

**May
2016**

Form 1 for Residential Building

**At
Old S.No 370/1 and 370/2, T.S.no. 1/11, Block :
60, Ward No : H, Mogappair Village, Ambattur
taluk, Thiruvallur district**

**Project Proponent:
M/s. Arihant Foundations & Housing Ltd.**

**Prepared By:
EcoTech Labs Pvt Ltd.**



**S. No.:40
(ISO 9001:2008 &
QCI/NABET Accredited
Consultancy) QCI NABET**

FORM – I**I. BASIC INFORMATION**

S. No.	Item	Details
1	Name of the project	Proposed Construction of Residential Building
2	S. no. in the schedule	8 (a)
3	Proposed area	<u>Area Details:</u> Total land area: 8,079.16sqm Proposed FSI : 15,452.84sqm Total built-up area: 20,388.22sqm Existing built-up area: 19,385.79sqm
4	New/Expansion/Modernization	New
5	Existing capacity/Area etc	Nil
6	Category of project i.e. 'A' or 'B'	Category B
7	Does it attract the general condition? If yes, please specify	No
8	Does it attract the specific condition? If yes, please specify	No
9	Plot/Survey/Khasra No	12°52'19.92"N & 80°11'57"E Old S.No 370/1 and 370/2, T.S.no. 1/11, Block : 60, Ward No : H
	Village	Mogppair
	Tehsil	Ambattur
	District	Thiruvallur
	State	Tamilnadu
10	Nearest railway station/airport along with distance in kms	Nearest Railway Station: Koyambedu Metro Station (Approx. 2 km, SE) Nearest Airport : Chennai International airport (Approx. 17 km, S) (Source of information:- Google Earth Image)
11	Nearest town, city, district headquarters along with distance in kms	Nearest Town : Koyambedu (2 km, SE) Nearest City : Chennai (11 km, E) District headquarters: Thiruvallur (10 km, NNE)
12	Village panchayats, Zilla parishad, municipal corporation, local body (Complete postal addresses with telephone nos. to be given)	Chennai Metropolitan Development Authority (CMDA) No 1, Gandhi Irwin Road, Egmore, Chennai -8.
13	Name of the applicant	Mr. S. Selvakumar
14	Registered address	Arihant Foundations & Housing Ltd, 271, Poonamallee High road, Kilpauk, Chennai 600 010
15	Address for correspondence:	

	Name Designation Address Pin code E-mail Telephone No. / Fax No.	Mr. S. Selvakumar Corporate Liaison officer, Arihant Foundations & Housing Ltd, 271, Poonamallee High road, Kilpauk, Chennai 600 010. E-mail: selvakumar@arihants.co.in Phone : 044-4224 4444
16	Details of alternative sites examined, if any, Location of these sites should be shown on a topo sheet	No alternative site is considered.
17	Interlinked projects	No interlinked projects
18	Whether separate application of interlinked project has been submitted?	No
19	If yes, date of submission	NA
20	If no, reason	NA
21	Whether the proposal involves approval/clearance under: if yes, details of the same and their status to be given. (a) The forest (conservation) Act, 1980? (b) The wild life (Protection) Act, 1972? (c) The CRZ Notification 1991	No
22	Whether there is any government order/policy relevant/relating to the site	No
23	Forest land involved (hectares)	No
24	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up? a) Name of the Court b) Case No c) Orders/directions of the court, if any and its relevance with the proposed project	No

II. ACTIVITY

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies etc.)

