

Environmental and Social Due Diligence Report

Project Number: 47083-004
November 2020

INDIA: Accelerating Infrastructure Investment Facility in India – Tranche 3 DBL Mangalwedha Solapur Highways Private Ltd. (Part 4 of 4)

Prepared by India Infrastructure Finance Company Limited for the India Infrastructure Finance Company Limited and the Asian Development Bank.

This environmental and social due diligence report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

9.5	2 lane to 4- lane concentric	37
9.6	Temporary diversion for reconstruction of CD works	37
9.7	Road work in junction area	38
9.8	One direction for major work at the centre of road	38
9.9	Stage -1 of flyover/ vup construction	39
9.10	Stage – 2 of flyover/ vup construction	39
9.11	Road work at the centre of a junction	40
9.12	Road work at the corner of a junction with temporary signal control	40
9.13	Deployment of Flagman	42
10	Colour code of helmet	42
	ANNEXURE	
11	List of format	43

1. INTRODUCTION

This project safety management plan describes the **"Occupational Health And Safety Management System"** going to be followed by **M/S DBL Mangalwedha Solapur Highways Private Ltd** for execution of its projects with the requirements of **OHSAS 18001: 2007** British standards. It demonstrates the ability to consistently provide concern intended for Safety and Health of its employees including safety of sub-contractor, and to meet all applicable legal requirements and specifications.

- This Plan aims to enhance safety practice at Project and satisfactory performance through effective application of the system, including the processes for the continual improvement of system and the assurance of conformity to objectives set.
- Conformity is in entirety and no exclusions contemplated.
- This Plan describes various OH&S Procedures, System Implementation Formats, Checklists and Work Instructions.

Site Management will follow this plan, and if necessary amendment will be done as per site execution condition.

- Site HSE Manager needs to do the necessary co-ordination & follow up for the implementation of the plan

2. PURPOSE

To facilitate the construction stage while ensuring fulfillment of OH&S commitment by minimizing hazards and related risks which may arise from any of the related activities of road construction and operation of different plants.

3. VISION

A safe road network for all road users, with priority to pedestrians and cyclists, to achieve zero accidents in the long run.

4. SCOPE

This Procedure is applicable to the entire **"Four Laning of Sangli-Solapur (Package-IV: Mangalwedha to Solapur) Section of NH-166 from existing Ch. Km. 314.969 to Ch. 370.452 (Design Ch. Km. 321.600 to km 378.100) of length 56.500 Km in the State of Maharashtra on Hybrid Annuity Mode"** Activities under the scope of concessionaire and its Subcontractors are integrated in this Management System.

Period of Project	→	730 days after appointed date
Employer/Owner	→	NHAI

5. STATUTORY PROVISIONS

Exceeding or complying with all applicable environmental laws and regulations. Concessionaire, in the interests of responsible environmental management, is working to meet or exceed additional, self-imposed standards, including the adoption of applicable provincial and regional regulations. This means that if provincial, regional or municipal regulations or bylaws provide pertinent standards, concessionaire will Endeavour to meet those standards. Concessionaire also requires tenants on Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and other Act, to

meet the same standards. Such regulations or by laws that concessionaire chooses to adopt will be mentioned explicitly in the relevant management program documents.

Legal & other requirements

S. No	List of Applicable Legal Requirements
1	Building & Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996
2	Petroleum Act 1934 & Petroleum Rules 2002
3	Motor Vehicle Act, 1988
4	Explosives Act 1884,
5	Gas Cylinder Rules 2004
6	Indian Electricity Act 2003 & Rules 1956
7	Air (Prevention and Control of Pollution) Act, 1981
8	Water (Prevention and Control of Pollution) Act, 1974, Rules 1975
9	Noise Pollution (Regulation and Control) Rules, 2000
10	Batteries (Management and Handling) Rules, 2001
11	Environment Protection Act, 1986 & Rules 1986
12	Bio-Medical Waste (Management and Handling) Rules, 1998
13	Hazardous waste rule 1982

Safety Code

S. No	List of Codes
1	Safety code for handling and storage building materials – IS 7969, 1975
2	Safety code for scaffolds and ladders – IS 3696 (Part 11), 1966
3	Safety code for working with construction machinery – IS 7293, 1974
4	Safety code for excavation work – IS 3764, 1966
5	Safety code for Blasting & related drilling equipment – IS 4081, 1967
6	Safety code for working in compressed air – IS 4133, 1977
7	Safety code for construction involving use of hot bituminous materials – IS 5916, 1970
8	Safety code for erection of structural steel work – IS 7205, 1974
9	Steel scaffoldings – IS 2750, 1964
10	Code of practice for steel tubular scaffoldings – IS 4014 (Part -1) & (Part II), 1967
11	Code of practice for drivers in civil engineering works – IS 10291, 1982
12	Hand book on construction safety practice – IS SP -70, 2001

6. OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT PLAN

6.1 Terms and Definitions

- **Accident**-Undesired event-giving rise to death, ill health, injury, damage or other loss. **(Refer OHSAS 18001:2007 Clause No 3.1)**
- **Audit** -Systematic examination to determine whether activities and related results confirm to planned arrangements and whether these arrangements are implemented effectively and are suitable for achieving the organizations policy and objectives. **(Refer OHSAS 18001:2007 Clause No 3.2)**
- **Continual improvement** - Process of enhancing the Occupational Health and Safety Management System, to achieve improvements in overall Occupational Health and Safety performances, in line with the organization's Occupational Health and Safety Policy. **(Refer OHSAS 18001:2007 Clause No 3.3)**
- **Hazard** - Source or situation with a potential for harm in terms of injury or ill health, damage to property, damage to the workplace environment or a combination of these. **(Refer OHSAS 18001:2007 Clause No 3.4)**
- **Hazard identification**- Process of recognizing that a hazard (see 3.4) exists and defining its characteristics. **(Refer OHSAS 18001:2007 Clause No 3.5)**
- **Incident** - Event that gave rise to an accident or had the potential to lead to an accident. **(Refer OHSAS 18001:2007 Clause No 3.6)**

Note An incident where no ill health, injury, damage, or other loss occurs is also referred to as a 'near-miss'. This term 'incident' includes 'near-misses.'

