Chandigarh Smart City Limited (CSCL)

Chandigarh Smart Governance System

OBPAS – Drawing Manual (Urban)

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1 Introduction

1.1 Background

Smart Cities Mission was launched by Government of India on 25th June, 2015. Chandigarh city was selected among 100 cities to be developed as smart city in India due to various achievements, initiatives and all- inclusive approach. Accordingly, Chandigarh city had submitted "Smart City Proposal" (SCP) to Ministry of Urban Development, Government of India with required consent of UT of Chandigarh and statutory authority of Municipal Corporation Chandigarh.

As part of projects list stated in the SCP Chandigarh, Chandigarh Smart City Ltd. (CSCL) with PwC as implementation agency are under execution process of project - 'Implementation of e-Governance services for Chandigarh Smart city'.

The key objective of this project is to establish a collaborative framework where input from different functional departments such as transport, water, fire, police, meteorology, e-governance, etc. can be assimilated and analyzed on a single platform; consequently, resulting in aggregated city level information. Further this aggregate city level information can be converted to actionable intelligence, which would be propagated to relevant stakeholders and citizens. Through this project Chandigarh desires to foster the development of a smart ecosystem that supports digital applications and ensures seamless steady state operations and real time tracking of services and vital city metrics throughout the city and in government departments. Online Building Plan Approval System (OBPAS) is one of the modules for implementation as part of project scope.

OBPAS platform envisages complete automation and digitization of all processes related to existing building approval at Chandigarh. There are broadly 2 types of building approval processes – Urban building approval: which undergoes approval process through Chief Architect office, estate department, and concerned departments and establishments from MCC; Rural building approval: which undergoes approval process through estate department, and other concerned departments and establishments from MCC. Estate department in MCC is responsible for provision of Building approval as well as occupancy certificates to the applicant for urban properties and MCC for rural properties.

1.2 Salient features of OBPS solution Chandigarh

- Software based verification of building plans and details, for compliance with the various regulations. defined in Chandigarh bye-laws, Zoning plans, architectural controls.
- An overall transformation in the concept of conventional plan scrutiny process.
- Minimizes the human interventions in plan scrutiny.
- Facilitate online approvals of building permit and Occupancy certificate applications.
- Improved transparency in the building permit process.
- Better precision in interpretations of the various rules.
- Facility for checking conformity with the rules of the plans and details prior to official submission.
- Only the rule complied plans and details can be officially submitted for permit application.

2 Guidelines for preparation of drawings

2.1 General guidelines

- All drawings shall be drawn in 1:1 scale, in feet, in model space.
- All required details as per this guideline shall be submitted in a single drawing, drawn in model space.
- All details shall be furnished using closed polygon with polylines, lines, texts, dimensions etc. to be incorporated in layers, index colours as specified in this guideline.
- It is instructed to the architects to keep all the layers and details in the drawing as per CA department and Estate department standards. Over and above this, prepare drawing for features scrutiny in dxf format as per this drawing manual. It is recommended to freeze the layers that may not be relevant while preparation of drawing.
- The drawing shall be saved in .dxf format and to be uploaded for the rule validation.
- Detailed drawings (Floor plan, elevations, sections, site plan etc.) incorporating all specifics as per guidelines mentioned on Bye-laws and documents listed in the OBPS portal, set to scale and paper size specified in the guidelines in pdf format. These pdf files are to be separately uploaded after .dxf file scrutiny.
- In pdf drawing uploaded, one blank space of 10 cm x 10 cm shall be kept on bottom right corner of every sheets, for approval stamping.
- The drawings shall be prepared by matching the various entries in the drawings with the properties of layers of the supplied layer matrix.
- The layer template file, which can be downloaded along with these guidelines, contains all the layers which are used by the system and can be made use while creating .dxf. drawings required for rule validation.
- Wherever details are to be furnished as dimensions, these are to be incorporated using dimension tools, and shall not be exploded/edited.
- Wherever one or more polygons/ dimensions/ lines/ depicting different parameters are required to overlap, it shall be ensured that, no gaps/ spaces are left in between.
- The use of layers/ Texts/ colour conventions specified by these guidelines to designate a parameter shall be restricted to that entity only and shall not be used elsewhere in the drawing.
- The drawing may get aborted if it does not adhere to the guidelines mentioned in the document.

Figure 1 Process for preparation of drawing

2.2 Units settings in drawing

- System accepts drawing in unit - **Feet**.
- Put drawing unit length type - **Architectural**
- Put drawing unit angle type - **Decimal degrees**
- Put drawing light intensity units - **International**
- Put dimension style unit formal - **Architectural**
- Use precision - **0' 0 ½"**

Deviation from above mentioned settings will get the drawing rejected by the scrutiny system.

2.3 Layers for drawing preparation

2.3.1 Layers to be drawn on the site plan

S.no.	Feature	Layer Name	Drawing guidelines	Layer Colour	Required in Drawing?
1	Plot area	PLOT_BOUNDARY	Draw as Polygon around the plot boundary	70	Mandatory as per rule
2	Ground Coverage area	BLK_n_COVERED_AREA	Draw as Polygon around the coverage area	140	Mandatory as per rule
		BLK_n_COVERED_AREA_DEDUCT	Draw as Polygon around the area for coverage deduction	140	Mandatory as per rule
3	Setbacks (feet drawing)	BLK_n_LVL_n_BLDG_FOOT_PRINT	Draw as closed polygon, using poly line on site plan. Polygon shall outline the building area.	As per occupancy type	Mandatory as per rule
		BLK_n_LVL_n_FRONT_SETBACK	Setback dimension on site plan using dimension tool	2	Mandatory as per rule
		BLK_n_LVL_n_FRONT_SETBACK	Draw as closed polygon, using poly line on site plan. Polygon shall be touching the corners of building block and plot boundary.	2	Mandatory as per rule
		BLK_n_LVL_n_SIDE_SETBACK1	Setback dimension on site plan using dimension tool	2	Mandatory as per zoning plan
		BLK_n_LVL_n_SIDE_SETBACK 1	Left side setback - Draw as closed polygon, using poly line on site plan. Polygon shall be touching the corners of building block and plot boundary.	171	Mandatory as per zoning plan
		BLK_n_LVL_n_SIDE_SETBACK 2	Setback dimension on site plan using dimension tool	2	Mandatory as per zoning plan

S.no.	Feature	Layer Name	Drawing guidelines	Layer Colour	Required in Drawing?
		BLK_n_LVL_n_SIDE_ SETBACK 2	Right side setback - Draw as closed polygon, using poly line on site plan. Polygon shall be touching the corners of building block and plot boundary.	102	Mandatory as per zoning plan
		BLK_n_LVL_n_REAR_ SETBACK	Setback dimension on site plan using dimension tool	2	Mandatory as per rule
		BLK_n_LVL_n_REAR_ SETBACK	Draw as closed polygon, using poly line on site plan. Polygon shall be touching the corners of building block and plot boundary.	11	Mandatory as per rule
4	Rainwater harvesting tank	RWH	Draw polygon around the tank;	4	Mandatory as per rule
			Add text for Rainwater Harvesting tank capacity RWH_CAPACITY_L=n		Mandatory as per rule
5	Parking	OPEN_PARKING	Draw polygon for each ECS	7	Mandatory as per rule
6	Construction in back yard	ACCBLK_1	Draw polygon around the back-courtyard construction	7	Optional as per design
			Text to be written	7	Optional as per design
			HEIGHT_ACCBLK_1=		Optional as per design
		ACCBLK_1_WIDTH_COUR TYARD	Draw dimension of width	7	Optional as per design
7	Organized green parks	BLK_n_PLANTATION_GRE ENSTRIP	Draw polygon	7	Optional as per design