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with sources of information data	
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	Yes	Project site comes under Unclassified use Zone by Directorate of Town and Country Planning. Project site is surrounded by Residential development. Copy of land use certificate is enclosed as Annexure - IV.	
1.2	Clearance of existing land, vegetation and buildings?	No	The construction of project does not require any clearance of existing Land, Vegetation & Building.	
1.3	Creation of new land uses?	Yes	Project is earmarked for residential development as per the master development plan of area. Copy of land use certificate is attached as Annexure - IV.	
1.4	Pre-construction investigations e.g. bore holes, soil testing ?	Yes	Geo-technical investigations have been carried out and the copy of the report is enclosed as Annexure –VI.	
1.5	Construction works?	Yes	All construction activities will be confined within the project premises; there will be no physical changes outside the project boundary. Project development comprise of development of Residential Building in a span of about 24 - 36 months.	
1.6	Démolition Works?	No	The proposed site is vacant land.	
1.7	Temporary sites used for construction works or housing of construction workers?	No	All the construction activities including stacking of raw materials will be confined within the project site only. No temporary labor hutments are proposed. Local laborers from nearby areas will be hired for the work. Proper sanitation facilities for them will be provided at site.	
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	Above ground buildings in the proposed development is listed below:	
			No of Levels/Floors	Total Built Up Area (Sqm)
			Stilt	3,967.25
			1 st Floor	2,596.64
			2 nd Floor	2,348.57

			3 rd Floor	2,295.2
			4 th Floor	2,295.2
			5 th Floor	2,295.2
			6 th Floor	2,295.2
			7 th Floor	2,295.2
			Total	20,388.22
1.9	Underground works including mining or tunneling?	No	No underground works including mining/tunneling is required except excavation of earth for constructing basement and foundation as proposed within project site.	
1.10	Reclamation Works?	No	No reclamation work required.	
1.11	Dredging?	No	No dredging required.	
1.12	Offshore structures?	No	No offshore structures required.	
1.13	Production and manufacturing processes?	No	No production/manufacturing process involved. The proposed project is a residential development.	
1.14	Facilities for storage of goods or materials?	Yes	Separate temporary raw material handling yard will be located within the project site and separated by enclosures/barricades. Cement will be separately stored under cover in bales. Sand will be stacked under tarpaulin cover. Bricks and steel will be laid in open.	
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	<p>Solid Waste:</p> <p>The solid waste generated from the project will be in the form of:</p> <p>Construction Waste:</p> <p>Left over cement and mortars, cement concrete blocks, aggregate, sand and other inorganic material will be recycled and reused as granular subbase (GSB) layer of pavement. Earth rendered surplus from the excavation will be utilized in the embankment works.</p> <p>Operational Phase:</p> <p>Door to door waste collection system will be adopted. Waste will segregated at source by providing separate bins for compostable,</p>	

			<p>recyclable and inert waste. Compostable waste will be treated in Organic Waste Converter and recyclable waste will be sold to the authorized recyclers. Inert fraction will be handed over to local authority managing waste in the area for landfilling.</p> <p>Liquid Effluent: During the construction phase, sewage generated from the project will be disposed by Septic tank and soak pit arrangements. During operational phase also, sewage generated from the project will be treated in the proposed STP of capacity.</p>
1.16	Facilities for long term housing of operational workers?	No	
1.17	New road, rail or sea traffic during construction or operation?	Yes	It is expected traffic of 155 ECS will be generated from project site during operation phase. Apart from this it is expected traffic of 15-20 trucks per week will be generated during construction phase for transportation of men and material at the site
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	Project site is accessible and is well connected via network of rail & road. No new road, rail, air waterborne or other transport infrastructure will be developed. Only internal roads will be constructed for facilitating movement of vehicles and connecting the site to the existing roads.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	None
1.20	New or diverted transmission lines or pipelines?	No	There will not be any new/diverted transmission lines or pipelines around the proposed project.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	No impoundment, damming, culverting, realignment or other changes to the hydrology of surface watercourses is proposed.
1.22	Stream crossings?	No	There are no streams running across the site.
1.23	Abstraction or transfers of water from ground or surface	No	

	waters?		
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	--
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Transportation of personnel and material by road will be necessary for the contractors during the construction phase.
1.26	Long-term dismantling or decommissioning which could have an impact on the environment?	No	No Long term dismantling or decommissioning or restoration works will be involved.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	--
1.28	Influx of people to an area in either temporarily or permanently?	Yes	Project is development of residential apartments. This will involve shuffling of population within the area.
1.29	Introduction of alien species?	No	-
1.30	Loss of native species or genetic diversity?	No	There will be no significant impact on the native species or genetic diversity.
1.31	Any other actions?	No	Not Applicable.