- **Interested parties** - Individual or group concerned with or affected by the Occupational Health and Safety Management System performance of an organization. **(Refer OHSAS 18001:2007 Clause No 3.7)**
- **Non-conformance** - Any deviation from work standards, practices, procedures, regulations, management system performance etc. that could either directly or indirectly lead to injury to illness, property damage, damage to the workplace environment, or a combination of these. **(Refer OHSAS 18001:2007 Clause No 3.8)**
- **Objectives** - Goals, in terms of Occupational Health and Safety Management System performance, that an organization sets itself to achieve. **(Refer OHSAS 18001:2007 Clause No 3.9)**
- **Occupational Health and Safety** - Conditions and factors that affect the wellbeing of employees, temporary workers, contractor personnel, visitors and any other person in the workplace. **(Refer OHSAS 18001:2007 Clause No 3.10)**

- **Occupational Health and Safety Management System** - Part of the overall management system that facilitates the management of the Occupational Health and Safety risks associated with the business of the organization. This includes the organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the organization's Occupational Health and Safety policy. **(Refer OHSAS 18001:2007 Clause No 3.11)**
- **Organization** - Company, operation, firm, enterprise, institutions or association, or part thereof, whether incorporated or not, public or private, that has its own functions and administration. **(Refer OHSAS 18001:2007 Clause No 3.12)**
- **Performance** - Measurable results of the Occupational Health and Safety Management System, related to the organization's control of health and safety risks, based on its Occupational Health and Safety policy and objectives. **(Refer OHSAS 18001:2007 Clause No 3.13)**
Note - Performance measurement includes measurement of Occupational Health and Safety Management System activities and results.
- **Risk** - Combination of the likelihood and consequence(s) of a specified hazardous event occurring. **(Refer OHSAS 18001:2007 Clause No 3.14)**
- **Risk Management** - Overall process of estimating the magnitude of risk and deciding whether or not the risk is tolerable. **(Refer OHSAS 18001:2007 Clause No 3.15)**
- **Safety** - Freedom from unacceptable risk of harm [ISO/IEC Guide 2] **(Refer OHSAS 18001:2007 Clause No 3.16)**
- **Tolerable Risk** - Risk that has been reduced to a level that can be endured by the organization having regard to its legal obligations and its own Occupational Health and Safety policy. **(Refer OHSAS 18001:2007 Clause No 3.17)**

6.2 **OH&S Policy**

The Policy will be made known to all employees and others involved with Concessionaire and sub - contractors construction activities through display at conspicuous locations at site and through discussions within the departments. The concerned OH&S Manager will make the policy available to the public on request.

6.3 **Occupational Health & Safety Objectives**

In order to meet the requirements of the Organization's Occupational Health & Safety Policy the following objectives have been set.

- a. Minimize risk to our employees and other interested parties who may be exposed to OH & S risks associated with our activities.
- b. Continual improvement of the OH & S Management System.
- c. Reducing the frequency of all accidents and incidents and minimize the days lost.
- d. Train and retrain the Site Personnel for enhancing their competence and expertise.
- e. Develop use of Personal Protective Equipment (PPE) and improve safety culture.
- f. Integrate OH & S with other business processes

6.4 OH & S Manager/ officers responsibilities

The OH & S Manager/officers will be responsible for: -

Responsible for total EHS management at project site and guiding the site execution team in implementation of the safety plan. Preparing the risk analysis, safe working procedures for the critical activities, identifying the training needs and conducting the training programs and other motivational activities.

To ensure that the inspection schedules / audit schedules are prepared and carried out to identify the potential hazards at work places and appraising the same to the site management and the concerned execution team and to follow up till the satisfactory compliance is noticed.

Details to be inspected for Monitoring Occupational Health & Safety Measures

Attributes	Requirements
Safety measures	<ul style="list-style-type: none"> All the construction vehicle should be fitted with workable reverse horn; Barricade / Fencing / Displaying of danger sign, warning sign by way of red flag / tape / light etc. should be provided at each construction zone; Ladder should be used for deep trench; Presence of underground electrical cable, water supply line, steam / gas line etc. should be verified and disconnected / relocated before start of any excavation; Electrical cable connection / water / steam / gas line etc. should be disconnected before demolition; All electrically operated equipment should be having proper earthing and connected through Electrical Leakage Control Breaker (ELCB); Combustible material should be kept away from source of heat / fire; No smoking Board / Caution Board should be displayed for prevention of fire; Fire extinguishers should be kept ready near sites of fabrication, fuel storage and any other sites having potential to catch fire for emergency
Drinking water & sanitation facilities	<ul style="list-style-type: none"> Safe & sufficient drinking water and proper sanitation facilities at workers camp as mentioned in EP-3
Personal Protective Equipments (PPE)	<ul style="list-style-type: none"> Workers and surveyors at road construction site close to traffic movement should wear bright jacket, helmet, and gumboot; Workers at hot crusher units, HMP & WMP should wear helmet, ear muffler, air mask and gumboot Workers at borrow area should wear gumboot, helmet and air mask Workers at quarry sites working close to blasting site should wear helmet, ear muffler, air mask and gumboot; Workers handling with fuel & hazardous chemical should wear gloves, thermal jackets, goggle and gumboot depending on the nature of chemical; Workers at fabrication site should wear thermal jackets

	<p>and goggle;</p> <ul style="list-style-type: none"> Workers working at height should wear safety belts and helmet.
Medical facilities	<ul style="list-style-type: none"> First aid box should be located at construction areas and at workers camp with a designated person for administering; Periodic health check-up for workers is to be undertaken. Raising awareness level on sexually transmitted diseases among workers.