2.3.2 Layers to be drawn on the Floor Plans

S.no.	Feature	Layer Name	Drawing guidelines	Layer Colour	Required in Drawing?
1	FAR (new construction and Reconstruction)	BLK_n_FLR_n_BLT_UP_AREA	Draw as polygon on each floor outlining build up area	As per occupancy type	Mandatory as per rule
		BLK_n_FLR_n_BLT_UP_AREA_DEDUCT	Draw as polygon on each floor outlining build up area for FAR deduction as per 10.7 of CBRL 2017	As per occupancy type	Mandatory as per rule
2	FAR (addition and alteration)	BLK_n_FLR_n_BLT_UP_AREA_EXISTING	Draw as polygon on each floor outlining build up area	As per occupancy type	Mandatory as per rule
		BLK_n_FLR_n_BLT_UP_AREA	Draw as polygon on each floor outlining build up area	As per occupancy type	Mandatory as per rule
		BLK_n_FLR_n_BLT_UP_AREA_DEDUCT_EXISTING	Draw as polygon on each floor outlining build up area for FAR deduction as per 10.7 of CBR	As per occupancy type	Mandatory as per rule
		BLK_n_FLR_n_BLT_UP_AREA_DEDUCT	Draw as polygon on each floor outlining build up area for FAR deduction as per 10.7 of CBR	As per occupancy type	Mandatory as per rule
3	General Staircase	BLK_n_FLR_n_STAIR_n	Draw Polygon around staircase layout;	7	Mandatory in New Construction and reconstruction; not mandatory in previously approved area

S.no.	Feature	Layer Name	Drawing guidelines	Layer Colour	Required in Drawing?
			Add floor height in same layer with text FLR_HT_M=n		Mandatory in New Construction and reconstruction; not mandatory in previously approved area
		BLK_n_FLR_n_STAIR_n_FLIGHT_n	Draw Polygon around each flight in staircase	7	Mandatory in New Construction and reconstruction; not mandatory in previously approved area
			Number of rises by drawing lines	3	Mandatory in New Construction and reconstruction; not mandatory in previously approved area
			Dimension for flight width	2	Mandatory in New Construction and reconstruction; not mandatory in previously approved area
			Dimension for flight length	1	Mandatory in New Construction and reconstruction; not mandatory in previously approved area

S.no.	Feature	Layer Name	Drawing guidelines	Layer Colour	Required in Drawing?
		BLK_n_FLR_n_STAIR_n_LANDING_n	Polygon around each landing	7	Mandatory in New Construction and reconstruction; not mandatory in previously approved area
			Dimension for flight width	2	Mandatory in New Construction and reconstruction; not mandatory in previously approved area
			Dimension for flight length	1	Mandatory in New Construction and reconstruction; not mandatory in previously approved area
4	Private Staircase	BLK_n_FLR_n_PRIVATESTAIR_n	Draw Polygon around staircase layout;	7	Mandatory in New Construction and reconstruction; not mandatory in previously approved area
			Add floor height in same layer with text FLR_HT_M=n		Mandatory in New Construction and reconstruction; not mandatory in previously approved area

S.no.	Feature	Layer Name	Drawing guidelines	Layer Colour	Required in Drawing?
		BLK_n_FLR_n_PRIVATESTAIR_n_FLIGHT_n	Draw Polygon around each flight in staircase	7	Mandatory in New Construction and reconstruction; not mandatory in previously approved area
			Number of rises by drawing lines	3	Mandatory in New Construction and reconstruction; not mandatory in previously approved area
			Dimension for flight width	2	Mandatory in New Construction and reconstruction; not mandatory in previously approved area
			Dimension for flight length	1	Mandatory in New Construction and reconstruction; not mandatory in previously approved area
		BLK_n_FLR_n_PRIVATESTAIR_n_LANDING_n	Polygon around each landing	7	Mandatory in New Construction and reconstruction; not mandatory in previously approved area

S.no.	Feature	Layer Name	Drawing guidelines	Layer Colour	Required in Drawing?
			Dimension for flight width	2	Mandatory in New Construction and reconstruction; not mandatory in previously approved area
			Dimension for flight length	1	Mandatory in New Construction and reconstruction; not mandatory in previously approved area
5	Spiral Staircase	BLK_n_FLR_n_SPIRAL_FIRE_STAIR_n	Draw Circle	7	Mandatory in New Construction and reconstruction; not mandatory in previously approved area
6	Chhaja/Balcony/Projections	BLK_n_FLR_n_CHAJJA	Draw polygon around each chajja	7	Optional as per design
7	Lift	BLK_n_FLR_n_LIFT_1	Draw polygon to mark lift location	19,155,72	Optional as per design
8	Ramp	BLK_n_DA_RAMP	Draw polygon	7	Optional as per design
			With text eg. SLOPE=1IN12		Optional as per design
9	Vehicle Ramp	BLK_n_VEHICLE_RAMP_n	Draw polygon	7	Optional as per design
			With text eg. SLOPE=1IN12		Optional as per design
10		BLK_n_FLR_n_STILT	Draw polygon for each ECS	7	Mandatory as per rule

S.no.	Feature	Layer Name	Drawing guidelines	Layer Colour	Required in Drawing?
		BLK_n_FLR_n_COVERED PARKING	Draw polygon for each ECS	7	Mandatory as per rule
		TWO_WHEELER_PARKING	Draw polygon for each ECS	7	Mandatory as per rule
11	Light and Ventilation	BLK_n_FLR_n_ROOM_n_LIGHT_VENTILATION_n	Draw polygon with dimension of window on the floor plan	RGB 19,155,72	Mandatory where habitable room is provided
12	Carpet Area	BLK_n_FLR_n_CARPET_AREA	Draw carpet area of each floor using polygon	As per occupancy type	Optional
		BLK_n_FLR_n_CRPT_AREA_DEDUCT	Draw carpet area of each floor using polygon	As per occupancy type	Optional
13	Ventilation Shaft	BLK_n_FLR_n_VENTILATION_SHAFT	Draw polygon	7	Optional as per design
14	Interior courtyard for light & ventilation	BLK_n_FLR_n_COURTYARD_INNER	Draw polygon	7	Optional as per design
15	Verandah for light & Ventilation	BLK_n_FLR_n_VERANDAH	Draw polygon	7	Optional as per design
			Draw dimension of sides		Optional as per design
16	Servant quarter	BLK_n_FLR_n_BLT_UP_AREA	Draw Polygon around servant quarter in floor plan	35	Mandatory as per rule
17	Professionals/ consultants space	BLK_n_FLR_n_BLT_UP_AREA	Draw Polygon in floor plan	24	Optional as per design

S.no.	Feature	Layer Name	Drawing guidelines	Layer Colour	Required in Drawing?
18	STD/ PCO/ fax and photostat machine	BLK_n_FLR_n_BLT_UP_AREA	Draw polygon	13	Optional as per design
19	Creche and paying guest facility	BLK_n_FLR_n_BLT_UP_AREA	Draw polygon	15	Optional as per design
20	Dwelling unit	BLK_n_FLR_n_UNITFA	Draw Polygon	As per occupancy type	Mandatory in grouped housing
21	EWS	BLK_n_FLR_n_UNITFA	Draw Polygon	33	Mandatory in grouped housing
22	Mezzanine floor	BLK_n_FLR_n_BLT_UP_AREA_MEZ_%s	Draw polygon	As per occupancy type	Optional as per design
			Dimension		Optional as per design
		BLK_n_FLR_n_BLT_UP_AREA_DEDUCT_MEZ_k	Draw polygon	As per occupancy type	Optional as per design
23	Gallery Floor				
24	Handicapped WC	BLK_n_FLR_n_SP_WC	Draw polygon for males	1	Optional as per design
25			Draw polygon for females	2	Optional as per design
			Draw polygon for common	3	Optional as per design
26	Wash basin	BLK_n_FLR_n_WASH	Draw polygon for males	7	Optional as per design
27	WC	BLK_n_FLR_n_WATER_CLOSET	Draw polygon for males	1	Mandatory as per rule

