR
		Retaining wall	RETW

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D-9 List of Layers to be Extracted for Submission to PUB - Sewerage Department

The element names in this list are arranged in alphabetical order.

S/No	Element name		Description of elements
	Main	Sub	
1.	ACON		Air-conditioning including heating and related ventilation system
2.	ACONDUCT		Air-conditioning system duct
3.	ACONEQPT		Air-conditioning system equipment
4.	ACONI	EXHA	Air-conditioning exhaust air system
5.	ACON	REDF	Return air diffusers
6.	ACON	SUDF	Supply air diffusers
7.	ANOT-		Annotations for entire CAD sheet including texts, dimension and hatch patterns
8.	ANOTE		Plan endorsement
9.	ANOTO	_	Grids
10.	ANOTH		Handicap symbols
11.	ANOTE		Revision notes
12.	ANOTS	SYBL	Symbols
13.	ANOT		Title block
14.	ANOT	/PRT	View ports of CAD file
15.	AREA	BDBA	Building Block area
16.	AREABEDB		Area to be deducted from building coverage
17.	AREA	CALC	Area calculations
18.	AREACOSA		Communal open space area
19.	AREA	DEDC	Area to be deducted from communal open space
20.	BAMS		Building automation management system
21.	BEAM		Beams
22.	BLDG-		Building
23.	BRDG-		Bridges
24.	CEIL	-	Ceilings
25.	CHNY-		Chimneys
26.	COLN-		Columns
27.	COMA		Compressed air system
28.	CLAD-		Cladding
29.	CPRK-		Car-parking lot
30.	CPRKI	_EVL	Car parking lot spot level
31.	CWAT-		Chilled/condenser conveyor system
32.	DOOR-		Doors
33.	DOORFIRE		Fire rated doors
34.	DWAT		Domestic hot and cold water systems
35.	DWATCOPI		Domestic cold water piping
36.	DWATEQPT		Domestic hot and cold water equipment
37.	DWATHOPI		Domestic hot water piping
38.	ESCR-		Escalators/ people movers
39.	ELEC-		Electrical power system
			I .

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S/No	Element	Description of elements
10	name	
40.	ELECBUSB	Electrical power bus-bar trunking
41.	ELECCABT	Electrical cable trays
42.	ELECCIRC	Electrical circuits
43.	ELECEMER	Emergency power supply
44.	ELECEQPT	Electrical equipment
45.	ELECSWIT	Electrical switchboards
46.	ELECTRKG	Electrical truncking
47.	ELECUNDR	Electrical underground conduit
48.	EQPT	Equipment
49.	FANS	Electrical fans
50.	FCLT	Facilities (for inspection)
51.	FCLTANCI	Fire hydrants, bollards
52.	FCLTAPCE	Air pollution control equipment
53.	FCLTFOOD	Food outlets
54.	FCLTMRKT	Market
55.	FCLTPOOL	Location of swimming pool
56.	FCLTPRCS	Location of industrial processes
57.	FCLTRCDS	Refuse collection disposal system
58.	FCLTSEWR	Sewerage facility
59.	FCLTTOIL	Public toilets
60.	FIRE	Fire protection system
61.	FIREALAM	Fire alarms
62.	FIREDAMP	Fire dampers
63.	FIREDRIS	Fire protection dry risers
64.	FIREENGA	Fire engine access ways
65.	FIREENGH	Fire engine hard-standing
66.	FIREEQPT	Fire protection equipment
67.	FIREHEAT	Fire protection heat detectors
68.	FIREHREL	Fire protection hose reels
69.	FIREHYDT	Fire hydrants
70.	FIRESMOK	Fire protection smoke detectors
71.	FIREWRIS	Fire protection wet risers
72.	FIXR	Fixtures
73.	FLOR	Floors
74.	FLORLEVL	Floor/platform level
75.	FOUN	Foundation
76.	FNSH	Finishes
77.	FUEL	Fuel system piping
78.	FUELEQPT	Fuel equipment
79.	FUELPIPE	Fuel piping
80.	FURT	Furniture
81.	GASP	Gas supply
82.	HANR	Handrails
83.	HSUR	Landscaping hard surfaces
84.	LGTN	Lighting protection system
85.	LIFT	Lifts
86.	LIGT	Lighting
5 0.		Eigneing

