



Building Plans- Approval, Process and Systems,

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Buildings- Context, Role and Importance

- Buildings-- integral part of human history, growth, development
- Buildings -- define future journey of human growth
- Buildings-- manmade environment
- Buildings-- vital for human growth
- Buildings – living organism
- Buildings – catering to all human activities
- Buildings --valuable - 80% human life spent in buildings
- Buildings- full of dualities /contradictions
- Buildings -- largest consumers of energy
- Buildings - largest consumers of resources
- Buildings – largest generators of waste
- Buildings- largest polluter of environment /ecology
- Buildings --- responsible for largest carbon footprints
- Buildings -- responsible for global warming
- Buildings -- major determinant of global sustainability
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Buildings-Context, Role and Importance

- ▶ Buildings– providers of optimum/worst living conditions
- Buildings -- make people healthy/sick
- Buildings -- vital for --human/ ecological concerns, global warming, reducing carbon footprints
- Making Buildings Sustainable-- essential to make value addition to -- resources, environment ,ecology
- Researches made/Studies carried out revealed —
- Healthy buildings-- create win-win situation for owners, occupants & users
- A Healthy School-makes learning easy & more meaningful
- A Healthy House--makes people happy, healthy, productive
- A Healthy Hospital-- cures patients quickly



► Approval of Building Plans- Context, Need and importance

Approvals of Building Plans- context



- ▶ Rapid population growth / massive urbanization,
- ▶ Making urban areas expand
- ▶ - large volume of buildings constructed
- ▶ –Architectural designs/ Building typologies/size/shape/contours -- changing rapidly
- ▶ Buildings planned/constructed – large footprints / height /large built space on limited land
- ▶ Building services --becoming important part of building planning, designing / construction
- ▶ Housing Large people within a limited space – creates challenges of safety/security
- ▶ Changing typologies- make Buildings susceptible to both natural/ manmade disasters
- ▶ Making buildings safe/secure/healthy- remains a challenge/ priority
- ▶ But Built environment – state/local authorities domain- limited role of central government
- ▶ Approval of Building plans - governed by ULBS, UDA, Improvement Trusts/Housing Boards etc.
- ▶ -Approvals governed by-- Building bye-laws/Development Controls/Master Plans
- ▶ Large variations exist -- in building bye-laws-submission/approvals – , structure/competency, planning/ designing/ construction/ supervision/ completion/occupation
- ▶ Approvals of Building plans-- remain complex, cumbersome, time consuming, inefficient, irrational and illogical
- ▶ Need rationalizing /optimizing/effective/efficient

Approval of Building Plans- Context

- ▶ **Approval of Building plans**
- ▶ — integral part of building design/ operation/ maintenance
- ▶ -integral part of architectural practice/construction industry
- ▶ - Remain both complex / cumbersome
- ▶ - Have positivity/negativities
- ▶ - Emerged as a distinct profession
- ▶ - Involving-- large number of personnel's / parastatal agencies
- ▶ - Involves largely-- lower order technical manpower- with limited knowledge/understanding
- ▶ - Involves lot of time – time intensive
- ▶ Invariably delays project – start/completion– time over-run
- ▶ Involves lot of cost- cost intensive- cost over-run
- ▶ Involves practices- both ethical/unethical
- ▶ -Generator of large resources for parastatal agencies
- ▶ Outcome of-- complexity of building rules/building bye-laws
- ▶ Involves /outcome of-- Mis-interpretation of legal framework
- ▶ Need serious intervention-- to make process-transparent, objective, effective, time/cost-efficient, productive/focused,

Approval of Building Plans- Need and importance

For Making Buildings- supportive of quality living/working/environment/ecology

-buildings are planned/designed/constructed ;

- ▶ --By Qualified professionals
- ▶ -Within defined legal framework.
- ▶ - based on prescribed norms & standards
- ▶ - made structurally safe - against natural /manmade disasters
- ▶ --provide appropriate infrastructure/services to occupants
- ▶ -- remain qualitative -- appropriately supervised by quality professionals
- ▶ -- ensure adequate air , light /ventilation- making occupants happy/healthy
- ▶ -- ensure compliance with specified space norms /standards
- ▶ -- ensure incomplete/unhealthy buildings not occupied/used for human habitation.
- ▶ -- ensure elimination of unauthorized/sub-standard construction
- ▶ -- ensure buildings for different uses-- planned/designed based on- needs /standards of such uses- industrial, commercial, institutional, residential, multi-storeyed structures
- ▶ -- ensure buildings remain operationally/resource efficient