S.no.	Feature	Layer Name	Drawing guidelines	Layer Colour	Required in Drawing?
			Draw polygon for females	2	Mandatory as per rule
			Draw polygon for common	3	Mandatory as per rule
28	Urinals	BLK_n_FLR_n_URINAL	Draw polygon for males	1	Mandatory as per rule; Optional for residential plotted
			Draw polygon for females	2	Mandatory as per rule; Optional for residential plotted
			Draw polygon for common	3	Mandatory as per rule; Optional for residential plotted
29	Bath	BLK_n_FLR_n_BATH	Draw polygon for males	1	Mandatory as per rule
			Draw polygon for females	2	Mandatory as per rule
			Draw polygon for common	3	Mandatory as per rule
30	General Toilet	BLK_n_FLR_n_WC_BATH	Draw polygon for males	1	Mandatory as per rule
			Draw polygon for females	2	Mandatory as per rule
			Draw polygon for common	3	Mandatory as per rule
31	Drinking water	DRINKING_WATER	Draw Polygon	7	Mandatory as per rule; Optional for residential plotted

2.3.3 Layers to be drawn on the Floor Plans and Sectional Elevations

S.no.	Feature	Layer Name	Drawing guidelines	Layer Colour	Required in Drawing?
1	Kitchen	BLK_n_FLR_n_KITCHEN	Draw polygon for kitchen area calculation in floor plan and dimension in section for kitchen clear height	1	Mandatory as per rule
2	Habitable room	BLK_n_FLR_n_REGULAR_ROOM_n	Draw polygon for each habitable room on floor plan	1	Mandatory as per rule
			Draw dimension of room height for respective room in sectional elevation		Mandatory as per rule
3	Minimum passage/ corridor	PASSAGE	Draw Passage width with dimension	1	Optional as per design
			Draw Passage height with dimension	2	Optional as per design

2.3.4 Layers to be drawn on the Sectional Elevations or Building Elevation

S.no.	Feature	Layer Name	Drawing guidelines	Layer Colour	Required in Drawing?
1	Height of building	BLK_n_HT_OF_BLDG	Draw as dimension on building section	5	Mandatory as per rule
2	Plinth height	BLK_n_PLINTH_HEIGHT	Draw dimension of plinth height	7	Mandatory as per rule
3	Basement floor height	BLK_n_FLR_-1_BLDG_FOOTPRINT	Draw Dimension of basement floor clear height (beam to floor/ceiling to floor)	1	Mandatory if basement is provided
4	Parapet/Railing	BLK_n_PARAPET_HT	Draw dimension for all railings (except staircase railing and service zone railing)	3	Optional as per design
			Draw dimension for staircase railing	2	Optional as per design
			Draw dimension for service zone railing	1	Optional as per design
5	Headroom	BLK_n_STAIR_HEADROOM	Draw dimension	7	Mandatory where staircase is proposed
6	Mumty	BLK_n_MUMTY_HT	Draw dimension of stair cover height	7	Optional as per design
7	Gate	MAIN_GATE	Draw polygon outlining main gate size	7	Mandatory as per rule
		MAIN_GATE	Use dimension tool to draw main gate height	1	Mandatory as per rule
		MAIN_GATE	Use dimension tool to draw main gate width	2	Mandatory as per rule
		WICKET_GATE	Draw polygon outlining wicket gate size	7	Mandatory as per rule

S.no.	Feature	Layer Name	Drawing guidelines	Layer Colour	Required in Drawing?
		WICKET_GATE	Use dimension tool to draw wicket gate height	1	Mandatory as per rule
		WICKET_GATE	Use dimension tool to draw wicket gate width	2	Mandatory as per rule
8	Boundary wall	COMPOUNDWALL	Draw Dimension of front compound wall	1	Mandatory as per rule
		COMPOUNDWALL	Draw Dimension of rear compound wall	2	Mandatory as per rule
		COMPOUNDWALL	Draw Dimension of railing	3	Mandatory as per rule
9	Basement distance from existed building without basement	BLK_n_LVL_1_BASEMENT	Draw dimension	7	Optional as per design
10	General Toilet height	BLK_n_FLR_n_WC_BATH_HT	Draw dimension on toilet section (male)	1	Mandatory as per rule
			Draw dimension on toilet section (female)	2	Mandatory as per rule
			Draw dimension on toilet section (common)	3	Mandatory as per rule

2.3.5 Layers to be drawn on the terrace plan

S.no.	Feature	Layer Name	Drawing guidelines	Layer Colour	Required in Drawing?
1	Solar water heating system	SOLAR_WATER_HEATER	Draw polygon to mention location	7	Mandatory as per rule
2	Solar photo voltaic	SOLAR_PANEL	Draw polygon to mention location	3	Mandatory as per rule
3	Service zone on terrace	BLK_n_TERRACESERVICE_UTILITYDISTANCE	Draw Dimension for front and rear sides from terrace railing parapet	37	Mandatory as per rule
			Draw Dimension for left and right sides from terrace railing parapet.	39	Mandatory as per rule

2.4 Layer colour as per occupancy type

S.no.	Occupancy	Sub-occupancy	Layer colour
1.	Residential	Plotted	25
2.	Residential	Grouped	2
3.	Commercial	SCO'S/ SCF'S / BAYSHOP'S/ SEMI INDUSTRIAL	30
4.	Commercia	BOOTHS	60
5.	Commercial	HOTEL	23
6.	Commercial	MULTIPLEX/MALLS (specifically earmarked sites)	51
7.	Commercial	COMMERCIAL (converted from Industrial)	26
8.	Commercial	Banquet hall/ marriage palaces	28
9.	Commercial	Bulk building material	29
10.	Commercial	Timber site (single storey)	45
11.	Commercial	Theatre converted into multiplex	31
12.	Commercial	Coal Depot	50

13.	Commercial	Petrol Pump	48
14.	Industrial	Governed by Architectural Controls	245
15.	Industrial	Governed by Zoning Plans	14
16.	Public / Semi- Public Buildings	Dispensary	243
17.	Public / Semi- Public Buildings	Police Station	44
18.	Public / Semi- Public Buildings	Fire Station	43
19.	Public / Semi- Public Buildings	Nursing home	46
20.	Public / Semi- Public Buildings	Hospital	244
21.	Public / Semi- Public Buildings	Community centre/Janj Ghar	246
22.	Public / Semi- Public Buildings	Sports Stadium	248
23.	Public / Semi- Public Buildings	Cultural and Non-Academic institutional sites	230
24.	Public / Semi- Public Buildings	Religious	240
25.	Educational institutes	Education city (Sarangpur)	10
26.	Educational institutes	Educational/ Academic	4
27.	Educational institutes	Hostels	19

28.	IT Park	Main Campus (above 6 acre)	32
29.	IT Park	Small Campus (2 to 6 acre)	215
30.	IT Park	built to suite site (2 acre or below)	216
31.	Railway Station	Railway Station	16
32.	IT Habitat	Hospital	17
33.	IT Habitat	COMMERCIAL/ HOTEL	18
34.	IT Habitat	Club	21
35.	IT Habitat	RESIDENTIAL	22
36.	IT Habitat	Government housing	34
37.	Integrated projects	Institutional (70%)	36
38.	Integrated projects	Residential (25%)	38
39.	Integrated projects	Commercial (5%)	40
40.	Transit Oriented Development (TOD)	Transit Oriented Development (TOD)	42

2.5 Layer PLAN_INFO

S.no.	Key	Description	Expected response format
1	PLOT_AREA_M2	Plot area	Numeric value with decimal
2	ZONE	Zone	SOUTH / CENTRE / EAST
3	SECTOR_NUMBER	Sector Number	Eg. 38A, 11A, 23B
4	PLOT_TYPE	Plot area type	MARLA / ONE_KANAL / TWO_KANAL / ABOVE_TWO_KANAL
5	PLOT_NUMBER	Plot number	Eg. 40, 1421, 355, 366P, 98P (As given in the zoning plans)
6	FLUSHING_UNITS_VOLUME_ABOVE_SEVEN_LITRES	Is Flushing unit volume above permissible 7l limit?	NO
7	ROOT_BOUNDARY_TYPE	Root Boundary Type	URBAN / RURAL
8	DEMOLITION_AREA_M	Demolition area	Put percentage in number. Eg. 30, 40, 50 instead of 30%, 40%, 50%
9	TOTAL_USERS	Total number of Users in the proposed building	Numeric value. Eg. 4,5,10 etc.
10	SOLAR_PHOTOVOLTAIC_KWP	In case Photo voltaic layer is available in drawing, capacity of solar photovoltaic panels	Numeric value. Eg. 2 instead of 2KWP
11	EXISTING_BUILDING_CONSTRUCTED_WITHOUT_BASEMENT	Whether existing building constructed without basement ?	YES/NO
12	ARTIFICIAL_AND_MECHANICAL_VENTILATION_PROVIDED	Whether Artificial and Mechanical ventilators provided ?	YES/NO
13	SOIL_OR_VENTILATION_PIPE_EXTERNAL_WALL	Whether any Soil or Ventilating pipe on building external face without pipe duct or embedded in the wall ?	NO