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S/No	Element name	Description of elements
87.	LIGTCICR	Lighting circuits
88.	LIGTSWIT	Lighting switches
89.	LNSP	Landscape and tree planting
90.	LNSPPARTN	Landscape aeration area
91.	LNSPBUFF	Green buffer line
92.	LNSPVERG	Planting verge
93.	MEDG	Medical gas system
94.	MEVS	Mechanical exhaust /ventilation system
95.	MEVSSMOK	Smoke control system
96.	MEVSSPUR	Smoke purging system
97.	MEVSSTRC	Staircase pressurization system
98.	MHAN	Material handling system
99.	MTAL	Miscellaneous metal parts
100.	OTHR	Other installations
101.	PAGN	Paging system
102.	PATH	Footpaths, walkways
103.	PCAP	Pile caps
104.	PGRD	Playground, park facilities
105.	PILE	Piles
106.	POOL	Swimming pools
107.	PRCS	Industrial process
108.	PUBA	Public address system
109.	PUBASPKR	Public address system speakers
110.	RAIL	Railways
111.	RAILZONE	Railway protection corridor
112.	RALG	Railings
113.	RAMP	Ramps
114.	REFR	Refrigeration system
115.	REIN	Reinforcement
116.	RETW	Retaining walls
117.	ROAD	Roadways
118.	ROADBPST	Bus stop post
119.	ROADBSHL	Bus shelter
120.	ROADCLVL	Road hump crest level
121.	ROADLEVL	Road spot level
122.	ROADTLGT	Traffic light
123.	ROADMARK	Traffic markings on road
124.	ROADWIDL	Road widening lines
125.	ROOF	Roofs
126.	SANI	Sanitary system
127.	SANIDRAN	Sanitary drainage
128.	SANIEQPT	Sanitary eqipment
129.	SANIFIXR	Plumbing fixtures
130.	SANIPIPE	Sanitary pipes
131.	SANIPITS	Sumps/ pits/ hatch-boxes
132.	SANIVENT	Sanitary vent pipes
133.	SDRN	Surface water drainage

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S/No	Element name	Description of elements
134.	SDRNGTTR	Surface water drainage gutters
135.	SDRNLEVL	Surface drainage invert level
136.	SDRNPIPE	Surface water drainage pipes/culverts
137.	SDRNRESV	Drainage reserve
138.	SECU	Security system
139.	SEWRDEEP	Deep tunnel sewers and drop shafts
140.	SEWRLEVL	Sewerage invert level
141.	SEWRMAJR	Major/ main sewers and manholes for diameter 300mm - 900mm
142.	SEWRMINR	Minor sewers and manholes for diameter <300mm
143.	SEWRPRSS	Sewer distribution system and overflow pipes
144.	SEWRTREF	Trade effluent
145.	SEWRTRNK	Trunk sewers and manholes for diameter > 900mm
146.	SIGN	Signage
147.	SITE	Site, external works
148.	SITEBNRY	Site boundary
149.	SITECADA	Cadastral information
150.	SITEKPLN	Key plan
151.	SITENRTH	North Point
152.	SITESTBK	Building setback
153.	SITEWALL	Boundary wall, site fencing
154.	SLAB	Floor slabs
155.	SLABOPEN	Slab openings
156.	SLABPLNH	Concrete plinth for equipment
157.	SLABSTEP	Slab rises/ drops
158.	SPAC	Space usage
159.	SPRK	Fire sprinkler system
160.	STEL	Steel structures
161.	STEM	Steam system
162.	STRC	Staircases
163.	STRCHANR	Handrails of staircases
164.	STRCLNDG	Staircase landing
165.	STRCSTEP	Staircase steps
166.	STRCWLIN	Staircase walk-lines
167.	TCOM	Telecommunication installations
168.	TCOMCABL	Telecommunication cables
169.	TIMB	Miscellaneous timber parts
170.	TOPOBORE	Bore-holes
171.	TOPOCONT	Site contour lines and elevations
172.	TOPOCROS	Cross sections
173.	TOPOGRAD	Site gradients
174.	TOPOLONG	Longitudinal sections
175.	TOPOPLVL	Platform level
176.	TOPOPONT	Spot level point for earthworks computation
177.	TOPOSLOP	Embankment
178.	TVAN	TV antenna system, cable TV system
179.	VCUM	Vacuum system

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S/No	Element	Description of elements
	name	
180.	WALL	Walls
181.	WALLFIRE	Fire rated walls
182.	WALLOPEN	Wall openings
183.	WALLPARP	Parapet walls
184.	WALLPRTN	Partition walls
185.	WALLSTRU	Structural walls
186.	WATR	Water supply installations
187.	WATRFRPT	Water supply installations for fire protection system
188.	WIND	Windows
189.	WINSKYL	skylight

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D-10 List of layers to be extracted and guidelines for submission to URA