► Approval of Buildings- National Building Code

Evolution of Building Permits—National Building Code

- ▶ National Building Code – define/rationalize framework for Building plan approvals.
- ▶ Makes periodic changes—
- ▶ Suggested Creation of-- *Department for Enforcement of Code, for sanctioning of building plans*
- ▶ Defined procedure-- for obtaining development /building permits,
- ▶ **Defining competency / responsibility** of owner/ related professionals.
- ▶ **Setting Board of Appeal**— providing opportunity to defend schemes-- Rejected by Authority.
- ▶ **Setting of Urban Arts Commission** for Metropolitan areas - Safeguarding aesthetics of historic/monumental buildings.
- ▶ -- **Assisting civic authorities** in reviewing plans submitted for development--
- ▶ - **Providing guidelines/ norms** for planning/designing/assessing of buildings/development
- ▶ -- **Provision amended in 1970**-- subsequently revised in 1983 and 2005
- ▶ - **1983 – made addition** to development control rules/ additional information for **multi-storied / special buildings**
- ▶ - **2001-- Introduced structural safety –Bhuj Earthquake**
- ▶ -**2005 revision –introduced**
- ▶ -- concept of **team of building officials**;
- ▶ -- Adopting **single window approach** ;
- ▶ --**computerization of approval process** ;
- ▶ --**certifying safety of buildings against natural disaster**-- by engineer/structural engineer /owner;
- ▶ -- **two stage permit for high rise residential buildings /special buildings**;

Evolution of Building Permits—National Building Code

- ▶ -- **inspection of completed/ occupied building** -from safety point of view;
- ▶ -- **empowering engineers/architects for sanctioning plans** --of residential buildings up to 500 m²;
- ▶ -- **Introducing Architectural control**-- for promoting urban aesthetics,
- ▶ - **included architectural engineer**, landscape architect /urban designer –as registered professionals
- ▶ **Amended 2016 Code includes—**
- ▶ --added **Geotechnical engineer** --as registered professionals
- ▶ -**Specifying integrated approval process** for-- avoiding separate clearances from various authorities;
- ▶ -**detailing computerization** --enabling online submission of plans/ drawings
- ▶ --**Introducing Peer Reviewing** of design/ drawings /details of - important projects /projects having complexity/ sensitivity
- ▶ -- **Detailing Responsibility of owner**-- seeking occupancy permit
- ▶ -- **Introducing Periodic audit of designated public buildings**-- for accessibility for elderly /persons with disabilities,
- ▶ -- **Specifying Qualification / competence of builder/constructor;**
- ▶ -- **Introducing Certificate for subsurface investigation,**
- ▶ -- Introducing **Certificate for completed structural design work**-- as per structural safety requirements ;
- ▶ -Rationalizing certification for supervision of work / completion certificate



► Definitions- Used in Building Plan Approvals

Definitions- Used in Building Plan Approvals

- ▶ **1. Approved** -- Approved by Authority having jurisdiction.
- ▶ **2. Authority Having Jurisdiction** – Authority created by statute / committee or official /an agency authorized
- ▶ **3. Building** -- Any structure- for whatsoever purpose/whosoever materials constructed-- whether used as human habitation or not; includes; -- foundation, plinth, walls, floors, roofs, chimneys, plumbing , building services, fixed platforms, verandah, balcony, cornice or projection, -- wall enclosing or intended to enclose any land/ space
- ▶ **4. Registered Architect, Engineer, Structural Engineer, Geotechnical Engineer, Supervisor, Town Planner, Landscape Architect, Urban Designer** -- registered by Authority
- ▶ **5. Qualified architect,** engineer, structural engineer, geotechnical engineer, supervisor, town planner,
- ▶ landscape architect or urban designer –**Having requisite qualification**
- ▶ **6. Erect --To Erect a building means,**
- ▶ -- to erect a new building on any site whether previously built upon or not;
- ▶ -- to re-erect any building of which portions above plinth level --pulled down, burnt or destroyed.
- ▶ **7. Occupancy /Use Group** .-- principal occupancy for which a building/ part of building used / intended to be used;
- ▶ -- for classification of a building -- occupancy deemed to include subsidiary occupancies contingent upon it.



▶ Applicability of NBC

Applicability of National Building Code

- ▶ Code applies-- to all buildings involving;
- ▶ --Where erected-- Code applies to design /construction
- ▶ -- Where re-erected- whole/ any part of building removed-- Code applies to all parts of building - whether removed /or not.
- ▶ - Where whole /any part of building demolished -- Code applies to any remaining part /work involved in demolition.
- ▶ -Where a building altered -- Code applies to whole building whether existing /new --except that Code applies only to part, if that part is completely self contained-
- ▶ Where occupancy changed-- Code applies to all parts of building affected by change.
- ▶ Where development undertaken -- Code applies to entire development of land.
- ▶ Existing Buildings/Development -- Nothing in Code require removal, alteration /abandonment/ nor prevent continuance of use / occupancy of existing building/development
- ▶ -- unless Authority considers -- building/ development --poses hazard / safety to adjacent property/occupants of building itself.



► Typology/ submission/Approval of Building Plans

Typologies / submission/approval of Building plans

► **Typology of sanctioned Building Plans**

- **Sanctioned Plan-** First Approval before starting construction
- **Superseded Plan-** Subsequent Approval before starting construction
- **Revised Plan-** Approved plans during construction/after completion of building

Typologies / submission/approval of Building plans

- ▶ **Building Plans – submitted for approval-**
 - **Manually- in physical form**
 - **--online - in digital form -**
- ▶ **Building Plans approval granted**
 - **- physical**
 - **--online**
 - **-Self-Certification by architects preparing plan**

► **Organizational
Structure/Framework for
submission/Approval of
Building Plans**

► Organisational Structure for approval of Building plans

- **1. Creating a Department Of Building** -- appointing team of building officials to carry out work of such department.
- **2. Appointment of Team of Building Officials** – Team comprising of officials of disciplines-- Architect, Engineer, Town planner, Landscape architect and Urban designer -- as decided by Authority.
- **Include Town Planner-** For preparing plans of plots 0--1 hectare/above in metro cities --and 2 hectares & above in other places--
- **-Include Landscape Architect --**For plots of 5 hectares and above--
- **Include urban designer** – preparing integrated urban design / development for residential/business/ institutional /assembly building.