EHS Officer / EHS Engineer

- Carry out EHS inspection of Work Area daily.
- Highlight the requirement of EHS through PEP talks. Help to prepare 'JSA' for critical job.
- Convene EHS Meeting & minute the proceedings for circulation & follow up actions.
- Plan procurement of 'PPE' & Safety devices & inspect before use as per laid down norms.
- Report to Project Manager on all matters pertaining to status of EHS & promotional program at site level.
- Organize campaigns, competitions & other special emphasis program to promote EHS at the workplace.
- Ensuring that all of the Occupational Health, Safety and Welfare, measures described in this plan are complied with throughout the duration of the contract.
- Ensuring that OH&S legislation, guidance notes and industry standards are available for project reference.
- Compiling and maintaining accurate, accident statistics, incident reports and safety training records.
- Reviewing and ensuring that the procedures contained in this plan are revised as required.
- Ensuring that where OH&S training needs have been identified, suitable and effective training is delivered sufficient to satisfy those identified needs,
- Ensuring that all persons, other than infrequent visitors, receive induction training, prior to the issue of their access control passes.
- Monitoring the project management systems to ensure that the arrangements established adequately address, the Occupational Health & Safety and Welfare.

Safety Committee Members

Meeting regularly to discuss & decide the ways and means of eliminating the factors affecting EHS.

- To analyze all the activities of the coming month, identifying the possible hazards and finalizing the precaution to be taken.
- To monitor the performance of the EHS program and suggesting improvements whenever it is needed.
- Inspecting the site once a week.
- Each sub-EHS committee shall visit the other packages to enhance knowledge if anything found good practices and suggest for improvement anything wrong

Sub contractors

- Responsible and Accountable for the Compliance with the EHS Code of Conduct for the Sub – Contractors.

- b. He, his Supervisor and his workmen shall adhere to all the rules & Regulations pertaining to EHS while working at site follow the instruction / advice of Site engineer / EHS engineer from time to time.
- c. In case of any violation of EHS rules or Regulations by any of his workman at site, he will be held responsible.

6.5 First Aid

- i. A first aid box with contents indicated shall be maintained at all times at site.
- ii. For minor injury make use of first aid box which is kept on the site. There after report to the hospital for further treatment.
- iii. In case of cut and scratches: Clean the wound with surgical spirit or Dettol.
- iv. Wound should be covered with sterilized bandage.
- v. Do not attempt to remove the foreign particle embedded in the bound.
- vi. In case of burns: Flush the burn area with cold water.
- vii. Do not remove struck clothing.
- viii. Report to hospitals for further treatment.
- ix. In case of Electrical Shocks: Stand on dry ground or dry wooden plank and switch off the power supply.
- x. Disengage the victim with the help of dry wooden pole or ply.
- xi. If victim is unconscious or has stopped breathing, begin artificial respiration immediately.
- xii. The impact of any kind of chemical or gas on Eye at the time of working at first wash your eyes with cold water and use Eye Drop for first Aid and then refer to the hospital (if required).

If heart beat stop, trained first aider should give heart massage

Safety Reports/ Accident Reports

- a) All accidents are to be immediately reported orally to the Safety Officer/Engineer in the cases described below and will be followed by a written report.
 - All fatal injuries.
 - All injuries requiring first aid treatment.
 - All damages, to the Owner's or Contractor's properties.
 - All fires.
 - All releases or spills of hazardous materials.
- b) A written accident report shall describe in detail the circumstances, and include the result of the accident investigation and analysis.
This report describes the accident classification, cause, time, date, location etc. Written incident reports shall be submitted to Safety Officer/ Engineer/Manager and Owner's representative.
- c) A daily first aid record must be kept on all employees requiring first aid treatment.

Notice for Corrective Actions

- a) If the site worker fails or refuses to fulfill his safety responsibility or to correct unsafe conditions or practices, he will be ordered by Safety Officer/Engineer the necessary corrective action.

- b) If the site worker to heed the instruction or advice or neglects fire precautions Safety Officer/Engineer issue the letter of instruction for corrective action to the Site Engineer. The unsafe work will be stopped. The work will not commence again until corrective action has been taken.

Safety Training

- a) Schedule safety training program should be organized and publish amongst the staff.
- b) Detailed training program should be drawn up for each site.
- c) Ongoing promotional activities should be schedules viz. safety slogan competition, safety poster competition and safety quiz.

Statics And Record Keeping

- a) All injuries or fatality occurring at the work site should be recorded, investigated and report represented to the project in charge / project manager and safety committee.
- b) These injuries regardless whether they fall within the statutory definition of accident will be the statistical basis for identifying where the dangers lie.
- c) Details such as a number of days absent from work and cost of medical treatment should be kept for analysis at the end of the project.

Safety Sign Posting

- a) Standard safety signs should be used in the work site.
- b) Where there are dangers not easily recognizable such as excavation or overhead activity etc.

6.6 Hazards & remedial measures during construction

• Main hazards

- i) The movement of plant and traffic
- ii) Falls of materials
- iii) Falls of persons
- iv) Excavations
- v) Manual handling

• Remedial measure

i) The movement of plant and traffic

- Isolating vehicles and plant from the people working on the site
- Planning/scheduling work so that vehicles and pedestrians are not operating in the same area at the same time
- Minimizing plant movement on site by locating loading areas close to storage areas
- Providing drive through access to minimize turning or reversing
- Establishing designated delivery and turning areas
- Using fences, barriers, barricades, safety rails, exclusion zones, etc. to separate pedestrians from mobile plant and vehicles
- Planning the direction of traffic movement to minimize plant travel around the site

- Providing warning signs at all entrances and exits to the site
- Establishing speed limits on site
- Using audible reversing alarms, flashing lights and reversing cameras
- Using spotters or dedicated traffic controllers to manage traffic movement
- Restricting access to areas where mobile plant is operating
- Ensuring that workers wear high visibility clothing.

ii) Falls of materials

- Isolate the area below roof work wherever there is any danger of people being struck by falling material, debris or tools.
- Isolate the areas under roof edges unless toe boards are fixed to temporary guard railing to contain all material, debris and loose tools.

iii) Falls of persons

- Using Guardrail systems with toe boards
- Using Safety net
- Using Safety Belts and Harness.

iv) Excavation

- Remove or minimize all surface obstacles at the worksite that may create a hazard
- Wear warning vests or other reflective or high-visibility garments that you provide when they are exposed to vehicular traffic.
- Wear or use prescribed protective gear and equipment correctly.
- Operate equipment only if they have been trained properly in its use and alerted to its potential hazards.

v) Manual handling

- Putting the load on wheels if you can instead of carrying it.
- Use mechanical handling equipment.
- Wear the right equipment for the job such as safety boots.
- Check the weight of the load before lifting.
- Do not lift the loads higher than is necessary.
- Check properly that there are no overhead power lines or obstructions when you are carrying a long load such as reinforcing rods.
- Remove or secure loose objects on the load.
- Get assistance if the load is too heavy or awkward for you to handle on your own.
- Make sure that there is a clear walkway to your destination and a safe stacking place.

