MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

(A Government of Maharashtra	Undertaking)
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HEAD OFFICE	: "Udyog Sarthi", Mahakali Caves Road, Andheri (E), Mumbai – 400 093.
PRINCIPAL OFFICE	Tele: (022) 26870052/54/27/73 Fax: (022) 26871587 : 4,4 (A), 12 th Floor, World Trade Centre, Complex-1, Cuffe Parade, Mumbai – 400 005 Tele : (022) 22151451/52/53 Fax : (022) 22188203



Date: 02/02/2024

M/s. Star Alucast Pvt. Ltd. Plot No. C-36/4, MIDC, Vile-Bhagad Indl. Area.

Sub: Grant of "Provisional No-Objection Certificate" for your proposed construction on Plot No. C-36/4, MIDC, Vile-Bhagad Indl. Area.

Ref: Your application number; SWC/19/521/20231122/945051.

Dear Sir.

This has reference to your application under reference above. This office has "**NO Objection (Provisional)**" for your proposed construction on Plot No. C-36/4 at MIDC, Vile-Bhagad Indl. Area. The details of the constructions as per the Drawing submitted by you are as mapped under your BPAMS application. The Plot area of the said co. is **30,000.00 Sq. Mtrs**. The proposed built up area is **11608.10 Sq. Mtrs**. The height of tallest structure is **13.20 Mtrs**. The area wise details of proposed constructions are as under;

Building	Proposed FSI Area Ind.	Stair	
H (BUILDING)	100.00	0.00	
G (BUILDING)	270.00	0.00	
F (BUILDING)	3095.77	0.00	
E (BUILDING)	1605.00	0.00	
D (BUILDING)	2106.00	0.00	
C (BUILDING)	1731.31	146.34	
B (BUILDING)	1350.00	0.00	
A (BUILDING)	1350.00	0.00	
Grand Total	11608.09	146.34	

[•] The occupant load in above building should not exceed in any case as prescribed in Table – 3 of National Building Code 2016, part IV.

This N.O.C. is valid subject to fulfillment of the following conditions:

- 1. The plans of the proposed construction (adhering to the D.C. Rules of MIDC & National Building Code-2016 where necessary), should be approved by the Executive Engineer, Division Mahad, (Special Planning Authority).
- 2. The Drainage completion certificate & Occupation certificate should be obtained from Executive Engineer, Division Mahad. The B.C.C. & D.C.C. shall be issued subject to "Final NO-Objection Certificate" from fire department.
- 3. The approval from CCEO/ PESO shall be obtained for the proposed layout for storage of Petroleum Products of A, B & C Class.
- 4. Under Section 3 of Maharashtra Fire Prevention and Life Safety Measures Act, 2006 (hereinafter referred to as "said Act") The applicant (developer, owner, occupier by whatever name called) shall comply with all the Fire and Life Safety measures adhering to National Building Code of India, 2016 and as amended from time to time failing which it shall be treated as a violation of the said Act.
- 5. As per the provision as under: 10 of the said Act. No person other than the License Agency shall carry out the work of providing Fire Prevention and Life Safety Measures or performing. Such other related activities required to be carried out in any place or building or part thereof:

A list of License Agency is available on Maharashtra Fire Services website <u>www.mahafireservice.gov.in</u>. No Licensed Agency or any other person claiming to be

such Licensed Agency shall give a certificate under sub-section (3) of section 3 regarding the compliance of the fire prevention and life safety measures or maintenance thereof in good repair and efficient condition, without there being actual such compliance or maintenance.

