Directorate of Municipal Administration, Government of Odisha

Implementation of an Integrated e-Governance Solution across all Urban Local Bodies of Odisha

Drawing Manual – Online Building Permission System

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1. Introduction

1.1. Background

The Housing & Urban Development Department (H&UDD), Government of Odisha has ambitious plans to scale up e-governance across 113 Urban Local Bodies (ULBs) in the State of Odisha. It aims to enhance the citizen experience of public services by providing integrated, end-to-end services using a comprehensive State-wide Service Delivery Infrastructure. Online Building Permission System (OBPS) is one of the focus areas for the H&UDD to help all stakeholders and citizen get building plan approvals through end to end automation of the processes involved.

Online Building Permission System (OBPS) envisages complete automation of all processes related to building approval at Odisha. The building approval process involves private architects submitting building plans as per the approved byelaws of the state of Odisha. The building plan submission follows series of departmental approvals and NOCs from pre-defined departments in line with the byelaws of Odisha. All the processes and steps including calculation of fee, payment of fee, receipt of approval for the permission and certificates etc would be delivered online through an integrated one stop solution. Citizen would not be required to visit any of the external departments such as AAI, NMA, Fire etc for NOCs as the solution has the potential to bring integrated experience.

DIGIT - Online Building Permission System (OBPS) shall enable local government to bring in transparency, accountability and time-bound service for the public. With DIGIT - OBPS, professionals like architects, engineers, supervisors can seek permission for construction of a building for any Urban Local Body / District Town and Country Planning / Centre for Municipal Administration with a speedy, hassle-free and user-friendly procedure, online.

1.2. Salient features of OBPS solution Odisha

- Software based verification of building plans and details, for compliance with the various regulations. defined in Odisha bye-laws.
- 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 meter, in model space.
- All required details as per this guideline shall be submitted in a single drawing, drawn in model space.
- 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.
- 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.

2.2. Drawing Preparation Format to be followed

- All details shall be furnished using closed polygon with polylines, lines, texts, dimensions etc. to be incorporated in layers, index colors as specified in this guideline.

- It is instructed to the architects to keep all the layers and details in the drawing as per ODA Bye Laws standards. Over and above this, prepare drawing for features scrutiny in dxf format as per this drawing manual. The layers drawn for Auto Scrutiny should be drawn overlaid/Superimposed on top of the base drawing. It is recommended to freeze the layers that may not be relevant while preparation of drawing.

2.3. Unit Settings in Drawing

System accepts drawing in unit - **Meter**
Put drawing unit length type - **Decimal**
Put drawing unit angle type – **Decimal Degrees**
Put dimension style unit formal - **Decimal**
Use precision – **0.00**

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

2.4. Layers for drawing preparation

S.No	Feature	Layer Name	Drawing guidelines	Layer Code	Drawing Requirement
			Layers to be drawn on the site plan		
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	Building Footprint	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 Sub - Occupancy type	Mandatory as per rule
4	Setbacks Front	BLK_n_LVL_n_FRONT_SETBACK	Draw as closed polygon, using poly line on site plan. Polygon shall be touching the corners of Building Footprint Layer and Plot Area Layer	2	Mandatory as per rule
5	Setbacks Rear	BLK_n_LVL_n_REAR_SETBACK	Draw as closed polygon, using poly line on site plan. Polygon shall be touching the corners of Building Footprint Layer and Plot Area Layer	11	Mandatory as per rule
6	Setbacks Left	BLK_1_LVL_0_SIDE_SETBACK1	Draw as closed polygon, using poly line on site plan. Polygon shall be touching the corners of Building Footprint Layer and Plot Area Layer	171	Mandatory as per rule
7	Setbacks Right	BLK_1_LVL_0_SIDE_SETBACK2	Draw as closed polygon, using poly line on site plan. Polygon shall be touching the corners of Building Footprint Layer and Plot Area Layer	102	Mandatory as per rule
8	Open Space between buildings	DIST_BETWEEN_BLK_n_BLK_n	Draw dimension between Two Building Blocks	7	Mandatory as per rule
9	Plantation Tree Count	PLANTATION_TREECOVER	Draw polygon for Trees Cut	1	Mandatory as per rule
			Draw polygon for Existing Trees	2	Mandatory as per rule
			Draw polygon for Planted Trees	3	Mandatory as per rule
10	Plantation Green Strip	BLK_n_PLANTATION_GREENSTRIP	Draw polygon around open green area	7	Mandatory as per rule

11	Rainwater harvesting system	RWH	Draw polygon around the tank	4	Mandatory as per rule
			Add text for Rainwater Harvesting tank (using Mtext) capacity = RWH_CAPACITY_L=n	4	Mandatory as per rule
12	Recharge Pit	SITE_COMPONENTS	-Draw polygon around the Recharge Pit -Draw Dimension of Height of Recharge Pit	1	Mandatory as per rule
13	Electric Lines	OHEL_n	Draw Polyline over Electric Line	7	Optional as per design
		VOLTAGE_n	Add text for Voltage in KV (using Mtext) = VOLTAGE_KV=n	7	Optional as per design
		HORIZ_CLEAR_OHEL_n	Draw Horizontal dimension between Building Block and Electric Line	7	Optional as per design
14	Treatment Plant	WATER_TREATMENT_PLANT	Draw polygon around the water treatment plant (WTP)	1	Mandatory as per rule
			Draw polygon around the Sewage treatment plant (STP)	2	Mandatory as per rule
15	Parking Type	OPEN_PARKING	Draw Polygon over **Open Parking**	7	Optional as per design
		BLK_n_FLR_n_COVERED_PARKING	Draw Polygon over **Basement Parking**	7	Optional as per design
		SPECIAL_PARKING	Draw Polygon over **Stilt Parking**	3	Optional as per design
		SPECIAL_PARKING	Draw Polygon over **Roof top parking**	4	Optional as per design
16	Parking Provision	VISITOR_PARKING	Draw Polygon over **Visitor Parking** space	7	Optional as per design
		SPECIAL_PARKING	Draw Polygon over **Staff Parking** Space	5	Optional as per design
		TWO_WHEELER_PARKING	Draw Polygon over **Two Wheeler Parking** Space	1	Optional as per design
		TWO_WHEELER_PARKING	Draw Polygon over **Bicycle Parking** Space	2	Optional as per design
		SPECIAL_PARKING	Draw Polygon over **EWS/LIG Parking** Space	1	Optional as per design
		SPECIAL_PARKING	Draw Polygon over **MIG Parking** Space	2	Optional as per design
17	Special Parking (Disabled Parking)	DA_PARKING	Draw Polygon over **DA Parking** Space	7	Mandatory as per rule
18	North Direction	NORTH_DIRECTION	-Draw North Direction Symbol using Polyline -and add NORTH in Mtext	7	Mandatory as per rule
19	Amenity in Open Space	ACCBLK_1	Draw polygon around Amenity in Open Space Block	7	Optional as per design