General

- 1 Each CAD file contains only one title block.
- 2 "Limit" of the drawing in each CAD file matches the boundary of the title block(i.e. no information is included outside the title block).
- 3 "Last saved view" of the CAD files covers only the title block and information within it.
- 4 "Maximum Extents" view should be shown in the "Last saved view".
- 5 Declaration of ownership on CAD drawings should be properly done (see Annex A).
- No external reference files should be referenced by the CAD files submitted (i.e. The external reference files, if any, should be binded before submission).
- 7 No raster images should be attached to the CAD file submitted.
- 8 "Draft Work"/Construction lines should not be included in the CAD files submitted.
- 9 Hatch pattern in CAD files should be kept to minimum.
- No proprietary fonts should be used.
- All layers except layers on area calculation should be set to "on" in the "last saved view".
- Same CAD files (with changes incorporated to comply with the requirements) should be used in resubmission (i.e. no shifting of co-ordinates in the re submitted files).
- 13 File Naming convention as indicated in Annex C should be used.
- 14 Format of CAD layer as indicated in Singapore CAD layering standards (CP83 part 1) should be used.
- Only a subset of layers listed in Annex I should be included in the CAD files submitted. Additional layers other than the layers listed in Annex I included should be highlighted (with reasons for inclusion) in the cover letter.
- 16 No hidden CAD layers should be included in the CAD files.
- 17 For "Additions and Alterations" or Amendment proposal, the following colours should be used:

Usage	Colour	DWG Colour Code	DGN Colour Code
Proposed /Additional Elements	Magenta	6	5
Existing /Approved Elements	Cyan	4	7
Deleted Elements	Yellow	2	4

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Proposal Plan

- Declaration of DIP and RIP on CAD drawings for new erection applications should be properly done (see Annex B and item 1 in Annex D).
- 2 Cadastral based site plan with a surrounding radius range of 10m to 50m is incorporated in the proposal plans. (Note: If this is not possible, applicant is to provide a cadastral key plan as an insert onto the proposal plans or submit the cadastral key plan separately as a scanned image).
- 3 Relevant information required for planning consideration should be indicated according to layers as listed in Annex D.
- 4 Site boundary, all plot boundaries with dimensions & plot areas should be indicated on plan(see Annex D item 11).
- 5 All building setbacks should be indicated on plan(see Annex D item 15).
- All building plots, and area for communal use/open space should be shown as separate plots on plan(see Annex D items 18 & 19).
- Parcels of land for vesting such as road widening and drainage reserve etc should be shown as separate plots on plan(see Annex D items 8 & 9).
- 8 Existing ground levels for the subject site and adjoining sites immediately across the common boundaries & proposed platform levels should be indicated on plan(see Annex D items 17).
- 9 Retaining walls if any, should be shown on the proposal/section/elevation plans(see Annex D item 6).
- 10 Boundary walls if any, should be shown on the proposal/section/elevation plans(see Annex D item 16).
- Buffer zone provisions should be indicated(see Annex D items 4).
- 12 2m wide planting strip along the boundary should be indicated on plans(see Annex D item 5).
- Access arrangement should be indicated on plan(see Annex D item 7).
- Road categories should be indicated on plan (see Annex D items 7).

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Sketch (Floor, Section & Elevation) Plan

- 1 Floor to floor heights should be indicated on section and elevation plans(see Annex G item 3).
- 2 Basement protrusions if any, should be indicated on section and elevation plans(see Annex G item 3).
- 3 Lines of existing ground level should be indicated on section and elevation plans(see Annex G item 7).
- 4 Maximum building height in m AMSL should be indicated on section and elevation plans(see Annex G item 3).

Calculation Plan

- Layers on GFA information as indicated in Annex E should be incorporated in all Floor Plans(i.e. separate calculation plans are not required for submissions submitted under EDA and E-SUBMISSION). Layers as indicated in Annex F should also be incorporated in the proposal plan if Communal Open Space or Building Coverage Control is applicable to the subject proposal.
- All polygons demarcate area for calculation should be drawn using lightweight polylines and all polygons should be "closed".
- 3 Labels represent each area demarcated and tabulation of area calculations should be indicated on top right hand corner of the plan.
- Area included in layer "AREAGFAD" (i.e red polygons) should be within the area in the layer "AREAGFAA" (i.e green polygons).
- 5 Detailed calculations on quantum use(if applicable) should be incorporated.