14	WHETHER_STAIRCASE_TOUCHING_LIFT_SHAFT	Whether any Staircase touching lift shaft ?	NO
15	BASEMENT_SERVICES_PRINTING PRESS_A.C. PLANTS_ELECTRICAL PANELS_FILTRATIONPLANTS_LAUNDRYPLANTS_OR_MACHINES_ AUTOMATED/STACK PARKING	n case of the services such as Printing Press, lifts, A.C. Plants, Electrical Panels, Filtration Plants, Laundry Plants or Machines relating with the services relating to the use of the site and provision of automated/stack parking related with the services relating to the use of the site, the clear height up to 16'-6" shall be allowed subject to the condition that no mezzanine floor shall be permitted after ensuring the structural stability and provision of the Fire Safety Rules.	NO
16	SERVICE_FLOOR_HEIGHT_M	Service floor height shall not exceed 2.25 meter from floor to ceiling.	NA/numeric value. Eg. 10, 10.25, 10.5
17	FIRE_SAFETY_PROVISIONS_AS_PER_NBC_DFPF_FSA	Fire Safety provisions as per National Building Code of India, and Delhi Fire Prevention and Fire Safety Act, 1986 as extended to UT, Chandigarh.	YES/NO
18	EXIT_REQUIREMENT_FIRE_&_LIFE_SAFETY_AS_PER_NBC	'Fire and Life Safety' exit requirements as per National Building Code of India.	YES/NO
19	COMBUSTIBLE_MATERIAL_IN_FIRE_TOWER	No combustible material shall be allowed in the fire tower.	YES/NO/NA
20	DAMP_PROOFING_AT_BASEMENT	Is there Damp proofing proposed in case basement is proposed in the building	YES/NO/NA

21	HOSPITAL_BEDDED	How many bedded is the hospital	NA
22	HOSPITAL_TYPE	What is the type of hospital	NA
23	SOLOR_WATER_HEATING_IN_LTR	In case Solar water heater layer is available in drawing, capacity of solar water heating system in liter	Numeric value. Eg. 1000, 2000 etc.
24	RESIDENTIAL_NO_OWNER	Number of owners of the building	Numeric value. Eg. 1, 2,3 etc.
25	IS_ACADAMIC_BOARDING	is the building academic boarding institution?	YES/NO/NA
26	No_OF_WARD	Number of ward	YES/NO/NA
27	IS_DRINKING_WATER_ON_EACH_FLOOR	Is there provision of drinking water at each floor?	YES
28	MULTI_BAY_PARTITIONS_NUMBER	What are the number of partition done in one bay	NA/Numeric value. Eg. 1, 2,3 etc.
29	EXCESS_COVERAGE_6_INCH_BEYOND_BUILD_UP_AREA	Is the building constructed beyond 6" from zoning line?	NO/YES/NA
30	PLOT_LENGTH	Plot Length	Numeric value. Eg. 70, 75.5, 90 etc.
31	PLOT_WIDTH	Plot Width	Numeric value. Eg. 23.5, 26.75, 30 etc.
32	BLOCK_1_STAIR_COVERS_AREA	Area of mumty on terrace	Numeric value. Eg. 95,100,105 etc.
33	IS_SECURITY_FEE_APPLICABLE	Whether the security fee is applicable or not	YES/NO
34	IS_RULE_5_APPLICABLE	Whether the Rule 5 is applicable or not	YES/NO (If the response is YES then polygon is required in colour 6

			layer BLK_n_FLR_n_BLT_UP_AREA)
35	IS_ADDITIONAL_AREA_APPLICABLE	Whether the Additional area is applicable or not	YES/NO (If the response is YES then polygon is required in colour 1 layer BLK_n_FLR_n_BLT_UP_AREA)

3 Reply to Letter to Party

Step 1: Check the fee calculation done by the application, and verify it with your area and fee calculation table

Step 2: Check the requirements asked by the department on Letter to party Page – **Click on LP Reply**

Step 3: Add the LP Reply Date and write Letter to party remarks/comments

Step 4: Attach all the mandatory documents asked for resubmission

Step 5: Compare the fee mentioned in the fee details with y0ur calculated fee. In case your calculated fee is more than fee calculated by the application, there are two possible scenarios:

1. **Area details provided in the drawing may not be as expected**

Add the remaining area for which the calculation was not done by the system. For eg. Scrutiny fee according to the 'fee detials' = 4813 and you have calculated the Scrutiny fee = 5000, you can add (5000-44813)/1.25=**150** in the letter to party screen as mentioned below. (1.25 is the per square feet charge for scrutiny fee)

| 2. **Area details provided by you in details table are not accurate** |
|---|
| Please check the FAR in the Scruty report, and all the proposed and existing areas. Make your details same as scrutiny report details |
| **Step 5:** Modification of fee through letter to party |
| Put the area to be added in the fee calculation over and above already calculated fees mentioned in the fee detail for e.g if labour cess fee in fee detail is 1,000INR but as per calculation it is expected to be 1,500INR, then applicant shall add in the labour cess floor 0 value as under (1,500-1,000)/15 = **33.33** |

Note: - If you have received multiple Letter to Party from the department, your latest reply will be considered as a final reply.

4 System functional processes

4.1 Plinth level certificate

4.1.1 Workflow for issuance of plinth level certificate (Urban)
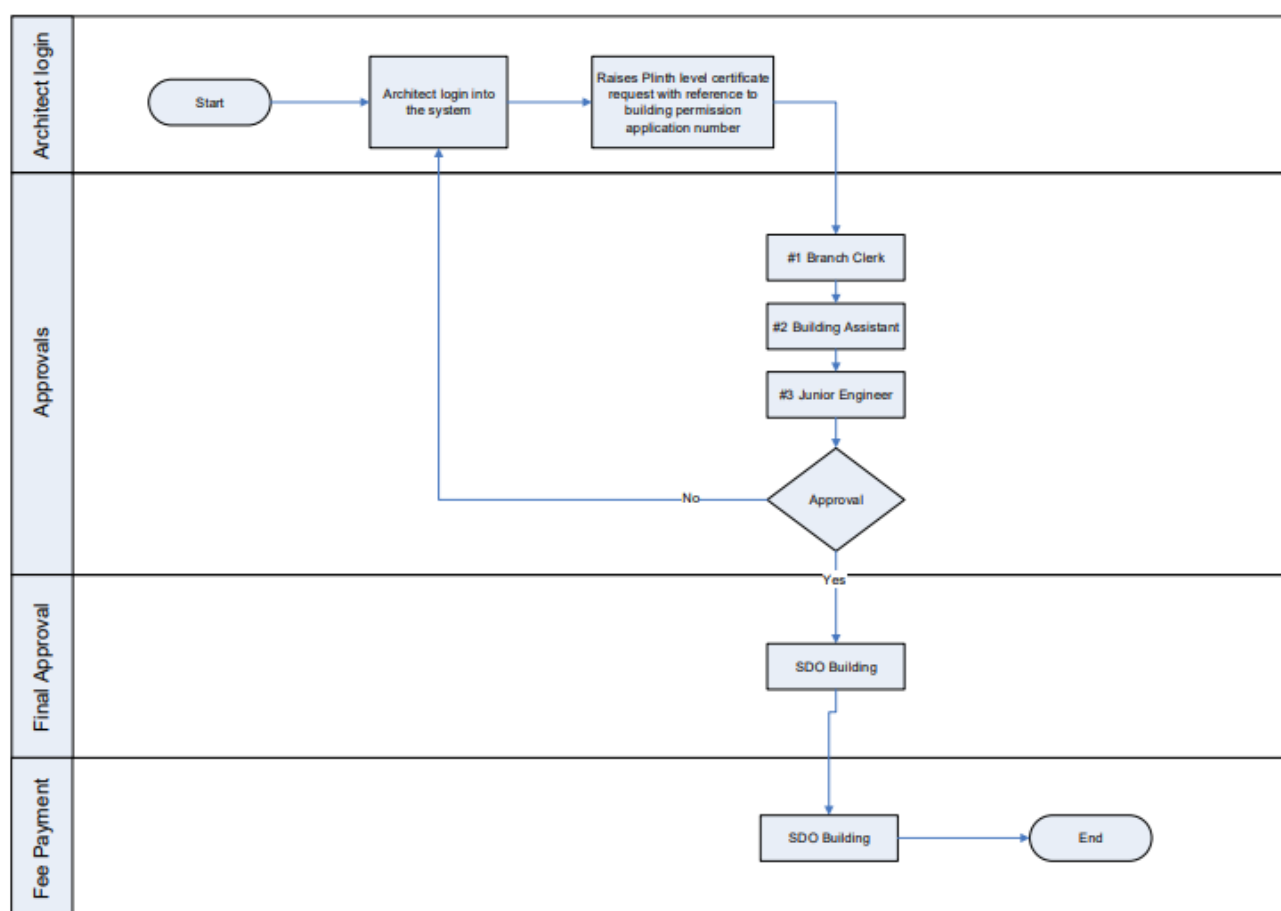
4.2 Building plan approval