Framework for Approval of Building Plan-

- ▶ **3. Organization-** - officers/inspectors / employees to assist building officials
- ▶ **4 Delegation of Powers ;** -- designating a building official to exercise all powers of team of building --work of building officials-- may be outsourced to competent professional/ agency/group--when deemed necessary.
- ▶ **5 Qualification of Building Officials** -- appropriate for scrutinizing plans /carrying out inspection --
- ▶ **6. For small local bodies** --having insufficient resources-- two /three contiguously located could join/ share services of one team of building officials..
- ▶ **7. Restriction on Employees--** No official / employee connected with building department engage in
 - supplying labour, materials or appliances for construction, alteration or maintenance of a building or
 - preparation of plans /specifications unless - owner of building;
 - nor engage in work which conflicts with official duties / interests of department.

Framework for Approval of Building Plan-

- ▶ 8. . **Records; -- Maintaining** record of all applications received /permits /orders issued/ papers / documents/ inspections made - open to public inspection on demand
- ▶ 9. **POWER / DUTIES OF TEAM OF BUILDING OFFICIALS—**
 - ▶ -- receive applications /issue permits for erection / alteration of buildings
 - ▶ - enforce compliance -- where permits issued
 - ▶ -- Act on mode / manner of construction/ materials used/ installation of service equipment / use, occupancy maintenance of buildings
 - ▶ --Issue building notices/orders- removing illegal /unsafe conditions/ adopting safeguards during construction,
 - ▶ --ensure safety, health /general welfare of public
 - ▶ - Exercise Right to entry at reasonable time - Inspect construction work
 - ▶ -Taking action-- when construction violates sanctioned plan/codal provisions-/check occupancy violations
- ▶ 10. Constitution of **BOARD OF APPEALS** — For determining alternative materials/design/construction/ interpretation of Code/ dispute regarding construction vis-a-vis sanctioned plan,
- ▶ 11 **Board of Appeals** — to comprise of qualified experienced / trained professionals- - deciding on building Construction- member of building official - to act as ex-officio/ secretary to Board.
 - ▶ - Board --to adopt rules/regulations for conducting investigations --decisions- conveyed in writing to-- building officials/ appellant

Framework for approval of Building Plan -

- ▶ **12. Offences and Penalties--** contravening codal provision/ requirements /obligations/interference/obstructing authorised person - treated guilty of offence -- liable for levy of penalty/ actions
- ▶ **13. Demolition/ Modifications of buildings --** violating rules/ height defined by Directorate General of Civil Aviation -demolished/ modified
- ▶ **14 Supervision--**Registered architect, engineer, structural engineer, supervisor, town planner, landscape architect, urban designer / utility service engineer -responsible for services rendered for supervision / completion certificate
- ▶ **15 Violation--** would lead to penalties on professionals;
- ▶ - **cancellation of registration** / make recommendation to body governing such profession- Authority - when necessary
- ▶ - **Make Amendment--** carry out modifications at expense of convicted person-- recovered cost
- ▶ -- Conviction No Bar to Further Prosecution -- to further prosecution for subsequent failure
- ▶ **16 POWER TO MAKE RULES --**
- ▶ - for carrying out provisions /intentions of Code
- ▶ provided rule made not to be in conflict with Code.



► Approval of Building Plans- Process

Approvals – Integrated approach/Self-Certification

- ▶ 1. **DEVELOPMENT/BUILDING PERMIT Required for** – any development, erect/ re-erect/additions/ alterations / demolition of building-- separate permit for each development/building
 - ▶ – in- compliance with - Town Planning Act/Development Act/Municipal Act/ Act.
 - ▶ -- Airports Authority of India, Ministry of Environment, Forest and Climate Change, Fire Services Department, Pollution Control Board, Factories Act/Cinema Regulation Act, Urban Arts Commission, designated Coastal Regulation Zone Authority, Archaeological Survey of India, Heritage Committee etc
 - ▶ -- Fire Services Department for buildings of height >15 m / buildings/special buildings
- 2. **Adopting Integrated Approval Process--** to facilitate/ ensure– efficient/expeditious clearance - single window
 - ▶ - **a Development/Building Permit Approval Committee-** comprising of -building officials, bodies/organizations whose clearance required.-- Committee meet once in 15/30 days -- depending upon work load. --First response/invalid notice/non-compliance intimation- issued to owner within 30 days of submission
- 3 **Self- Certification**
 - Authority to permit a registered architect/ Engineers
 - r-- to approve building Plans/ certify completion of building
 - issue building permits / occupancy certificate for residential buildings-- on 500 m2 plots
 - .– registered architect/engineer Responsible for compliance with Code
 - Certified plans submitted to Authority for information /records.

