APPENDIX I

(See paragraph – 6)

FORM 1

(I) Basic Information

Sr. No.	Item	Details
1.	Name of the project/s	**Environmental Clearance for expansion of existing hospital campus Project developed by M/s Jubilee Mission Medical College & Research Institute**
2.	S. No. in the schedule	**8 (a), Construction Project with total built-up area 1,20,259.29 sq.m. (14,377.58 + 1,05,881.71 sq.m.) which is more than 20,000 sq. m. and less than 1,50,000 sq. m.**
3.	Proposed capacity / area / length / tonnage to be handled/command area/lease area/ number of wells to be drilled	**Total Plot Area = 10.18087 ha. (1,01,808.62 sq. m.)** **Total Built-up Area = 1,20,259.29 sq. m. (14,377.58 sq.m. constructed post 2004 + 1,05,881.71 sq.m. proposed construction). The details of the built-up area of different buildings existing within the campus and the proposed buildings is provided at *Annexure No. 1.*** **No. of beds in Hospital = 1,150 nos.**
4.	New/Expansion/Modernization	**Expansion**
5.	Existing capacity/area etc.,	**Details are given at Sr. No. (3) above**
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.	Location	**Sy. Nos. 666/1, 666/2, 681, 669/1, 669/2, 669/3, 2245/2, 2245/3, 669/4, 669/4, 671/6, 671/1, 2247/1, 2247/6, 2245/4, Chembukkavu Village, Thirssur Taluk, Thrissur District, Kerala.**
	Plot/Survey/Khasra No.	**Sy. Nos. 666/1, 666/2, 681, 669/1, 669/2, 669/3, 2245/2, 2245/3, 669/4, 669/4, 671/6, 671/1, 2247/1, 2247/6, 2245/4**
	Village	**Chembukkavu**
	Tehsil	**Thirssur**
	District	**Thirssur**
	State	**Kerala**
10.	Nearest railway station/airport along with distance in Kms	**The nearest railway station (Thrissur Railway Station) is about 2 km. (SW) and Cochin Int. Airport, Nedumbassery is about 50 Km. (SE) away from the project site.**

11.	Nearest Town, city, District Headquarters along with distance in Kms	**City : Thrissur - Within City Limits** **Dist. HQ : Thrissur - Within City Limits**
12	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	**<u>Village Office address :-</u>** **Village officer,** **Chembukkavu Village,** **Thrissur Taluk, Kerala.** **Ph. No. 0487 2322836** **<u>Corporation Address :-</u>** **Corporation of Thrissur,** **M.O. Road, Thrissur, Kerala-680005.** **Ph No. 0487-2423375.**
13	Name of the applicant	**M/s Jubilee Mission Medical College & Research Institute**
14	Registered Address	**Bishop Alapat Road,** **Jubilee Mission P.O.,** **Thrissur, Kerala-680005.**
	Address for correspondence :	**Fr. Francis Pallikunnath, Director** **M/s Jubilee Mission Medical College & Research Institute,** **Bishop Alapat Road,** **Jubilee Mission P.O.,** **Thrissur, Kerala-680005.**
	Name	**Fr. Francis Pallikunnath**
	Designation (Owner/Partner/CEO)	**Director**
	Address	**M/s Jubilee Mission Medical College & Research Institute,** **Bishop Alapat Road,** **Jubilee Mission P.O.,** **Thrissur, Kerala-680005.**
	Pin Code	**Kerala-680005.**
	E-Mail	**jubileemission@jmmc.ac.in**
	Telephone No.	**Ph. No. 0487-2432200** **Mobile No. 9847017038**
	Fax No.	**0487-2421864**
16	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet	**Not Applicable** **Village-District-State** **1.** **2.**
17	Interlinked Projects	**Not applicable**
18	Whether separate application of interlinked projects has been submitted?	**NO**
19	If yes, date of submission	**N.A.**
20	If no, reason	**N.A.**
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 Wildlife (Protection) Act, 1972? (c) The C.R.Z Notification, 2011 ?	 **NO** **NO** **NO**
22	Whether there is any Government Order/Policy relevant/relating to the	**NO**

	site?	
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.)