2. *Use of Natural resources for construction or operation of the Project (Such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):*

S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities / rates, wherever possible) with sources of information data
2.1	Land especially undeveloped or agricultural land (ha)	Yes	Land is earmarked for residential development as per master development plan of the area
2.2	Water (expected source & competing users) Unit: KLD	Yes	<p><u>Construction Stage:</u> About 15-20 KLD of water will be required during the peak construction phase and it will be sourced through private tankers arranged by the contractor.</p> <p><u>Operation Stage:</u> About 64 KLD of raw (fresh) water will be required for the project. The source of water supply is Ground water.</p>
2.3	Minerals (MT)	No	Minerals such as sand and aggregates will be required during the construction phase.

2.4	Construction material – stone, aggregates, and / soil (expected source - cum)	Yes	All materials for construction will be arranged through select suppliers.
2.5	Forests and timber (source– MT)	No	--
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (litres/hour), energy (kVA)	Yes	The estimated power requirement during operation phase is about 900 KVA and it will be sourced from the nearby TNEB grid which will be distributed through the transformers within our premises. For emergency purposes, it is proposed to use DG sets of the following capacities. ➤ 1 no. of 140 KVA capacity ➤ 1 no. of 180 KVA capacity
2.7	Any other natural resources (use appropriate standard units)	No	Not Applicable

3. *Use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.*

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with sources of information data
3.1	Use of substance or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	Yes	This project is a Residential development and no storage of hazardous chemicals (as per MSIHC) will be done, apart from Diesel. HSD (of low sulphur content) will be used for DG sets. Necessary permission will be obtained from the authorities concerned (if applicable).
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Suitable drainage and waste management measures (with frequent spray of insecticides etc.) will be adopted in both the construction and operational phase such that there will be no stagnation of water or accumulation of waste. This will effectively restrict the reproduction and growth of disease vectors.
3.3	Affect the welfare or people e.g. by changing living conditions?	No	Socio-economic standard of people will improve due to increased employment opportunities, better living facility & commercial services provided by this project. This will lead to better quality of life and will also set a standard for

			future developments in the area.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patient's children, the elderly etc.,	No	--
3.5	Any other causes	No	Not Applicable

4. *Production of solid wastes during construction or operation or decommissioning (MT/ month)*

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with sources of information data
4.1	Spoil, overburden or mine wastes	No	No such spoil, overburden or mine wastes will be generated.
4.2	Municipal waste (domestic and or commercial wastes)	Yes	<p>The solid waste will comprise biodegradable waste (e.g. domestic waste, food waste, horticultural waste etc.) and Non biodegradable waste (e.g. plastics, paper etc). The quantity of waste generation is</p> <p>Biodegradable Waste : 0.216 Tons/day Non-biodegradable Waste : 0.144 Tons/day STP Sludge : 9 Kg/day</p> <p>(Source: The manual on municipal solid waste prescribed by Central Public Health and Environmental Engineering Organization (CPHEEO)).</p> <p>Door to door waste collection system will be adopted. Waste will segregated at source by providing separate bins for compostable, recyclable and inert waste. Compostable waste will be treated in Organic Waste Converter and recyclable waste will be sold to the authorized recyclers. Inert fraction will be handed over to local authority managing waste in the area for land filling.</p>
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	No	<p><i>Spent Oil from DG sets:</i></p> <p>The hazardous wastes generated in the project as per the Management, Handling & Trans-boundary Movement Rules, 2008 is used oil from DG sets, which is classified as per The</p>