Process for obtaining Permit

- ▶ 1. **Making APPLICATION FOR DEVELOPMENT/ BUILDING PERMIT** ;- - in writing in prescribed form accompanied by- fee, plans / ownership statements in triplicate except for special buildings (high rise, non-residential) - additional copies submitted -as desired by Authority. -- Authority to permit submission of plans/documents in physical/ electronic form.
- ▶ 2. **Computerizing approval process**; -- submission of building plans /documents /fee -- uploading on designated portal -- granting sanction online- with procedure for registration /traceability/ responsibility defined of applicant making such submissions.
- ▶ 3. **Information Accompanying Notice**— attaching ownership documents - key plan, site plan, building plan, services plans, specifications, structural sufficiency certificate and certificate of supervision as prescribed , Sizes of Drawing Sheets / coloured plans as specified
- ▶ -- **Key Plan** -drawn to a scale of not less than 1 : 10 000
- ▶ -**Site Plan**-- drawn to a scale $< 1 : 500$ for a site up to one hectare and $< 1 : 1\ 000$ for a site more than one hectare
- ▶ -**Subdivision/Layout Plan-drawn** on a scale $< 1 : 500$
- ▶ -**Building Plan, Elevations and Sections** drawn to a scale of 1 : 100-all floors plans – with covered area - size of rooms ;
- ▶ -- **position of staircases, ramps; liftwells**; exact location of essential services- WC, sink, bath etc- height of building / rooms / height of parapet.-- minimum one section through staircase-- structural arrangements of footings, foundations, basement walls; -structural load bearing walls, columns and beams, and shear walls; ;

Approval of Building Plan – Permit

- ▶ 4. **Services Plans**; --details of building/ plumbing services/plans, elevations /sections of private water supply, sewage disposal system /rainwater harvesting system, if any
- ▶ 5 **Specifications**; -- general /detailed,- type/ grade of materials to be used,--signed by registered architect, engineer, structural engineer / supervisor
- ▶ 6. **Structural Design Sufficiency Certificate**; signed by engineer/structural engineer & owner jointly- building safe against , forces / natural disasters -earthquakes, landslides, cyclones, floods, with details of design.
- ▶ 7. **Execution and Supervision**; certificate by builder/constructor undertaking execution
- ▶ .– certificate by registered architect/engineer/structural engineer/supervisor/town planner undertaking supervision
- ▶ **8 .Preparation and Signing of Plans**; **Plans** shall be prepare and duly signed
- ▶ – based on defined competence by- **R**egistered architect/engineer/supervisor/town planner/landscape architect/urban designer/utility service engineer
- ▶ - indicating name, address, qualification /registration number allotted by authority / body --governing such profession.
- ▶ -structural plans /
- ▶ - owner indicating his address.-

Approval of Building Plan – Permit

9. Notice for Alteration Only; -- only necessary plans/statements must accompany notice.

No notice/ building permit necessary for alterations, --which do not violate general building requirements/ structural stability / fire / health safety requirements of Code:

10. Fees to be charged; -- **no** notice valid--unless fee paid with attested copy of payment attached

- fees charged as a consolidated fee.

- when building/development permit not issued, fees paid not be returned to owner- no fee charged for re-submission - complying with objections raised -- within one year from rejection.

11 Duration of Sanction-- sanction remain valid up to **three years**.

- permit revalidated before expiration of period.- Revalidation subjected to rules then in force.

12 Deviations During Construction; from sanctioned plan- when intended-

- sanction of Authority obtained before changes made. --Revised plan indicating deviations submitted

- procedure defined for original plans apply

13. Revocation of Permit; Authority may revoke any permit issued

- in case of false statement/ misrepresentation of any material fact

- violation/non-compliance of building permit – Revocations made to state reasons for revoking permit

Approval of Building Plan – sanction/deemed sanction

14. **Grant of Sanction or Refusal** ; Authority may sanction/ reject- or sanction with conditions/ modifications /directions as necessary-- communicate to person giving notice
- Building plans for high rise/special buildings- subject to scrutiny /clearance of Fire Authority
 - **If within 30 days of notice** --Authority fails to - refuse/ sanction- in writing to person giving notice- plans/statements deemed to be sanctioned;
 - -- provided Authority informed in writing by person within fifteen days -- Nobody authorize to do anything in contravention of code, regulations, byelaws or ordinance
15. **When refused**-- Authority to quote reason / relevant sections of Code which plans contravene.
- possible point out all objections in first instance -- ensuring no new objections when plans resubmitted
 - Once plan scrutinized /objections pointed out, owner to resubmit modified plan complying objections raised
 - Authority to scrutinize/ re-submitted plan - In case of further objections, plan shall be rejected.
16. **Temporary Occupancy**; Upon request - Authority may issue a temporary certificate of occupancy for a building /part thereof-- before entire work covered by permit completed,-- provided portion occupied is safe prior to full completion -- without endangering life /public welfare.
17. **Documents at Site; Record of the test** – of materials required by code –pasting a copy of permit issued in a conspicuous place-- a copy of the approved drawings/specifications