Sr. No.	Information/Checklist confirmation	Yes / No	Details thereof (with approximate quantities /rates, wherever possible) with source 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**	**Due to the proposed expansion activities, there will be permanent change in land use, land cover or topography including increase in intensity of land use.** **The proposed project is an expansion of existing hospital campus and is located at Chembukkavu Village which is falling in Thrissur Corporation limits.** **During construction phase, about 200 workers will be at site.** **During operation phase on full occupancy of after the proposed expansion, the maximum population expected is 8,850 persons (floating population) and hence there is increase in the intensity of land use.** ***(Source: population is calculated based on NBC).***
1.2	Clearance of existing land, vegetation and buildings?	**Yes**	**There are some of native trees and different varieties of shrubs, herbs, climbers & old buildings existing at site. For construction of new buildings, there will be clearance of existing old buildings and different varieties of shrubs, herbs etc.**
1.3	Creation of new land uses?	**Yes**	**The proposed project is an expansion of existing hospital campus. It is proposed to construct new buildings with supporting additional infrastructure facilities.**
1.4	Pre-construction investigations e.g. bore houses, soil testing?	**Yes**	**Pre-construction Soil Investigation has been carried out for the site. It is**

			reported that, the water table at higher level.
1.5	Construction works?	**Yes**	**The proposed project is an expansion of existing hospital campus. It is proposed to construct new buildings with supporting infrastructure.**
1.6	Demolition works?	**Yes**	**Some of old existing buildings will be demolished and to construct new buildings. Further details are provided.**
1.7	Temporary sites used for construction works or housing of construction workers?	**Yes**	**All the construction activity including stalking of building materials will be confined within the project site only and temporary shed would be constructed for storage of cement and other construction materials.** **Labour hutments for about 200 workers are proposed within the site.**
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	**Yes**	**It is proposed to construct some new buildings within the existing hospital campus.** **Excavation of earthwork for the foundation of structures will be carried out. The top soil which is fertile will be kept at site for landscaping work. The excavated soil will be used for back filling work and for internal road construction purposes.**
1.9	Underground works including mining or tunneling?	**No**	**No underground works including mining / tunneling required.**
1.10	Reclamation works?	**No**	**No reclamation work required.**
1.11	Dredging?	**No**	**No dredging work required.**
1.12	Offshore structures?	**No**	**No offshore structure required.**
1.13	Production and manufacturing processes?	**No**	**No production / manufacturing process involved.**
1.14	Facilities for storage of goods or materials?	**Yes**	**Separate raw material store of cement and other construction materials will be made within the project premises. Bricks and steel will be laid in open.**
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	**Yes**	**Construction phase :-** **Solid waste generation from the project due to the labor colony during construction phase will be about 80 Kg/day and domestic sewage will be about 11 KL/day. The non-biodegradable waste and other packaging material generated as construction debris will be segregated and stored separately. The recyclable non-biodegradable waste salvaged from the debris like cement blocks, wood, iron bars, aluminium sections, etc. would be re-used or sold to the vendors. The inert construction debris will be disposed for land filling or**

			back filling. The bio-degradable solid waste will be disposed in existing bio-gas plant/bio-bin system and a mobile STP for the treatment of domestic sewage from the labourers. **Operation phase :-** **Solid waste generation will be about 1,270 Kg/day and which will be collected separately as Bio-degradable and Non-biodegradable waste as per the MSW Rules, 2016. The non-biodegradable and recyclable waste would be sold to the vendors. The biodegradable waste would be sent to the bio-gas generation plant/bio bin system. The dried sludge from STP would be sent to the bio-gas generation plant.** **Bio-medical waste:-** **From the proposed hospital, bio-medical waste (about 805 Kg/day) like infectious beddings, cotton, swabs, used syringes, discarded medicines, etc. would be generated. The bio-medical waste would be segregated at source by providing appropriate colour coded bins / containers as per the colour coding provided in the Bio-Medical Waste (Management & Handling) Rules. The Bio-medical waste from the hospital buildings would be outsourced through a Kerala State Pollution Control Board authorized agency (M/s Indian Medical Association Goes Eco Friendly, IMAGE).** **e-Waste :-** **Discarded computer parts, monitor, key boards etc. constitutes e-waste and this waste will be stored in an earmarked area. e-waste will be disposed as per e Waste (Management & Handling) Rules.** **Further, the spent oil from the D.G. sets (defined as hazardous waste) will be sold to C.P.C.B. approved recyclers.** **Also, domestic hazardous waste would be generated like discarded paint drums, pesticide cans, CFL bulbs, tube lights, expired medicines, broken mercury thermometers, used batteries, used needles and syringes and**