		ACCBLK_n_UNIT_n	**Guard Room** Draw polygon around Guard Room	1	Optional as per design
			Electric Cabin Draw polygon around Electric Cabin	2	
			Sub-Station Draw polygon around Sub-Station	3	
			Area for Generator Draw polygon around Area for Generator Set	4	
			ATM Draw polygon around ATM	5	
			Other Amenity Draw polygon around Other Amenity	6	
20	Vehicular access within Site	BLK_n_FIRE_TENDER_MOVEMENT	Draw as polygon on access road within site for each building block	7	Mandatory as per rule
21	Road/Drain widening	AFFECTED_LAND_AREA	**CDP proposed drain affected area** Draw polygon and Width dimension on site plan outlining the affected area	2	Optional as per design
			Proposed road affected area Draw polygon and Width dimension on site plan outlining the affected area	3	Optional as per design
			CDP proposed road affected area Draw polygon and Width dimension on site plan outlining the affected area	4	Optional as per design
			Road widening affected area Draw polygon and Width dimension on site plan outlining the affected area	5	Optional as per design
			Area left for restricted area Draw polygon on site plan outlining the affected area	6	Optional as per design
Layers to be drawn on the Floor Plans					
1	FAR (Proposed Construction)	BLK_n_FLR_n_BLT_UP_AREA	Draw as polygon on each floor outlining build up area	As per Sub - 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 Sub - Occupancy type	Mandatory as per rule

2	FAR (Existing Construction) : For Addition & Alteration service only	BLK_n_FLR_n_BLT_UP_AREA_EXISTING	Draw as polygon on each floor outlining existing build up area	As per Sub - Occupancy type	Mandatory as per rule
		BLK_n_FLR_n_BLT_UP_AREA_EXISTING_DEDUCT	Draw as polygon on each floor outlining existing build up area for FAR deduction	As per Sub - Occupancy type	Mandatory as per rule
3	Approved Existing Construction : For Addition & Alteration service only	BLK_n_FLR_n_APPROVED_CONSTRUCTION	Draw as polygon on each floor outlining approved existing area	As per Sub - Occupancy type	Mandatory as per rule
4	Demolition Area : For Addition & Alteration service only	BLK_n_FLR_n_DEMOLITION_AREA	Draw as polygon on each floor outlining demolition area	7	Optional as per design
5	Carpet Area	BLK_n_FLR_n_CARPET_AREA	Draw carpet area of each floor using polygon	As per Sub - Occupancy type	Mandatory as per rule
		BLK_n_FLR_n_CRPT_AREA_DEDUCT	Draw carpet area of each floor using polygon	As per Sub - Occupancy type	Mandatory as per rule
6	Roof Area	BLK_n_FLR_n_ROOF_AREA	Draw as polygon outlining Roof area	7	Mandatory as per rule
7	Typical Floors	BLK_n_FLR_n_BLT_UP_AREA	Denote all the typical floors in a building block in Mtext - TYPICAL_FLOOR_PLAN=1,2,n	As per Sub-occupancy type	Optional as per design
8	General Staircase	BLK_n_FLR_n_STAIR_n	Draw Polygon around staircase layout	7	Mandatory as per rule
			Add floor height in same layer with MText - FLR_HT_M=n	7	Mandatory as per rule
		BLK_n_FLR_n_STAIR_n_FLIGHT_n	Draw Polygon around each flight in staircase	7	Mandatory as per rule
			Dimension for flight length	1	Mandatory as per rule
			Dimension for flight width	2	Mandatory as per rule
			Number of rises by drawing lines	3	Mandatory as per rule
		BLK_n_FLR_n_STAIR_n_LANDING_n	Polygon around each landing	7	Mandatory as per rule
			Dimension for flight length	1	Mandatory as per rule