Approval of Building Plan – Permit

- ▶ **Building plan for high rise/special buildings;** > 15 m / for special buildings /educational / assembly/ institutional/ business/ mercantile/ industrial/ storage and hazardous and mixed occupancies- having covered area more than 500 m² -- building sanction done in two stages.
- ▶ - For important projects / projects having high complexity /sensitivity-- design, drawings and details may be **peer reviewed/proof checked before approval.**
- ▶ **Stage 1 : Planning clearance**--- following additional information furnished/ indicated in building plan
- ▶ - Access to fire appliances/vehicles-- - Size (width) of main /alternative staircases -- Vehicular parking spaces-- building services - Air conditioning system -- Location of generator, transformer ; fire alarm systems, built-in-fire system- -- accessibility for elderly persons with disabilities
- ▶ **Stage 2 : Building permit clearance**-- After sanction for planning (Stage 1) -- a complete set of structural plans/ sections/ details, design calculations duly signed by engineer/structural engineer -- with complete set of duly approved in Stage 1-
 - certificate of completed structural design work
 - subsurface investigation report by geo-thermal engineer
- building plans/details deemed to be sanctioned for
- commencement of construction only after obtaining permit for Stage 2 from Authority

► **Approval of Building
plans- Architectural
Controls- Urban Art
Commission**

Approval of Building Plan –Architectural Controls

- ▶ **ARCHITECTURAL CONTROL;** -for major public building /buildings in important area- near historic/monumental buildings / heritage require examining aesthetics of whole scheme vis-a-vis existing structures./ Development damaging general characteristics / environment of historical, architectural/ monuments-- structures coming close to declared/historically important structures
- ▶ -- scrutiny limited to external architectural features only -- to ensure gelling of aesthetic of existing structures with new.-- Scrutiny not to deal with routine building plan scrutiny from structural safety/functional requirements.
- ▶ **Creating Urban Arts Commission;**
- ▶ – deal with urban aesthetics,
- ▶ - empowered to- approve all major buildings/important development projects having bearing on urban aesthetics,on plot areas above 1 ha/ located in specifically identified areas.
- ▶ -- Urban Arts Commission – to act as guardian of urban architecture/ building form / envelope/ambient environment
- ▶ –Select/examine only important buildings / examine
- ▶ - to examine /make study of plans, elevations, models,/ purposes building
- ▶ -- to serve/ define main conditions influencing preparing design.
- ▶ -- Commission after discussion-- communicate in writing to parties concerned
- ▶ -- may recommend change / suggest modifications
- ▶ - advise city government, on schemes -- for beautifying city /cultural vitality.



► Approval-Building plans-Inspection of Works

Inspection of construction work-Occupation Certificate

► **INSPECTION, OCCUPANCY PERMIT AND INSPECTION;**

1. **INSPECTION**,-- all construction/ work requiring permit -- subject to inspection

- - construction h/require constant inspection-- by inspectors appointed by Authority.
- --Inspection made within 7 days following notification
- - failing which owner free to continue construction – as per sanctioned plan.
- --First inspection- for determining-- building located in accordance with approved site plans.
- -- Final inspection-- of completion of work-- made within 21 days of notification for grant of occupancy certificate.

2.-- **OCCUPANCY PERMIT**; owner/concerned registered architect/ engineer/structural engineer/town planner– to serve a notice/completion certificate to Authority that

- building completed ,s per the approved plans. -- deviations , if any, also brought
- . Team of building officials -- visit site --- occupancy certificate given - where no violations of sanctioned plan
- occupancy certificate to-- state use/type of occupancy .
- applicant may apply for change of use/occupancy permitted by Master Plan/Zonal Plan/Building Bye laws,
- if inspection reveals -- existence of any lack of safety precautions-- direct owner to stop work immediately
- - till measures taken to remove violation of safety precautions

► **Preparation of
Building Plans—
Competency of
professionals**

Qualification of Architects, Engineers, Structural Engineers, Geotechnical Engineers, Supervisors, Town Planners, Landscape Architects, Urban Designers, Services Personnel and Builder/ Constructor

- ▶ -registered by Authority or body governing such profession constituted under a statute,
- ▶ - have competency to work for which they to be employed
- ▶ --- In case registered professional changed during building/ development process-- professionals/owner must intimate Authority.

Architect;

Qualifications; as provided in Architects Act, 1972 for registration with COA

Competence ; to carryout work related to building/development permit

- a) Preparation of plans & submission of information -- building permit except --engineering services of high rise/special building
- b) Issuing certificate of supervision/completion of all buildings - pertaining to architectural aspects.-
- c) subdivision/layout plans etc .for-- development permit/ Issuing certificate of supervision for development of land of area up to 1 hectare for metro-cities, and 2 hectare for other places.

Competency of Engineers, Urban Designer

2. Engineer ; - graduate in civil engineering/architectural engineering / Corporate Member of Civil Engineering Division/ Architectural Engineering Division of the Institution of Engineers (India) or Member of the statutory body governing such profession, as and when established.

Competence-- to carryout work related to the building/development permit -- a) Preparation of all plans and information connected with building permit.

-- b) Structural details and calculations of buildings including subsurface investigation on plot up to 500 m² & up to 5 storeys or 16 m in height.