			contaminated gauge etc. generated at the household level. **Radio active waste management :-** **Radio active waste containers shall be stored as closed to the work area as feasible to minimize the possibility of spillage during the transfer of waste to the container. Radio active waste containers should be kept closed at all times when not in use. Liquid waste must be kept in secondary containment at all times, including transport to the radio active waste pickup location. Radio active waste should be delivering to the designated pick up location in a timely manner. The external packaging shall be monitored for contamination before disposal in to the regular trash. No packaging material with detectable radio active contamination may be disposed in the regular trash.** **Effluent :- The domestic sewage about 494 KL/day will be generated which will be treated through proposed Sewage Treatment Plant to be installed within the project premises. Also, the hospital effluent & laundry liquid waste of 38 KL/day from ETP is generated from the laundry & laboratory area.**
1.16	Facilities for long term housing of operational workers?	**Yes**	**The proposed project is expansion of the existing campus and operational workers will be hired locally.**
1.17	New road, rail or sea traffic during construction or operation?	**Yes**	**The proposed project is an expansion of the existing campus. It is proposed to construct some new buildings with supporting additional infrastructure along with roads within the campus.**
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	**Yes**	**The proposed project is an expansion of the existing campus. It is proposed to construct some new buildings with supporting additional infrastructure along with roads within the campus.**
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	**No**	**Not applicable**
1.20	New or diverted transmission lines or pipelines?	**No**	**Not applicable**
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	**No**	**Not applicable**

1.22	Stream crossings?	**No**	**Not applicable**
1.23	Abstraction or transfers of water form ground or surface waters?	**Yes**	**For meeting the water requirement, there are about 10 large open wells existing within the campus. Also, there are four large open ponds which are under the possession of the hospital management located within 500 m. radius. These ponds also supports water for the campus.**
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	**No**	**Not applicable**
1.25	Transport of personnel or materials for construction, operation or decommissioning?	**Yes**	**Transportation of personnel / material during the construction and operation phase is envisaged. In the construction phase, approx. 18-20 trucks / day is envisaged for transportation of materials.**
1.26	Long-term dismantling or decommissioning or restoration works?	**No**	**Not applicable**
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	**No**	**Not applicable**
1.28	Influx of people to an area in either temporarily or permanently?	**Yes**	**The proposed project is an hospital campus project and the proposed project would provide additional job facilities for about 800 persons which includes doctors, administrative, staff, housing keeping staff, security etc. in the operation phase and about 150 nos. of labourers (skilled/unskilled) during construction phase.** **Further, on full occupancy of the project, the maximum population expected is 8,850 Persons (floating / population) (after the proposed expansion).**
1.29	Introduction of alien species?	**No**	**Not applicable**
1.30	Loss of native species or genetic diversity?	**Yes**	**Due to the proposed development, some of the existing shrubs, herbs etc. will be cleared from the proposed site. As part of the eco restoration, large number of saplings of native species would be planted. Due to the eco restoration, the impact to floral and faunal ecology will be short term**
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 source of information data
2.1	Land especially undeveloped or agricultural land (ha)	**No**	**Plot area 10.18087 ha. is a reserved area for expansion of existing hospital campus.**
2.2	Water (expected source & competing users) unit: KLD	**Yes**	**Construction phase :–** **The water consumption during construction phase is for meeting the domestic requirement of the construction labourers and for construction purposes water requirement. The domestic water requirement is expected to be 14 KL per day and for construction purposes would be about 20 KL per day.** **The source of water is from well & KWA water supply (for drinking purposes) for meeting the domestic water requirement and for construction purposes the source of water is stored rain water.** **The total daily domestic water consumption for the proposed project would be 617 KLD (which includes fresh water requirement of 512 KL) (taken @ 45 ltr. LPCD for staffs, 15 LPCD for visitors & 450 LPCD for the inpatient). The sources of water during operation phase for the proposed project are: -** **1. Roof Rain water (Non-flushing req.) (Rainy days-Concurrent use)** **2. Stored rain water / well water / KWA supply (Non flushing req.) (non-rainy days)** **3. Treated waste water from STP/ETP (Flushing Req.) (Entire Year)** **The details regarding the water consumption related items are provided at daily water balance chart and daily water consumption chart attached.**
2.3	Minerals (MT)	**No**	**Not Applicable**
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	**Yes**	**The approximate consumption of RMC, cement, steel, concrete, sand, etc. are given below.** **Cement-22,112 Tons** **Steel-5,054 Tons** **Aggregate-8,84,488 cft** **Sand-15,16,265 cft** **Bricks-2,27,43,979 Nos** **The construction materials would be brought from local suppliers available in the area.**