			Dimension for flight width	2	Mandatory as per rule
9	Dwelling Units	BLK_n_FLR_n_UNITFA	Draw as polygon on each **EWS Dwelling Unit**	1	Optional as per design
			Draw as polygon on each **LIG Dwelling Unit**	2	Optional as per design
			Draw as polygon on each **MIG 1 Dwelling Unit**	3	Optional as per design
			Draw as polygon on each **MIG 2 Dwelling Unit**	4	Optional as per design
			Draw as polygon on each **Other Category of Dwelling Unit**	5	Optional as per design
			Draw as polygon on each **Room Unit**	6	Optional as per design
10	Exit Travel Distance	DIST_EXIT	Multiple Dimensions for Maximum Travel Distance	7	Mandatory as per rule
11	Exit Width Staircase	BLK_n_FLR_n_EXIT_WIDTH_STAIR	Dimension for Staircase Exit width	7	Mandatory as per rule
12	DA Ramp	BLK_n_DA_RAMP_n	Draw polygon around DA Ramp	7	Mandatory as per rule
			Add Slope in same layer with Mtext - SLOPE=1IN8	7	Mandatory as per rule
13	Vehicular Ramp	BLK_n_FLR_n_VEHICLE_RAMP_n	**LMV 1 Way** -Draw polygon around Vehicular Ramp -Add Slope in same layer with Mtext - SLOPE=1IN8	1	Optional as per design
			LMV - 2 Way -Draw polygon around Vehicular Ramp -Add Slope in same layer with Mtext - SLOPE=1IN8	2	Optional as per design
			LCV - 1 way -Draw polygon around Vehicular Ramp -Add Slope in same layer with Mtext - SLOPE=1IN8	3	Optional as per design
			LCV - 2 way -Draw polygon around Vehicular Ramp -Add Slope in same layer with Mtext - SLOPE=1IN8	4	Optional as per design
			HMV - 1 way -Draw polygon around Vehicular Ramp -Add Slope in same layer with Mtext - SLOPE=1IN8	5	Optional as per design

			HMV - 2 way -Draw polygon around Vehicular Ramp -Add Slope in same layer with Mtext - SLOPE=1IN8	6	Optional as per design
			Fire tender -Draw polygon around Vehicular Ramp -Add Slope in same layer with Mtext - SLOPE=1IN10	8	Optional as per design
14	Interior open space	BLK_n_FLR_n_COURTYARD_INNER	Draw polygon around interior open space on each floor	7	Mandatory as per rule
15	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 (Naturally Ventilated) is provided
16	Solar photo voltaic Panels	SOLAR_PANEL	Draw polygon outlining Solar Panels to mention location and provide Generation capacity in Plan Info	3	Mandatory as per rule
17	Solar water heating system	SOLAR_WATER_HEATER	Draw polygon outlining Solar Water Heater to mention location and provide capacity in LPD in Plan Info	7	Mandatory as per rule
18	Lifts	BLK_n_FLR_n_LIFT_n	**General Lift** Draw polygon to mark lift location	1	Mandatory as per rule
			Lift for Physically Disabled Draw polygon to mark lift location	2	Mandatory as per rule
			Car Lift Draw polygon to mark lift location	3	Optional as per design
19	Owner's Society Office	BLK_1_FLR_0_UNITFA	Draw as polygon for Owner's Society Office	8	Mandatory as per rule
20	Outhouse	BLK_n_FLR_n_BLT_UP_AREA	Draw as polygon on floor outlining build up area of the outhouse block	100	Optional as per design
21	Public Washroom Complex	BLK_n_FLR_n_BLT_UP_AREA	Draw as polygon on floor outlining build up area of the Public Washroom Complex block	101	Mandatory as per rule
22	Wash Basin	BLK_n_FLR_n_WASH	Draw a polygon on wash basin of public washroom complex.	7	Mandatory as per rule
23	Chajja/Projections over setback	BLK_n_FLR_n_CHAJJA	Draw as polygon on each floor outlining Chajja/Projections	7	Optional as per design
24	Water Closet	BLK_n_FLR_n_WATER_CLOSET	Draw as polygon for Common Water closet	3	Mandatory as per rule

			Draw as polygon for Female Water closet	2	Mandatory as per rule
			Draw as polygon for Male Water closet	1	Mandatory as per rule
25	Urinals	BLK_n_FLR_n_URINAL	Draw as polygon for Male Urinal	1	Mandatory as per rule
26	Bath	BLK_n_FLR_n_BATH	Draw as polygon for Common Bath	3	Mandatory as per rule
			Draw as polygon for Female Bath	2	Mandatory as per rule
			Draw as polygon for Male Bath	1	Mandatory as per rule
27	Toilet	BLK_n_FLR_n_WC_BATH	Draw as polygon for Common Toilet	3	Mandatory as per rule
			Draw as polygon for Female Toilet	2	Mandatory as per rule
			Draw as polygon for Male Toilet	1	Mandatory as per rule
28	Disabled Toilet	BLK_n_FLR_n_SP_WC	Draw as polygon for Common Disabled Toilet	3	Mandatory as per rule
			Draw as polygon for Female Disabled Toilet	2	Mandatory as per rule
			Draw as polygon for Male Disabled Toilet	1	Mandatory as per rule
29	Doorways	BLK_n_FLR_n_EXIT_WIDTH_DOOR	Draw Dimension for General Door/Entrance Door Width on each floor	1	Mandatory as per rule
			Draw Dimension for Bathrooms, water closet and stores Door width	2	Mandatory as per rule
			Draw Dimension for Fire Door width	3	Mandatory as per rule
			Draw Dimension for Disabled Access Door width	4	Mandatory as per rule
Layers to be drawn on the Floor Plans and Sectional Elevations					
1	Passageways & Corridors	PASSAGE	Draw Dimension for Passage/Corridor height in Sectional Elevation	1	Optional as per design
			Draw Dimension for width of Passage/Corridor on Floor Plan	2	Optional as per design
		PASSAGE_DOUBLELOADED	Draw Dimension for width of Double loaded Passage/Corridor on Floor Plan	2	Optional as per design
2	Regular Room	BLK_n_FLR_n_REGULAR_ROOM_n	**Habitable Room (Naturally Ventilated)**	1	Optional as per design