Proposal/Floor Plans for Subdivision of Lands/Strata Subdivision of Buildings

- Existing lot boundaries should be shown by dotted lines together with their lot number(see Annex H item 9).
- Boundary of land to be subdivided should be indicated(see Annex H item 8).
- 3 All proposed new lot boundaries with dimensions should be indicated(see Annex H item 9)
- 4 All building plots and parcels of land for vesting such as splay corner, road widening, drainage reserve, etc should be shown as separate plots(see Annex H items 5, 6,15 & 16).
- 5 Strata unit boundary should be indicated on floor plans for strata subdivision (see Annex H items 12).

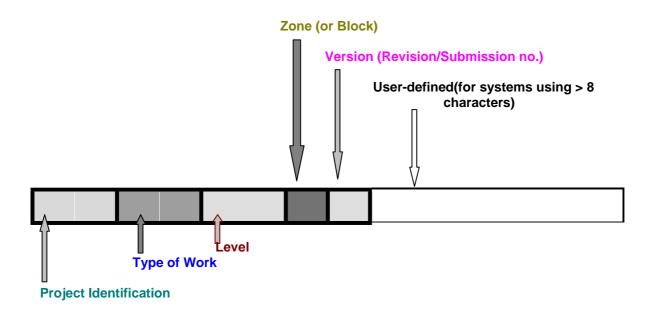
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Endorsement For Owner Consent

I/We	, (type in name of the person signing the plan), hereby declare that -	
	I/we am/are not the owner(s) of the land within the meaning of the term "owner" as defined in Section 2 of the Planning Act (Cap 232, 1998Ed); and	
	I/we have shown this plan to the owner(s) of the land, and have obtained the consent of the said owner(s) to submit this plan to the Competent Authority under the Planning Act (Cap 232, 1998Ed).	
	An	nex E
Format Of	Endorsement For Drainage And Road Interpretations	ı
Drainage Int	erpretation	
the layout pla	n name of the person signing the plan), confirm that the drainage details as shown in an are in accordance with the information provided by the Chief Engineer, Central Unit, Pollution Control Department, ENV. via refdated	
		l
Road Interpr	retation	
category of th	in name of the person signing the plan), confirm that the road reserve lines, the ne proposed and existing roads and other related road information as shown in the layout ordance with the information provided by the LTA. via refatted	

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File Naming Standards for EDA Submissions



Project Identification

User-defined field. E.g. MP for Merlion Park Project

Type of Work

SP Site Plan (If the submission contains only one CAD file with all details Such as site layout and floor layout , then Type of work should be indicated as SP)

then Type of Work should be indicated as FP)

FE Floor plan – elevation view
FX Floor plan - cross section view

SX Site cross section view

SE Site cross section view

SV Survey Plan
TP Topo Plan
PP Land Profile Plan

RD Road Interpretation plan
DN Drainage Interpretation plan

RW Retaining walls
BC Bin Centres
SN Substations
LS Landscaping
LT Lighting Plan

OA Other ancillary structure(eg bin centre, Guard house on same CAD

File)

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Level

02	2 nd storey
12	12 storey, or typical floor from 12 storey and above
A-	Attic
B2	Basement 2
E2	Elevation 2
M3	Mezzanine 3
R-	Roof
	Whole project / Site plan
BB	Section BB
NE	Northeast elevation plan
-A	1 st drawing in the submission with multi-levels, multi-View Plane in the same CAD file

same CAD file $2^{\rm nd}$ drawing in the submission with multi-levels, multi-View Plane in the same CAD file -В

Zone or Block

1 for block 1,- for all blocks A for Zone A

Version (Revision/Submission no.)

1st submission а 2nd submission b 3rd submission

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List of layers to be included in the Proposal Plan

S/No	Element name	Description of elements	DWG Colour Code	DGN Colour Code
	Main Sub			
1	ANOTENDO	Plan endorsement	7	0
2	ANOTTBLK	Title block, Scales, Drawing boundary Legend text Company Logo	7 or any other colour	0 or any other colour
3	BLDG	Building Outlines	7	0
4	LNSPBUFF	Green buffer line with dimension, physical buffer line with dimension	94	130
5	LNSPVERG	Planting verge with dimension	94	130
6	RETW	Retaining walls with dimension	1	3
7	ROAD	Roadways, Road category text Road Name text Road centre lines Kerbs	14	131
8	ROADWIDL	Road widening lines, Plot Numbers for Road reserve	14	131
9	SDRNRESV	Drainage reserve lines, Plot Numbers for Drainage reserve	5	1
10	SITE	Site, external works, earth work, basement line,	7	0
11	SITEBNRY	Site boundary, plot boundary, dimensions of site/plot boundary and plot area	1	3
12	SITECADA	Cadastral information, Lot Number, Lot Boundary	7	0
13	SITEKPLN	Key plan	7	0
14	SITENRTH	North point	7	0
15	SITESTBK	Building setback dimensions	1	3
16	SITEWALL	Boundary wall, site fencing	174	129
17	TOPOPLVL	Platform level	7	0
18	SPACBLDG	Building plot boundaries, building plot numbers	14	131
19	SPACCOSS	Plot boundaries and plot numbers for communal use/open space	94	130
20	SPAC	Plot boundaries and plot numbers for right of way/easement, parkway reserve	7	0