2.5	Forests and timber (source – MT)	**Yes**	**Wood shall be used for frame of doors & windows however recyclable wood shall be used for doors.**
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	**Yes**	**Total Power Req. : 3,000 kW** **Power Source : Kerala State Electricity Board &** **The hospital campus intends to produce 1 MW of energy through solar power in the next 5 years. The first phase of this mission is already completed.** **Capacity of D.G. Sets (1,500 kVA x 2 no. + 750 kVA x 2 nos. + 500 kVA x 1 no.) (Standby power back up arrangement)** **Fuel – Low Sulphur HSD**
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. N.	**Information/Checklist confirmation**	**Yes / No**	**Details thereof (with approximate quantities/rates, wherever possible) with source of information data**
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	**No**	**This is an expansion of existing hospital complex project and no storage of hazardous chemicals (as per MSIHC Rules) will be done, apart from diesel storage for D.G. Sets which will be operated only during emergency and suitable arrangement will be adopted for the same. It will be stored in HDPE drums and kept in covered rooms under lock and key.**
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 will be adopted in both the construction and operation phase which will restrict stagnation of water or accumulation of water within the site & the surroundings. This will effectively restrict the reproduction and growth of disease vectors. Further, appropriate sanitation facility will be provided at site during construction phase & operation phase.** **Good house keeping and hygienic measures will be followed during construction and operation phase to avoid any cause which can lead to occurrence of disease.**

3.3	Affect the welfare of people e.g. by changing living conditions?	**Yes**	**The proposed project is an expansion of the existing project and thereby the living index of the people around the project site will definitely improve. Also there will be various ancillary activities like institutions, convenient shops, medical shops, transport facilities etc. attached to the project which will benefit the local people and change their living condition.**
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	**No**	**Not applicable. There is no storage of any material within the site which will affect the vulnerable groups of people.**
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 source of information data
4.1	Spoil, overburden or mine wastes	**No**	**No such spoil over burden or mine waste will be generated. The construction debris will be used for back filling purposes.**
4.2	Municipal waste (domestic and or commercial wastes)	**Yes**	**There will be about 80 kg of municipal solid waste during construction phase.** **The total Municipal solid waste to be generated from the proposed project would be about 1,270 Kg/day on full occupancy during operation phase. Also, the bio-medical waste of about 805 kg/day would be generated.**
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	**Yes**	**The oil used in the D.G. sets (as a standby source of power) after certain of hours of operation, needs to be changed. This used oil from the D.G. Sets will be sold to the CPCB approved recyclers. The list of authorized recyclers are M/s Perfect Alloys, Chengannur, M/s Peejay Enterprises, Thiruvalla, M/s Excel Petrochemicals, Kochi & M/s Cee Jee Lubricants, Aluva are the approved recyclers for discarded batteries & used oil located in Kerala.** **Also, the bio-medical waste of about would be generated from the hospital complex.** **Also used oil will be stored in HDPE drums in isolated covered facility.** **e-Waste :-** ➢ **Discarded computer parts,**

			monitor, key boards etc. constitutes e-waste and this waste will be stored in an earmarked area. ➢ **E-waste will be generated after 4-5 years latency period** ➢ **Separate earmarked space will be provided for e-waste storage.** ➢ **e-waste will be disposed as per E Waste (Management & Handling) Rules, 2016.**
4.4	Other industrial process wastes	**No**	**Not applicable**
4.5	Surplus product	**No**	**Not applicable**
4.6	Sewage sludge or other sludge from effluent treatment	**Yes**	**The sludge from S.T.P. will be partially recycled for enhancing biological treatment and the excess sludge will be sent to the filter press and the de-canted sludge will be sent to the bio gas plant and the manure produced will be used in green area during operation phase. The bio gas produced will be used for kitchen/canteen area.**
4.7	Construction or demolition wastes	**Yes**	**Construction waste will be used for back filling purposes.**
4.8	Redundant machinery or equipment	**No**	**Not applicable**
4.9	Contaminated soils or other materials	**No**	**Not applicable**
4.10	Agricultural wastes	**No**	**Not applicable**
4.11	Other solid wastes	**Yes**	**Some horticulture waste will be generated and which will be sent to the bio-gas generation plant.**