			Draw polygon for each room on floor plan Draw dimension of room height for respective room in sectional elevation		
			Habitable Room (Mechanically Ventilated) Draw polygon for each Room on floor plan Draw dimension of room height for respective room in sectional elevation	2	Optional as per design
			Study Room Draw polygon for Study Room on floor plan Draw dimension of room height for respective room in sectional elevation	3	Optional as per design
			Library Room Draw polygon for library Room on floor plan Draw dimension of room height for respective room in sectional elevation	4	Optional as per design
			Game Room Draw polygon for Game Room on floor plan Draw dimension of room height for respective room in sectional elevation	5	Optional as per design
			CCTV Room Draw polygon for CCTV Room on floor plan Draw dimension of room height for respective room in sectional elevation	28	Optional as per design
			Service Room Draw polygon for Service Room on floor plan Draw dimension of room height for respective room in sectional elevation	29	Optional as per design

			MEP Room Draw polygon for MEP Room on floor plan Draw dimension of room height for respective room in sectional elevation	30	Optional as per design
			Laundry Room Draw polygon for laundry Room on floor plan Draw dimension of room height for respective room in sectional elevation	31	Optional as per design
			Lift Lobby Draw polygon for lift Lobby on floor plan Draw dimension of room height for respective room in sectional elevation	32	Optional as per design
			Guard Room Draw polygon for Guard Room on floor plan Draw dimension of room height for respective room in sectional elevation	33	Optional as per design
			Electric Cabin Draw polygon for Electric Cabin on floor plan Draw dimension of room height for respective room in sectional elevation	34	Optional as per design
			Sub-Station Draw polygon for Sub-Station on floor plan Draw dimension of room height for respective room in sectional elevation	35	Optional as per design
			Generator Room Draw polygon for Generator Room on floor plan Draw dimension of room height for respective room in sectional elevation	36	Optional as per design

			ATM Draw polygon for ATM on floor plan Draw dimension of room height for respective room in sectional elevation	37	Optional as per design
3	Stilt Floor	BLK_n_FLR_n_REGULAR_ROOM_n	**Stilt Floor** Draw polygon for Stilt Floor on floor plan Draw dimension of room height for respective room in sectional elevation	38	Optional as per design
4	Service Floor	BLK_n_FLR_n_REGULAR_ROOM_n	**Service Floor** Draw polygon for Service Floor on floor plan Draw dimension of room height for respective room in sectional elevation	39	Optional as per design
5	Mezzanine Floor	BLK_n_FLR_n_ROOM_n_MEZ_AREA_n	Draw polygon for Mezzanine Floor on floor plan (Room number should be same as the respective regular room under which the mezzanine floor is present) Draw Dimension of the Mezzanine Floor height	As per Sub - Occupancy type	Optional as per design
6	ICT landing Point Provision	ICT_LANDING_POINT_1	Draw as polygon on floor outlining build up area of the ICT provision Draw Dimension of the ICT Clear height	7	Mandatory as per rule
		ICT_LANDING_POINT_n_DOOR_n	Draw as polygon on floor outlining Fire Doors in the ICT room	1	Mandatory as per rule
			Draw Dimension of the ICT room Fire Door Width	2	Mandatory as per rule
Layers to be drawn on the Sectional Elevations or Building Elevation					
1	Building Height	BLK_n_HT_OF_BLDG	Draw as dimension on Sectional Elevations or Building Elevation	5	Mandatory as per rule

2	Basement Floor Height	BLK_n_FLR_n_BLDG_FOOTPRINT	Draw Dimension of basement floor clear height (beam to floor/ceiling to floor)	1	Mandatory if basement is provided
			Draw Dimension of the height ceiling of upper basement from the average surrounding ground level	2	Mandatory if upper basement is provided
3	Plinth Height	BLK_n_PLINTH_HEIGHT	Draw Dimension of the Plinth height	7	Optional as per design
4	Staircase Headroom/ Flight Headroom	BLK_n_STAIR_HEADROOM	Draw dimension of Staircase Headroom	7	Mandatory where staircase is proposed
5	Staircase Railing / DA ramp Railing / Parapet / Special Lift Handrail	BLK_n_PARAPET_HT	Draw Dimension of Staircase Railing height	1	Mandatory as per rule
			Draw Dimension of DA Ramp Railing Height	2	Mandatory as per rule
			Draw Dimension of Parapet Height	3	Optional as per design
			Draw Dimension of Special Lift Handrail height	4	Mandatory as per rule
6	Mumty	BLK_n_MUMTY_HT	Draw Dimension of Parapet	7	Optional as per design
7	Entrance Gate	MAIN_GATE	Draw polygon outlining main gate	7	Optional as per design
			Use dimension tool to draw main gate width	2	Optional as per design
			Use dimension tool to draw main gate Archway height if Provided	1	Optional as per design
8	Glass Façade Opening	BLK_n_FLR_n_GLASS_FACADE_n	Draw polygon outlining Glass Façade opening	7	Optional as per design
			Draw Dimension of the Height of Glass Façade opening	1	
			Draw Dimension of the Width of Glass Façade opening	2	
			Draw Dimension of the height from floor to glass opening	3	

2.5. Layer colour as per occupancy type

S.No	Occupancy	Sub-Occupancy	Color Code
1	Residential	Plotted Detached/Individual Residential building	11
2	Residential	Semi-detached	12
3	Residential	Row housing	13
4	Residential	Apartment Building	14
5	Residential	Housing Project	15
6	Residential	work-cum-residential	16
7	Residential	Studio Apartments	17
8	Residential	Dharmsala	18
9	Residential	Dormitory	19
10	Residential	EWS	20
11	Residential	Low Income Housing	21
12	Residential	Medium Income Housing	22
13	Residential	Hostel	23
14	Residential	Shelter House	24
15	Residential	Staff Quarter	25
16	Commercial	Hotel	30
17	Commercial	5 Star Hotel	31
18	Commercial	Motels	32
19	Commercial	Services for households	33
20	Commercial	Shop Cum Residential	34
21	Commercial	Bank	35
22	Commercial	Resorts	36
23	Commercial	Lagoons and Lagoon Resort	37
24	Commercial	Amusement Building/Park and water sports	38
25	Commercial	Financial services and Stock exchanges	39
26	Commercial	Cold Storage and Ice Factory	40
27	Commercial	Commercial and Business Offices/Complex	41
28	Commercial	Convenience and Neighborhood Shopping	42
29	Commercial	Professional offices	43
30	Commercial	Departmental store	44
31	Commercial	Gas Godown	45
32	Commercial	Godowns	46
33	Commercial	Good Storage	47
34	Commercial	Guest Houses	48
35	Commercial	Holiday Resort	49
36	Commercial	Boarding and lodging houses	50
37	Commercial	Petrol Pump (Only Filling Station)	51
38	Commercial	Petrol Pump (Filling Station and Service station)	52
39	Commercial	CNG Mother Station	53
40	Commercial	Restaurant	54
41	Commercial	Local(retail) shopping	55
42	Commercial	Shopping Center	56