6.7 Road works

- a. Conducting geo-technical investigation as per **IRC: 75 – 1979**
- b. Site clearance, removal of tree stumps and dismantling of obstructions, encroachments etc.
- c. True and proper setting out and layout of the works as per working drawings
- d. Widening and strengthening /reconstruction of the existing carriageway;
- e. Construction of new road, bypasses, detours, service roads;
- f. Remodeling / Construction of junctions, intersections including grade separators, bus stops, lay byes

- g. Construction of culverts, minor bridges and approaches
- h. Providing road markings, road signs and kilometer stones
- i. Construction of protective works, crash barriers, guard rails, guard posts
- j. Plantation in the median, roadside, slope protection, Turfing and environmental measures
- k. Maintenance of existing road during the construction period

Maintenance of diversions and traffic control devices

As per clause **-112.5 section -100 of MORTH 5th Revision**, Signs, lights, barriers and other traffic control devices, as well as the riding surface of diversions shall be maintained in a satisfactory condition till such time they are required and as directed by the Engineer. The temporary traveled way shall be kept free of dust by frequent applications of water, if necessary.

- **IRC:SP:55-2014 Clause 4.19.2**

Note 1: The temporary carriageway must satisfy the following requirements:

- It should have smooth horizontal and vertical profile with smooth vertical and horizontal curves;
- It should not get overtopped by flood or drainage discharges under any conditions;
- It should have adequate capacity to cater to the expected traffic;
- It should be dust free and should ensure clear visibility at all times of day and night and barricading should be provided to prevent construction material falling on the diversion.

Note 2: The IRC has recommended gradients for road on plain or rolling terrain as 3.3% (i.e. one in thirty) as ruling gradient and 5% (i.e. one in twenty) as limiting gradient.

- Provisions are made to prevent operatives crossing the lanes open to traffic on foot to gain access to works or compound areas by using authorized vehicles, temporary bridges only.
- Adequate measures are implemented to prevent traffic coming into contact with temporary/ permanent structures, i.e. by using temporary barriers.
- Adequate temporary lighting is provided wherever it is required.
- Speed limits are set, marked and enforced.
- All access routes are clearly signed and maintained
- Those arrangements are made to reduce the need to reverse vehicles. Where this is not possible, a trained flag man must be provided.
- All appropriate personnel wear high visibility clothing
- All personnel to wear hard hats, safety footwear and any other applicable protective clothing / equipment as per the need.
- Precautions are in place for underground / overhead cables.
- All signs for road works comply with national codes
- Define the working area in the live road/footway
- Define the working space – this include the areas for storage of tools and equipment's and space to move around the job
- Provide a safety zone – this is an area to separate the work from the traffic – it must be kept clear of all work, materials storage and people and must be clear of the working radius of all plant
- Work must be undertaken by certified supervisors and certified operatives
- Minimum lane sizes and provision of adequate safety zones may result in the need for road closures. In that case the work will need to be planned.

- **Precautions**

Planning Stage:

Safety should be an integral part of the design. Planning should consider the following:

Sufficient space for:

- Provision of lateral and longitudinal safety zones
- Vertical clearance and safety zones
- Carrying out the works: special attention will be required where restrictions are imposed by physical obstructions, i.e. Bridges, overhead power lines, slip roads, etc.
- Provision and maintenance of buffer zones between opposing traffic flows.
- Provision and maintenance of emergency vehicle lanes through the site
- Pedestrian and vehicle access to and from the worksite.
- Provision of site offices, storage of materials, etc.

6.8 Bridge works

- a. Site clearance, dismantling of obstructions
- b. True and proper setting out and layout of the works as per working drawings
- c. Construction of open/ well/ pile foundations for piers and abutments and conducting detailed subsoil explorations in accordance with **IRC: 78-1983**
- d. Construction of piers and abutments, including bearings
- e. Construction of pre-stressed (post-tension/ pre-tension) / reinforcement cement concrete superstructures;
- f. Providing footways/verges, wearing coat, crash barriers, hand railing, expansion joints, approach slabs, drainage spouts/down take pipes, arrangement for fixing light posts, water mains and utilities
- g. Construction of protective works, gabions, guides bunds etc.
- h. Providing wing walls, return walls, dirt walls, back fill, filter media, weep holes etc.
- i. Providing road markings, road signs
- j. Construction of approaches on either side of the bridges

Bridge works & concreting

Hazards

- Falling materials/ Debris
- Fall from fragile/temporary structure
- Temporary Platforms
- Giving way of temporary struts & guy ropes
- Weak ladders / improper footings
- Broken/ Defective rungs
- Inadequate / improper securing arrangements
- Falling
- Being struck by falling tools / materials
- Collapse of partly erected structure due to
- Unsuitability
- Wrong erection sequence
- Unsafe handling / lifting transportation
- Adverse weather conditions

Control Measures

- Must be carried out under competent Supervision.

- All activities be planned and then executed.
- No over loading of existing structure.
- Provide necessary shoring/supports irrespective of the magnitude of activity.
- Use of safe and robust machines only.
- Place a ladder so that the horizontal distance from the base to the vertical plane of the support is approximately one fourth the ladder length between supports.
- Do not use the ladder in a horizontal position.
- Clear passage should be left for easy handling and transportation of materials.
- All persons shall stand clear when a crane is sorting or shifting steel girders or other structural materials.
- Slings should be carefully done so as to prevent the load from slipping.
- Proper sequence of erection should be followed.