-- c) Issuing certificate of supervision /completion for all buildings

--d) Preparation of subdivision/layout plans / related information connected with development permit of area up to 1 hectare for metro-cities, and 2 hectare for other places

.--e) Preparation of all service plans /related information connected with development permit.

f) Issuing certificate of supervision for development of land for all area.

8 Urban Designer

Qualification; Master.s degree in urban design or equivalent

Competence; to carryout work related to urban design for land areas > 5 hectare and campus area > 2 hectare & -- carryout work of urban renewal for all areas.

Plan Approval- Competency of Structural/Geo-Technical Engineer

3. **Structural Engineer;**

Qualifications; graduate in civil engineering ; Corporate Member of Civil Engineering Division of Institution of Engineers (India) with minimum 3 years experience -in structural engineering practice with designing and field work-- 2 years/1year for PG/ doctorate in structural engineering

Competence; to prepare structural design/ calculations/ details/supervision for all buildings

-- for buildings having special structural features- as decided by Authority, within

- ▶ horizontal areas / vertical limits specified – High Rise Buildings designed only by structural engineers.

4. **Geotechnical Engineer;**

▶ **Qualifications;** Graduate in civil engineering ;-- Corporate Member of Civil Engineering Division of Institution of Engineers (India), with minimum 3/2/1 years experience in geotechnical engineering practice with designing /field work- Graduate/PG/PhD

▶ **Competency;**

▶ -- to carry out subsurface investigations / give report thereof-

▶ - carrying out subsurface investigations/ performing tests required to determine type of foundation, soil capacity/ depth of foundations , based on structural system/ loads- determined by engineer/structural engineer.

Plan Approval- Competency of Supervisor & Town Planner

5 Supervisor;

Qualification; diploma in civil engineering / architectural assistantship, -- qualification in architecture /engineering for recruitment to non-gazetted service by Government of India

-- plus 5 years experience in building design, construction /supervision.

Competence; to carryout work related to -plans /related information connected with building permit/supervision - for residential buildings on plot up to 200 m² & up to two storeys or 7.5 m in height;

6. Town Planner;

Qualification ; Associate Membership of Institute of Town Planners / Graduate or PG degree in town and country planning.

Competence; to carryout work related to development permit of

--a) Preparation of plans for land subdivision/ layout and information connected with development permit for all areas.

-- b) Supervision certificate for development of land of all areas.

7 Landscape Architect

qualification ; Bachelor/ Master's degree in landscape architecture or equivalent

Competency- to carryout work related to landscape design for building/development permit for areas 5 hectare and above & for metro cities area to be 2 hectare and above

► Duties of Owner- Building
Planning, Designing,
Construction/Occupation

. RESPONSIBILITIES / DUTIES OF THE OWNER

- Obtaining building permit
- Obtaining approval of drawings / specifications, / inspections made during erection –
- carrying out work in accordance with requirements of Code .
 - permit entry of authorities in building /premises -- at reasonable time in site ;
 - submit document of ownership of site;
- obtain permits relating to building, zoning, grades, sewers, water mains, plumbing, blasting, street occupancy, electricity, highways connection with proposed work;
- giving notice -- of intention to start / completion of work up to plinth level;
- obtain/submit certificate of engagement of builder/constructor(s) for buildings
 - certificate for sub- surface investigation, where applicable
 - obtain/submit certificate for completed structural design work -- as per structural safety requirements
- obtain/submit certificate for supervision/ execution of work
 - submit certificate for completed work by builder/constructor(s)
 - obtain/submit notice regarding completion of work
- Inform Authority on termination of services of a professional engaged
- obtain occupancy permit prior to occupancy of the building



► Way Forward

Way Forward

- ▶ Considering complexity of obtaining approvals of building plans-following options suggested to make entire process transparent, objective, focused, rational, time –efficient , effective/ efficient;
- ▶ **Making Building planning process faceless/simpler on** pattern adopted in case of IT Returns
- ▶ Simplification of building bye-laws governing **approvals-**
- ▶ - Avoiding multiplicity- **making unified building bye-laws operational in each state**
- ▶ **Creating a full time dedicated machinery with qualification/experience-** appropriate for clearance of building plans.
- ▶ **Embedding accountability** on the part of officials involved in plan approval etc
- ▶ **Constituting Board of Appeals** for each ULBs /plan approval agencies to minimize subjectivity
- ▶ To redefine approval process by --**making it technical-led-** for promoting operational efficiency
- ▶ To **create awareness among professionals** registered as professionals for obtaining building permit
- ▶ To **rationalize the competency of Architect /Engineer in planning, designing of buildings**
- ▶ To **enlarge scope of self-certification of building plans/occupation certificate by Architects**
- ▶ **involving meetings @7/15 days** to resolve approval issues.
- ▶ **Placing all plans /notices /notifications- related to permits -on dedicated official web-site**
- ▶ **Involving architects in formulation of building bye-laws/approval of building plans.**



**Various Forms-- for
submission-Before, during
/after construction- for
submission, approvals/
occupation**

ANNEX B

(Clauses 12.1 and 12.2.7)

**FORM FOR FIRST APPLICATION TO DEVELOP, ERECT, RE-ERECT OR TO
MAKE ALTERATION IN ANY PLACE IN A BUILDING**

To

.....