43	Commercial	Shopping Mall	57
44	Commercial	Showroom	58
45	Commercial	Wholesale Storage (Perishable)	59
46	Commercial	Wholesale Storage (Non-Perishable)	60
47	Commercial	Storage/ Hangers/ Terminal Depot	61
48	Commercial	Supermarkets	62
49	Commercial	Warehouse	63
50	Commercial	Wholesale Market	64
51	Commercial	Media Centers	65
52	Commercial	food courts	66
53	Commercial	Weigh bridges	67
54	Commercial	Mercantile	68
55	Public-Semi Public/Institutional	Auditorium	120
56	Public-Semi Public/Institutional	Banquet Hall	121
57	Public-Semi Public/Institutional	Cinema	122
58	Public-Semi Public/Institutional	Club	123
59	Public-Semi Public/Institutional	music pavilions	124
60	Public-Semi Public/Institutional	Community Hall	125
61	Public-Semi Public/Institutional	Orphanage	126
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64	Public-Semi Public/Institutional	Conference Hall	129
65	Public-Semi Public/Institutional	Convention Hall	130
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67	Public-Semi Public/Institutional	Cultural Complex	132
68	Public-Semi Public/Institutional	Exhibition Center	133
69	Public-Semi Public/Institutional	Gymnasia	134
70	Public-Semi Public/Institutional	Marriage Hall/Kalyan Mandap	135
71	Public-Semi Public/Institutional	Multiplex	136
72	Public-Semi Public/Institutional	Museum	137
73	Public-Semi Public/Institutional	Place of worship	138
74	Public-Semi Public/Institutional	Public Libraries	139
75	Public-Semi Public/Institutional	Recreation Building	140
76	Public-Semi Public/Institutional	Sports Complex	141

77	Public-Semi Public/Institutional	Stadium	142
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79	Public-Semi Public/Institutional	Administrative Buildings	144
80	Public-Semi Public/Institutional	Government offices	145
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90	Public-Semi Public/Institutional	Registered Trust	155
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92	Public-Semi Public/Institutional	Hospital	157
93	Public-Semi Public/Institutional	Lab	158
94	Public-Semi Public/Institutional	Maternity Home	159
95	Public-Semi Public/Institutional	Medical Building	160
96	Public-Semi Public/Institutional	Nursing Home	161
97	Public-Semi Public/Institutional	Polyclinic	162
98	Public-Semi Public/Institutional	Rehabilitation Center	163
99	Public-Semi Public/Institutional	Veterinary Hospital for pet animals and birds	164
100	Public-Semi Public/Institutional	Research and Training Institute	165
101	Public-Semi Public/Institutional	Police Station	166
102	Public-Semi Public/Institutional	Fire Station	167
103	Public-Semi Public/Institutional	Jail/Prison	168
104	Public-Semi Public/Institutional	Post Office	169
105	Public Utility	Bill Collection Center	210
106	Public Utility	Broadcasting-Transmission Centre	211
107	Public Utility	Burial and cremation grounds	212
108	Public Utility	Public Distribution System Shop	213

109	Public Utility	Public Toilets in Public Area	214
110	Public Utility	Public Utility Building	215
111	Public Utility	Sub-Station	216
112	Public Utility	Telecommunication	217
113	Public Utility	water pumping stations	218
114	Public Utility	service and storage yards	219
115	Public Utility	electrical distribution depots	220
116	Industrial Zone	Industrial Buildings (Factories, Workshops, etc.)	200
117	Industrial Zone	Non-Polluting Industrial	201
118	Industrial Zone	IT, ITES Buildings	202
119	Industrial Zone	SEZ Industrial	203
120	Industrial Zone	Loading/Unloading Spaces	204
121	Industrial Zone	Flatted Factory	205
122	Industrial Zone	small factories and etc. falls in industrial	206
123	Education	Coaching Centre	170
124	Education	Commercial Institute	171
125	Education	College	172
126	Education	Computer Training Institute	173
127	Education	Nursery School	174
128	Education	Primary School	175
129	Education	Hostel (Captive)	176
130	Education	High School	177
131	Education	Play School	178
132	Education	crèche	179
133	Education	School for Mentally Challenged.	180
134	Education	Art academy	181
135	Education	Technical College	182
136	Education	Sports training centers	183
137	Education	Training Institute	184
138	Education	Veterinary Institute	185
139	Education	Medical College	186
140	Education	Research and Training Center	187
141	Transportation	Airport	29
142	Transportation	Auto Stand	79
143	Transportation	Metro Station	189
144	Transportation	Bus Stand	199
145	Transportation	Bus Terminal	229
146	Transportation	ISBT	239
147	Transportation	Railway station	249
148	Transportation	Taxi Stand	250
149	Transportation	Multi Level Car Parking	251
150	Transportation	Public Parking	252
151	Transportation	Toll Plaza	253
152	Transportation	Truck Terminal	254
153	Agriculture	Agriculture Farm	80