6.9 Site transport

Almost 90 percent of the road accidents are attributable to human factor and the condition of the vehicles and roads being the other. Some of the facts revealed by the studies of these accidents are as follows:

- a. Young drivers in the age range 18-25 years have been increasingly involved in motor vehicle accidents.
- b. Elderly drivers over 60 years are more susceptible to accidents
- c. Age is an important factor in driving through different areas. Young drivers can drive more safely in urban/built up areas: elderly drivers are safer on the highways. (This point is to be considered in selecting the driver especially for shifting the labour)
- d. The inattention time gradually increases on a long drive on highways, thereby slowing the reaction time in an emergency.
- e. Fatigue is more dangerous than most medical conditions. This contributes nearly 60 percent of the accidents as per W.H.O. The fatigue element was even more significant in the young age drivers (18 to 24 Years)
- f. Proper registration of the vehicle is an important legal requirement.
 - i. A driver plying a vehicle should be at least 18 years old and must hold a valid and current driving license issued by the prescribed licensing authority.
 - ii. A driver driving a vehicle of permissible weight exceeding 3.5 tonnes in the case of dumpers should be at least 21 years and must possess a valid heavy vehicle license.

All drivers shall follow all the traffic rules. Some of the important rules for drivers are as follows:

- i. Follow the indications given by traffic signs
- ii. Comply with the traffic control signals on the road
- iii. Stop and proceed at unmanned road junctions or those without signals and unguarded railway level crossings.
- iv. Before driving off, the driver should go around the vehicle to ensure that no man or cattle is resting under the vehicle or nearby under its shade. No other equipment is parked nearby which may be effected due his vehicle movement.
- v. No one should get up or get down from a moving vehicle
- vi. No one should sit on the sides of the panels or on the top of driver's cabin.
- vii. Undue haste should be avoided
- viii. Driver should shut off the engine and the cabin locked before leaving the vehicle.
- ix. Vehicles should be loaded as per the loading capacity specified by the manufactures.

6.10 Defects of overloading

Overloading causes more wear and tear of tyres, damages road surfaces and decreases efficiency of the moving components of a vehicle. Overloading is also cause accidents due to the following

- i) Loss of control on steering
- ii) Inadequacy of brake power
- iii) Failure of components due to fatigue
- iv) Over-turn while negotiating sharp bends.
- v) Drinking and driving Routine daily checks must carry by the drivers before starting their vehicles/ equipment's. Some of the usual checkpoints are:
 - i) Horn, Wiper, Emergency brakes, all lights of the vehicle, Steering, Tyres condition and Pressure, Wheel brakes, Water in radiator
 - ii) The equipment's department and the Workshop should ensure the systematic maintenance routine. Ensure that drivers are conversant with e maintenance routine.

6.11 Safe means of access

- Access to the site will be restricted to unauthorized personnel.
- At all times, a safe and protected means of access will be provided for personnel.
- An access for emergency evacuation will be provided.

6.12 Public protection

The public will be protected from the normal dangers associated with construction sites and they include:

- Perimeter fencing and hoarding
- Restrictive or no access signs
- Gantry walk ways
- Safety signs

6.13 Employee Protection

The company will supply personal safety equipment to every employee whilst the work being performed by the employee could be injurious to his health and safety. Types of safety equipment may include

- Safety helmets
- Eye protection equipment
- Respiratory protection equipment
- Hearing Protection
- Safety belts and harness
- Safety foot wear
- Hand protection

The safety protective equipment will be given to the workers as the need arises.

6.14 Safety Of Project Workmen At Site

- Safety of the Project Workers at site during duty hours will be ensured.
- Safety measures appropriate (as per Project Safety Plan) for the job will be adopted.

- The job specific PPEs i.e. Helmets and Safety jackets will be provided to workmen at site and it will be compulsory for them to wear the same.
- Site engineers will ensure the use of PPEs by workmen.
 - i. Use of Safety Jacket will be compulsory for the workmen engaged for roadwork.
 - ii. Use of Safety helmet will be compulsory for all workmen including the staff.
- Labour Laws in force will be followed.

6.15 Demolition Works

- Demolition work is particularly hazardous. It should only be carried out under the supervision of experienced (in demolition) person.
- If in doubt about the stability of a permanent or partly demolished structure, consult a structural engineer and always check with your manager if you are concerned.
- Any demolition shall be proceeded in systematic manner as per the standard safe operating practices
- Demolition by hand is the most hazardous and should be closely supervised.
- Barricades and warning signs are to be erected along each side of the demolishing site to prevent unauthorized persons entry during demolition work.
- No person other than the persons essential to the operation of demolition work shall be permitted to enter the zone of demolition.
- Do not enter demolition sites without first getting permission from both the person in charge and your manager.
- Safe distances from the structure must be established to eliminate the hazard of debris falling on workers or the public during explosive demolition
- No structure or part of structure is left unguarded in such a condition that it may fall, collapse or weaken due to wind pressure or vibration.
- All persons involved in these works must wear hard hats and other necessary PPE.
- Safe places of work must be provided, complete with guardrails and toe boards. When these cannot be provided, safety harnesses must be used.
- Before starting the demolition work the utility services must be contacted and all services disconnected or diverted.

6.16 Fire

Fire prevention is much better than firefighting.

Fire incidents have many serious consequences: people injured, buildings, plant and equipment destroyed or damaged. The possibility of fire on a construction site needs to be carefully considered since the potential exists due to hot work, flammable and combustible materials, and the presence of ignition and fuel sources, which are omnipresent. Efforts must be undertaken to prevent the occurrence of fires.

Fire Prevention

- Internal combustion engine powered equipment must be located so that exhausts are away from combustible material.
- Smoking is prohibited at, or in the vicinity of operations, which constitute a fire hazard. Such operations must be conspicuously posted: "No Smoking or Open Flame."
- Portable battery powered lighting equipment must be approved for the type of hazardous locations encountered.
- Combustible materials must be piled no higher than 6 meters. Depending on the stability of the material being piled, this height may be reduced.