			<p>Hazardous Waste Category 5.1.</p> <p>Used oil from DG sets will be stored in HDPE drums in isolated covered facility. This used oil will be sold to authorized recyclers. Suitable care will be taken so that spills/leaks of used oil from storage are avoided.</p>
4.4	Other industrial process wastes	No	--
4.5	Surplus product	No	--
4.6	Sewage sludge or other sludge from effluent treatment	yes	The sewage sludge of 9 kg/day from STP will be dried and used as manure for the gardening area and there is no any sludge other than STP will be generated.
4.7	Construction or demolition wastes	Yes	<p>The construction waste will consist of excess earth and construction debris along with cement bags, steel in bits and pieces, insulating and packaging materials etc. Recyclable waste construction materials will be sold to recyclers. Unusable and excess construction debris will be disposed at designated places in tune with the local norms.</p> <p>There is no demolition of the existing structures as the site is a vacant land and the expected construction waste free from any hazardous content shall be used for road formation and filling within the premises.</p>
4.8	Redundant machinery or equipment	No	All machinery / equipment will be installed as per the requirement and the unused items will be taken back by the contractor.
4.9	Contaminated soils or other materials	No	--
4.10	Agricultural wastes	No	--.
4.11	Other solid wastes	No	Not Applicable

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with sources of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	Pollutants like particulate matters, CO, SO ₂ and NO _x will be released into the atmosphere due to the operation of DG sets and other machineries of construction which uses fossil fuels. However the

			DG sets will be operated only during power cuts. Also the use of HSD (of lower sulphur content) and dispersion of the DG flue gases through stacks having heights as per norms of CPCB will minimize the impacts.
5.2	Emissions from production processes	No	--
5.3	Emissions from materials handling including storage or transport	Yes	Dust emissions are envisaged during transport and handling of construction materials. Such emissions will be temporary and controlled by the use of sprinkling and other viable techniques like covering of loose material.
5.4	Emissions from construction activities including plant and equipment	Yes	This will be restricted to the construction phase and the construction site only. Emissions from construction activities will be reduced by using low sulphur content HSD for the machineries operated with fossil fuels and the accumulation of particulate matter in the atmosphere will be suppressed by sprinkling of water in the dust prone areas at regular intervals.
5.5	Dust or odors from handling of materials including construction materials, sewage and waste.	Yes	Dust at construction site will be suppressed by sprinkling water at site. On-site sanitation facilities will be provided.
5.6	Emissions from incineration of waste	No	No incineration of wastes is proposed.
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	--
5.8	Emissions from any other sources	No	Not Applicable

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with sources of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	Source of noise in the operational phase will be from backup DG sets (which will be in operation only during power failure) and pumps & motors. All the machinery will be of highest standard of reputed make and will comply with standard i.e.

			The DG set room will be provided with acoustic enclosure to have minimum 25 dB(A) insertion loss or for meeting the ambient noise standard whichever is on higher side as per E (P) Act, GSR 371 (E) and its amendments. Therefore, no significant impact due to operation of machinery is anticipated.
6.2	From industrials or similar processes	No	No industrial processes will be carried out in the project.
6.3	From construction or demolition	Yes	Due to various construction activities, there will be short-term noise impacts in the immediate vicinity of the project site. The construction activities will include the following noise generating activities: <ul style="list-style-type: none"> • Concreting, mixing & operation of DG sets. • Construction plant and heavy vehicle movement.
6.4	From blasting or piling	No	No blasting or mechanized piling will be done.
6.5	From construction or operational traffic	Yes	During construction activities, Adequate measures as mentioned above will be taken to reduce the impacts due to movement of heavy vehicles. Operational traffic will not contribute much towards noise.
6.6	From lighting or cooling systems	Yes	Adequate measures would be taken at the time of selection of equipment to minimize the noise or heat. Proper preventive maintenance will be adopted during the operation stage.
6.7	From any other sources	No	--