154	Agriculture	Agro Godown	81
155	Agriculture	Agro-Research Farm	82
156	Agriculture	Farmhouse	83
157	Agriculture	Country Homes	84
158	Agriculture	Nursery and green houses	85
159	Agriculture	Poultry, Diary and Swine/Goat/Horse	86
160	Agriculture	Horticulture	87
161	Agriculture	Seri culture	88

2.6. Layer Plan Info

S.NO	Description	Key	Expected response format
1	Name of architect/ Technical person responsible for drawing preparation	ARCHITECT_OR_TECHNICAL_PERSON_NAME	Full Name
2	Plot Number of the project site	PLOT_NO	Numeric value
3	Khata Number of the project site	KHATA_NO	Numeric value
4	Mauza of the project site	MAUZA	Mauza Name
5	District of the project site	DISTRICT	District Name
6	Plot area of the project site	PLOT_AREA_M2	Numeric value with decimal
7	Depth of the Plot	AVG_PLOT_DEPTH	Numeric value with decimal
8	Width of the Plot / Plot Frontage Dimension	AVG_PLOT_WIDTH	Numeric value with decimal
9	Describes the width of the adjacent road to the plot	ROAD_WIDTH	Numeric value. Eg. 4,5,10 etc.
10	Floor area of the demolition if required	EXISTING_FLOOR_AREA_TO_BE_DEMOLISHED_M2	Numeric value with decimal
11	describes the occupant load in a building/number of occupants using the building or the Number of Beds in a Hospital/ Number of Students in educational Building	NUMBER_OF_OCCUPANTS_OR_USERS_OR_BED_BLK_1 NUMBER_OF_OCCUPANTS_OR_USERS_OR_BED_BLK_2 NUMBER_OF_OCCUPANTS_OR_USERS_OR_BED_BLK_n	Numeric value. Eg. 4,5,10 etc.

12	For identification whether project is Low Risk or Other Than Low Risk	IS_THE_PLOT_PART_OF_THE_LAYOUT_APPROVED_BY_THE_AUTHORITY_OR_DEVELOPED_AND_ALLOTTED_BY_THE_GOVERNMENT_OR_STATUTORY_BODIES_OR_IS_A_FINAL_PLOT_IN_TOWN_PLANNING_SCHEMES_OR_DEVELOPMENT_SCHEMES	YES/NO
13	Is land regularized	IS_LAND_REGULARIZED	YES/NO
14	Land Use of the proposed project	LAND_USE_ZONE	RESIDENTIAL USE ZONE RETAIL COMMERCIAL & BUSINESS USE ZONE WHOLESALE COMMERCIAL USE INDUSTRIAL USE ZONE PUBLIC & SEMI-PUBLIC USE ZONES UTILITY & SERVICE USE ZONE OPEN SPACE USE ZONE TRANSPORTATION USE AGRICULTURE & FOREST USE ZONE WATER BODIES USE ZONE SPECIAL HERITAGE ZONE ENVIRONMENTALLY SENSITIVE ZONE NA
15	For identification whether building or part of a building which is used for the storage, handling, manufacture or processing of highly combustible or explosive materials or products which are liable	IS_BUILDING_UNDER_HAZARDOUS_OCCUPANCY_CATEGORY	YES/NO

	to burn with extreme rapidity or producing poisonous fumes, or the storage, handling, manufacturing or processing of which involves highly corrosive, toxic, obnoxious alkalis, acids or other liquids, gases or chemicals, producing flame, fumes and explosion, poisonous irritant or corrosive gasses and for the storage, handling or processing of any material producing explosive mixture of dust or which result in the division of matter into fine particles subject to spontaneous ignition and includes petrol filling stations		
16	Is building having Centrally Air Conditioned system	IS_BUILDING_CENTRALLY_AIR_C ONDITIONED	YES/NO
17	Benchmark Value of Land (Per Acre) needed if project is having Purchasable FAR component	PER_ACRE_BENCHMARK_VALUE _OF_LAND_NEEDED_IF_PROJEC T_IS_HAVING_PURCHASABLE_FA R_COMPONENT	Numeric value with decimal/NA
18	Distance of DA parking space from Building entrance (If DA Parking is Mandatory)	DISTANCE_OF_DA_PARKING_SPA CE_FROM_BUILDING_ENTRANCE	Numeric value with decimal/NA
19	Total Parking area if project has off site parking provision within 300 meters from project Site	TOTAL_PARKING_AREA_IF_PROJ ECT_HAS_OFF_SITE_PARKING_P ROVISION_WITHIN_300_METERS _FROM_PROJECT_SITE	Numeric value with decimal/NA
20	Applicable if Project is Hotel	STAR_RATING_FOR_HOTEL_PRO JECT	1/2/3/4/5/NA
21	Applicable if Project is Hospital	DOES_HOSPITAL_HAVE_CRITICA L_CARE_UNIT	YES/NO/NA
22	Applicable if Building Block Height is more than 200 m	PROVISION_FOR_HELIPAD_PRES ENT	YES/NO/NA
23	Applicable if internal road is providing access to any side other than Front side for a building Block	IS_DRIVEWAY_PROVIDING_ACCE SS_TO_REAR_SIDE_OR_ANY_OT HER_SIDE_OTHER_THAN_FRONT _OF_THE_BUILDING=YES/NO	
24	Applicable for Both Petrol Pump Sub occupancy only	MINIMUM_DISTANCE_FROM_TH E_ROAD_INTERSECTIONS	Numeric value with decimal/NA