- Keep driveways between and around combustible storage piles at least 4.5 meters wide and free from accumulation of rubbish, equipment, or other materials.
- Portable fire extinguishing equipment, suitable for anticipated fire hazards on the jobsite, must be provided at convenient, conspicuously accessible locations.
- Firefighting equipment must be kept free from obstacles, equipment, materials and debris that could delay emergency use of such equipment. All personnel at site shall be familiar with the location and use of the project's firefighting equipment.
- Discard and/ or store all oily rags, waste, and similar combustible materials in metal containers on a daily basis.
- Storage of flammable substances on equipment or vehicles is prohibited unless such unit has adequate storage area designed for such use.
- Lightning conductors are to be provided at all required places

Flammable and Combustible Liquids

- Explosive liquids, such as petrol, shall not be used as cleaning agents. Use only approved cleaning agents.
- Store petrol and similar combustible liquids in approved and labeled containers in well-ventilated areas free from heat sources.
- Handling of all flammable liquids by hand containers must be in approved type safety containers with spring closing covers and flame arrestors.
- Approved wooden or metal storage cabinets must be labeled in conspicuous lettering: "Flammable-Keep Fire Away."
- Never store more than 230 liters of flammable, or 455 liters of combustible liquids in any one approved storage cabinet.
- Electrical wiring and equipment located inside storage rooms shall be approved for hazardous locations. Every combustible material storage room shall be provided with adequate exhaust system/ or well ventilated.
- Transfer of flammable liquid shall be carried out with proper connectivity by means of earthing.

Whilst non-compliance of the following procedures may cause people and buildings at risk, the further potential is that insurers would see such non-compliance as a breach of contract and thereby any existing fire insurance cover would become invalid. It is imperative therefore that the following procedures are complied with.

6.17 Electrical Safety

Hazards

- Electric shock
- Electric burns
- Electric fires and explosions
- Injuries caused due to electrical accidents such as hits, falls, striking against, etc.

Severity of electric shock depends on the following

- Amount of current
- Path of flow
- Period of flow
- Nature of Current
- Frequency
- Resistance offered by the body to the flow of current

Reasons for Electric shock

- Insulation failure
- Equipment failure
- Poor maintenance
- Wrong work methods
- Substandard material and workmen ship
- Unauthorized personnel
- Lack of training and knowledge, etc.,
- There is no safe voltage. Even a small shock can startle you and cause you to jump back causing a slip or fall.
- All electrical equipment's should be considered dangerous.
- Overhead wires are not insulated.
- Electricity can jump air gaps and current can be induced in metal structures parallel to power lines
- If you have to work continuously, erect clearly marked barriers to protect overhead power lines, which remain live – provide 3m minimum clearance

Underground electrical cables do not lie in straight lines; they snake about within a trench.

6.18 House Keeping

Definition: Housekeeping is an orderly arrangement of operations, tools, equipment, storage facilities and supplies. A place for everything and everything in its place. House Keeping is a good indicator of construction safety attitude. It improves employee's morale, reduces operating cost, increases production time, facilitates easy check of operations and reduces accident.

Main hazards

- Poor storage of materials.
- Rubbish left to accumulate
- Restricted or blocked access
- Inadequate waste skips or bins
- Trailing cables.

Due to poor housekeeping many accidents happen on site. The majority of these are slips, trips, falls and manual handling accidents.

Precautions

- Maintain the worksite and premises in a healthy, clean and sanitary condition.
- Plan access routes and keep all gangways, aisles and stairways clean and clear.
- Define storage and compound areas.
- Stack or place materials, tools and other equipment in a such way that they do not hinder worksite activities
- Ensure materials are stored correctly and kept in the store until needed.
- Ensure brick packs are stacked no more than 2 packs height.
- Ensure that waste materials are cleared up and disposed of correctly, or placed in waste containers, as work proceeds. Don't leave rubbish lying around: tidy up as you go.
- Clear up turnings, chips or off-cuts
- Ensure protruding nails are removed from timber. Withdraw all nails of used lumber before stacking.
- Wipe out spilled oil, grease or liquids immediately. Special attention shall be given to removal of slipping and tripping hazards
- Use metal containers/ half cut empty drums for oily or greasy rags and waste

- Keep work spots uncluttered.
- Don't leave loose tools on running machines.
- Use signs whenever and wherever necessary.

6.19 Excavations & Trenching

Definition: When the depth of an excavation exceeds its width, it is regarded as a trench. When width exceeds the depth, it is an excavation.

Every Year large number of persons are killed and injured as a consequence of excavation activity. These figures relate not only to construction workers but members of the general public, particularly children, who are regularly victims of excavations left unprotected, some filled with water.

The danger of all excavations, regardless of depth and strata, is not always accepted or recognized by those engaged in excavation activity. All too often, we adopt a careless attitude to the dangers of excavation collapse with disastrous consequences.

Sites shall ensure that all excavation work is undertaken in a safe and proper manner. For this reason we shall ensure our subcontractors are also required to understand the risk assessments/ method statements for all excavation activity before work proceeds.

Main Hazards

- Underground services
- Collapse of sides
- Falls of Persons
- Falls of Materials
- Undermining adjacent properties
- Asphyxiation
- Movement of mobile Plant
- Tipping of materials
- Ground water conditions

PRECAUTIONS

Design and planning

There remains a false impression among Supervisors and Operatives with many years' experience that certain excavations could not possibly collapse. For this reason, several factors have to be taken into account in the design and planning of excavation works:

- Nature of the soil, including the proximity of any made up ground
- Whether and moisture content.
- Size of excavation
- Method of excavation
- Proximity of other structures, services or sources of vibration.
- Duration of work.
- Well point dewatering systems.
- Availability of suitable timber before work starts.

From a consideration of these factors, the appropriate method of stabilizing the sides of an excavation shall be chosen:

- Battered sides.
- Timber framing.
- Trench sheeting.
- Sheet piling.

- Box system.
- Hydraulic shoring system

It is important that everyone understand there is no 'good' soil, all excavations over 1.2m deep must be supported or battered back.

Buried Services

It is a legal requirement that, before any excavation starts, public services bodies are contacted about the termination or isolation of existing services before and during the period of excavation. It should be appreciated that not all buried services are plotted on existing public service drawings and so sites must check for buried services. Service locating equipment should be available for use if enquired in advance.

Supervision

All excavation / trench work will only be carried out under the supervision of a competent person.

Access and Egress

Adequate and safe means of access and egress must be maintained for those working within excavations by use of appropriate ladders. Consideration must be given to escape in case of flooding or other emergencies. Access ways crossing excavations must be properly constructed and comply with the width criteria appropriate to the work.

Ventilation

Whenever work produces dangerous dust or fumes, the operatives must be protected by appropriate induced ventilation or exhaust ventilation. Regular atmospheric monitoring is required to ensure the atmosphere remains fit to breathe.

Fencing

Excavations, shafts or pits more than 2m deep, near which persons work or pass, must either be protected at the edges by guardrails or barriers, or be securely covered. The protection of excavation next to public highways is of particular importance. Barriers and fencing must be provided to a minimum height of 2m together with adequate lighting and warning notices.

6.20 Tool Box talks

After induction and Specific Health and safety training the Officers and Technical persons will train their concerned section/ department workers through toolbox talks. The Safety department will coordinate and monitor these toolbox talks.

Toolbox safety talks are especially important to the supervisors on jobsites and projects because they afford the supervisor the opportunity to convey, in a timely manner, important information to the workers. Toolbox talks may not be as effective as the one on one, but still surpass a memorandum or written message. In the five to ten minutes prior to the workday, a shift, at a break, or as needed, this technique helps communicate time-sensitive information to a department, crew, or work team.

These short succinct meetings convey changes in work practices, short training modules, facts related to an accident or injury, specific job instructions, policies and procedures, rules and regulation changes, or other forms of information which the supervisor feels are important to every worker under his supervision.

Although toolbox talks are short, these types of talks should not become just a routine part of the workday. Thus, in order to be effective, they must cover current concerns or information, be relevant to the job, and have value to the workers. Carefully plan toolbox talks to effectively transmit a specific message and a real accident prevention technique. Select topics applicable to the existing work environment; plan the presentation and focus on one issue at a time. Use materials to reinforce the presentation and clarify the expected outcomes.

Some guidelines are

- Plan a toolbox-training schedule in advance and post a notice.
- Prepare supporting materials in advance.
- Follow a procedure in the presentation: explain goals; try to answer questions; restate goals; and ask for action.
- Make attendance mandatory
- Make each employee sign a log for each session.
- Ask for feedback from employee on the topics or other proposed topics.
- Involve employees by reacting to suggestions or letting them make presentations when appropriate.
- Reinforce the message throughout the workweek.

No matter how effectively you communicate with your work force, you still need to assure that your work force has the competence to perform the basic skills for the tasks they have been assigned.

6.21 List of areas where personal protective equipment is necessary

EAR PLUGS

- Generator rooms

DUST MASKS

- Drilling operations
- Blasting Operations
- Crushing Plant (While in operation)
- Hot Mix Plant (While in operation)
- Batching Plant (While in operation)
- Laboratory (As per the Need)
- During Heavy Earth Moving Equipment Operations (during dry weather)
- During Handling of Cement Bags
- And in other dust generating operations.

Common Guidelines for Wearing PPE

- Wear all required PPE for the job or task.
- Inspect all PPE for wear or damage prior to use.
- Take care of and clean PPE when necessary.
- Do not use PPE for which worker has not received training.
- Workers wearing prescription eyeglasses should use hardened safety glass lenses.
- Goggles shall be worn during climbing, lifting, or potential contact with chemicals,
- Approved ear protection shall be worn when required
- Respirators shall be worn if the concentration of dust, toxic fumes, or other air contaminants exceeds safe exposure levels.

- Workers working in areas where overhead structures, equipment, or stored materials create a hazard shall wear hard hats and be required to wear them at all times.
- Where work is carried out at different levels, at plant areas, while working at live roads or adjacent live roads all must wear safety helmets.
- Proper safe foot wear shall be worn on the job sites.
- Workers shall wear suitable work clothing consisting of at least long pants and a tucked in short sleeve shirt.
- Rubber boots must be worn when doing concrete work.
- Always wear life jackets when working over, or adjacent to deep water.
- Men working at height must wear standard Safety Belt of approved quality and lifeline should be less than 3/4" dia and 3M long.
- Persons doing material handling jobs, gas cutting, welding or operating paving breakers should wear hand gloves recommended for respective job.
- While gas cutting, welding grinding, operating pavement breakers, etc. men must wear Safety goggles recommended for the purpose.
- Ear Plug or Ear Muff shall be used while working at places with high sound level above 80 dB (A).
- Nobody should wear loose cloths.
- While working at plant areas, mixing asphalt materials, cement and during reinforcement works shall use protective foot wear.

7. **TRAFFIC MANAGEMENT PLAN**

Introduction

This Traffic Management Plan (TMP) describes how **M/S DBL Mangalwedha Solapur Highways Pvt Ltd** proposes to safely manage vehicular, cyclists and pedestrian traffic during the design and construction phase of the **"Four Laning of Sangli-Solapur (Package-IV: Mangalwedha to Solapur) Section of NH-166 from existing Ch. Km. 314.969 to Ch. 370.452 (Design Ch. Km. 321.600 to km 378.100) of length 56.500 Km in the State of Maharashtra on Hybrid Annuity Mode"** so that project objectives are fully realized.

Concessionaire acknowledges the safety of road users and the effective management of traffic is paramount to the successful day-to-day activities during the construction phase of this Project. This TMP seeks to ensure the certainty of the delivery of the prescribed road user requirements including: provision of a safe environment for workers and the travelling public, and minimizing impacts on the road network.

This Plan operates as the document to a set of site or zone specific Traffic Management Plans (TMP) and their associated Traffic Control Plans (TCP). Together they deal with the safe and effective management of traffic during the design and construction phase of the Project.

This TMP is applicable to all staff, employees, subcontractors, and any statutory Service Authorities undertaking service relocations throughout the duration of the contract until project completion and its implementation and on-going development will be managed by the team.

7.1 Construction zone

Construction Zones are an integral part of any road construction system. The safety practices in construction will, therefore, be oriented towards reducing conditions, which lead to such hazards and consequent stress whereby risk of accident increases. Safety measures will be aimed at avoiding hazardous conditions especially in work sub zones where major construction activities are going on. For all purposes, the entire stretch will be treated as work sub zone.