4.2.1   Workflow for below two kanal building permission workflow (Urban)
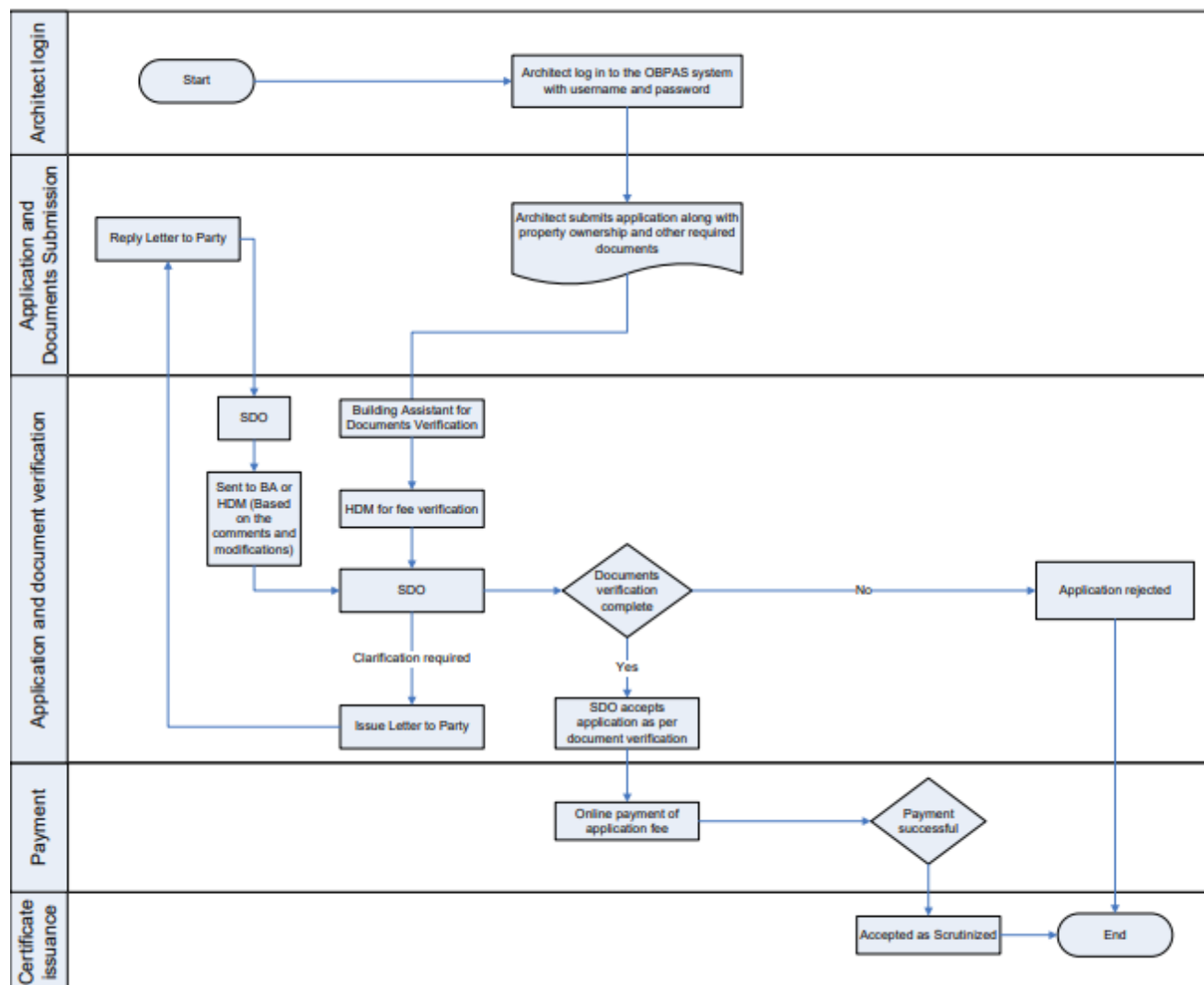
4.2.2 **Workflow for above two kanal building permission (Urban)**