25	Applicable for Both Petrol Pump Sub occupancy only	MINIMUM_DISTANCE_OF_PROPERTY_LINE_FROM_THE_CENTRE_LINE_OF_THE_ROAD	Numeric value with decimal/NA
26	Does building have more than 10000 litres of Waste Water discharge per day	DOES_PROJECT_HAVE_MORE_THAN_10000_LITRES_OF_WASTE_WATER_DISCHARGE_PER_DAY	YES/NO
27	Mandatory For All Occupancy	TOTAL_CONNECTED_LOAD_OF_THE_PROPOSED_PROJECT_IN_W	Numeric value with decimal
28	Capacity in W if Solar Photo voltaic system is mandatory for project	MINIMUM_GENERATION_CAPACITY_OF_THE_ROOFTOP_SOLAR_PV_SYSTEM_IN_W	Numeric value with decimal / NA
29	Capacity in LPD if Solar water heating system is mandatory for project	CAPACITY_OF_SOLAR_WATER_HEATING_SYSTEM_IN_LPD	Numeric value with decimal / NA
30	Does project have low water consumption and plumbing fixtures?	DOES_PROJECT_HAVE_LOW_WATER_CONSUMPTION_AND_PLUMBING_FIXTURES	YES/NO/NA
31	Does project have reduction in Hardscape provision	DOES_PROJECT_HAVE_REDUCED_HARDSCAPE	YES/NO/NA
32	Does project have low energy consumption lighting fixtures?	DOES_PROJECT_HAVE_LOW_ENERGY_CONSUMPTION_LIGHTING_FIXTURES	YES/NO/NA
33	Does project have energy efficient hvac system?	DOES_PROJECT_HAVE_ENERGY_EFFICIENT_HVAC_SYSTEM	YES/NO/NA
34	Does project have lighting of common areas by solar energy or led devices?	DOES_PROJECT_HAVE_LIGHTING_OF_COMMON_AREAS_BY_SOLAR_ENERGY_OR_LED_DEVICES	YES/NO/NA
35	Does project have segregation of waste provision?	DOES_PROJECT_HAVE_SEGREGATION_OF_WASTE_PROVISION	YES/NO/NA
36	Does project have organic waste management provision?	DOES_PROJECT_HAVE_ORGANIC_WASTE_MANAGEMENT_PROVISION	YES/NO/NA
37	Does the Project requires NOC from AAI as per the Colour Coded Zone Maps	DOES_THE_PROJECT_REQUIRE_NOC_FROM_AAI_AS_PER_THE_COLOUR_CODED_ZONE_MAPS	YES/NO
38	Is project located within 300 meters distance of Centrally Protected Monument	IS_THE_PROJECT_LOCATED_WITHIN_300_METERS_DISTANCE_OF_THE_CENTRALLY_PROTECTED_MONUMENT	YES/NO
39	Is project located within 300 meters distance of State Protected Monument	IS_THE_PROJECT_LOCATED_WITHIN_300_METERS_DISTANCE_OF_THE_STATE_PROTECTED_MONUMENT	YES/NO
40	Is project located within 200 mts from strategic buildings	IS_THE_PROJECT_LOCATED_WITHIN_200_METERS_FROM_STRATEGIC_BUILDINGS	YES/NO
41	Is proposed construction next to flood embankment and applicant wants to	IS_PROPOSED_CONSTRUCTION_NEXT_TO_FLOOD_EMBANKMENT_AND_DOES_APPLICANT_WANT_T	YES/NO

	have direct access from the Embankment Road	O_HAVE_DIRECT_ACCESS_FROM _THE_EMBANKMENT_ROAD	
42	Is kisam of land recorded as agriculture in record of Rights.	IS_KISAM_OF_LAND_RECORDED _AS_AGRICULTURE_IN_RECORD_ OF_RIGHTS	YES/NO
43	Is project adjacent to Highway & is having direct access	IS_THE_PROJECT_ADJACENT_TO _HIGHWAY_AND_HAVING_DIREC T_ACCESS_TO_IT	YES/NO
44	Is project in Close to Coastal Region	IS_THE_PROJECT_CLOSE_TO_TH E_COASTAL_REGION	YES/NO
45	OSHB or government allotted or BDA developed and allotted plot?	DOC_OSHB_OR_GA_OR_BDA_DE VELOPED_AND_ALLOTTED_PLOT	YES/NO
46	Is Plot part of approved private layout?	DOC_PLOT_PART_OF_APPROVED _PRIVATE_LAYOUT	YES/NO
47	Is Plot part of unauthorized layout or revenue plot?	DOC_PLOT_PART_OF_UNAUTHO RISED_LAYOUT_OR_REVENUE_P LOT	YES/NO
48	Is project coming under the jurisdiction of planning authorities	DOC_IS_PROJECT_COMING_UND ER_THE_JURISDICTION_OF_PLA NNING_AUTHORITIES	YES/NO
49	Does the project have affordable housing component	DOC_DOES_THE_PROJECT_HAVE _AFFORDABLE_HOUSING_COMPO NENT	YES/NO
50	Does the project have more than 500 sqm built up area excluding the affordable housing component	DOC_DOES_THE_PROJECT_HAVE _MORE_THAN_500_SQM_BUILT_ UP_AREA_EXCLUDING_THE_AFF ORDABLE_HOUSING_COMPONEN T	YES/NO
51	Does project require RERA registration	DOC_DOES_PROJECT_REQUIRE_ RERA_REGISTRATION	YES/NO
52	Is security deposit required	IS_SECURITY_DEPOSIT_REQUIRE D	YES/NO
53	Applicable if project has Building Block with entire façade made of Glass	IS_BLOCK_1_HAVING_ENTIRE_F ACADE_IN_GLASS	YES/NO
54	Applicable if EIDP fee is applicable for project	PROJECT_VALUE_IN_INR_IF_EID P_FEE_IS_APPLICABLE_FOR_PRO JECT	Numeric value with decimal / NA
55	Applicable if the project is by State Govt or Central Govt or Govt Undertaking	IS_THE_PROJECT_BY_STATE_GO VT_OR_CENTRAL_GOVT_OR_GOV T_UNDERTAKING	YES/NO
56	Number of temporary structures if any present at site	NUMBER_OF_TEMPORARY_STRU CTURES_IF_PRESENT_AT_THE_S ITE=Whole numeric value /NA	Whole numeric value /NA
57	Applicable if project is required to provide EWS provision	HAS_PROJECT_PROVIDED_MIN_1 0_PER_BUA_FOR_EWS_WITHIN_ 5_KM_FROM_PROJECT_SITE=YES /NO	YES/NO