Sir,

I hereby give notice that I intend to develop, erect, re-erect or to make alteration in the building No. or to on/in Plot No. in Colony/Street
 Mohalla/Bazar/Road City and in accordance with the building code of Part 2, Clauses and I forward herewith the following plans and specifications in triplicate duly signed by me and the Architect/Engineer/Structural Engineer/Supervisor/Town Planner/Landscape Architect/Urban Designer¹⁾, Registration No.

(Name in block letters)

- 1) Key plan
- 2) Site plans
- 3) Subdivision/layout plan
- 4) Building plans
- 5) Services plans
- 6) Specifications, general and detailed²⁾
- 7) Title of ownership of land/building
- 8) Certificate for structural design sufficiency
- 9) Certificate for engagement of builder/constructor(s), where applicable
- 10) Certificates for supervision

I request that the development/construction may be approved and permission accorded to me to execute the work.

Signature of owner

Name of the owner

(in block letters)

Address of owner

.....

Date

¹⁾ Strike out whichever is not applicable.²⁾ A format may be prepared by the Authority for direct use.**ANNEX C**

(Clause 12.2.8)

FORM FOR CERTIFICATE FOR STRUCTURAL DESIGN SUFFICIENCY

With respect to the building work of erection, re-erection or for making alteration in the building No. or to on/in Plot No. in Colony/Street Mohalla/Bazar/Road City we certify that the structural design of the building for which building plans are being submitted for approval shall be done and submitted for approval, to satisfy the structural safety requirements for all situations including natural disasters, as applicable, as stipulated in National Building Code of India and its Part 6 'Structural Design' and other relevant Codes; and the information given therein is factually correct to the best of our knowledge and understanding.

Signature of
owner with dateSignature of
the registered
engineer/structural
engineer¹⁾ with
date and registration No.

Name (in block letters):

Address :

¹⁾ Strike out whichever is not applicable. The entries shall be in respect of the professional who would do the structural design.

ANNEX D*[Clauses 12.2.9 and 13.2(f)]***FORM FOR ENGAGEMENT OF BUILDER/CONSTRUCTOR***(Before the Commencement Stage of a Project)*

With respect to the building work of erection, re-erection or for making alteration in the building No. or to on/in Plot No. Colony/Street Mohalla/Bazar/Road City

I certify that the following builder/constructor is engaged by me towards carrying out/executing the construction:

Name and details of the builder/constructor or his representative including:

.....

.....

.....

.....

Signature of the builder/
constructor or his representative
(who has agreed for the
execution of above work)
with date

Signature of owner
with date

Name (in block letters):

Address:

ANNEX E*(Clause 12.2.9)***FORM FOR SUPERVISION**

I hereby certify that the development, erection, re-erection or material alteration in/of building No. or the on/in Plot No. in Colony/Street Mohalla/Bazar/Road City shall be carried out under my supervision and I certify that all the materials (type and grade) and the workmanship of the work shall be generally in accordance with the general and detailed specifications submitted along with, and that the work shall be carried out according to the sanctioned plans.

Signature of Registered Architect/Engineer/Structural Engineer/Supervisor/Town Planner/Landscape Architect/Urban Designer¹⁾

Name of Registered Architect/Engineer/Structural Engineer/Supervisor/Town Planner/Landscape Architect/Urban Designer¹⁾ (in block letters)

Registration No. of Architect/Engineer/Structural Engineer/Supervisor/Town Planner/Landscape Architect/Urban Designer¹⁾

Address of Registered Architect/Engineer/Structural Engineer/Supervisor/Town Planner/Landscape Architect/Urban Designer¹⁾

Date

¹⁾ Strike out whichever is not applicable. The entries shall be in respect of the professional who would supervise the work.

ANNEX F
(Clause 12.10)

FORM FOR SANCTION OR REFUSAL OF DEVELOPMENT/BUILDING PERMIT

To

.....
.....
.....
.....

Sir,

With reference to your application dated for grant of permit for the development, erection, re-erection or material alteration in the building No. or to on/in Plot No. in Colony/Street Mohalla/ Bazar/Road City I have to inform you that the sanction has been granted/refused by the Authority on the following grounds:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Office stamp

Office (Communication) No.

Date

Signature of the Authority

Name, Designation and
Address of the Authority

.....

ANNEX G

[Clause 13.2 (d)]

FORM FOR NOTICE FOR COMMENCEMENT

I hereby certify that the development, erection, re-erection or material alteration in/of building No. or the on/in Plot No. in Colony/Street Mohalla/Bazar/Road City will be commenced on as per your permission, vide No. dated under the supervision of¹⁾ Registered Architect/Engineer/Structural Engineer/Supervisor/Town Planner/Landscape Architect/Urban Designer²⁾, Registration No. and in accordance with the plans sanctioned, vide No. dated.

Signature of owner

Name of owner
(in block letters)

Address of owner

.....

.....

Date

¹⁾ Only professional who would supervise the work shall be named.

²⁾ Strike out whichever is not applicable.