- 6. **Under Section 11 of the said Act,** the fire service fees shall be assessed and the same shall be payable after serving the notice to that effect or prior to issue of the building completion certificate or occupancy certificate whichever is earlier.
- 7. **Under Section 45 of the said Act,** the owner/occupier or developer shall appoint Fire Officer/Officers and staff for taking adequate Fire and Life Safety Measures, qualifications and experience of such persons be got approved from the Chief Fire Officer & Fire Advisor, MIDC Fire Services.
- 8. Though certain conditions are stipulated from the said Act and the National Building Code of India, it is obligatory on part of the applicant that is developer, builder, occupier, owner, tenant, by what so ever named called to abide with the provisions of the said Act failing which it shall be actionable under the provisions of said act.
- 9. Proper roads in the premises should be provided for easy mobility of the Fire Brigade Appliance & Marginal spaces around the building should be kept free from obstructions & open to sky at all the time. Minimum marginal spaces should be confirming with **Table No.10 of D.C. Rules of MIDC, 2009.** The load bearing capacity of internal roads shall not be less than **45 Tons.**
- 10. All portable firefighting equipment's installed at various locations as per local hazard such as Co2-DCP, Foam as per **IS: 15683**, & it must be strictly confirming to relevant IS specification. It is recommended for every 100 Sq. Meter one fire extinguisher should be provided for electrical installation Co2 extinguisher of 4.5 Kg should be provided.
- 11. All the firefighting equipment shall be well maintained and should be easily accessible in case of emergency.
- 12. Emergency Telephone numbers like "Police", "Fire Brigade", "Hospital", "Doctors", and "Responsible persons of the office" should be displayed in Fire Control Room, Security Office and in Reception area.
- 13. It shall be ensured that security staff & every employee of the office, security are trained in handling **firefighting equipment & in firefighting**.
- 14. The Fire Exit Drill or Evacuation Drill should be plan and instruction should be given to the staff minimum **four times in a year** and drill should be carried out **twice in a year**.
- 15. Cautionary boards such as "DANGER", "NO SMOKING", "EXIT", "FIRE ESCAPE", "EXTINGUISHER", "FIRE HYDRANT" etc. should be displayed on the strategic location to guide the occupants in case of emergency. The signs should be of florescent type and should glow in dark.
- 16. **"On-Site" & "Off-Site"** emergency plan shall be prepared & mock drills shall be conducted twice a year & instructions to every employee shall be given once in three months.
- 17. The fluorescent glow signs like "Staircase", "Extinguisher", "Fire Escape" "Hydrant Point", Manual Call Point" "Exit", "Lift" shall be installed on strategic locations in all common areas of the building like passages, Corridors etc.
- 18. Fire evacuation orders & exit map shall be provided in every floor & in lobbies of the buildings.
- 19. In future if the Company intends to carry out any expansion of the building, an approval of this department must be obtained before commencing proposed construction.
- 20. The Fire Safety requirements of IS 3594 i.e. Code of Practice for fire safety of industrial buildings: General storage and warehousing including cold storage shall be followed.
- 21. The Final NOC for the above building will be issued after satisfactory installation of Fire Prevention & Fire Protection arrangement. This building should not be occupied without obtaining Final NOC from this Dept. & OC from the SPA, MIDC, failing which you will be solely responsible for the consequences, if any.

REQUI	REMENT	AND	PROVISION: ·	- The	following	Fire	Protection	System	is
required for the fire safety of the building: -									
C.,									