58	Applicable if project has TDR provision	ADDITIONAL_TDR_IF_APPLICABLE_M2=Numeric value with decimal/NA	Numeric value with decimal/NA
59	Is the project by State Government or Central Government undertaking	IS_THE_PROJECT_BY_STATE_GOVT_OR_CENTRAL_GOVT_OR_GOVT_UNDERTAKING=YES/NO	YES/NO
60	Applicable only for Addition & Alteration service only	BLK_1_SETBACK_FRONT_EXISTING	Numeric value with decimal/NA
61	Applicable only for Addition & Alteration service only	BLK_1_SETBACK_REAR_EXISTING	Numeric value with decimal/NA
62	Applicable only for Addition & Alteration service only	BLK_1_SETBACK_LEFT_EXISTING	Numeric value with decimal/NA
63	Applicable only for Addition & Alteration service only	BLK_1_SETBACK_RIGHT_EXISTING	Numeric value with decimal/NA
64	Applicable only for Addition & Alteration service only	COLOUR_CODE_OF_PRINCIPAL_USE_OF_THE_BUILDING_IN_CASE_OF_MIXED_USE_PROJECTS	Colour code of primary occupancy type/NA

3. 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_AREA_M2= 500** instead of PLOT_AREA_M2=500
- Write all the text without any applicable units. For eg. **PLOT_AREA_M2= 500** instead of PLOT_AREA_M2= 500sqm etc.
- Write all the text in Capitals. For eg. **ROAD_WIDTH**
- Write sector number in format **SECTOR_NUMBER= 23D** instead of SECTOR_NUMBER=23-D or SECTOR_NUMBER= 23 D or SECTOR_NUMBER= 23d
- Write the projected total number of building users in the format **NUMBER_OF_OCCUPANTS_OR_USERS_OR_BED_BLK_1= 5**
- Put the responses in the PLAN_INFO layer with response **YES** or **NO** or **NA** instead of **Yes** or **No** or **na.**

Q2. How does system calculate fee for building permit?

A3. System calculates fee based on the drawing using following layers:
Fee for development of land – This will be calculated based on the Plot Area layer with color as 70.

Fee for building operation, Sanction fees, Construction worker welfare Cess (CWWC), Shelter fees and Security Deposit - will be calculated based on the Built Up Area layer with color as per Sub Occupancy

Temporary retention fees - will be flat Fee

Purchasable FAR Fee – will be calculated based on the Per acre Benchmark Value of land to be provided in plan info and using Built Up Area layer with color as per Sub Occupancy

Q3. How should I start with the drawing preparation?

A4. Complete the drawing as per standards and guidelines required by ODA Bye Laws. 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 - **Meter** and length type **Decimal** in the software (e.g. AutoCAD). Length type in primary units of dimension style shall be updated to Decimal.

Copy and Paste the Plan Info and required layers from the Drawing Template (provided in the resource section) and follow guidelines in the Drawing manual to start drawing preparation for Auto-scrutiny.

Q4. What should I do if my drawing is '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) make the modifications in the drawing as per the scrutiny report. After update of drawing, one can resubmit the drawing for scrutiny.

Common Errors to Avoid –

1. Plan Info Not present in the Drawing
2. Not all answers are provided in Plan Info
3. Building Footprint Layer Not Present
4. Built Up Area Layer Not Present
5. Built Up area Layer Color code is not as per Drawing Manual – Occupancy Color Codes
6. Setback Layer Polygon is Drawn Incorrect – Edges of Setback Polygon should fall on Building Footprint Polygon and Plot Boundary Polygon
7. Bring only the necessary layers from Drawing Template

Q5. In which format the drawing shall be saved for scrutiny?

A7. Drawing shall be saved in .dxf format only

Q6. How To Draw the Setback Layers for Auto scrutiny?

A7. After creation of the required setback layers with correct colour codes, draw closed polygons along the entire length of the front, rear, left and right sides of each building blocks.

The setback layer polygon drawn should have edges falling/coinciding with both the Plot area Polygon and the respective Building Footprint Polygon.

Q7. How To correctly name Polygons for Lifts, Ramps etc that have numbers at the end of the layer name?

A7. If multiple polygons needs to be created for features such as Lifts and Ramps that have different colour codes assigned to them based on different use types, Follow the bellow guidelines-

- Name all the required layers with consecutive numbers at the end keeping with common color code to denote the same use type.
- If multiple use types are required to be drawn, then each group of layers with common colour code will have the numbers starting from 1 to the required number.

E.g. 3 use types of ramps are present in same project–

Block	Use Type	No of ramps present
Block 1	LMV – 1 way	4
Block 2	LMV – 2 way	1
Block 3	LCV – 1 way	2

The naming convention for the layers to be drawn will be as follows-

<u>LMV – 1 way with color code 1</u>
BLK_1_FLR_0_VEHICLERAMP_1
BLK_1_FLR_0_VEHICLERAMP_2
BLK_1_FLR_0_VEHICLERAMP_3
BLK_1_FLR_0_VEHICLERAMP_4

<u>LMV – 2 way with color code 2</u>
BLK_2_FLR_0_VEHICLERAMP_1

<u>LCV – 1 way with color code 3</u>
BLK_3_FLR_0_VEHICLERAMP_1
BLK_3_FLR_0_VEHICLERAMP_2