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 source of information data**
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	**Yes**	**The operation of proposed project does not envisage any major air pollutant generating sources except D.G. Sets and vehicular movement during construction phase and operation phase. It is proposed to have a D.G. set of 62.5 kVA capacity during construction phase and (1,500 kVA x 2 no. + 750 kVA x 2 nos. + 500 kVA x 1 no.) during operation phase.**
5.2	Emissions from production processes	**No**	**Not applicable. No production activity envisaged.**

5.3	Emissions from materials handling including storage or transport	**Yes**	**This will be restricted to the construction phase and within the project site only.**
5.4	Emissions from construction activities including plant and equipment	**Yes**	**Dust will be generated during unloading of construction materials, drilling and grinding operations etc. This will be restricted to the construction phase and within the project site only.** **The other source of emission is from D.G sets of 62.5 kVA of 1 no. which will be used during construction phase.**
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	**Yes**	**During construction phase dust will be generated during the handling of construction materials. Sprinklers for suppression of dust will be installed during construction phase to minimize the dust generation.** **Wind breakers (i.e. barricades with GI sheets) or using shade nets will be used for dust control.**
5.6	Emissions from incineration of waste	**No**	**Not applicable, no incineration proposed.**
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	**No**	**Not applicable**
5.8	Emissions from any other sources	**No**	**Not applicable**

6.0 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 source of information data**
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	**Yes**	**During construction, the machinery used for construction will be of highest standards and will be of reputed make and will adhere to international standards. These standards itself take care of noise generated from these machines. The construction involved is additional buildings within existing hospital complex, no heavy machinery is required. Hence insignificant impacts due to construction machinery are envisaged.** **The source of vibration from the project is during construction of the building. Pile foundation work generate vibration. The PPV levels from the pile driver would be maintained within 15 mm / sec. at 15**

			m. from the source of generation. Therefore, there will not be any damage due to the pile work to the nearby existing structures. **Apart from this, the construction activity will be restricted to day time only.** **Noise will be created from operation of D.G. sets but all the D.G. sets shall be silent generators to restrict the noise within the permissible limit.**
6.2	From industrial or similar processes	**No**	**Not applicable**
6.3	From construction or demolition	**Yes**	**Due to the various construction activities, there will be short term noise impacts in the immediate vicinity of the project site. The construction activity will include the following noise generation activities: Operation of D.G. Sets, concreting mixing and excavation.**
6.4	From blasting or piling	**No**	**No blasting or mechanized piling will be used in the construction phase.**
6.5	From construction or operational traffic	**Yes**	**Some amount of noise will be generated from vehicular movement in the construction and operation phase.**
6.6	From lighting or cooling systems	**Yes**	**Some amount of noise will be generated from vehicular movement in the construction and operation phase.**
6.7	From any other sources	**No**	**Not applicable**

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 source of information data**
7.1	From handling, storage, use or spillage of hazardous materials	**No**	**Used Oil from the D.G. Sets will be stored in HDPE drums and will be kept at a separate place and sold to CPCB approved recyclers. Therefore there is no risk of contamination due to used oil. The storage of used oil will be in such a that no spillage of hazardous materials.**
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	**No**	**Sewage will be disposed off through Sewage Treatment Plant to be developed within the premises both during construction and operation phase. There is no chance of spillage or discharge of sewage and all the**

			sewage/effluent will be chanalized properly through closed pipes to the STP/ETP. The sewage/effluent after treatment will be utilized for flushing, horticulture, boiler & make-up water requirement for cooling towers attached with HVAC system purposes.
7.3	By deposition of pollutants emitted to air into the land or into water	**No**	**There is no emission except of D.G. sets. By use of low sulphur diesel, the emission from the D.G. sets will be within the norms.**
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 health or the environment