ANNEX H

[Clause 13.2(f)]

FORM FOR CERTIFICATE FOR SUBSURFACE INVESTIGATION

With respect to the building work of erection, re-erection or for making alteration in the building No. or to on/in Plot No. in Colony/ Street *Mohalla/Bazar/Road* City, we certify that we have carried out subsurface investigation at site and have performed various tests required to determine engineering properties of soil substrata and ground water based on which we have given recommendations about the type of foundation, soil bearing capacity and the depth at which the foundations shall be placed, considering the structural system and loads supplied by the structural engineer to enable the engineer/structural engineer to design the foundations and other structures below ground, as stipulated in National Building Code of India and its Part 6 'Structural Design, Section 2 Soils and Foundations' and other relevant Codes.

I am enclosing a copy of the report of subsurface investigation carried out as above and submitted to the Structural Engineer.

Signature of
owner with dateSignature of
the registered Engineer/
Structural Engineer/
Geotechnical Engineer¹⁾
and registration No.
with date

Name (in block letters) :

Address :

ANNEX J

[Clause 13.2(f)]

**FORM FOR CERTIFICATE FOR COMPLETED STRUCTURAL DESIGN WORK AS PER
STRUCTURAL SAFETY REQUIREMENTS**

With respect to the building work of erection, re-erection or for making alteration in the building No. or to on/in Plot No. in Colony/ Street *Mohalla/Bazar/Road* City, we certify that the structural design, structural drawings and details of the building which has been done by us satisfy the structural safety requirements for all situations including natural disasters, as applicable, as stipulated in National Building Code of India and its Part 6 'Structural Design' and other relevant Codes considering the report of subsurface investigation, where applicable.

Signature of
owner with dateSignature of
the registered engineer/
structural engineer¹⁾/
and with date and
registration No.

Name (in block letters) :

Address :

¹⁾ Strike out whichever is not applicable. The professional who has done the structural design shall sign.

¹⁾ Strike out whichever is not applicable. The professional who has done the subsurface investigation shall sign.

ANNEX M

[Clause 13.2(f)]

FORM FOR CERTIFICATE FOR COMPLETED WORK BY BUILDER/CONSTRUCTOR

With respect to the building work of erection, re-erection or for making alteration in the building No. or to on/in Plot No. in Colony/Street Mohalla/Bazar/Road City we certify,

- that the building has been constructed by us according to the sanctioned plans, structural drawings and details issued to the site by the Engineer/Structural Engineer¹⁾; and
- that the work has been completed with high level of workmanship observing due diligence and all the materials have been used strictly in accordance with the general and detailed specifications.

Signature of
owner with date
with date

Signature of representative of
the builder/constructor

Name (in block letters) | |

Address : | |

¹⁾ Substitute by details of relevant services and the concerned constructor in case of execution of services works.

ANNEX N

[Clause 13.2 (f)]

FORM FOR COMPLETION CERTIFICATE

I hereby certify that the development, erection, re-erection or material alteration in/of building No. or the on/in Plot No. in Colony/Street Mohalla/Bazar/Road City has been supervised by me and has been completed on according to the plans sanctioned, vide No. dated The work has been completed to my best satisfaction, the workmanship and all the materials (type and grade) have been used strictly in accordance with general and detailed specifications subject to compliance the minimum parameters specified in National Building Code of India. No provisions of the Code, no requisitions made, conditions prescribed or orders issued thereunder have been transgressed in the course of the work. The land is fit for construction for which it has been developed or redeveloped or the building is fit for use for which it has been erected, re-erected or altered, constructed and enlarged.

I hereby also enclose the plans, drawings, details, reports and certificates of the building/work as executed, as follows:

- Plans of completed works
- Structural design, drawings and details
- Services drawings and details (mechanical/electrical/plumbing/fire)
- Certificate for subsurface investigation along with a copy of report
- Certificate for completed structural design work as per structural safety requirements
- Certificate for supervision of execution of work
- Certificate for completed work by the builder/constructor

Permission to occupy or use the building may be granted.

Any subsequent change from completion drawings shall be the responsibility of the owner.

Signature of Architect/Engineer/Structural Engineer/Supervisor/Town Planner/Landscape Architect/Urban Designer¹⁾

Name of Architect/Engineer/Structural Engineer/Supervisor/Town Planner/Landscape Architect/Urban Designer¹⁾ (in block letters)

Registration No. of Architect/Engineer/Structural Engineer/Supervisor/Town Planner/ Landscape Architect/ Urban Designer¹⁾

Address of Architect/Engineer/Structural Engineer/Supervisor/Town Planner/Landscape Architect/Urban Designer¹⁾

.....
Signature of the owner

Date

¹⁾ Strike out whichever is not applicable.

ANNEX P

[*Clause 13.2(h)*]

FORM FOR OCCUPANCY PERMIT

The work of erection, re-erection or alteration in/of building No.or the
.....on/in Plot No.....in Colony/Street..... *Mohalla/Bazar/Road*
.....Citycompleted under the supervision of Architect/
Engineer/Structural Engineer/Supervisor, Registration No.....has been inspected by me. The building
can be permitted/not permitted for occupation for.....occupancy subjected to the following:

- 1.
- 2.
- 3.

One set of completion plans duly certified is returned herewith.

Signature of the Authority

Office stamp

Date

thanks