Sr. No.	FIRE FIGHTING	Requirements	Provision	Remarks	
1.	Portable Fire Extinguishers	Required in all buildings on each floor.	IS: 15683 & 2190.	Portable Fire Extinguisher should be installed confirming to IS 15683 & other I.S. codes	
2.	Hose Reel	Required at prominent places.	At Various strategic Locations.	On each floor in the Staircase landing for Fire Fighting. The first aid hose reel shall be connected directly to riser/down comer main and diameter of the hose reel shall not be less than 19mm confirming to <u>IS 884:1985</u>	
3.	Wet Risers & Down Comers	Required in entire Bldg.	In all staircases & fire escape staircases	Required to provide in the Staircase and Fire Escape Staircase. Landing of Valve should be installed confirming to IS:5290.	
4.	Yard Hydrant or Ring hydrant system around the building.	Required around the proposed building.	Fire Brigade Inlet connection should be provided. Hydrant points should be provided with 2 Nos. of Delivery Hose confirming to IS-636 along with Standard Branch (Universal) confirming to IS-2871. The distance between 2 Hydrants should not be more than 30 Mtrs. <u>The guidelines should be</u> followed as per IS 3844:1989 & IS 13039:2012.		
5.	Underground Static Storage Tank	Requ 2,50,000	ired 0 liters	This water storage should be exclusively for Fire Fighting.	
6.	Fire Pump	 2 No. 2850 lpm electrical driven main pumps 1 No. 2850 lpm Diesel driven stand by pump 2 No. 180 lpm electric driven jockey pump 		Fire Fighting pumps shall be well maintained. A separate arrangement of pumping should be done for sprinkler system. All the fire pumps must be centrifugal pumps only	
7.	Automatic Sprinkler system.	Required in entire building at all floors and Fire Pump Room (If false ceiling voids exceeding 800mm of height		Guidelines are given in IS 15105 Design and installation of Fixed Automatic sprinkler fire Extinguishing system. In- Rack sprinkler system should be provided for rack storage in	
		above false ce should be provi		Storage area having stacking height above 4 mtrs.	
8.	Addressable Automatic smoke Detection System & Fire alarm system.	Required in entire building at all floors (If false ceiling voids exceeding 800mm of height above false Detection System should be provided)		Standards and guidelines given in IS-11360-1985 specification for Smoke Detectors for use in Automatic Electrical Fire Alarm system & IS 2189:2008 Selection, Installation and Maintenance of Automatic Fire-Detection and Alarm System should be followed.	
9.	Fire Doors	Required for all staircases. it should be self-closing type.	Fire Doors of 2 hrs. Fire Resistance Rating should be provided in all buildings at the entrance of all the staircases on all floors. Certification from the Competent Authority shall be obtained & submitted to this office for record.		
10.	Manually Operated Fire Alarm System	RequiredAtVariousstrategiclocation	Manually Operated Fire Alarm should be provided; it should be connected to alternate power supply.		

Sr. No.	FIRE FIGHTING	Requirements	Provision	Remarks
11.	Sign Indicators for all fire safety, safe evacuation of occupants in case of emergency signs	Prominent	places as per IS:9457 for S IS:12349 for	rs should be provided at prominent the guidelines given in afety colour and Safety Fire Protection Safety Signs for Graphics symbols for Fire lan.
12.	Fire Brigade Co Static Water T Hydrant System	onnection- For ank and For	Required at th	ne Main Gate and on fire water tank

Considering the Plot Area and future expansion, Static water storage and Pumping arrangement's on higher side is recommended which shall be exclusively used for Firefighting purpose.

GUIDELINES FOR INTERNAL STAIRWAYS

- Stairways shall be constructed of non-combustible materials throughout. Hollow combustible construction shall not be permitted. Width of Staircase should be 1.5 m
 No Gas piping shall be laid down in the stairway.
- Internal staircase shall be constructed as a self-contained unit with at least one side adjacent to an external walls and shall be completely enclosed.
- Internal staircase shall not be arranged around lift shaft unless the later is entirely enclosed by material of fire resistance rating as that for type of construction itself.
- The access to main staircase shall be gained through at least half-an-hour fire resisting automatic closing doors, placed in the enclosing walls of the staircase. They shall be swing type doors opening in the direction of the escape.
- No living space, store or other space, involving fire risk, shall open directly in to staircase.
- The external exit door of a staircase enclosure at ground level shall open directly to the open space or should be accessible without passing through any door other than a door provided to form a draught lobby.
- The exit signs with arrows indicating the escape routes shall be provided at a height of 1.5 m. from the floor level on the wall and shall painted with fluorescent paint. All exit signs should be flush with the wall and so designed that no mechanical damage to them can result from the removing furniture, material or any other equipment.
- Exits shall be so located that it will not be necessary to travel more than 30 m. from any point to reach the nearest exit.

Staircase Design requirement:

- The minimum headroom in a passage under the landing of a staircase and under the staircases shall be 2.2 Mtrs.
- Access to main staircase shall be through a fire / smoke check door of a minimum 2 hours fire resistance rating.
- > No living space, store or other fire risk shall open directly in to the staircases.
- The main and external staircases shall be continuous from ground floor to the terrace level.
- No electrical shafts, A/c ducts or gas pipe etc. shall pass through or open in the staircases. Lifts shall not open in staircases.
- The width of the staircase shall not be less than 1.5 Mtrs.
- All the staircase must be R.C.C staircases only, Staircase fabricated in M.S or any other material is not allowed.