S. No.	**Information/Checklist confirmation**	**Yes / No**	**Details thereof (with approximate quantities/rates, wherever possible) with source of information data**
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	**No**	**This is basically hospital complex project. The chances of explosions, spillages, fire are minimal.** **During construction all the labours 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 labours involved in construction activity.** **An agreement will be signed with the contractor which will clearly deals with the safety aspects during construction.** **No major hazardous waste is being stored within the project site. No Industrial or process activity is involved in this project hence chances of chemical hazards and accidents are minimal. However, suitable fire fighting measures will be provided.**
8.2	From any other causes	**No**	**Not applicable**
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	**No**	**As per seismic classification, the project site falls in Zone-III. No reported cloudburst in the area. Also, there is no hilly area around the project site, there is no chance of landslide.**

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 source of information data
9.1	Lead to development of supporting utilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.:		**Appropriate infrastructure like roads, power supply, waste management and waste water treatment will be developed within the site so that chances of occurrence of any adverse impacts are minimized.**
	• Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.)	**Yes**	**During construction skilled, unskilled and professional work force including temporary and permanent employees shall be hired locally in order to generate the employment to the local people. While during the project operation stage for the purpose of day-to-day maintenance, workers will be employed. Moreover, more employment will be created as a result of positive induced development in the immediate vicinity of project site.**
	• housing development • extractive industries • supply industries • other	**No** **No** **No** **No**	**Not applicable** **Not applicable** **Not applicable** **Not applicable**
9.2	Lead to after-use of the site, which could have an impact on the environment	**No**	**Not applicable**
9.3	Set a precedent for later developments	**No**	**Not applicable**
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	**No**	**Not applicable**

(III) Environmental Sensitivity

Sr. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	**No**	**None within the area**
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone,	**Yes**	**Water bodies :-** ***Vanchaikulam* – about 3.5 km. (SW)** ***Puzhakkal* River –about 5.5 km. (NW)** ***Thanikkudam* River- about 2 km. (N)**

	biospheres, mountains, forests		
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	**No**	**None within the area**
4	Inland, coastal, marine or underground waters	**Yes**	**Water bodies :-** ***Vanchaikulam* – about 3.5 km. (SW)** ***Puzhakkal* River –about 5.5 km. (NW)** ***Thanikkudam* River- about 2 km. (N)**
5	State, National boundaries	**No**	**None within the area**
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	***No***	**Not applicable**
7	Defense installations	**Yes**	**BSF Centre – about 8.5 km.**
8	Densely populated or built-up area	**Yes**	**Project site is in the Thrissur Corporation and is densely populated.**
9	Areas occupied by sensitive man-made land uses *(hospitals, schools, places of worship, community facilities)*	**Yes**	***Vadakkumnathan* Shiva Temple – about 1 km.(NW)** **The site is within the Thrissur Corporation limit and there are several hospitals, schools, places of worship, educational institution and other community facilities within the vicinity of the project site.**
10	Areas containing important, high quality or scarce resources *(ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)*	**Yes**	**Water bodies :-** ***Vanchaikulam* – about 3.5 km. (SW)** ***Puzhakkal* River –about 5.5 km. (NW)** ***Thanikkudam* River- about 2 km. (N)**
11	Areas already subjected to pollution or environmental damage. *(those where existing legal environmental standards are exceeded)*	**No**	**No critically polluted area is located within 15 km. radius.**
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**	**The project area and it's surroundings falls under Zone-III, according to the Indian Standards Seismic Zoning Map and falls in Zone-III. No reported earth quake, subsidence, erosion, cloudburst in the area or in its surroundings. Also, there is no hilly area around the project site, there is no chance of landslide.**

(IV). Proposed Terms of Reference for EIA studies

Ans. The proposed project is having total built-up area 1,20,259.29 sq.m. and which is less than 1,50,000 sq.m. and therefore, as per EIA Notification, 2006, the project falls under 8 (a) and hence EIA Studies is not required for this project.

"I hereby give an undertaking that the data and 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.

Place : Thrissur

For Jubilee Mission Medical College & Research Institute,

12/06/17

Fr. FRANCIS PALLIKUNNATH

(Director)

JUBILEE MISSION MEDICAL COLLEGE AND RESEARCH INSTITUTE