7. *Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:*

S. No.	Information /Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with sources of information data
7.1	From handling, storage, use or spillage of hazardous materials	Yes	Spent oil from DG sets (Hazardous waste category 5.1) will be stored in drums, this will be handed over to SPCB /MoEF authorized waste oil recyclers.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	The wastewater generation from the project is estimated to be about 84 KLD which will be treated in the proposed STP, the treated waste water will be reused for toilet flushing, gardening and the excess will be disposed

			through Local body for roadside plantation and public parks.
7.3	By deposition of pollutants emitted to air into the land or into water	No	The DG Sets will be provided with stacks of adequate height and will be air cooled. Hence dispersion will be achieved and avoid deposition of pollutants in significant concentrations at any single location
7.4	From any other sources	No	Not Applicable
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	Not Applicable

8. *Risk of accidents during construction or operation of the Project, which could affect human or the environment*

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with sources of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	<p>This project is a Residential development. Hence, it does not involve any probable explosions, spillages and fires.</p> <p>During construction, all the laborers will be provided with suitable personal protective equipment (PPE) as required under the health & safety norms. Training and awareness about the safety norms will be provided to all supervisors and laborers involved in construction activity. Contractor will deal with the safety aspects during construction.</p> <p>No major hazardous waste will be stored within the project site. No industrial or process activity is involved in this project. Hence, chances of chemical hazards and accidents are normally nil.</p> <p>To deal with any fire related accident, fire fighting facility of single handed hydrant valve, long hose reel, and portable fire extinguisher will be provided.</p>
8.2	From any other causes	No	Not Applicable
8.3	Could the project be affected	No	The area under study falls in Zone-III, according

	by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?		to the Indian Standard Seismic Zoning Map. Suitable seismic coefficients in horizontal and vertical directions respectively, are incorporated in designing the structures.
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9. *Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality*

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with sources of information data
9.1	<p>Lead to development of supporting facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.:</p> <ul style="list-style-type: none"> • Supporting infrastructure (roads, power supply, waste or wastewater treatment, etc.) • Housing development • Extractive industries • Supply industries • Other 	Yes	<p>The project may trigger the development of supporting and ancillary facilities, and further may lead to other developments. This will not lead to any potential negative impacts on environment.</p> <p>Yes within the project site</p> <p>Residential Towers</p> <p>Not applicable</p> <p>Not applicable</p> <p>Not applicable</p>
9.2	Lead to after use of the site, which could have impact on the environment	No	Not Anticipated
9.3	Set a precedent for later developments	Yes	The proposed development will set a precedent for later developments.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	--

III. ENVIRONMENT SENSITIVITY

S. No.	Areas	Yes/No	Aerial distances (within 15 km.) Proposed project location boundary
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1.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related values	No	--
2.	Areas which are important or sensitive for ecological reasons – Wetlands, water courses or other water bodies, coastal zone, biospheres. Mountains, forests	Yes	Coovam river lies at a distance of 1 km from the southern side of the project side. Thiruverkadu lake lies 6 km in the western side of the project site.
3.	Areas and by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	--
4.	Inland, coastal, marine or underground waters	Yes	Coovam river lies at a distance of 1 km from the southern side of the project side. Thiruverkadu lake lies 6 km in the western side of the project site.
5.	State, National boundaries	No	--
6.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Yes	The project site is located nearer to Koyambedu. It serves as a residential, Commercial & Transportation hub for suburbs in the Middle of Chennai. A number of Residential Complex, commercial complex, Industrial Complex and companies are already located in Koyambedu.
7.	Defense installations	No	--
8.	Densely populated or built-up area	Yes	Koyambedu
9.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	The surrounding area has few sensitive man-made land uses such as Schools, Colleges and Residential Complexes. But the effect on these areas will be negligible / minimal.
10.	Areas containing important, high quality or scarce resources (Groundwater / surface water resources, forestry, agriculture, fisheries, tourism, minerals)	No	--
11.	Areas already subjected to pollution or environmental damage. (where existing legal	No	

	standards are exceeded)		
12.	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	No	--

UNDERTAKING

“I hereby undertake that the data and the information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance given, if any, to the project will be revoked at our risk and cost.”

Date:

Signature of the Applicant

Place:

Name: