

Minutes of the 328th meeting of Expert Appraisal Committee held on 26th May, 2023 through Video Conference for the projects related to Infrastructure Development, all Ship breaking yards including ship breaking units 7(b); Industrial Estate/Parks/Complexes/Areas, Export Processing Zones, Special Economic Zones, Biotech Parks, Leather Complexes7(c); Ports, harbors, breakwaters, dredging7(e) and National Highways 7(f).

The 328th Meeting of Expert Appraisal Committee (EAC) of Infra-1 (IA-III) was held through Video Conference during 26th May, 2023 under the Chairmanship of Dr. Deepak Arun Apte. A list of participants is annexed as **Annexure-A**.

1. OPENING REMARKS OF THE CHAIRMAN

At the outset, Dr. Deepak Arun Apte, Chairman, EAC welcomed the Members of the EAC and requested Shri Amardeep Raju, the Member Secretary of the EAC to initiate the proceedings of the meeting with a brief account of the activities undertaken by the Ministry under Infra-1 Division.

2. CONFIRMATION OF THE MINUTES OF THE LAST MEETING

The Committee confirmed the Minutes of 326th EAC Meeting held on 10th - 11th May, 2023.

3. AGENDA WISE CONSIDERATION OF PROPOSALS:

Agenda wise details of proposals discussed and decided in the meeting are as following:

Agenda No. 3.1

Proposed Development of industrial area over an area of 924.397 Ha “Bhensola (PM MITRA PARK over an area of 632.501 Ha) and Dotrya Industrial Area (291.896 Ha)”, for multi-products industries in Dhar, Madhya Pradesh By M/s M.P. Industrial Development Corporation Limited (MPIDC)-Terms of References.

Proposal No: IA/MP/INFRA1/428921/2023; File No.10/29/2023-IA.III.

The PP did not attend the meeting hence the Committee deferred the proposal and inform the Ministry that the proposal shall be considered once official request is received from PP.

Agenda No. 3.2

Development of 4/6 lane (green field) access control expressway from Varanasi to Kolkata Package-IV from Km 184.400 (near Shahpur village, Bihar/Jharkhand Border) to Km 387.200 (near Kamalpur village, Jharkhand/WB Border) in the state Jharkhand under Bharatmala Pariyojana Phase-II (lot-9 package-3) (Total Length – 202.800 km) by M/s National Highways Authority of India- Reconsideration of EC.

Proposal No: IA/JH/INFRA1/421051/2023; File no: 10/13/2022-IA.III

“The EAC noted that the Project Proponent and the consultant have given undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in EIA/EMP report. If any part

of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

3.2.1. The abovementioned proposal was earlier considered in the 322nd meetings of Expert Appraisal Committee held during 20th-21st March, 2023. The proposal was *deferred* for the want of requisite information/documents. At this instance, the proposal was further placed before the EAC in its 328th meeting during 26th May, 2023.

3.2.2. The project proponent along with the DPR consultant SA Infrastructure Consultants Pvt.Ltd and EIA consultant M/s P&M Solution, has made a presentation and provided the following information with respect to the quarries raised in the earlier meeting however, during deliberation, EAC observed the following:-

S.no	Queries raised on 322 nd meetings of Expert Appraisal Committee held during 20 th -21 st March, 2023.	Reply submitted on 328 th meeting during 26 th May, 2023.
1	The EAC requested the Ministry that the proposal may be considered after submission of the clarification by the PP whether the Public Hearing is presided by the District Magistrate/District collector/Deputy Commissioner or the Director/Regional Officer.	A letter dated 2.05.2023 has been submitted by Jharkhand Pollution Control Board that the public hearing has been conducted by an officer equivalent to ADM rank.
2	PP shall also explore the possibility of construction of structures as suggested by the EAC.	PP has submitted the revised possibility of construction of structures as suggested by the EAC placed as Annexure-B

3.2.3. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 328th meeting during 26th May 2023 and **recommended** the proposal for grant of environmental clearance for ‘Development of 4/6 lane (green field) access control expressway from Varanasi to Kolkata Package-IV from Km 184.400 (near Shahpur village, Bihar/Jharkhand Border) to Km 387.200 (near Kamalpur village, Jharkhand/WB Border) in the state Jharkhand under Bharatmala Pariyojana Phase -II (lot-9 package-3) (Total Length-202.800 km) by M/s National Highways Authority of India’ with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects.

- I. PP shall undertake the all structures proposed along the proposed alignment as proposed at **Annexure ‘B’**.

- II. All commitments made in the Wildlife Management & Conservation Plan submitted to the Ministry shall be implemented in letter and spirit. The status of implementation of Wildlife Management & Conservation Plan shall be submitted to the Regional Office of the Ministry along with 6 monthly compliance report.
- III. Wildlife movement during the construction be monitored by forest department and if found necessary additional over/underpasses be developed. Provision for the same be made in the project budget.
- IV. Quarry areas shall be barricaded during mining operations. The abandoned quarry shall be developed as water reservoirs with proper fencing around quarry area. Details for Quarry area operation and rehabilitation given the EIA report shall be followed.
- V. In all the construction sites within 150 m of the nearest habitation, noisy construction work such as crushing, concrete mixing will be stopped during the night time between 10.00 pm to 6.00 am. No noisy construction activities will be permitted around educational institutions/health centres (silence zones) up to a distance of 100 m from the sensitive receptors. All plants and equipments used in construction shall strictly conform to the CPCB/SPCB noise standards.
- VI. Road side tree plantation of local fruit bearing species or in nearby village in collaboration with Gram Panchayats.
- VII. Traffic Control Devices/Road Safety Devices/ Roadside Furniture including various types of cautionary, informatory, regulatory as mandatory signboards, road markers, studs, etc. shall be provided at appropriate locations all along the project stretch in accordance with the specifications laid down in Manual of Specifications and Standards for Expressways (IRC: SP:99-2013) and IRC:8, IRC:25, IRC:26, IRC:35, IRC:67,
- VIII. IRC:79, IRC:103 and Section 800 of MORTH Specifications.
- IX. Prepare the traffic prediction report for complete project (including all packages of this project) considering the cumulative impact of the traffic on the environment and submit to the Ministry and concerned Regional Office within 3 months.
- X. All the major, minor bridges and culverts should not affect the drainage systems. Flood plains of the rivers/ drainage systems are not to be disturbed.
- XI. Afforestation using compensatory plantation in the ratio of 1:10 shall be carried out by the state forest department. Native tree species shall be provided as per the IRC Guidelines on Landscaping and Tree Plantation (IRC:SP:21-2009). Plantation should be purely of native trees and Ficus species on both sides of the alignment.
- XII. Project alignment should be managed in such a way to save the Heritage/old trees supposed to be affected by the proposed alignment.
- XIII. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concern Authority. Old, large and heritage value trees should be retained based on girth and age regulations as

may be prescribed by the Forest Department. Where the trees need to be cut/transplanted with prior permission from the concerned local Authority, compensatory plantation in the

- XIV. Ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut/ non-survival of any transplanted tree) shall be done and maintained. Plantations to be ensured species (cut) to species (planted).
- XV. Trees with heronry (breeding ground for herons), pelicanary or community nesting of birds like Painted Storks, Ibis, Egrets, Pelican, etc will not be allowed to fell. In case of presence of such, alignment will be required to be changed to save such trees.
- XVI. Green belt development (tree plantation) in lieu of the trees being felled in non forest land should be carried out by the State forest department as deposit work and not by the private contractor. Green belt must be developed using exclusively native species. No exotic species to be used for the same.
- XVII. Apart from land compensation, the loss for crop has also to be compensated.
- XVIII. No Ground water shall be extracted and used. Approval/permission of concerned authority shall be obtained before drawing surface water from canal or any other sources.
- XIX. Rain water harvesting pit shall be at least 3-5 m above the highest ground water table.
- XX. Proponent shall keep the finish road level sufficiently elevated from ground level with provision of railing on both sides to restrict animal crossing in order to avoid the possibility of wildlife injury/death. Major water bodies have been observed in the vicinity of the proposed road alignment & may be potential human elephant conflict points, appropriate nos of animal safe passages as per the guideline framed by the Wildlife Institute of India and in consultation with Chief Wildlife Warden.
- XXI. As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the Public Hearing. The project proponent shall initiate the activities proposed by them, based on the commitment made in the Public Hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory afforestation etc., either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also become part of EMP and shall be implemented.

Agenda No. 3.3

Development of 4/6 lane Belgaum- Hungund -Raichur (NH-748A) section of EC-10 starts from Ch: 0+000 near Shaganamatti village in Belgaum district to Ch. 319+380

near Hegsanhalli village in Raichur districts of Karnataka State under Bharatmala Pariyojana. (Total length-319.380 km) by National Highway Authority of India-Terms of References.

Proposal No: IA/KA/INFRA1/426849/2023; File No.10/30/2023-IA.III.

“The EAC noted that the Project Proponent and the consultant have given undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

3.3.1. The project proponent and EIA consultant M/s Feedback Infra Pvt. Ltd and DPR consultant M/s Prasuna Infa Pvt. Ltd made a presentation through Video Conferencing and provided the following information-

3.3.2. The proposed project is development of 4/6 lane Belgaum – Hungund – Raichur (NH-748A) section of EC-10 starts from Ch: 0+000 near Shaganamatti village in Belgaum district to Ch. 319+380 near Hagsanhalli village in Raichur districts of Karnataka State under Bharatmala Pariyojana. Total length of the project is 319.380 km.

3.3.3. The project starts near Shaganamatti (NH-48) at km 0+000(15°48'8.44"N 74°34'50.25"E) and ends at km 319+380(16°19'48.23"N 77°20'18.44"E) meeting Akkalkot-Kurnool expressway near Hagsanhalli, NH150C. The project road passes through entire green field from Belgaum to Hungund and along existing road from Hungund to Mudgal, greenfield alignment from Mudgal to Kavital and thereafter existing road from Kavital to Sathmile including new greenfield alignment from Saath Mile to Junction with Akkalkot-Kurnool expressway, NH-150C. The Project passes through Belgaum, Bagalkot and Raichur districts of Karnataka state.

3.3.4. The proposed project falls under Schedule 7(f), Highway, Category “A” of EIA Notification 2006. Total estimated civil cost of the project is about Rs. 6881.12 Cr.

3.3.5. Land use / Land cover of project site:

S. No	Land use / Land cover	Area (ha)	Percentage (%)	Remarks, if any
1	Agricultural Land	1474.75	70.01	-
2	Roads, Highways and Railways	-	-	-
3	Water-bodies (Irrigation Minor / Canal and Pond)	1.41	0.07	-

4	Open/Waste/Scrub Land	102.45	4.86	-
5	Built-up Section	1.97	0.09	-
6	Plantation	525.99	24.97	-
Total		2106.57	100	

3.3.6. Right of Way (RoW): Proposed RoW is 60m Right of Way (RoW). The project is 4/6 lanes carriageway with paved shoulders.

3.3.7. Terrain and topographical features: The proposed alignment mostly follows 'plain' terrain. The elevation varies from ~345m to ~855m above MSL at different locations. Average elevation of the project stretch is ~550 m above MSL.

3.3.8. Details of water bodies, impact on drainage: The proposed alignment is crossing 44 water bodies including pond, canal, nala and Malaparbha River.

3.3.9. Water requirements: About 5,180 KLD of water for 24 months shall be required for construction of the proposed section. Water shall be sourced from surface water bodies through Tanker after necessary approval. No groundwater extraction is proposed. Surface water shall be used with prior permission from the respective authority. However, if potable water is required same shall be extracted after necessary permission from appropriate authority.

3.3.10. Tree cutting: About 10200 trees are falling within PROW. The tree enumeration for affected trees shall be undertaken during detailed EIA Study. The inventory will include tree species, girth and height.

3.3.11. Diversion of forest land: The proposed project does not involved any forest land therefore no diversion of the forest land is required. The proposed project will not falling within 10 km radius of the Protected Areas (PA), WildAss Sanctuary & Notified ESZ, national Parks, e.t.c.

3.3.12. Waste Management: Waste management will be done as per Solid Waste Management Rules, 2016 and Construction and Demolition Waste Management Rules, 2016.

3.3.13. Land acquisition and R&R issues involved: Approx. 2629.5 ha land shall be required for the proposed project. The land acquisition shall be done as per NH Act, 1956 and LARR Act, 2013.

3.3.14. The R&R issues shall be resolved as per LARR Act, 2013. The detailed report will be provided along with EIA report.

3.3.15. Employment potential, No. of people to be employed: Project shall provide employment opportunities for ~1050 population (including permanent and temporary).

3.3.16. Benefits of the project: Project shall provide multi-fold benefits like creation of employment, reduction of travel time, easy movement of industrial traffic etc.

3.3.17. Details of Court cases: No court case on this proposed project.

3.3.18. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 328th meeting during 26th May 2023 and **recommended** the proposal for grant of Terms of Reference (ToR) with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. Cumulative impact assessment study should be carried out along the entire stretch including the other packages and the current stretch under consideration.
- ii. The proponent shall carry out a detailed traffic flow study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included.
- iii. Provide compilation of road kill data on the wildlife on the existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by the way of road kill management plan.
- iv. The alignment of road should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities. Alignment also should be such that it will avoid cutting old and large and heritage trees if any. All such trees should be geo-tagged, photographed and details be submitted in the EIA –EMP report.
- v. The proponent shall carry out a comprehensive socio-economic assessment and also impact on biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people's dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels.
- vi. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the Ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.
- vii. In pursuance of Ministry's OM no stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the

- public during public hearing and submit it to the Ministry and the EAC.
- viii. The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25th October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.
 - ix. Passage for animal movement has to be detailed in the report.
 - x. A comprehensive plan for plantation of three rows of native species, as per IRC guidelines, shall be provided. Such plantation alongside of forest stretch will be over and above the compensatory afforestation. Tree species should be same as per the forest type.
 - xi. The PP shall not use groundwater/surface water without obtaining approval from CGWA/SGWA as the case may be. The project proponent shall apply to the Central Ground Water Authority (CGWA)/State Ground Water Authority (SGWA)/Competent Authority, as the case may be, for obtaining No Objection Certificate (NOC), for withdrawal of ground water.
 - xii. Detailed Biodiversity assessment and conservation/mitigation plan be developed by a internationally reputed institute such as Zoological Survey of India.
 - xiii. Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers.

Agenda No. 3.4

New Dry Dock facility at Cochin Shipyard Limited, Kochi, Kerala by M/s Cochin Shipyard Limited-extension of validity of EC vide letter no 10-9/2015-IA.III dated 9th November, 2016- extension of Validity of EC.

Proposal No: IA/KL/INFRA1/427087/2023, File No:10-9/2015-IA.III.

The PP vide email dated 26.05.2023 withdrawn the proposal hence the Committee return the proposal in present form.

Agenda No. 3.5

Development of Industrial Park near Nakkapalli Village, Nakkapalli Mandal, Visakhapatnam District over an area of 1577.87 ha by M/s Andhra Pradesh Industrial Infrastructure Corporation (APIIC) Limited-Reconsideration of EC.

Proposal No: IA/AP/NCP/261625/2018; F.No.21-140/2018-IA.III.

“The EAC noted that the Project Proponent and the consultant have given undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be

rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

3.5.1. The abovementioned proposal was earlier considered in the 294th meetings of Expert Appraisal Committee held during 11th-12th April 2022 and 312th meeting during 03rd-04th November, 2022. The proposal was *deferred* for the want of requisite information/documents. At this instance, the proposal was further placed before the EAC in its 328th meeting during 26th May, 2023.

3.5.2. The project proponent along with the EIA consultant M/s L&T Infrastructure Engineering Limited, Hyderabad has made a presentation and provided the following information with respect to the quarries raised in the earlier meeting however, during deliberation, EAC observed the following:-

S.no	The information sought on 312 th meeting during 03 rd -04 th November, 2022	Reply submitted on 328 th meeting during 26 th May, 2023
1	After excluding the villages i.e 1. Vadapeta; 2. Chandanada; 3. Nallamattipalem; 4. Buchirajupeta; and 5. Rajayyapeta which are on the outer boundary of the project area, PP has added additional areas which are covered under CRZ area for which no SCZMA recommendations are available. The PP need to exclude the additional area under CRZ and submit the revised layout map or get fresh 1:4000 CRZ maps showing additional area and recommendation of SCZMA for the same.	Five (5) Villages namey 1. Vadapeta 2. Chandanada 3. Nallamattipalem 4. Buchirajupeta and 5. Rajayyapeta and including Upputeru waterbody which are on the outer boundary of the project area over an area of 93.88ha (232 acres) are removed. In addition an area of 45ha(112 acres) have been excluded from the project area allocated for the proposed Propylene Dehydrogenation (PDH) anchor unit as the proposed PDH unit attracts a separate Environmental Clearance and Public Hearing. After excluding the area the total area proposed for the revised Master Plan is 144.0276ha (3555 acres).
2	The proposed residential area involves cutting of top of hillock with dense scrubland. This should be completely avoided. Proposed residential area is	The hillock is located on the North west direction of the project boundary over an area of 356 acres of the residential area on the top of the hill is excluded as it involves cutting of top hill as per EAC recommendation. An area of about 37.6 acres is only planned on the foothill side as the residential area by

also very close to chemical and petrochemical units as shown in the layout map. The entire layout thus needs to be revisited. The area proposed for residential area shall be relocated and the same shall be demarcated in the layout.

excluding the hill top. Vegetation on the hill top will remain untouched.

The predominant wind direction is from WSW to ENE, whereas the proposed residential area is located on North and on the foothill. This zoning of residential area on foothill of Ura Konda also enables segregation of the industrial zone from residential with a dedicated external access/traffic. Residential traffic does not to have to enter industrial zone. Residential area proposed on foot hill portion is > 500 m away from Chemical/Petro Chemical Industries. Considering the exclusion of 5 villages from the outer boundary, Upputeru water body, PDH area and residential area on the hilltop, the layout and landuse has been revised and submitted.

Revised Zoning Plan

S.No	Land Use	Area in Acres	Area (%)
1	Industrial Sectors		
2	Industrial Engineering	664.8	18.7
3	Building Materials	102.7	2.9
4	Industrial and consumer electronics	481.2	13.5
5	Petrochemical, Chemical including Pharmaceuticals	258.2	7.3
6	Industrial Area	1506.9	42.39
7	Marine Logistics	207.4	5.83
8	Un utilized Hill	355.9	10.01
9	Amenities	29.1	0.82
10	Utility	127.4	3.61
11	Residential/social infrastructure	83	2.33
12	Settlements	45.7	1.28
13	Logistics	29.1	0.82
14	Green	588	16.52
15	SST	27	0.76

		16	Supporting facilities	11.1	0.31
		17	Roads	363.6	10.2
		18	Revenue Water body	180.8	5.08
			Total	3555(144.0276ha)	100
3	PP shall submit the detailed water balance and justification for not instating the ZLD	<p>Total water demand for the proposed IP is ~17.60 MLD but considering the reuse of ~1.61 MLD of treated sewage from the STP, the net freshwater demand is ~15.99 MLD.</p> <p>Additional Equipments required for ZLD</p> <p>As per Indicative Guidelines on Techno-economic feasibility of Implementation of Zero Liquid Discharge (ZLD)</p> <p>For Water Polluting Industries, the ZLD cost -will be more than 3times</p>			
4	The list of industries and details provided for chemical/petrochemical sector in the proposed industrial park shall submit in tabular form submit	<p>Petrochemical products, petrochemical based processing industries</p> <p>Polypropylene – Cumene- Phenol Acetone Bisphenol - PC chain- Acrylic acid- Oxo-Alcohols Acrylates chain- Propylene Oxide- Polyols Polyols- Acrylonitrile- Epichlorohydrin- Isopropyl alcohol</p> <p>Speciality chemical</p> <p>Construction chemicals, electronic chemicals, Food additives, Mining chemicals, oilfield chemicals, plastic additives, printing inks, rubber processing chemicals, speciality paper chemicals, textile chemicals, speciality surfactants, speciality polymers, water management chemicals</p>			

3.5.3. Type of Industries to be housed in the proposed Nakkapalli Industrial Park.

S. No	Sector	Sub Sectors	Anticipated Types of Industries/ Activities	Categorisation of Industry as per EIA notification, 2006	Categorization as per CPCB
1	Petrochemical, Chemical including	Pharmaceuticals	Formulation (O), Bulk Drugs (R), Intermediates (R), Herbal medicines (G),	Category A & B	Red and Orange

	Pharmaceuticals	Chemicals & petrochemicals	bio pharmaceuticals (O). Petrochemical products, petrochemical based processing industries Polypropylene Unit (R), Propylene Intermediates (R) (Cumene- Phenol Acetone-Bisphenol-PC chain; Acrylic acid- Oxo-Alcohols-Acrylates chain; Propylene Oxide-Polyols-Propylene Glycol chain; Acrylonitrile, Epichlorohydrine & Isopropyl alcohol etc.) and Speciality chemical (R) Speciality Chemicals (construction chemicals, electronic chemicals, food additives, mining chemicals, oilfield chemicals, pesticides, plastic additives, printing inks, rubber processing chemicals, specialty paper chemicals, textile chemicals, speciality surfactants, speciality polymers and water management chemicals etc.)	Category A & B	Red
2	Industrial and Consumer Electronics	Photovoltaic Zone	Polysilicon Ingots (O), Wafer Unit (O), PV Cells & Modules (W), PV Ancillary (W), Medical equipment (W), control equipment (W). defense electronics (O) Communication Equipment (W) (Mobiles/BTS/Router/switches/Dish Antennas), Consumer Electronics (TV/Cameras/set top boxes), Electronic Components (W), Industrial Electronics (W) (Invertors/UPS/LEDs /Energy meters etc.,) and Consumer durables (W)	Not Applicable	Orange and White

			such as Washing machines, Refrigerators, Air conditioners, Microwave ovens, Kitchen equipment, utensils, Brown goods and domestic appliances Pressure cookers, Collapsible tubes, utensils, cutlery, wire products etc.		
3	Industrial Engineering	Auto and Auto components	Manufacture of motor vehicles (R) (such as manufacturing of Tractors, Buses etc.) Manufacture of parts and accessories for motor vehicles (O) (includes parts such as brakes, gearboxes, axles, seats, tyres, rubber products etc.)	Not Applicable	Red, Orange
		Aerospace and defence	Aero engine Components (R) such as Propellers/Rotors, etc. Aero structure Components (R), Fuselage Manufacture (O), Aircraft Construction and Assembly (G, W). Avionics, Aero engine & Aero structure Subassemblies. Manufacture of Military/Defence fighting vehicles/ Defence Electrical and Electronics(R) (Manufacturing of semiconductors, chips, transmitters, R&D etc. Panels, Components, Equipments and Power Systems, Electrical Cable Accessories / Harnesses, Aircraft Interiors Equipment Furnishings, Tooling, Ground Support & Airfield Equipment. Manufacture of communication devices (Telephone sets, incl. telephones for cellular networks or for other wireless networks; others,	Not Applicable	Red, Orange Green and White

			VHF))		
		Engineering	Heavy Engineering Goods	Category A and B for Metallurgical industries for ferrous & non-ferrous	Red, Orange and White
			Industrial Machinery(R), Mining Machinery, Construction Machinery, Material handling equipment, Metallurgical equipment, Textile machinery, Air pollution control systems, Furnaces, cooling towers etc.		
			Heavy electrical equipment and components (R)	Electrical motors, generators, Boilers, turbines, power cables, inverters, switch gears, Capacitors, transformers etc.	
			Other Industrial Machinery (R)	Printing and Processing Machines, Transmission Shafts	
			Process plant and equipment (R)	Machinery for processing chemicals, Food, cement, plastics, Hydrocarbons,	

				Pharmaceuticals, sugar, Injection-moulding machines		
			Machine tools (R)	CNC Machines		
			Others (R)	Floating docks and storage vessels		
			Light Engineering (G, W)			
			I. C. Engines and parts	Compression Ignition and Electrical Ignition type IC Engines Compact engines, parts of IC engines		
			Electric manufacturers	Power cables, Electric filament or Discharge lamps, electric wires and cables, Insulated Wires, Electric Conductors and Optical Fibre Cables, Wires and Cables of Oxygen Free Copper, wire ropes etc.		
			Industrial equipment	Industrial Gears, Pumps, compressors, Valves, electric fans, Diesel engines etc.		
			Industrial consumables (O)	Antifriction Bearings, cutting tools, dry cells copper		

				cathodes and sections of cathodes unwrought,		
			Industrial durables (G,W)	Aluminium extruded and rolled products		
			Hardware (G,W)	High tensile fasteners, Industrial fasteners, nuts bolts		
			Metal/Metals Forming			
			Steel pipes and tubes	Seamless pipes and tubes of iron and steel, Welded pipes and Tubes of iron/ steel tube or pipe fittings of iron or steel.		
			Casting s and forgings (O)	Steel, alloy steel and non-ferrous metals for engineering, automobile and shipping sectors		
			Others			
			<p>Manufacture of basic iron and steel (Ferro alloys, wire of steel by cold drawing, tube and tube fittings etc.) and basic precious and other non-ferrous metals) (R)</p> <p>Manufacture of motor vehicles (such as manufacturing of Tractors, Buses etc.) (R)</p> <p>Manufacture of parts and accessories for motor vehicles (includes parts such as brakes, gearboxes, axles, seats, tyres, rubber products etc.) (O)</p>			
		MSME (includes Leather, Plastics, wood	Technical Textiles (W)	(Diapers, Non - woven fabric for disposables & wipes, Personal protective	Not Applicable	Orange, Green and White

		etc.,)	<p>equipment (PPEs), hoses, webbings for seat belts, conveyor belts, Tyre Cord Fabric, Teabags filter paper, PCBs, composites, fishnets, Sports-wear, Geotextiles, Medical textiles, heart valves, artificial limbs, implantable materials, bulletproof vests, airbags, parachute fabric, high altitude and flame retardant clothing, architectural membranes etc.). Ginning/ Weaving, Spinning mills, Weaving and Knitting Mills (G).</p> <p>Polymer & Engineering Plastics End Products (W) (Automotive components, Roofing sheets, Pipes, marine boats, hulls and sails, wiring and cables, medical disposables syringes, blood bags, catheters, eye wears, BOPP films, flexible and rigid packaging products, writing instruments, household goods, furniture, electrical accessories, toys, window and door profiles, roto moulded tanks, floor coverings, GRP Pipes, FIBC (Flexible intermediate bulk containers), drums, moulded luggage etc.).</p> <p>Leather Products (G/W) such as Sports goods excluding tanning and hide processing Plastic products (G/W) for Packaging, automobile, consumer durables, healthcare, etc. by Injection, Blow Moulding, Extrusion etc.,</p> <p>Polyurethane Products (O) (Rigid and flexible foams, Furniture & bedding, car</p>		
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			seats, automotive components (bumper panels, steering wheels, dashboards, door panels, instrument panels etc.), Construction & building products, footwear, appliances, Cold Insulations, CASE (coatings, adhesives, sealants and elastomers) etc.)		
4.	Building Materials Industry/Non-Metallic minerals	Building Materials Industry/Non-Metallic minerals	Tiles, Ceramics and refractories, glass and glassware, graphite, marbles, processed minerals, Clay building products, bricks, AAC Blocks, Kerb Stones etc.	Not Applicable	Red, Orange and Green
5	Marine logistics/Storage and compatible activities	CRZ permissible hazardous material storages	Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000)	Category B	Red

3.5.4. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 328th meeting during 26th May, 2023 and **recommended** the project for grant of Environment and CRZ Clearance for the project of ‘Development of Industrial Park near Nakkapalli Village, Nakkapalli Mandal, Visakhapatnam District over an area of 1438.657ha (3555 acres) by M/s Andhra Pradesh Industrial Infrastructure Corporation (APIIC) Limited’ with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not tantamount to approvals/consent/permissions etc required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes as applicable to the project.
- ii. Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- iii. All the recommendations and conditions specified by the Andhra Pradesh Coastal Zone Management Authority (APCZMA) vide letter No. 332/CRZ/CON/2011 dated 18th January, 2022 shall be complied with.

- iv. Necessary approvals be taken during implementation and commissioning from statutory bodies concerned.
- v. The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained. Creek water monitoring program shall be implemented during the construction phase.
- vi. Marine ecological monitoring and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, estuaries, sea-grass, algae, sea weeds, Crustaceans, Fishes, coral reefs and mangroves etc. as given in the EIA-EMP Report shall be complied with in letter and spirit.
- vii. The schedule of implementation for the recommendations of the rapid risk assessment report, disaster management plan and safety guidelines shall be prepared and submitted to the Ministry within 3 months. All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented in time bound manner. The compliance to the recommendations as per schedule shall be submitted along with 6 monthly compliance reports to the regional office of MoEF&CC. Necessary arrangement for general safety and occupational health of people should be done in letter and spirit.
- viii. The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- ix. The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- x. Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, fixing the location of fire water tanks, separate power system for fire fighting, involvement of qualified and trained fire personnel, nearest fire station & time required to reach the proposed site shall be prepared and implemented.
- xi. APIIC shall develop CETPs (two Streams) for non-pharma and pharma, chemical and petrochemical units separately on modular basis based on industrial wastewater generation.
- xii. The member units shall provide storage tanks for storage of effluent for monitoring the characteristics of effluent before taking into the CETP for further treatment.
- xiii. Proper meters with recording facilities shall be provided to monitor the effluent quality and quantity sent from member industries to CETP and from CETP to re-use on a continuous basis.
- xiv. Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

- xv. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.
- xvi. Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- xvii. Ambient noise levels shall conform to the prescribed standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during development/ construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/SPCB.
- xviii. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.
- xix. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- xx. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured/recorded to ensure the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six Monthly Monitoring reports.
- xxi. Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016.
- xxii. Rain water harvesting for roof run-off and surface run-off, as plan submitted shall be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The bore well for rainwater recharging shall be kept at least 4 mts above the highest ground water table.
- xxiii. All the recommendation of the EMP shall be complied with in letter and spirit and be submitted to the Regional Office, MoEF&CC along with six Monthly Monitoring reports.
- xxiv. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by

them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory Aforestation etc, either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also be implemented and become part of EMP.

Agenda No. 3.6

Development of Kuduthini Industrial Area (Phase-I) over an extent of 261 ha (645.18 acres) at Kuduthini Village Bellary Taluk, Bellary District Karnataka State M/s Karnataka Industrial Areas Development Board-Environmental Clearance.

Proposal no. IA/KA/INFRA1/420997/2023, File No. 10/37/2021-IA.III.

“The EAC noted that the Project Proponent and the consultant have given undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

3.6.1. The abovementioned proposal was placed before the EAC in its 328th meeting on 26th May, 2023. The project proponent along with the EIA Consultant M/s Hubert Enviro Care Systems(P) Ltd., Chennai made a presentation through Video Conferencing and provided the following information:-

3.6.2. Karnataka Industrial Areas Development Board (KIADB) proposes to establish an Industrial Area Development project an area extent of 261ha (645.18 Acres) at Kuduthini Village, Bellary Taluk, Bellary District, and Karnataka State by M/s Karnataka Industrial Areas Development Board.

3.6.3. The aforementioned proposal is a violation under notification S.0 804(E) dated 14.03.2017: Construction activities have already started. Roads, storm water drains and overhead tank are already constructed at site. ToR proposal was considered during the 291st meeting held on 10th March, 2022. ToR was granted under violation category of the EIA notification, 2006 as amended vide letter No. 10/37/2021-IA.III dated 12th April, 2022.

3.6.4. The proposed project falls under 7(c) Industrial Park, Category-A as Karnataka-Andhra Pradesh State Boundary is within 10 Km radius) and General condition is applicable for the project, as per EIA notification 2006, and its subsequent amendments appraisal is required at Central level. Total investment/cost of the project is Rs. 233 Crores.

3.6.5. The proposed project has two components namely Kuduthini Industrial Area Phase 1 and Women Entrepreneurs Park. The area break up for Kuduthini Industrial Area Phase 1

and Women Entrepreneurs Park is given in Tables 1 & 2 below:

3.6.6. Kuduthini Industrial Area Phase 1

S. No	Description	Proposed		
		Area in Ha	Area in Acres	%
1	Industrial Area	158.25	391.05	65.04
2	Commercial Area	4.17	10.31	1.71
3	Amenities	5.74	14.18	2.36
4	Road	25.33	62.60	10.41
5	Park (Green belt)	9.66	23.88	3.97
6	Nala	6.79	16.77	2.8
7	Buffer Zone (green belt)	19.95	49.30	8.2
8	Parking	4.88	12.05	2.0
9	Utility	8.56	21.13	3.51
	Total	243.33	601.27	100

3.6.7. Proposed Area break-up for Women Entrepreneurs Park.

S. No	Description	Proposed		
		Area in Ha	Area in Acres	%
1	Industrial Area	13.93	34.4	78.36
2	Commercial Area	0.61	1.5	3.42
3	(CFC) Amenities	0.81	2.0	4.55
4	Road	1.28	3.1	7.20
5	Park (green belt)	0.46	1.1	2.62
6	Parking	0.46	1.1	2.62
7	Utility	0.22	0.5	1.23
	Total	17.77	43.9	100

3.6.8. Type of industries proposed.

SN	Category of Industries	Type of industries Proposed	Schedule & Category as per EIA Notification 2006 and its amendments	CPCB Classification	Pollution potential *	Area (Acres)	Area (Ha)	Plotted Area (%)
1	Metallurgy	Secondary Metallurgical Processing industries (Rerolling mills - capacity	3(a) – B(Applicability of General condition Hence appraisal by MoEF&CC	Red	A2F1, W15	111.8	45.25	26.3

SN o	Category of Industries	Type of industries Proposed	Schedule & Category as per EIA Notificatio n 2006 and its amendmen ts	CPCB Classificat ion	Polluti on potenti al *	Area (Acre s)	Are a (Ha)	Plott ed Area (%)
		>30,000 TPA))					
2		Foundry units <5MT/Hr	Nil	Orange	A2F1, W15	45.58	18.4 5	10.7
3		Forging of Metals	Nil	Orange	Group A2F1	16.55	6.70	3.9
4		Fabrication	Nil	Orange	W13, A1D	15.75	6.37	3.7
5		Steel and Steel products using furnaces	Nil	Orange	A2F1, W15	37.31	15.1 0	8.8
6		Metal extraction involving furnaces	Nil	Orange	Group A2F1, HW4	30.32	12.2 7	7.1
7	Textile	Textile Processing	Nil	Red	W13, Group A2F2	63.56	25.7 2	14.9
8		Readymade Garments	Nil	White	Nil	11.79	4.77	2.7
9	Food products	Fruits and Vegetables processing	Nil	Orange	W13, A1D	35.97	14.5 6	8.5
10		Bakery and confectionar ies/ Vegetable oil	Nil	Orange	W13, Group A2F2	14.61	5.91	3.4
11		Dairy and Dairy products	Nil	Orange	W13, Group A2F2	11.05	4.47	2.6
12		Dal mills	Nil	Green	Group	6	2.43	1.4

SN o	Category of Industries	Type of industries Proposed	Schedule & Category as per EIA Notificatio n 2006 and its amendmen ts	CPCB Classificat ion	Polluti on potenti al *	Area (Acre s)	Are a (Ha)	Plott ed Area (%)
		and Flour mills			A1D			
13		Spice grinding	Nil	Green	Group A1D	8.72	3.52	2.0
14	Formulatio n of soaps, detergents and cosmetics by mixing and blending	Soaps, Detergents and cosmetics	Nil	Orange	W13, Group A1D	14.05	5.69	3.3
15	Cement products manufactur ing	Cement products and tiles	Nil	Green	Group A1D	2.4	0.97	0.7
16	CETP	CETP – For industries within the Industrial Area	7(h) (Applicabili ty of General condition Hence appraisal by MoEF&CC)	Red	W12, Group A1D			

3.6.9. Water requirements: The total water requirement for the proposed project at the time of construction phase is 35 KLD including domestic requirements for 100 persons, and dust suppression during the construction phase based on construction activity requirement. The water requirement during this construction phase will met from the river Tungabadhra high level canal. The River Tungabadhra is located around ~2.69 km from the proposed Industrial Area. A Water tank of 225 cusecs capacity is planned to supply of water for domestic and drinking purposes. Water for construction purpose and drinking water at construction sites will be provided by KIADB. During the operational phase total water requirement is estimated to be 5232.5 KLD and fresh water requirement is 3573 KLD, which will be utilized

for domestic requirement, process and green belt development. Fresh water requirement will be met from Tungabhadra high-level canal. 1659.5 KLD is met from recycled water. Water requirement for greenbelt is 275 KLD, utilities for industrial purpose are 471 KLD and process water is 913.5 KLD and these will be met from recycling of treated wastewater.

3.6.10. Waste Management: Sewage generation of 275KLD and will be treated in common STP of 350 KLD and treated sewage of 275 KLD will be recycled for green belt development. The effluent quantity of 1400 KLD of which effluent from Process is estimated to be 1200KLD and utilities is 200KLD. The effluent will be treated in CETP of 1800 KLD followed by RO, MEE and ATFD. The treated effluent will be recycled for utilities and process. **Solid waste:** During construction phase approximately 0.45 kg/person/day i.e., 45 kg/day of Municipal Solid Waste will be generated. This will be collected and composted at site. Compost will be used as manure for green belt development during construction stage itself. Inorganic wastes will be handed over to authorized recyclers. During operational phase, 1836 Kg/day of Municipal Solid Waste will be generated. Individual industry will be segregated the waste and organic wastes will be sent to Municipal solid waste processing area at site and will be composted. Compost will be used as manure for green belt development. Inorganic wastes will be sold to KSPCB authorized recyclers. Individual industries will be mandated to obtain separate authorization from KSPCB, for the disposal of E-waste generated. During operational phase hazardous waste management would be the responsibility of individual industries. Prior to the commencement of production, each unit will be mandated to obtain authorization for storage, handling and transport of hazardous waste, as per the Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016. The ETP sludge and salt generated from ATFD will be stored in designated area within the Industrial Park and will be disposed to nearby TSDF.

3.6.11. Public hearing: The Public Hearing advertisement was published in Kannada Prabha (Kannada) and Times of India (English) on 03.12.2022 and also published in Bellary District local Newspaper Kannada Nadu on 04.12.2022. The Public Hearing was conducted on 03.01.2023 at Project Site of Kuduthini Village, Bellary Taluk, and Bellary District and headed by the Additional Collector & Additional District Magistrate of Bellary District.

3.6.12. Tree cutting and Green Belt Development: Though no trees were cut during the construction phase, green belt of 12.17% out of 33% will be developed by KIADB. The individual industries are mandated to develop the remaining percentage of the green belt development.

3.6.13. Diversion of forest land: Karnataka government has allotted land for the development of Industrial area to KIADB. No forest land is involved in the proposed project. The nearest reserve forest Toranagallu RF is located approximately at a distance of 2.05km in the West direction.

3.6.14. The project is located at the distance of 10.28 Km towards NW direction from the Daroji Bear Sanctuary ESZ and 11.23 Km towards NW direction from the Daroji Bear Sanctuary Core.

3.6.15. Rain Water Harvesting: 85 No. of rain water harvesting pits are proposed for the project for recharging the ground water table.

3.6.16. Land acquisition and R&R issues: Karnataka government has allotted land for the development of Industrial area to KIADB 261 Ha. No R&R issues are involved in the instant proposal.

3.6.17. Employment Potential: The manpower requirement includes both the technical and non-technical personnel will be 6900 out of which during construction phase 100 persons will be employed and during operational phase 6800 persons will get employment, local persons will be employed from the surrounding villages.

3.6.18. Benefits of the Project: The project helps in increasing its contribution to the overall development of the area, The social requirements such as Drinking water requirement, facilities to Educational institutions, and Medical facilities to the villages etc will also be developed as part of social responsibility. The proposed project will provide direct employment to 6800 people and indirect employment opportunities to local people in contractual works like housing construction, transportations, for supply of goods and services to the project and other community services. Also there will be improvement in communication, transport, education, community development and medical facilities.

3.6.19. During deliberation, EAC observed and noted the following:

The proposed project has two components namely Kuduthini Industrial Area Phase 1 having an area. 243.33ha and Women Entrepreneurs Park is having an area of 17.77 ha. PP shall clarify whether the instant proposal is having the two industrial areas or it having one industrial area with two different name.

3.6.20. The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 328th meeting and **deferred** the proposal for the want of the following information/documents:

- i. Status of credible action by KSPCB.
- ii. Air pollution damage shall be revised considering the input materials for construction and also the manpower utilised including the impact of transportation within and out of site as per USEPA.
- iii. Damages cost shall cover PM10 and PM2.5 and the rates shall be as following: :
C) Water pollution damage: As per CGWA 24TH Sept.2020 rates for consumption for construction including domestic till 2023.
- iv. D)LU/LC: Prior and present as per the imagery and if the three Nallas passing thru are impacted, the damage to be considered.
- v. Soil/Top Soil: Additional Rs. 20,000/- per ha affected shall be added to the damage already considered.
- vi. GB/Plantation: Deficiency in plantation shall be considered @Rs. 300/- per plant for the shortfall on prorata
- vii. MSW Rates as per discussion in the meeting on per kg basis Cost Saved in EMP for all these years shall be considered in the damage cost.

- viii. The amount allocated towards CER shall be consider under the EMP as per the Ministry's OM dated 30.09.2020 and the expenditure shall be of capital in nature and spent in 3 years time as per the grievance of Public Hearing accordingly PP shall submit the details.
- ix. All the expenditure under remediation, NRAP and CRAP shall be based on need based for the community capital expenditure.
- x. Energy management plan shall be submitted.
- xi. Rain water harvesting structure is proposed as natural augmentation plan, PP shall also submit the details of rainwater harvesting structures for the proposed project apart from the natural augmentation plan.
- xii. Distance from the Daroji Bear Sanctuary ESZ from core and buffer area duly authenticated from the state forest department shall be submitted.
- xiii. Proposed two area developments need clarification in this regard.
- xiv. Green belt development plan.
- xv. Water bodies impacts due to proposed industrial area.
- xvi. PP proposed a diversion of natural drainage only to facilitate for construction activities the details of the same shall be submitted.

Agenda No. 3.7

Developed Industrial Estate at Sector 38 Phase-II at Sector 38, village Jatheri, Badhmalik, Pritampura and Rai, District-Sonipat, Haryana, over an area of 1278361.48sq. m. (315.89Acres) by Haryana State Industrial and Infrastructure Development Corporation Limited-Violation Terms of References.

Proposal no: IA/HR/INFRA1/427903/2023; File No.10/31/2023-IA.III.

“The EAC noted that the Project Proponent and the consultant have given undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

3.7.1. The abovementioned proposal was placed before the EAC in its 328th meeting on 26th May, 2023. The project proponent along with the EIA Consultant M/s Gaurang Environment Solutions Pvt. Ltd., Jaipur made a presentation through Video Conferencing and provided the following information:-

3.7.2. The proposal is for ‘developed Industrial Estate at Sector 38 Phase-II, Rai, Sonipat, Tehsil -Rai, District -Sonipat, Haryana, over an area of 1278361.48sq. m. (315.89Acres) by Haryana State Industrial and Infrastructure Development Corporation Limited’

3.7.3. The proposed project falls under 7(c) Industrial Park, Category-A as Interstate boundary (Haryana- Uttar Pradesh-Delhi) at a distance of 9.3km & 3.85km from the project

site and General condition is applicable for the project, as per EIA notification 2006, and its subsequent amendments appraisal is required at Central level. Total investment/cost of the project is Rs. 530.06 crores.

3.7.4. The project was started in December, 2010 without obtaining prior environmental clearance. Haryana State Industrial and Infrastructure Development Corporation Limited (HSIIDC) is the Project Proponent for the Existing Industrial Estate. . In line with the Industrial Policy announced by the Government of Haryana, HSIIDC has developed Sector-38 Phase II as Industrial Estate near the town Rai on NH-1, covering net area of 315.89 acre. Phase-II has been developed by HSIIDC with Development of industrial plots, R&R residential plots, institutional plots, public building plots, and commercial area plots with all infrastructure facilities such as all-weather roads, water Supply, electricity, waste water and storm water drainage systems etc. The aforementioned proposal is a violation proposal under the EIA notification, 2006 as construction activities have already started without obtaining prior environmental clearance.

3.7.5. Landuse/Land cover of project site:

S.No.	Landuse/Land cover	Area (sq.m)	%	Remarks, if any
1.	Industrial estate	626397.13	74.14	None
2.	Green area	78570.70	6.14	Common green only
3.	Road and open areas	573393.62	19.72	None
	Total	1278361.45 sq.m (315.89 acres)	100	

3.7.6. List to industries to be housed with the proposed project site, only for projects covered under 7(c) category of EIA Notification, 2006.

S.No	Category
1.	Food Processing
2.	Packaging Industries
3.	Medicine/Pharmaceutical
4.	Textile
5.	Furniture
6.	Steel fabrication
7.	Printing

3.7.7. Terrain and topographical features: Plain

3.7.8. Details of water bodies, impact on drainage: Drain No. 8 is located at the distance of 0.9Km towards south direction, Nahar Main Canal is located at the distance of 3.0km towards SW and Yamuna Nadi is located at the distance of 10.0 km towards ENE of the project site.

3.7.9. CGWA NOC has been obtained in 2017 and the renewal of the same has been applied

3.7.10. The project is not located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc.

3.7.11. Waste Management: CETP: Provide details type and quantity of effluent, effluent conveyance system from the member units to CETP with CETP's Capacity. The waste water generated from the project will be disposed to proposed CETP of 10 MLD.

3.7.12. Land acquisition and R&R issues: no Land acquisition and R&R are involved.

3.7.13. Employment potential: 21,000

3.7.14. Benefits of the project: The project is being and will be provided industrial growth to the area.

3.7.15. Details of Court cases: no court case is pending against the project.

3.7.16. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 328th meeting during 26th May, 2023 confirmed as violation case, and **recommended** the proposal for grant of Terms of Reference (ToR) under violation category with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. PP shall comply standard operating procedure of MoEF&CC dated 07.07.2021 and direction of MoEF&CC dated 28.07.2022.
- ii. Detailed status of Court case filed by the SPCB against the PP under the Environment (Protection) Act, 1986 for violation of EIA Notification 2006, shall be submitted.
- iii. The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.
- iv. Status of all the operating units and the environmental management activities provided.
- v. Water balance non monsoon/monsoon shall be submitted.
- vi. LU/LC shall be revisited and brought out based on Satellite imagery and site.
- vii. Chapter 13 shall cover all the ecological parameters for damage assessment. Penalty shall cover the turnover during operation also.
- viii. Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment. iv. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
- ix. The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants
- x. One season fresh base line data shall be collected for preparation of EIA/EMP reports.
- xi. A plan for implementation of ZLD to be submitted.
- xii. Layout plan earmarking space for development of peripheral green belt.
- xiii. Transportation details to be submitted in the EIA/MEP report. ix. Details of any Court Case pending against the project proponent.

Agenda No. 3.8: Any other Business with the permission of Chair

Subject: Redevelopment of Berths 8, 9 and Barge berth at Mormugao Port by M/s Mormugao Port Trust – Environmental and CRZ Clearance - reg.

The above project was submitted online vide proposal No. IA/GA/MIS/93270/2015 dated 25.04.2019 by M/s Mormugao Port Trust for grant of Environmental and CRZ Clearance for subject mentioned proposal under the provisions of EIA Notification, 2006 and CRZ Notification, 2011.

2. The aforementioned proposal was considered by the then EAC(Infra-2) dealing the activities related to item 7(e) of schedule to the EIA Notification, 2006, in its 42nd meeting held on 10-12 July, 2019, 48th meeting held on 28-29 January, 2020 and 49th meeting held on 25-26 February, 2020. The EAC in its 48th meeting held on 28-29 January, 2020, after detailed deliberations, recommended for grant of environmental and CRZ clearance for the subject mentioned proposal.

3. Meanwhile, it was observed that CZMP, Goa was not prepared and approved as per CRZ Notification, 2011 and as per the NGT order, EC/CRZ clearance for the project cannot be granted, unless CZMP is prepared and approved by the Ministry.

4. Ministry vide letter dated 06.09.2022 has approved the CZMP, Goa as per the provisions of CRZ Notification, 2011. Further, Ministry issued an OM dated 22.11.2022 stating that the CRZ clearance/composite clearance (EC+CRZ) for development projects in the state of Goa, shall be considered based on the CRZ Notification, 2011 CRZ Map prepared in 1:4000 scale based on the CZMP approved under the CRZ Notification, 2011 and PP shall also obtain the revised/fresh recommendation of the State Coastal Zone Management Authority of Goa as per the CRZ notification, 2011 for pending cases.

5. Accordingly, PP vide email dated 12.04.2023 forwarded the recommendations of Goa Coastal Zone Management Authority vide letter no. GCZMA/S/18-19/51/01 dated 03.03/04.2023 and 1:4000 Scale map superimposed on CZMP 2011.

6. It may kindly be noted that in the EC/CRZ letter approved by the then HMEFCC, a condition related to CER was incorporated based on the OM dated 01.05.2018. The OM related to CER was superseded by OM dated 30th September, 2020. Therefore, the condition is replaced in the EC letter as following:

S. No	Condition related to CER mentioned in the draft EC/C RZ letter	Condition modified based on OM dated 30th September, 2020
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As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018, project proponent has proposed an amount of Rs. 2.87 Crores (0.25% of the project cost) under Corporate Environment Responsibility (CER) Plan for the activities such as Paved shoulder for Roads in Mormugao Municipal area to reduce dust emission, Construction of drain cross drainage works including RCC precast covers over drain wherever required in Mormugao Municipal area, Electrification of public roads using solar power panels, Plantation of saplings in Mormugao Municipal area with three (3) years maintenance through Social Forestry Division. Forest Department Government of Goa, Distribution of saplings to primary secondary school and Higher secondary children along with development of Nursery of plants, Woman upliftments and distribution of grant for sanitation facilities for self-help groups in Mormugao Municipal area, Health Education and importance of hygiene among girls child at Primary, Secondary school and Higher secondary school of Mormugao Municipal area, Skill Development among Higher secondary school of Mormugao municipal area and Construction of toilet block facilities for public in Mormugao Municipal area. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project

As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory afforestation etc., either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also become part of EMP and shall be implemented.

proponent.	
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7. The condition related to compliance of GCZMA recommendations is also modified as following:

“All the recommendations and conditions specified by the Goa State Coastal Zone Management Authority (GCZMA) who has recommended the project vide letter No. GCZMA/S/18-19/51/1961 dated 24.01.2019 and letter no. GCZMA/S/18-19/51/01 dated 03.03/04.2023 shall be complied with”.

8. Now the Competent Authority is directed to appraise the matter before the EAC before taking the approval of the competent authority, accordingly the above said proposal is placed before the EAC scheduled on 26.05.2023 as a additional agenda item with the approval of the Chairman EAC.

9. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 328th meeting during 26th May, 2023 and **recommended** that the submissions made by the PP are in order and there is no objection from the EAC for the grant of EC and CRZ clearance.

Annexure-A

Following members were present during the 328th EAC (Infra-1) meeting held on 26th May, 2023.

S. No	Name	Designation	26 th May, 2023	Remarks
1.	Dr. Deepak Arun Apte	Chairman	Present	-
2.	Sh. S. Jeyakrishnan	Member	Present	-
3.	Sh. Manmohan Singh Negi	Member	Present	-
4.	Sh. Sham Wagh	Member	Present	-
5.	Dr. Mukesh Khare	Member	Present	-
6.	Dr. Ashok Kumar Pachauri	Member	Present	-
7.	Dr. V. K Jain	Member	Present	-
8.	Dr. Manoranjan Hota	Member	Present	-
9.	Representative of CPCB	Member	Absent	-
10.	Representative of CGWA	Member	Absent	-
11.	Dr. M. V Ramana Murthy	Member	Present	-
12.	Dr. Nirmalendu Kumar	Member	Present	-
13.	Dr. Niraj Sharma	Member	Present	-
14.	Gowrappan K - Chengalpattu,	Expert Member	presented	Co-opted as Expert Member for the appraisal of the violation proposals
15.	Sh. Amardeep Raju	Scientist 'E' & MS - EAC (Infra-1)	Present	-

Proposal No. IA/JH/INFRA1/421051/2023, File No. 10/13/2022-IA.III
Agenda No. 3.2 of 328th meeting of EAC dated 26/05/2023

Table 6-1: List of structures proposed for construction for safe and hustle free movement of wildlife under Package-IV of Varanasi-Kolkata Expressway Project

List of Structures proposed for construction for safe movement of wild life in Pkg-4 of Varanasi Kolkata Project							
		Earlier Provision			Revised Provision as per suggestion of EAC/MoEF&CC		
S. No.	Design Chainage (Km)	Structure Type	Length of structure (m)	Vertical Clearance (m)	Structure Type	Length of structure (m)	Vertical Clearance (m)
1	185+150	MINOR BRIDGE	20	Minimum 7 m	MINOR BRIDGE	20	
2	188+880	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	
3	189+930	MINOR BRIDGE	20	Minimum 7 m	MINOR BRIDGE	20	
4	192+100	MINOR BRIDGE	20	Minimum 7 m	MINOR BRIDGE	20	
5	192+545	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	
6	193+590	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE	15	
7	194+800	MINOR BRIDGE	30	Minimum 7 m	MINOR BRIDGE	30	
8	195+310	MINOR BRIDGE CUM WILDLIFE	20	9	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	9

		UNDERPASS					
9	195+465	MINOR BRIDGE	15		MINOR BRIDGE CUM WILDLIFE UNDERPASS	60	
10	196+000	MINOR BRIDGE	30	Minimum 7 m	MINOR BRIDGE	30	
11	196+200	MINOR BRIDGE	20	Minimum 7 m	MINOR BRIDGE	20	
12	196+974	MINOR BRIDGE	30	Minimum 7 m	MINOR BRIDGE	30	
13	197+540	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	
14	197+950	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE	15	
15	198+500	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	50	7
16	198+675	MINOR BRIDGE	20		MINOR BRIDGE	20	
17	198+800	MINOR BRIDGE	10		MINOR BRIDGE	10	
18	199+280	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE	15	
19	199+840	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE	15	
20	200+260	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
21	200+490	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE	15	
22	201+250	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE	15	
23	201+765	MINOR	30	Minimum	MINOR BRIDGE	30	

		BRIDGE		7 m			
24	202+120	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE	15	
25	202+820	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	90	Minimum 7 m	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	90	
26	204+310	MINOR BRIDGE	8	9 m	MINOR BRIDGE	8	9
27	204+420	MINOR BRIDGE	20		MINOR BRIDGE CUM WILDLIFE UNDERPASS	60	
28	204+500	MINOR BRIDGE	15		MINOR BRIDGE	15	
29	205+050	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
30	205+440	MINOR BRIDGE	20	Minimum 7 m	MINOR BRIDGE	20	
31	205+947	MINOR BRIDGE	20	Minimum 7 m	MINOR BRIDGE	20	
32	207+530	MAJOR BRIDGE	180	Minimum 7 m	MAJOR BRIDGE	180	
33	208+800	MINOR BRIDGE	30	Minimum 7 m	MINOR BRIDGE	30	
34	209+500	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	11 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	11
35	209+770	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20		MINOR BRIDGE CUM WILDLIFE UNDERPASS	60	
36	210+900	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	

37	211+610	MINOR BRIDGE	30	Minimum 7 m	MINOR BRIDGE	30	
38	212+270	ELEVATED STRUCTURES/VIADUCTS	600	Minimum 7 m	ELEVATED STRUCTURES/VIADUCTS	600	
39	212+820	ELEVATED STRUCTURES/VIADUCTS	30	14 m	ELEVATED STRUCTURES/VIADUCTS	30	14
40	213+175	ELEVATED STRUCTURES/VIADUCTS	270		ELEVATED STRUCTURES/VIADUCTS	270	
41	214+600	MINOR BRIDGE	15		MINOR BRIDGE	15	
42	215+115	ELEVATED STRUCTURES/VIADUCTS	210		ELEVATED STRUCTURES/VIADUCTS	210	
43	215+940	WOP	60	NA	WOP	60	
44	216+550	WOP	60	NA	WOP	60	
45	218+045	MINOR BRIDGE	30	Minimum 7 m	MINOR BRIDGE	30	
46	219+400	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	12 m	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	100	9
47	219+550	MINOR BRIDGE	8		MINOR BRIDGE	8	
48	221+400	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
49	223+520	WILDLIFE UNDERPASS	30	12 m	WILDLIFE UNDERPASS	100	12
50	223+840	WILDLIFE UNDERPASS	20		WILDLIFE UNDERPASS	20	
51	224+077	MINOR BRIDGE	10		MINOR BRIDGE	10	

52	224+820	WILDLIFE UNDERPASS	20		WILDLIFE UNDERPASS	100	
53	225+150	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30		MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	
54	226+600	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	210	Minimum 7 m	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	210	
55	227+560	WILDLIFE UNDERPASS	30	8 m	WILDLIFE UNDERPASS	30	8
56	228+140	WILDLIFE UNDERPASS	20		WILDLIFE UNDERPASS	100	
57	229+660	WILDLIFE UNDERPASS	20		WILDLIFE UNDERPASS	100	
58	230+030	WILDLIFE UNDERPASS	20		WILDLIFE UNDERPASS	20	
59	231+260	MINOR BRIDGE CUM UNDERPASS	20	Minimum 7 m	MINOR BRIDGE CUM UNDERPASS	20	
60	233+860	WILDLIFE UNDERPASS	20	Minimum 7 m	WILDLIFE UNDERPASS	20	
61	236+835	MINOR BRIDGE	12	7 m	MINOR BRIDGE	12	7
62	238+025	MINOR BRIDGE CUM WILDLIFE UNDERPASS	40		MINOR BRIDGE CUM WILDLIFE UNDERPASS	40	
63	238+800	WILDLIFE UNDERPASS	20		WILDLIFE UNDERPASS	100	
64	239+660	WILDLIFE UNDERPASS	30	Minimum 7 m	WILDLIFE UNDERPASS	30	
65	241+110	RAILWAY OVER BRIDGES	105	Minimum 7 m	RAILWAY OVER BRIDGES	105	

		(ROBS)			(ROBS)		
66	From 242+770 to 243+100	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	330	Minimum 7 m	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	330	
67	243+390	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
68	244+135	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
69	246+030	MINOR BRIDGE	30	Minimum 7 m	MINOR BRIDGE	30	
70	From 248+120 to 248+360	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	240	8 m	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	240	8
71	248+560	MINOR BRIDGE CUM WILDLIFE UNDERPASS	40		MINOR BRIDGE CUM WILDLIFE UNDERPASS	40	
72	253+220	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE	15	
73	254+680 to 254+980	ELEVATED STRUCTURES/VIADUCTS	300	Minimum 7 m	ELEVATED STRUCTURES/VIADUCTS	300	
74	256+510	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	8 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	8
75	257+310	WILDLIFE UNDERPASS	20		WILDLIFE UNDERPASS	100	
76	257+770	MINOR BRIDGE CUM WILDLIFE UNDERPASS	25		MINOR BRIDGE CUM WILDLIFE UNDERPASS	25	

77	258+750	MAJOR BRIDGE	210	Minimum 7 m	MAJOR BRIDGE	210	
78	261+340	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	100	7
79	262+045	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20		MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	
81	263+030	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	
82	263+600 to 263+690	ELEVATED STRUCTURES/ VIADUCTS	90	Minimum 7 m	ELEVATED STRUCTURES/ VIADUCTS	90	
83	267+640	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE	15	
84	268+890	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	8 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	8
85	269+680	MINOR BRIDGE CUM WILDLIFE UNDERPASS	25		MAJOR BRIDGE CUM WILDLIFE UNDERPASS	100	
86	272+470	MINOR BRIDGE CUM WILDLIFE UNDERPASS	40	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	40	
87	273+260	MINOR BRIDGE	20	Minimum 7 m	MINOR BRIDGE	20	
88	274+210	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	9 m	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	100	9

89	274+680	MINOR BRIDGE	20		MINOR BRIDGE	20	
90	275+740 to 275+830	ELEVATED STRUCTURES/ VIADUCTS	90	Minimum 7 m	ELEVATED STRUCTURES/ VIADUCTS	90	
91	276+760	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	12 m	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	100	12
92	277+180	MINOR BRIDGE	15		MINOR BRIDGE	15	
93	277+400	MINOR BRIDGE	15		MINOR BRIDGE	15	
94	277+690	MINOR BRIDGE	20		MINOR BRIDGE CUM WILDLIFE UNDERPASS	60	
95	281+190	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	
96	281+950	MAJOR BRIDGE CUM Underpass	90	Minimum 7 m	MAJOR BRIDGE CUM Underpass	90	
97	284+640	RAILWAY OVER BRIDGES (ROBS)	234	Minimum 7 m	RAILWAY OVER BRIDGES (ROBS)	234	
98	286+580	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	
99	287+520 to 287+820	ELEVATED STRUCTURES/ VIADUCTS	300	Minimum 7 m	ELEVATED STRUCTURES/ VIADUCTS	300	
100	288+540	MINOR BRIDGE CUM	30	Minimum	MINOR BRIDGE CUM WILDLIFE	30	