4.2.3   Workflow for Rural application

4.3 Occupancy certificate

4.3.1 Workflow for below two kanal occupancy certificate (Urban)

4.3.2 Workflow for above two kanal occupancy certificate (Urban)

5 Frequently asked questions (FAQ)

Q1. How to fill information in PLAN_INFO layer?
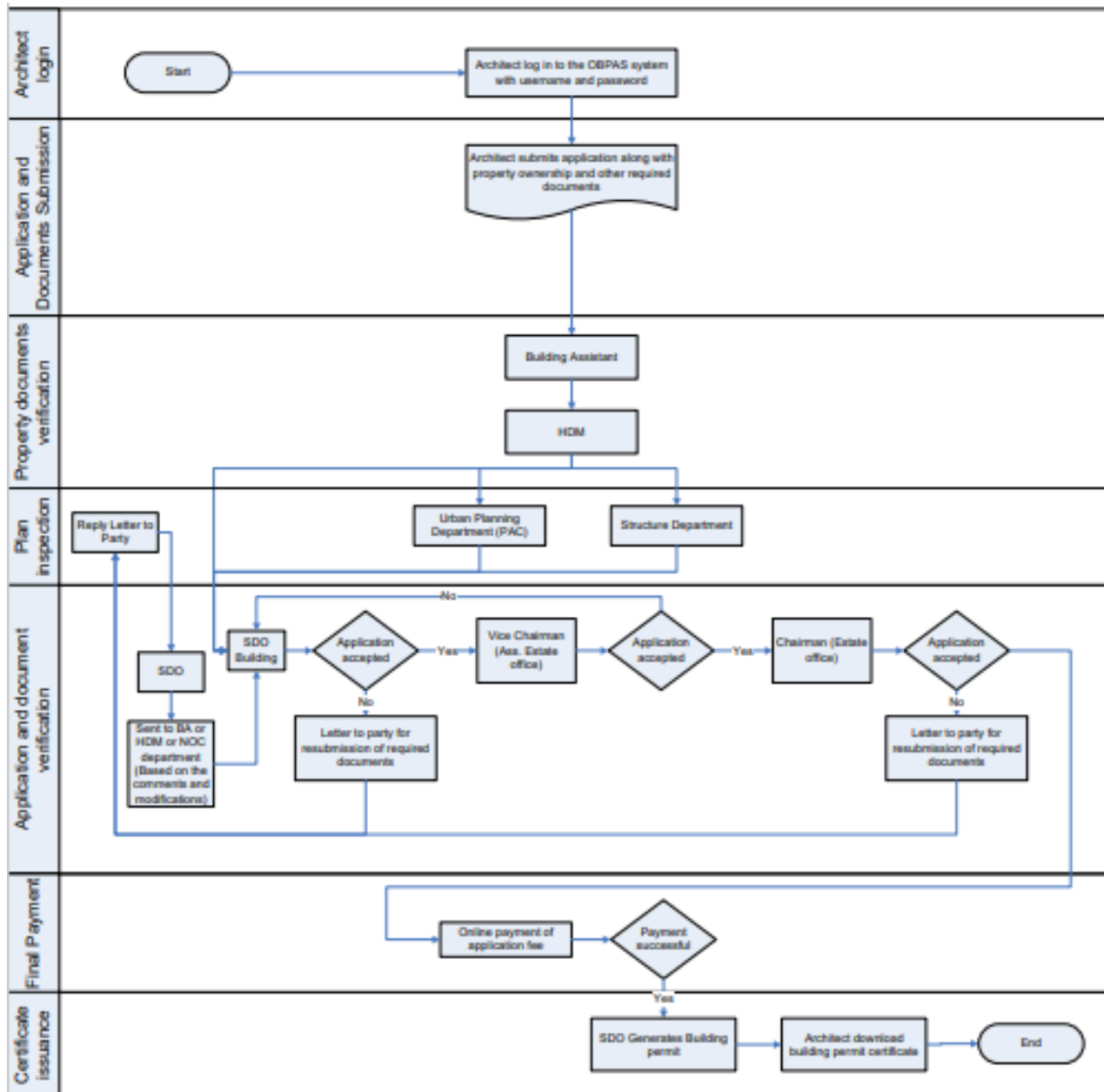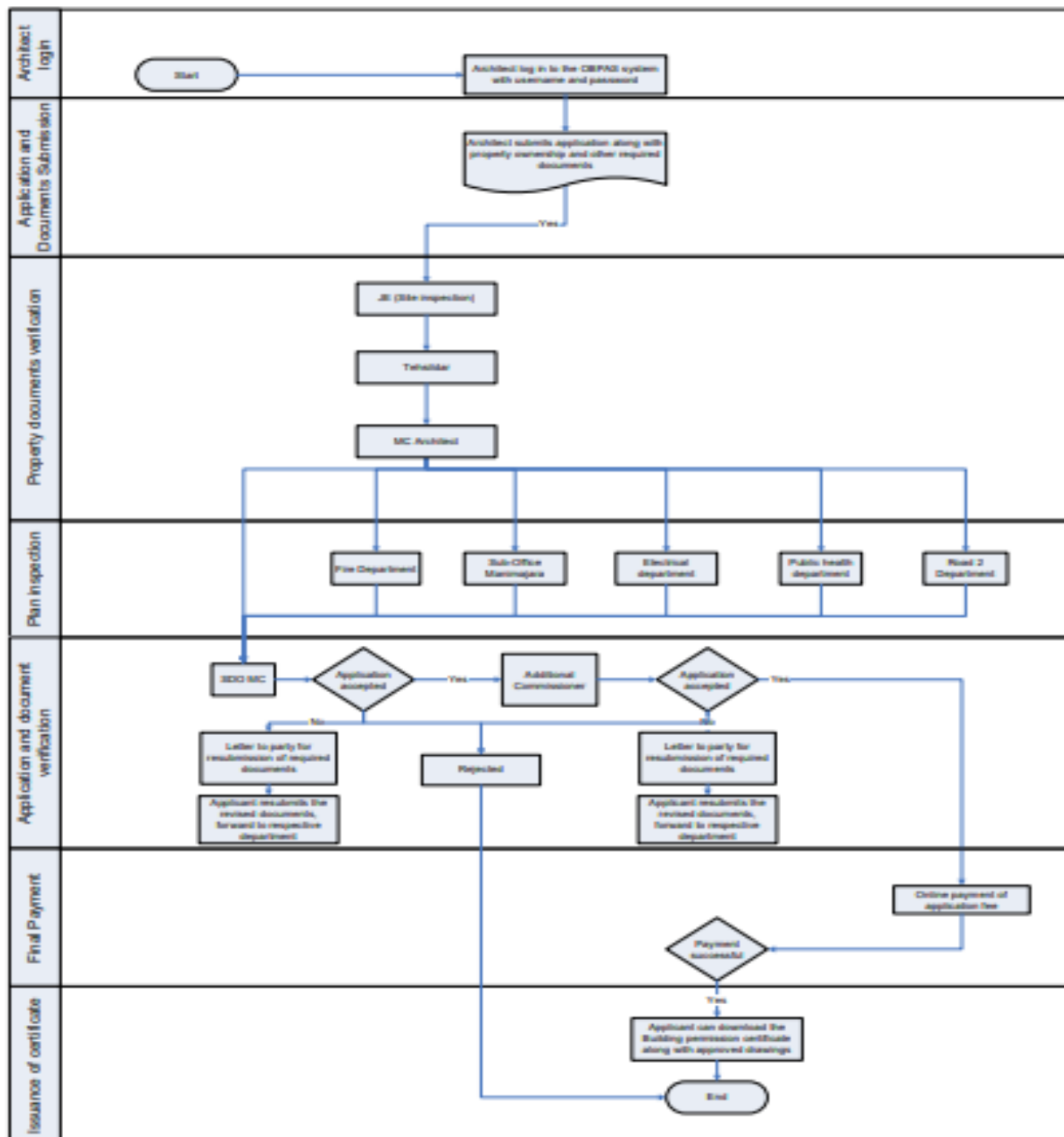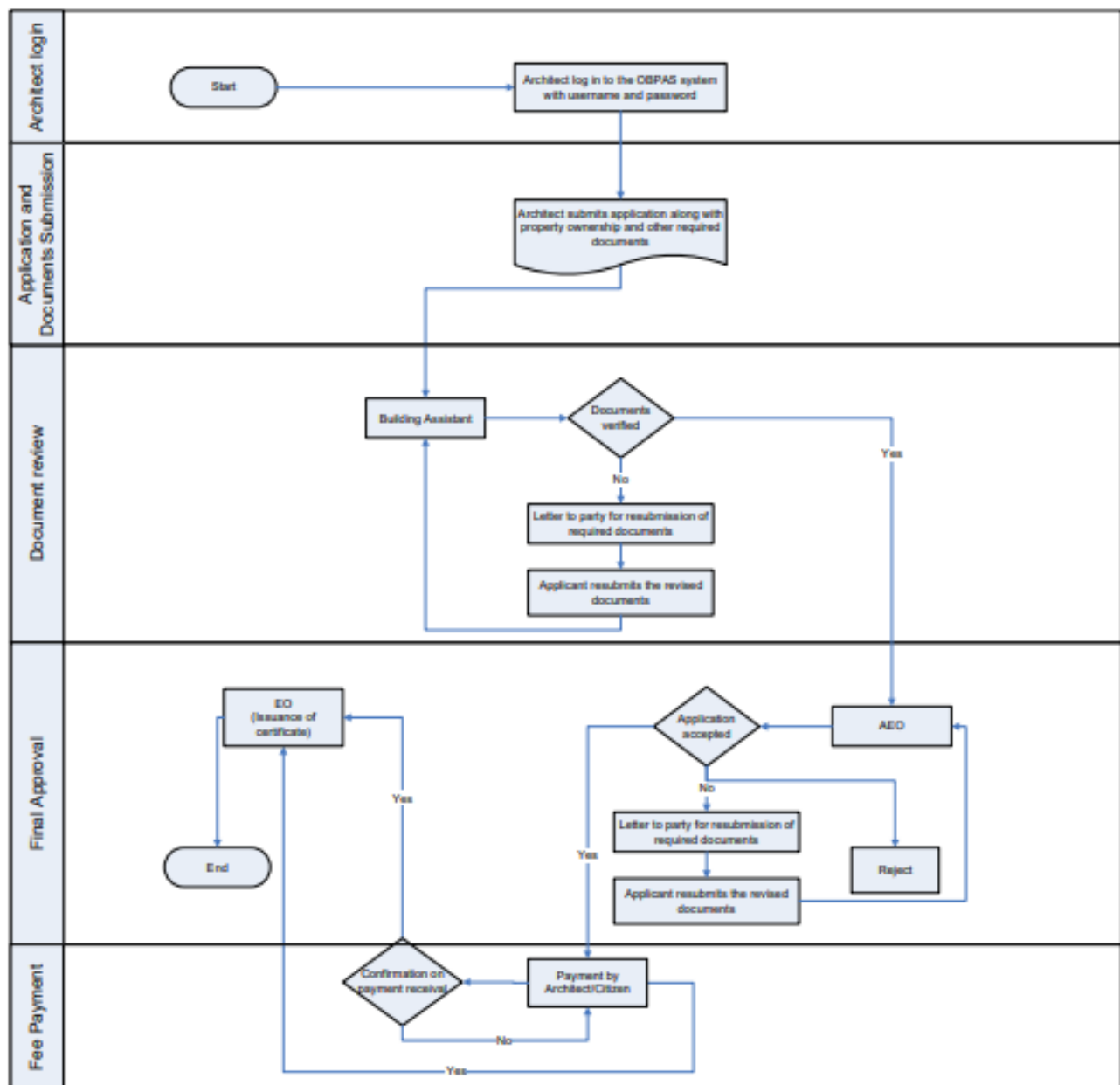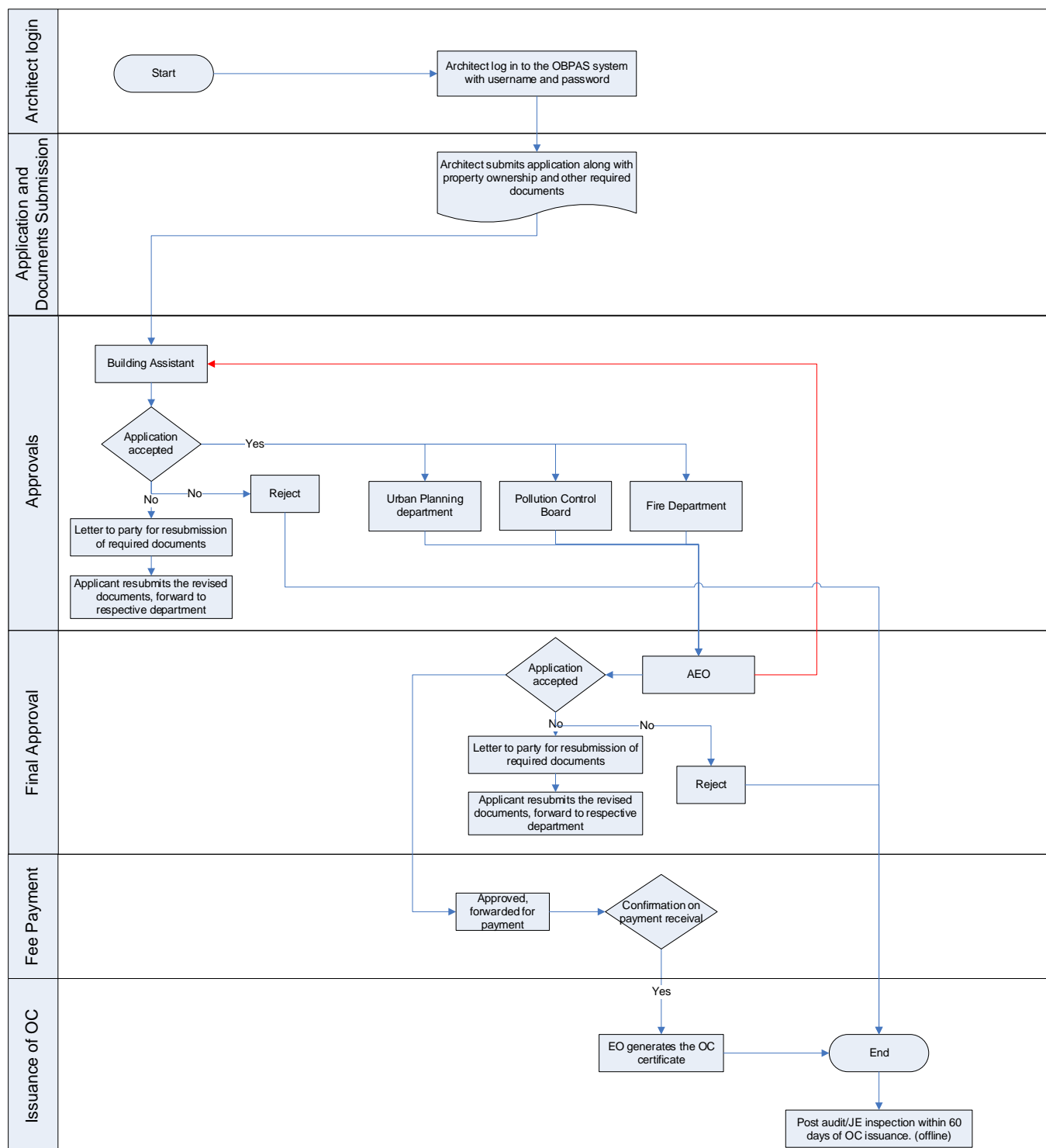
A1. Provide the information required in PLAN_INFO Layer with following considerations:

- Write all the text in PLAN_INFO layer after '=' and 'space'. For eg. **PLOT_NUMBER= 33** instead of PLOT_NUMBER=33 and **PLOT_NUMBER= 33P** instead of 33-P or 33_P or 33 P.
- Write all the text without any applicable units. For eg. **PLOT_AREA_SQM= 1500** instead of PLOT_AREA_SQM= 1500sqft, **SOLAR_PHOTOVOLTAIC_KWP= 2** instead of SOLAR_PHOTOVOLTAIC_KWP= 2KWP, etc.
- Write all the text in Capitals. For eg. **ROOT_BOUNDARY_TYPE= URBAN**
- Write sector number in format **SECTOR_NUMBER= 23D** instead of SECTOR_NUMBER=23-D or SECTOR_NUMBER= 23 D or SECTOR_NUMBER= 23d
- Write plot type in format **PLOT_TYPE= MARLA** (in case of Marla category of house) instead of PLOT_TYPE= EIGHT_MARLA or PLOT_TYPE= TEN_MARLA; **PLOT_TYPE= ONE_KANAL** instead of PLOT_TYPE= 1_KANAL or PLOT_TYPE= ONE KANAL; **PLOT_TYPE= TWO_KANAL** instead of PLOT_TYPE= 2_KANAL or PLOT_TYPE= TWO KANAL; **PLOT_TYPE= ABOVE_TWO_KANAL** instead of PLOT_TYPE= ABOVE_2_KANAL or PLOT_TYPE= ABOVE TWO KANAL
- Zone category of Plot will be as per the Table 4 of this document. Write the zone detail in the format **ZONE= SOUTH, ZONE= EAST, ZONE= CENTRE**
- Write the projected total number of building users in the format **TOTAL_USERS= 5**
- Write the total number of owners in the format **NUMBER_OF_OWNERS= 1**
- Put the responses in the PLAN_INFO layer with response **YES** or **NO** or **NA** instead of **Yes** or **No** or **na.**

Q2. What is zones and sectors in Chandigarh?

A2.

Area Category	Zone	Sector (As per document)
Urban	South	36-46, 50-56, 61-63, 32-35, 49, 50, 51
Urban	Centre	1-6, 8-12, 14-16, 17, 22, 23-25
Urban	East	7, 19, 48, Industrial area Phase II, Industrial area I, 18, 20, 21,26-28,47, IT Park, 29-31, 47-48

Q3. How does system calculate fee for building permit?

A3. System calculates fee based on the drawing using following layers:

1. **Scrutiny fee –** This will be calculated based on the FAR (Floor Area Ratio) layers with color as per occupancy type.

2. **Labour cess –** This will be calculated based on the FAR layers with color as per occupancy type and chajja layers in the drawing.

3. **GST** - will be calculated as 18% of scrutiny fee.

4. **Rule 5 (on already constructed area)-** This will be calculated based on the FAR layers drawn with colour 6

5. **Additional fee-** This will be calculated based on the FAR layers drawn with colour 1

6. **Security fee** shall be calculated by the system as per rule.

Q4. How should I start with the drawing preparation?

A4. Complete the drawing as per standards and guidelines required by the Estate office. The drawing should be completed as submission drawing formats. Use drawing scale 1:1 only. During or before preparation of drawing, make the UNITS settings - **feet** and length type **architectural** in the software (eg. Autocad). Length type in primary units of dimension style shall be updated to architectural. Further, add the layers for scrutiny as mentioned in the drawing manual and start drawing preparation for scrutiny. **For reference use drawing template and sample drawings available in 'help resources' section in the login page.**

Q5. Why is my drawing aborted?

A5. There are listed reasons that may lead to your drawing getting aborted by the system:

- The FAR layers are not put in the required occupancy type layer (eg. Colour 25 for residential plotted).

- Data in PLAN_INFO layer is not provided as per the guidelines. For eg. PLOT_AREA_SQM= **1500 sqft** may get your drawing aborted. Correct way of putting data is PLOT_AREA_SQM= **1500.** It is very important to provide the information in required format only.

- Additional unused layers like COMPOUNDWALL, PASSAGE etc. are provided while not in use in the drawing. Similar layers are required to be **deleted/ renamed** from the drawing layers list.

- Staircase height text in required layer in guidelines FLR_HT_M=n shall be provided in feet in decimal value. Eg. **FLR_HT_M=10.25** instead of **FLR_HT_M=10'3".** Similar format to be followed in **rear courtyard construction height** and **RWH capacity** text.

Q6. What should I do if my drawing if 'not accepted'?

A6. One can open the .dxf file, that was uploaded for scrutiny, in the drafting software that was used for drawing preparation (eg. Autocad) and make the modifications in the drawing as per the scrutiny report. After update of drawing, one can resubmit the drawing for scrutiny.

Q7. In which format the drawing shall be saved for scrutiny?

A7. Drawing shall be saved in .dxf format only (**Save file in .dxf version 2010 or lower**).

Q8. How much time it will take for my drawing to get approved?

A8. After completion of drawing, system takes 2 minutes to undergo online scrutiny of drawing. Department approval may take one to two weeks in the process, depending upon scale of plot. Status of the application will be received to the applicant in the application dashboard and via sms.

Q9. When I should proceed for payment?

A9. Payment shall be done after completion of approval process. The application approval status can be seen in the application anytime, and also will be intimated to the applicant through sms and email.

Q10. Can plot owner/customer make the payment?

A10. When the application will be submitted to the estate department for approval, the sms and email will be sent to the plot owner/customer with login credentials. Owner/customer can login to the application and can make the payment.

Q11. What is letter to party?

A11. In case any gap in the application submitted by the applicant, Estate department will issue letter to party to the applicant towards which applicant can respond with required information and resume the approval process.

Q12. Which sectors plots can be taken up for scrutiny in OBPS application?

A12. All the Chandigarh properties can be taken up for scrutiny in OBPS application.

Q13. What does 'Master data not available' in the error list means?

A13. Master data includes PLOT_NUMBER, PLOT_TYPE, SECTOR_NUMBER in PLAN_INFO layer. If these three are not available in the system as per the zoning plan, then 'master data not available' comes in the scrutiny report. With this error the drawing may not be 'Accepted'.

6 Occupancy certificate drawing parameters

Fee/Drawing Parameters for dxf file

Sr. No.	Description	Details to be mentioned in OC DXF file	Layers/ Plan info key to be used
1	Labour cess	Make the revised polygon with the Buildup area layer in DXF drawing (In colour as per occupancy type)	BLK_1_FLR_0_BLT_UP_AREA
2	Rule 5	Make the revised polygon with the Build up area layer in DXF drawing (In colour 6)	BLK_1_FLR_0_BLT_UP_AREA
3	Additional coverage in the rear courtyard construction	Area of rear courtyard construction comparison with BPA	ACCBLK_1
4	Additional coverage	Make the revised polygon with the Build up area layer in DXF drawing (In colour 1)	BLK_1_FLR_0_BLT_UP_AREA
	Minor internal changes during construction	Make the revised polygon with the Build up area layer in DXF drawing (In colour =2)	BLK_1_FLR_0_BLT_UP_AREA
6	Minor changes in - doors and windows (Number of floors)	NUMBER_OF_FLOORS_WITH_CHANGES_IN_DOORS_OR_WINDOWS_LOCATIONS = <NUMBER>	Add in PLAN_INFO layer- NUMBER_OF_FLOORS_WITH_CHANGES_IN_DOORS_OR_WINDOWS_LOCATIONS = Add Numeric value only eg 1, 2, 3 etc.
8	Glazing of verandah	NUMBER_OF_GLAZING_IN_VERANDAH= <NUMBER>	Add in PLAN_INFO layer- NUMBER_OF_GLAZING_IN_VERANDAH= Add Numeric value only eg 1, 2, 3 etc.

		Make the revised polygon with the Build up area layer in DXF drawing (In colour 5)	BLK_n_FLR_n_BLT_UP_AREA
9	Additional height on second floor of SCFs converted into SCOs	Plan Info (Additional height on second floor of SCFs converted into SCOs=<number in feets>	Add in PLAN_INFO layer- AREA_FOR_ADDITIONAL_HEIGHT_SQ FT=Add Numeric value only eg 1, 2, 3 etc.
10	Partitions on ground floor on multi-bays shops	Plan_info (MULTI_BAY_PARTITIONS_ NUMBER=)	Add in PLAN_INFO layer-MULTI_BAY_PARTITIONS_NUMBER=Add Numeric value only eg 1, 2, 3 etc.
12	Water tank above building height	This is calculated based on Terrace utility layer	Layer - BLK_1_TERRACESERVICE_UTILITYDIS TANCE
13	Number of Lofts	NUMBER_OF_LOFTS_CONST RUCTED_BEYOND_PERMIT= <NUMBER>	Add in PLAN_INFO layer- NUMBER_OF_LOFTS_CONSTRUCTED_ BEYOND_PERMIT= Add Numeric value only eg 1, 2, 3 etc.
14	Number of Non standard Gate	NUMBER_OF_NON_STANDA RD_GATES= <NUMBER>	Add in PLAN_INFO layer- NUMBER_OF_NON_STANDARD_GATE S= Add Numeric value only eg 1, 2, 3 etc.
15	Number of Niches on the common wall	NUMBER_OF_NICHES_ON_ THE_COMMON_WALL= <NUMBER>	Add in PLAN_INFO layer- NUMBER_OF_NICHES_ON_THE_COM MON_WALL= Add Numeric value only eg 1, 2, 3 etc.
16	DPC certificate not available	IS_DPC_CERTIFICATE_AVAI LABLE=YES/NO	Add in PLAN_INFO layer- IS_DPC_CERTIFICATE_AVAILABLE=YE S/NO
17	False ceiling	AREA_OF_FALSE_CEILING= <Number>	Add in PLAN_INFO layer- AREA_OF_FALSE_CEILING= Add Numeric value only eg 1, 2, 3 etc.
18			Add in PLAN_INFO layer-

	Plan security (only in case of change of ownership)	IS_THIS_A_CASE_OF_OWNE RSHIP CHANGE= YES/NO/NA	IS_THIS_A_CASE_OF_OWNERSHIP CHANGE= YES/NO/NA
19	Transfer of building plans (only in case of change of ownership)	IS_THIS_A_CASE_OF_OWNE RSHIP CHANGE= YES/NO/NA	Add in PLAN_INFO layer-
			IS_THIS_A_CASE_OF_OWNERSHIP CHANGE= YES/NO/NA
20	Excess coverage beyond zoning 6'	EXCESS_COVERAGE_6_INC H_BEYOND_BUILD_UP_ARE A=YES/NO	Add in PLAN_INFO layer-
			EXCESS_COVERAGE_6_INCH_BEYOND _BUILD_UP_AREA=YES/NO