Annex E

List of layers to be included in the Floor Plans For GFA calculation

S/No	Element name		Description of elements	DWG Colour Code	DGN Colour Code
	Main	Sub			
1	AREA	GFAA	Area to be included in GFA calculation	3	2
2	AREAGFAD		Area included in layer AREAGFAA but to be	1	3
			excluded from GFA calculation		

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Annex F

List of layers to be included in the Site Plan for calculation of Communal Open Space and Building Coverage

S/No	Element name		Description of elements	DWG Colour Code	DGN Colour Code
	Main	Sub			
1	AREAB	DBA	Building block area	6	5
2	AREAB	DBD	Area to be deducted from building coverage	2	4
3	AREAC	OSA	Communal open space area	4	7
4	AREAC	OSD	Area to be deducted from communal open space	2	4

Annex G

List of layers to be included in the Sketch (Floor, Section & Elevation) Plan

S/No	Element name	Description of elements	DWG Colour Code	DGN Colour Code
	Main Sub			
1	ANOTENDO	Plan endorsement	7	0
2	ANOTTBLK	Title block, Scales, Drawing boundary Legend text Company Logo	7 or any other colour	0 or any other colour
3	FLORLEVL	Floor level	7	0
4	RETW	Retaining walls with dimension	1	3
5	SITENRTH	North point	7	0
6	SITEWALL	Boundary wall, site fencing	174	129
7	TOPOPLVL	Platform level	7	0

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Annex H

List of layers to be included in the Proposal/Floor Plans for Subdivision of lands /Strata Subdivision of Buildings

S/No	Element name		Description of elements	DWG Colour Code	DGN Colour Code
	Main	Sub			
1	ANOTE	NDO	Plan endorsement	7	
2	ANOTTE		Title block, Scales, Drawing boundary Legend text Company Logo	7 or any other colour	0 or any other colour
3	LNSPBU	JFF	Green buffer line with dimension , physical buffer line with dimension	94	130
4	LNSPVE	RG	Planting verge with dimension	94	130
5	ROADW	IDL	Road widening lines, Plot Numbers for Road reserve	14	131
6	SDRNR	ESV	Drainage reserve lines, Plot Numbers for Drainage reserve	5	1
7	SITE		Site, external works, Basement line,	7	0
8	SITEBN	RY	Site boundary	1	3
9	SITECA	DA	Cadastral information, Lot Number, Lot Boundary -Existing lot boundaries and numbers are to be in layer with status "E" - Proposed new lot boundaries and numbers are to be in layer with status "N"	4	7
10	SITENR	TH	North point	7	0
11	SITESTE	3K	Building setback dimensions	1	3
12	SPACST	RA	Strata unit boundary on floor plans for strata subdivision	1	3
13	SPACBL	DG	Building plot boundaries, building plot numbers	14	131
14	SPAC	•	Plot boundaries and plot numbers for right of way/easement, parkway reserve	7	0

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List of layers can be included in the CAD files for submissions to URA