Exit Requirement:

- 1. An exit may be doorway, corridor, Passageway(s) to an internal staircase, or external staircase, or to a verandah or terrace(s), which have access to the street, or to the roof of a building or a refuge area. An exit may also include a horizontal exit landing to an adjoining building at the same level.
- 2. Every exit, exit access or exit discharge shall be continuously maintained free of all obstructions or impediments to full use in the case of fire or other emergency.
- 3. Exits shall be clearly visible and the route to reach the exits shall be clearly marked and signs posted to guide the occupants of the floor concerned. Signs shall be illuminated and wired to an independent electric circuit on an alternative source of supply.

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- 4. To prevent spread of fire and smoke, fire doors with 2 hours fire resistance shall be provided at appropriate places along the escape routes and particularly at the entrance to lift lobby and stair well where a 'funnel or flue effect' may be created inducing an upward spread of fire.
- 5. All exits shall provide continuous means of egress to the exterior of a building or to an exterior open spaces leading to the street.
- 6. Exits shall be so arranged that they may be reached without passing through another occupied unit.
- 7. Exits shall be so located that it will not be necessary to travel more than 30 m. from any point to reach the nearest exit.

Service Ducts and Shafts:-

- Openings in walls or floors which are necessary to be provided to allow passages of all buildings services like cables, electrical wirings, telephone cables, plumbing pipes, etc. shall be protected by enclosure in the form of ducts/shafts having a fire resistance not less than 120 min. The inspection door for electrical shafts/ducts shall be not less than 120 min. Further, medium and low voltage wiring running in shafts/ducts, shall either be armoured type or run through metal conduits.
- The space between the electrical cables/conduits and the walls/slabs shall be filled in by a fire shop material having fire resistance rating of not less than 120 min. This shall exclude requirement of fire stop sealing for low voltage services shaft.
- For plumbing shafts in the core of the building, with shaft door opening inside the building, the shafts shall have inspection doors having fire resistance rating not less than 30 min.
- For plumbing shafts doors which open in wet areas or in naturally ventilated areas or on external wall of the building, the shafts may not require doors having any specified fire rating.

NOTE- In the case of buildings where it is necessary to lower or lift heavy machinery or goods from one floor to the other, it may be necessary to provide larger openings in the floor. Such openings shall be provided with removable covers which shall have the same strength and fire resistance as the floor.

Compartmentation :-

General -

- a) It is important to limit the spread of fire in any building. The usual method is to use fire barriers. In some instances these barriers need to be penetrated for ductwork, plumbing and electrical systems, and in such cases, use of passive fire protection measures shall be done so that the integrity of these barriers is not compromised.
- b) Floor(s) shall be compartmented with area as given below.

All floors shall be compartmented/ zoned with area of each compartment being not more than 750 m². The maximum size of the compartment shall be as follows, in case of sprinklered basement/building:

Sr. No.	Use	Compartmentation Area m ²
(1)	(2)	(3)
i)	Basement car parking	3000
ii)	Basement (other than car parking)	2000
iii)	Institutional Buildings: Subdivision C-1	1800
iv)	Institutional Buildings: Subdivision C-2	1125
	and C-3	
V)	Mercantile and assembly buildings	2000
vi)	Business buildings	3000
vii)	All other buildings (Excluding low hazard	750
	and moderate hazard industrial	
	buildings and storage buildings) ¹⁾	
¹⁾ Compa	rtmentation for low hazard and moderate	e hazard industrial buildings and

storage buildings shall be done in consultation with local fire department.

In addition, there shall be requirement of a minimum of two compartments if the floor plate size is equal or less than the areas mentioned above. However, such requirement of minimum two compartments shall not be required, if the floor plate is less than 750 m². Compartmentation shall be achieved by means of fire barrier having fire resistance rating of 120 min.

RAW MATERIAL STORE/GODOWN: -

- The storage in godown should be in a systematic way proper road should be marked by "Yellow" colour & should be kept free of obstruction all the time.
- The maximum stacking height should be marked on the walls in RED colour. The stacking height should not be more than the red line. Red line should be marked on 1.5 mtrs. from lowest roof level.
- All electrical fitting, fixtures should be flameproof & confirming to relevant IS. All electrical wiring, fitting & fixture should be above the red line (stacking limit line)
- The indication mark like Exits, Fire Escape, etc. should be prominently marked with florescent paint so that it can be seen in darkness.
- 2 Nos. of Alcohol Resistance Foam Extinguishers having capacity of 50 Ltrs. to be installed in the Plant area.

Boiler rooms:

Provisions of boiler and boiler rooms shall conform to The Boilers Act, 1923.

Further, the following additional aspects may be taken into account in the location of boiler room:

- The boilers shall be installed in a fire resisting room of 180 min fire resistance rating.
- Entry to this room shall be provided with a composite door of 120 min fire resistance rating.
- The boiler room shall be provided with its dedicated natural or mechanical ventilation system. Mechanical ventilation system for the boiler room would be accepted with 120 min fire resistance rating ductwork, if it has interface with other mechanical areas. Ventilation system should not be allowed to be routed through electrical room area or through exit corridor/exits.
- The oil tank for the boiler shall be provided with a dyked enclosure having a volumetric capacity of at least 10 percent more than the volume of the oil tank. The enclosure shall be filled with sand for a height of 300 mm.

Hazardous Areas, Gaseous, Oil Storage Yard, ETC:-

- Rooms containing high pressure boilers, refrigerating machinery, transformers or other service equipment subject to possible explosion shall not be located directly under of adjacent to exits.
- All such rooms shall be effectively cut-off from other parts of the building and shall be provided with adequate vents to the outside air.
- All rooms or areas or high hazard in additions to those hereinbefore mentioned, shall be segregated or shall be protected with fire resistance walls having fire rating of 120 min as fire, explosion or smoke there from is likely to interfere with safe egress from the building. Further,
- Each building shall be provided with an approved outside gas shut-off valve conspicuously marked. The detailed requirements regarding safe use of gas shall be as specified in Part 9 'Plumbing Services, Section 4 Gas Supply' of the Code; and
- All exterior openings in a boiler room or rooms contain central heating equipment, if located below opening in another storey or if less than 3 m from other doors or windows of the same building shall be protected by a fire assembly. Such assemblies shall be fixed, automatic or self-closing.

Guidelines for Firefighting pump house

The requirements shall be as given below:

- a) It is preferable to install the pump house at ground level. Pump house shall be situated so as to be directly accessible from the surrounding ground level.
- b) Pump house shall be installed not lower than the second basement. When installed in the basement, staircase with direct accessibility (or through enclosed passageway with 120 min fire rating) from the ground, shall be provided. Access to the pump room shall not require to negotiate through other occupancies within the basement.
- c) Pump house shall be separated by fire walls all around and doors shall be protected by fire doors (120 min rating).
- d) Pump house shall be well ventilated and due care shall be taken to avoid water stagnation.
- e) No other utility equipment shall be installed inside fire pump room.
- f) Insertions like flexible couplings, bellows, etc, in the suction and delivery piping shall be suitably planned and installed.

- g) Installation of negative suction arrangement and submersible pumps shall not be allowed.
- h) Pump house shall be sufficiently large to accommodate all pumps, and their accessories like PRVs, installation control valve, valves, diesel tank and electrical panel.
- j) Battery of diesel engine operated fire pump shall have separate charger from emergency power supply circuit.
- k) Exhaust pipe of diesel engine shall be insulated as per best engineering practice and taken to a safe location at ground level, considering the back pressure.
- m) Fire pumps shall be provided with soft starter or variable frequency drive starter.

ELECTRICAL SERVICES:

- 1. For the requirements regarding installations from the point of view of Fire Safety, guidelines should be followed as mentioned in <u>IS Standard :1646 Code of practice</u> <u>for Fire safety Buildings : Electrical Installations.</u>
- 2. The electric distribution cables/wiring shall be laid in separate duct. The duct shall be sealed at every alternate floor with non-combustible materials having same fire resistance as that of the duct.
- 3. Water mains, telephone lines, intercom lines, gas pipes or any other service lines shall not be laid in the duct of electric cables.
- 4. Separate circuits for water pumps, staircase & corridor lighting shall be provided directly from the main switch gear panel and these circuits shall be laid in separate conduit pipes so that fire in one circuit will not affect the others.
- 5. The inspection panel doors and any other opening in the shaft shall be provided with <u>air tight doors having fire resistance of not less than 2hrs.</u>
- 6. Medium & low voltage wiring running in shaft and within fall ceiling shall run in metal conduit.
- An independent & well-ventilated service room shall be provided on the ground floor with direct access from outside or from the corridor for the purpose of termination of electric supply. <u>The doors provided for the service room shall have fire</u> <u>resistance of not less than two hours</u>.

Standby supply

- Diesel generator set(s) shall not be installed at any floor other than ground/first basement. If the same are installed indoors, proper ventilation and exhaust shall be planned. The DG set room shall be separated by 120 min fire resistance rated walls and doors.
- The oil tank for the DG sets (if not in the base of the DG) shall be provided with a dyked enclosure having a volumetric capacity of at least 10 percent more than the volume of the oil tank. The enclosure shall be filled with sand for a height of 300 mm.
- For detailed information regarding fire safety requirements for hazardous petroleum products, reference may be made to The Petroleum Act, 1934 and the Rules framed thereunder.

Guidelines for Substation/Transformers

- Areas in substation shall not be used as storage/dump areas or for other utility purposes other than those required for the functioning of the substation.
- The substation area should be adequately ventilated.
- An independent, ventilated or air conditioned MV panel room shall be provided on the ground level or first basement. This room shall be provided with access from outside (or through exit passageway accessible from outside). The MV panel room shall be provided with fire resistant walls and doors of fire resistance of not less than 120 min.
- If the licensees agree to provide meters on upper floors, the licensees cables shall be segregated from consumers cables by providing a partition in the shaft.
- Meter rooms on upper floors shall not open into staircase enclosures and should be ventilated directly to open air outside or in electrical room of 120 min fire resistant walls.
- Electrical MV main distribution panel and lift panels shall be provided with CO2/inert gas flooding system for all panel compartments with a cylinder located beside the panel.

Oil filled substation

- A substation or a switch-station with oil filled equipment shall be limited to be installed in utility building or in outdoor location. Such substation/utility building shall be at least 7 m away from the adjoining building(s).
- Substation equipment (exceeding oil capacity of 2000 litre) in utility building shall have fire rated baffle walls of 240 min rating constructed between such equipment, raised to at least 600 mm above the height of the equipment (including height of oil conservators) and exceeding 300 mm on each side of the equipment.
- All transformers where capacity exceeds 10 MVA shall be protected by high velocity water spray systems or nitrogen injection system.

Dry type substation

- Transformers located inside a building shall be of dry type and all substation/switch room walls, ceiling, floor, opening including doors shall have a fire resistance rating of 120 min.
- Access to the substation shall be provided from the nearest fire exit/exit staircase for the purpose of electrical isolation.

In addition to the above, all provision under the D.C. Rules of MIDC and N.B.C. shall be strictly adhered, also if any change in activity or Proposed expansion or Subletting of Plot or Transfer of Plot, NOC from this department is essential.

This is a **Provisional No Objection Certificate.** After providing the above fire prevention and protection system and after compliance of above recommendations inspection of the premises & fire prevention & protection arrangements will be carried out by this department and after satisfactory compliance "Final No Objection Certificate" will be issued. <u>This "Provisional No-Objection Certificate" will be treated valid for</u> the period of one year from the date of issue.

Details of "Fire and Emergency Service Fees" including GST is as follow:

	Total Amount	Advance "Fire and	Balance "Fire and
		Emergency Service	Emergency
		Fees" paid by M/s. Star	Service Fees"
		Alucast Pvt. Ltd. vide	needs to be
		receipt no. GL24424057	recovered by SPA
		Dt. 29-11-2023	-
(i)	(ii)	(iii)	(iv)
"Fire and Emergency Service Fees"	Rs. 24,92,341.16/-	Rs. 00.00/-	Rs. 24,92,341.16/-

The undersigned reserves right to amend any additional recommendations deemed fit during the final inspection due to the statutory provisions amended from time to time and in the interest of the protection of the company.

Thanking you.

Yours faithfully,

(S. S. Warick) Chief Fire Officer & Fire advisor MIDC, Mumbai - 400093.

Copy to The Executive Engineer, Division Mahad Division (SPA) for information. He is requested to recover the Balance fees mentioned in column no.(iv) of above table before issuing work commencement certificate/plan approval.