		WILDLIFE UNDERPASS		7 m	UNDERPASS		
101	289+875	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	11 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	60	11
102	290+080	MINOR BRIDGE	25		MINOR BRIDGE	25	
103	291+320 to 291+530	ELEVATED STRUCTURES/VIADUCTS	210	Minimum 7 m	ELEVATED STRUCTURES/VIADUCTS	210	
104	293+300 to 294+200	ELEVATED STRUCTURES/VIADUCTS	900	Minimum 7 m	ELEVATED STRUCTURES/VIADUCTS	900	
105	294+815	MAJOR BRIDGE	90	Minimum 7 m	MAJOR BRIDGE	90	
106	296+410	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE	15	
107	296+570	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE	15	
108	297+160	MINOR BRIDGE CUM WILDLIFE UNDERPASS	60	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	60	
109	298+120 to 298+600	ELEVATED STRUCTURES/VIADUCTS	480	Minimum 7 m	ELEVATED STRUCTURES/VIADUCTS	480	
110	298+850	RAILWAY OVER BRIDGES (ROBS)	111	Minimum 7 m	RAILWAY OVER BRIDGES (ROBS)	111	
111	302+370	MINOR BRIDGE CUM	40	Minimum	MINOR BRIDGE CUM	40	

		UNDERPASS		7 m	UNDERPASS		
112	303+900	ELEVATED STRUCTURES/ VIADUCTS	240	14 m	ELEVATED STRUCTURES/V IADUCTS	240	14
113	304+800	WOP	60		WOP	60	
114	305+440	MINOR BRIDGE CUM WILDLIFE UNDERPASS	40		MINOR BRIDGE CUM WILDLIFE UNDERPASS	60	
115	306+640	ELEVATED STRUCTURES/ VIADUCTS	60	Minimum 7 m	ELEVATED STRUCTURES/V IADUCTS	60	
116	307+580	MINOR BRIDGE	20	Minimum 7 m	MINOR BRIDGE	20	
117	308+720	ELEVATED STRUCTURES/ VIADUCTS	330	Minimum 7 m	ELEVATED STRUCTURES/V IADUCTS	330	
118	309+140 to 309+380	ELEVATED STRUCTURES/ VIADUCTS	240	Minimum 7 m	ELEVATED STRUCTURES/V IADUCTS	240	
119	310+080	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	
120	310+500	ELEVATED STRUCTURES/ VIADUCTS	540	Minimum 7 m	ELEVATED STRUCTURES/V IADUCTS	540	
121	314+765	MINOR BRIDGE	25	Minimum 7 m	MINOR BRIDGE	25	
122	316+600	MINOR BRIDGE	20	Minimum 7 m	MINOR BRIDGE	20	
123	318+090	MINOR BRIDGE CUM WILDLIFE	20	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	20	

		UNDERPASS					
124	318+400	WILDLIFE UNDERPASS	20	Minimum 7 m	WILDLIFE UNDERPASS	20	
125	318+880	WILDLIFE UNDERPASS	20	Minimum 7 m	WILDLIFE UNDERPASS	20	
126	319+220	WILDLIFE UNDERPASS	20	Minimum 7 m	WILDLIFE UNDERPASS	20	
127	319+380	WILDLIFE UNDERPASS	20	Minimum 7 m	WILDLIFE UNDERPASS	20	
128	320+130	WILDLIFE UNDERPASS	20	Minimum 7 m	WILDLIFE UNDERPASS	20	
129	321+835	RAILWAY OVER BRIDGES (ROBS)	256	Minimum 7 m	RAILWAY OVER BRIDGES (ROBS)	256	
130	322+160	MINOR BRIDGE	30	Minimum 7 m	MINOR BRIDGE	30	
131	326+700 TO 327+180	ELEVATED STRUCTURES/VIADUCTS	480	Minimum 7 m	ELEVATED STRUCTURES/VIADUCTS	480	
132	327+760	WILDLIFE UNDERPASS	20	Minimum 7 m	WILDLIFE UNDERPASS	20	
133	328+100	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	90	Minimum 7 m	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	90	
134	329+025	WILDLIFE UNDERPASS	20	Minimum 7 m	WILDLIFE UNDERPASS	20	
135	333+650	MINOR BRIDGE	25	Minimum 7 m	MINOR BRIDGE	25	
136	333+940	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
137	334+250	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	

138	334+480	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
139	334+780	MINOR BRIDGE CUM WILDLIFE UNDERPASS	60	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	60	
140	336+000	WOP	70		WOP	70	
141	337+110	WILDLIFE UNDERPASS	20	Minimum 7 m	WILDLIFE UNDERPASS	20	
142	337+320	WILDLIFE UNDERPASS	20	Minimum 7 m	WILDLIFE UNDERPASS	20	
143	338+100	MINOR BRIDGE	20	Minimum 7 m	MINOR BRIDGE	20	
144	338+360	MINOR BRIDGE	25	Minimum 7 m	MINOR BRIDGE	25	
145	338+960	MINOR BRIDGE CUM WILDLIFE UNDERPASS	60	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	60	
146	339+900 to 339+990	ELEVATED STRUCTURES/VIADUCTS	90	Minimum 7 m	ELEVATED STRUCTURES/VIADUCTS	90	
147	340+390	WILDLIFE UNDERPASS	30	Minimum 7 m	WILDLIFE UNDERPASS	30	
148	340+900	MINOR BRIDGE CUM WILDLIFE UNDERPASS	40	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	40	
149	342+560	WILDLIFE UNDERPASS	30	Minimum 7 m	WILDLIFE UNDERPASS	30	
150	343+370	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	
151	344+040	WOP	70	Minimum	WOP	70	

				7 m			
152	345+800	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
153	346+780	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
154	347+460	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
155	347+870	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
156	348+980	WILDLIFE UNDERPASS	20	Minimum 7 m	WILDLIFE UNDERPASS	20	
157	349+312	MAJOR BRIDGE	385	Minimum 7 m	MAJOR BRIDGE	385	
158	349+840	MAJOR BRIDGE	120	Minimum 7 m	MAJOR BRIDGE	120	
159	350+200	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
160	351+480	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
161	353+060	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
162	354+825	MAJOR BRIDGE	70	Minimum 7 m	MAJOR BRIDGE	70	
163	355+400	MINOR BRIDGE	30	Minimum 7 m	MINOR BRIDGE	30	
164	357+680	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
165	358+980	MINOR BRIDGE	40	Minimum 7 m	MINOR BRIDGE	40	
166	359+800	MINOR BRIDGE	25	Minimum 7 m	MINOR BRIDGE	25	
167	360+240	MINOR BRIDGE	35	Minimum 7 m	MINOR BRIDGE	35	

168	362+435	STRUCTURE OVER GAS PIPE LINES	42	Minimum 7 m	STRUCTURE OVER GAS PIPE LINES	42	
169	363+465	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE	15	
170	364+620	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE	15	
171	366+120	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
172	369+020	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	100	Minimum 7 m	MAJOR BRIDGE CUM WILDLIFE UNDERPASS	100	
173	370+920	MINOR BRIDGE	15	Minimum 7 m	MINOR BRIDGE	15	
174	374+250	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	Minimum 7 m	MINOR BRIDGE CUM WILDLIFE UNDERPASS	30	
175	377+110 to 377+350	ELEVATED STRUCTURES/ VIADUCTS	240	Minimum 7 m	ELEVATED STRUCTURES/V IADUCTS	240	
176	378+200	MINOR BRIDGE	50	Minimum 7 m	MINOR BRIDGE	50	
177	380+610	MINOR BRIDGE	12	Minimum 7 m	MINOR BRIDGE	12	
178	381+700	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
179	382+885 to 383+035	ELEVATED STRUCTURES/ VIADUCTS	150	Minimum 7 m	ELEVATED STRUCTURES/V IADUCTS	150	
180	383+650	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
181	384+550	MINOR	60	Minimum	MINOR BRIDGE	60	

		BRIDGE		7 m			
182	385+780	MINOR BRIDGE	10	Minimum 7 m	MINOR BRIDGE	10	
183	387+060	MINOR BRIDGE	40	Minimum 7 m	MINOR BRIDGE	40	
		Retained structure as per hydrological studies for catering surface run-off					
		Revised structure length as per suggestion of EAC					