S/No	Element name	Description of elements
	Main Sub	·
1	ANOT	Annotations for entire CAD sheet including texts, dimension and hatch
		patterns.
2	ANOTENDO	Plan endorsement
3	ANOTGRID	Grids
4	ANOTHCAP	Handicap symbols
5	ANOTREVN	Revision notes
6	ANOTSYBL	Symbols
7	ANOTTBLK	Title block
8	ANOTVPRT	View-ports of CAD file
9	AREABDBA	Building block area
10	AREABDBD	Area to be deducted from building coverage
11	AREACALC	Area calculations
12	AREACOSA	Communal open space area
13	AREACOSD	Area to be deducted from communal open space
14	AREAGFAA	Area to be included in GFA calculation
15	AREAGFAD	Area included in layer AREAGFAA but to be excluded from GFA calculation
16	BEAM	Beams
17	BLDG	Building
18	BRDG	Bridges
19	CEIL	Ceilings
20	COLN	Columns
21	CLAD	Cladding
22	CPRK	Car-parking lot
23	CPRKLEVL	Car parking lot spot level
24	DOOR	Doors
25	DOORFIRE	Fire rated doors
26	ESCR	Escalators/people movers
27	FCLTANCI	Fire hydrants, bollards
28	FIREENGA	Fire engine access ways
29	FIREENGH	Fire engine hard-standing
30	FLOR	Floors
31	FLORLEVL	Floor level
32	FNSH	Finishes
33	FOUN	Foundation
34	HANR	Handrails
35	HSUR	Landscaping hard surfaces
36	LIFT	Lifts
37	LNSP	Landscape and tree planting
38	LNSPARTN	Landscape aeration area
39	LNSPBUFF	Green buffer line
40	LNSPVERG	Planting verge
41	PATH	Footpaths, walkways
42	PGRD	Playground, park facilities
43	POOL	Swimming pool
44	RAIL	Railways
45	RAILZONE	Railway protection corridor
46	RALG	Railings
47	RAMP	Ramps
48	RETW	Retaining walls
49	ROAD	Roadways
50	ROADBSHL	Bus shelter
51	ROADCLVL	Road hump crest level
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S/No	Element name	Description of elements
	Main Sub	
52	ROADLEVL	Road spot level
53	ROADWIDL	Road widening lines
54	ROOF	Roofs
55	SDRN	Surface water drainage
56	SDRNLEVL	Surface drainage invert level
57	SDRNRESV	Drainage reserve
58	SIGN	Signage
59	SITE	Site, external works
60	SITEBNRY	Site boundary
61	SITECADA	Cadastral information
62	SITEKPLN	Key plan
63	SITENRTH	North point
64	SITESTBK	Building setback
65	SITEWALL	Boundary wall, site fencing
66	SLAB	Floor slabs
67	SLABOPEN	Slab openings
68	SLABPLNH	Concrete plinth for equipment
69	SLABSTEP	Slab rises/drops
70	SPAC	Space usage
71	SPACSTRA	Strata unit boundary on floor plans for strata subdivision
72	SPACBLDG	Building plot boundaries, building plot numbers
73	SPACCOSS	Plot boundaries and plot numbers for communal use/open space
74	STRC	Staircases
75	STRCHANR	Handrail of staircases
76	STRCLNDG	Staircase landings
77	STRCSTEP	Staircase steps
78	STRCWLIN	Staircase walk-lines
79	TOPOCONT	Site contour lines and elevations
80	TOPOCROS	Cross sections
81	TOPOGRAD	Site gradients
82	TOPOLONG	Longitudinal sections
83	TOPOPLVL	Platform level
84	TOPOPONT	Spot level point for earthworks computation
85	TOPOSLOP	Embankment
86	WALL	Walls
87	WALLFIRE	Fire rated walls
88	WALLOPEN	Wall openings
89	WALLPARP	Parapet walls
90	WALLPRTN	Partition walls
91	WALLSTRU	Structural walls
92	WIND	Windows
93	WINDSKYL	Skylight

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Appendix E Recipient List for Submission

BCA Building and Construction Authority

ENV(CBPU) Ministry of the Environment - Central Building Plan Unit

ENV(PCD) Ministry of the Environment - Pollution Control Department

FSSB Fire Safety & Shelter Bureau

HDB(ARCH) Housing & Development Board - Architectural Department

HDB(SED) Housing & Development Board - Structural Engineering

Department

HDB(CED) Housing & Development Board - Civil Engineering Department

HDB(EMED) Housing & Development Board - Electrical & Mechanical

Engineering Department

IDA Infocomm Development Authority of Singapore

(Submission to this regulatory authority will also include

Singtel, StarHub and SCV as recipients.)

JTC Corporation

LTA Land Transport Authority

MPA Maritime & Port Authority of Singapore

Nparks National Parks Board

PowerGas PowerGas

EMA Energy Market Authority

PUB(DD) Public Utilities Board - Drainage Department

PUB(SEW) Public Utilities Board - Sewerage Department

PUB(Water) Public Utilities Board - Water Department

URA Urban Redevelopment Authority - MND

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Appendix F CORENET e-Submission System Overview

This project involves the setting up of a network infrastructure to facilitate the processing, approval and archiving of building project forms, plans and reports. The infrastructure is termed as CORENET e-Submission System and the key objectives of the e-Submission system are as follow:

- (a) to provide a one-stop convenience point to facilitate the electronic submissions of plans to obtain development and building approvals;
- (b) to provide industry players with on-line ability to : submit materials, communicate with regulatory authorities and to receive approval notice through a secure electronic system;
- (c) provide automatic tracking and project status updates;
- (d) provide easy access to information updates and retrieval;
- (e) provide an environment to facilitate the automatic processing of building plans; and
- (f) provide a foundation to support the implementation of collaborative design.

Project Functions

The key functions of the e-Submission system are as follow:

- (a) receiving and acknowledgement of electronic plan submissions and reports;
- (b) facilitate visual plan checking activities;
- (c) rout waiver applications and special cases to individual regulatory authorities;
- (d) generate written directions and relevant documentation;
- (e) performing billing and collection of fees; and
- (f) perform archival and other administrative functions;

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Business Results

The CORENET e-Submission system is expected to bring about the following benefits and improvements:

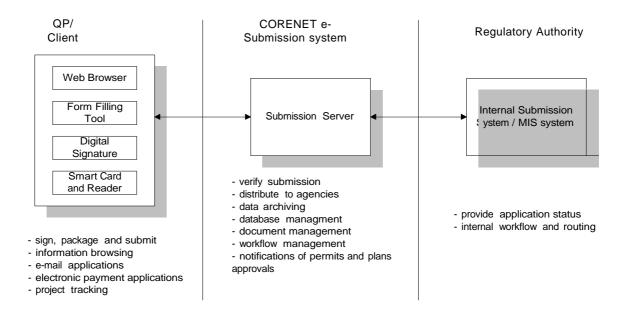
- (a) provide a single point for submission of building projects-related documents;
- (b) eliminate the need to produce multiple hardcopies of building plans and documents for submissions to the various regulatory authorities;
- (c) eliminate the need to produce hardcopies of building plans for submissions as the drawings are sent to the e-Submission system electronically;
- (d) allow project members to monitor and track the status of building approval at his own convenience; and
- (e) processing of plans is expedited as Qualified Person (QP) can submit plans conveniently from his office and these plans are automatically processed at the e-Submission system with immediate status feedback upon completion.

The business community will benefit not only from the improved government efficiency, but also from reducing the demands of the permitting process on the e-Submission Applicant's time, energy and travel.

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Application Architecture

(a) The figure below illustrates the overall operation scenario.



- (b) There are three distinct 'participants in the e-Submission process : the QPs (client), the e-Submission server, and the regulatory authorities, each operating their component of the submission system.
- (c) The system is a web-based system. Assuming that plans and associated documents have been prepared and ready for submission, the e-Submission Applicant will first need to fill up the necessary application forms. The applications forms can be designed as web-based forms or download from the e-Submission system for off-line processing. Upon completing the appropriate forms, the QPs will attached the digitally signed documents and forward it over to the e-Submission server for processing.
- (d) The submission server upon receiving the submitted files, will perform authentication and notification activities. The QPs will receive acknowledgement of files been received. The relevant regulatory authorities will be notified of incoming files at the e-Submission system that need to be processed by them. The e-Submission servers are also required to perform archival and other administrative tasks such as document and workflow management.
- (e) The QPs and regulatory authorities can also access information service such as application status check using the web browser.

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Appendix G CORENET e-Submission System Benefits

Many benefits will be achieved by the introduction of the system. The main benefits are listed and explained below:

Benefits of the System to the Authorities

i. One-stop submission

To provide a one-stop convenience point to obtain and submit all the necessary documents and application forms.

ii. User-friendly

Launches an easy and comprehensible user interface. Provides easy access to any information update and retrieval.

iii. Save Cost

Reduce holding cost with simplified correspondences and a faster response time from regulatory authorities.

iv. Enforce submission standard

Enforces standardised submission procedures across the building and construction industry. So monitoring and submission become simpler and more straightforward processes

v. Assists the approval and development of building projects

Reduce submission and processing time.

vi. Secure environment

Usage of digital signature prevents fraud cases. The e-Submission system confers client confidentiality and security in the submissions, approvals as well as communications with respective regulatory authorities.

vii. Reduce human error

Validation and data integrity from the system both prevent and reduce errors.

viii. Reduce duplication of data

Eliminate the need to produce multiple hardcopies of building plans and documents for submissions to various regulatory authorities.

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ix. Round the clock service

Submissions and project status updates can be done at any given time or day by the QPs. Provides QP with the most current and up-to-date forms and procedures.

x. Centralised resources for submission

To provide a one-stop forum to access all necessary information required

xi. Fast and easy retrieval of archive documents

All applications made to the e-Submission system, the documents need only be retrieved from this one location.

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Benefits of the System to e-Submission Applicants

i. One-stop submission

To provide a one-stop convenience point to obtain and submit all the necessary documents and application forms.

ii. User-friendly

Launches an easy and comprehensible user interface. Provides easy access to any information update and retrieval.

iii. Save Cost

Reduce holding cost with simplified correspondences and a faster response time from regulatory authorities.

iv. Enforce submission standard

Enforces standardised submission procedures across the building and construction industry. So monitoring and submission become simpler and more straightforward processes.

v. Assists the approval and development of building projects

Reduce submission and processing time.

vi. Secure environment

Usage of digital signature prevents fraud cases. The e-Submission system confers client confidentiality and security in the submissions, approvals as well as communications with respective regulatory authorities.

vii. Reduce human error

Validation and data integrity from the system both prevent and reduce errors.

viii. Reduce duplication of data

Eliminate the need to produce multiple hardcopies of building plans and documents for submissions to various regulatory authorities.

ix. Easy tracking

Allow QP to monitor and track the status of building approval at his own convenience.

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x. Round the clock service

Submissions and project status updates can be done at any given time or day by the QPs. Provides QP with the most current and up-to-date forms and procedures.

xi. Paperless

Electronic submissions eliminate the need to produce hardcopies of building plans and documents.

xii. Centralised resources for submission

To provide a one-stop forum to access all necessary information required.

xiii. Fast and easy retrieval of archive documents

All applications made to the e-Submission system, the documents need only be retrieved from this one location.

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Benefits of the System to Owner/Developer

i. One-stop submission

To provide a one-stop convenience point to obtain and submit all the necessary documents and application forms.

ii. User-friendly

Launches an easy and comprehensible user interface. Provides easy access to any information update and retrieval.

iii. Save Cost

Reduce holding cost with simplified correspondences and a faster response time from regulatory authorities.

iv. Enforce submission standard

Enforces standardised submission procedures across the building and construction industry. So monitoring and submission become simpler and more straightforward processes

v. Secure environment

Usage of digital signature prevents fraud cases. The e-Submission system confers client confidentiality and security in the submissions, approvals as well as communications with respective regulatory authorities.

vi. Reduce human error

Validation and data integrity from the system both prevent and reduce errors.

vii. Centralised resources for submission

To provide a one-stop forum to access all necessary information required.

viii. Fast and easy retrieval of archive documents

All applications made to the e-Submission system, the documents need only be retrieved from this one location.

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Appendix H Guidelines on digitally signed plans and documents and additional CAD requirements of regulatory authorities

The following table provide a summary of the guidelines on the type of digitally-signed documents and additional CAD requirements of regulatory authorities. These information is subjected to change from time to time.

Regulatory Authorities	General guidelines on types of plans and documents to be digitally signed by regulatory authorities	Additional CAD Submission Requirements
BCA	Plans; TOP / CSC Certificates; Internal waiver approval form (Public will receive notice of approval of waiver which is not digitally signed);	Appendix D-1 Accept drawings in .pdf or dwf
CBPU	DC/BP/DP/TOP/CSC clearances etc. Industrial Allocation (IA), waiver cases and Sewerage and Drainage Interpretation plans reply.	Appendix D-2 & D-3 Accept drawings in .pdf
FSSB	Approved plans Approval letters Waiver decisions letters TFP/FSC	Appendix D-4 Accept drawings in .pdf
HDB (SE) BCU	Plans; Approval of plans, permits, letters; Letter of acceptance; Clearance letters;	Accepts only dwg and dxf format
HDB (Arch) BCU	Requirements similar to BCA and FSSB	Requirements Similar to BCA & URA (but drawings not allowed in .pdf & .dgn format) and any other additional requirements specified by relevant authority.
HDB (CE) BCU		Accept drawings in .pdf
IDA	All IDA Forms	Appendix D-5 Accept drawings in .pdf
JTC (BCU)	Similar to BCA; Include plan endorsement drawings;	Adopt URA guidelines for DC submissions and any other additional requirements specified by agencies. Accept drawings in .pdf
LTA	(i) Street plans (ii) Approval / Clearance letters / Permits (iii) Waiver decision letters on Vehicle Parking Proposal (iv) BCU(LTA) - to follow BCA & FSSB	CAD layers in accordance to CP 83

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NPARKS	Approved plans	Appendix D-6
	DC/BP/CSC clearances	Accept drawings in .pdf
	Wavier approval	
	Notices on illegal removal of trees	
	Other letters pertaining to approval/decision	
	made	
POWERGAS	Approved plans	Appendix D-7
	Approval letters	Accept drawings in .pdf
PUB	Clearances letters	Appendix D-8 & D-9
	Waiver decision letters	Accept drawings in .pdf
URA	Decision notices	Appendix D-10
		Not accepting .pdf

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