7.2 Signs

The construction and maintenance signs fall into the three major categories viz. regulatory signs, warning signs and guide signs as other traffic signs do. Ref: IRC: 67 (Code of Practice for Road Signs).

i) Mandatory/regulatory signs

Indicate requirements, restrictions and prohibitions. These include signs, such as, STOP, GIVE WAY, Speed Limits, No Entry, etc. which give notice of right of way, special obligations, prohibitions or restrictions with which the road users must comply. These are installed to give effect to a traffic regulation order or other statutory provision. Regulatory signs either give positive instructions or indicate a prohibition. Signs giving positive instructions are generally circular with a white border and symbol on a blue background. They usually indicate something all drivers must do (e.g. keep left). The exceptions in shape are the octagonal red STOP sign and the triangular GIVE WAY sign. These two signs provide indication about the right of way to drivers. Prohibitory signs, which generally indicate to the drivers what they must not do, are mostly circular and have a red border. The red ring indicates the prohibition; diagonal bars are used only on signs which prohibit a specific man oeuvre, i.e. banned left or right turns or U-turns. These signs need to be complied with and any violation of the rules and regulations conveyed by these signs is a legal offence.



ii) Cautionary warning signs

Warning signs are used to caution and alert the road users to potential danger or existence of certain hazardous conditions either on or adjacent to the roadway so that they take the desired action. These signs indicate a need for special caution by Road users and may require a reduction in speed or some other man oeuvre. Some examples of these signs are Hairpin Bend, Narrow Bridge, Gap in Median, School Ahead etc.



iii) Informatory/ guide signs

These signs are used to provide information and to guide road users along routes. The information could include names of places (recreational, tourist, cultural interest area signs and emergency management signs), sites" direction to the destinations, and distance to places, to make the travelling/driving easier, safer and pleasant. Guide signs



are essential to direct road users to inform' them of intersecting routes, to direct them to cities, towns, villages, or other important destinations, to forests, and historical sites, and generally to give such information as will help them along their way in the most simple and direct manner possible.

- **Size of signs**

As a general rule, there shall be three sizes (small, normal and large) of signs for mandatory/regulatory and cautionary/warning signs. The normal size shall be used for main roads and the small size shall be used for less important roads. For Urban roads and Expressways, refer respective Sections. For certain categories of mandatory /regulatory signs, a still smaller size may be used in conjunction with traffic light signals or on bollards on traffic islands. General dimensions of different categories of signs are given in respective Section.

- **Visibility of signs**

In order to make signs more visible and legible at night, in particular cautionary/ warning signs and regulatory signs, other than those regulating parking and stopping in lighted streets of built-up areas shall be lighted or provided with reflective material including luminous paints or reflective devices and sheeting. Care should, however, be taken that this does not result in road users becoming dazzled.

- **Maintenance of signs**

Prior to installing any road sign, the responsibility for the maintenance of the sign and the post required, and the timing plan (s) should be clearly established. Over time, signs become faded and their retro reflective properties diminish. This reduces both conspicuity and legibility, by day and by night. Excessively discolored or faded signs (e.g. white backgrounds which have become grey or brown, or red borders faded to pink) and signs, where the legend or graphic is peeling cannot be fully effective, need to be replaced. The signs along with the posts shall be maintained in proper position, and kept clean and legible at all times. Signs should be cleaned at intervals appropriate to the site conditions. Signs at locations where they are subject to heavy soiling from passing traffic, or algae growth (a common problem with signs beneath tree canopies) will need more frequent cleaning.

A reference number along with the month and year of installation should be placed on the back of a sign in a contrasting color or by stamping in characters not exceeding 50 mm in height. It is distracting and unsightly to place reference numbers on the sign Face or on the front of a backing board.

All signs shall be inspected at least twice a year both in day and night times and at least once a year in the rain. All signs should be replaced at the end of the warranty period provided for the retro reflective sheeting used on the sign. Damaged signs shall be replaced immediately.

The authorities responsible for road signs should maintain a schedule of painting of the posts and signs periodically. It is recommended that painting of the signs (where applicable) may be undertaken after every two years. In case of overhead signs, adequate provision is to be made to have access to the signs for the purpose of maintenance activities. This must be ensured at the time of installation. Special care shall be taken to see that weeds, shrubbery, mud, etc. are not allowed to obscure any sign.

7.3 Traffic management practices

The traffic management strategies include the following fundamental principles:

- Making the traffic safety an integral and high priority element of the project.
- Avoid inhibiting traffic as much as possible.
- Guide Drivers in a clear and positive way.
- Routine inspection of traffic control element and traffic operations
- Protection to Project workers on work site

7.4 Arrangement for traffic during construction

As per **clause -112 section -100 of MORTH 5th Revision** concessionaire shall at all times, carry out work on the highway in a manner creating least interference to the flow of traffic while consistent with the satisfactory execution of the same. For all works involving improvements to the existing highway, in accordance with the directives of the Engineer, provide and maintain, during execution of the work, a passage for traffic either along a part of the existing carriageway under improvement or along a temporary diversion constructed close to the highway. Before taking up any construction or maintenance operation, concessionaire shall prepare a Traffic Management Plan for each work zone and submit it to the Engineer for prior approval. This plan should include:

A qualified safety officer with support staff to serve as a site safety team.

- i. Provision of traffic safety devises as per **IRC: SP 55 2014** with the following specifications
 - a. Signage's of retro-reflective sheet of high intensity grade
 - b. Delineators in the form of cones/drums made of plastic/rubber having retro-reflective red and white bands, at a spacing of 5 m along with a reflective tape to be tied in between the gaps of cones/drums. A bulb using solar energy is to be placed on the top of the cone/drum for delineation in the dark hours and night
 - c. Barricades using iron sheet with adequate iron railing/frame painted with retro-reflective paint in the alternate yellow and black & white stripes. Warning lights at 5 m spacing shall be mounted on the barricades and kept lit in dark hours and night.
 - d. Road markings with hot applied thermoplastic paint with glass beads.
- ii. Safety measures for the workers engaged including personal protection equipment
- iii. First aid and emergency response arrangements
- iv. Details and drawings of arrangements in compliance with other sub Sections of this Section.

The guidelines for traffic management during road construction/repairs are as below.

There are broadly two types of diversions:

- i) New Diversion road
- ii) Portion of existing road

A safety zone has to be provided between live traffic lanes and the working area (this includes equipment, plant, tools, excavated materials, etc.)

- i) Adequate barriers are provided to protect the workforce, portable vertical barriers should be considered for this.

- ii) Access / egress locations for site transport are kept to a minimum.
- iii) The site Management shall ensure that Construction Zone comprises of four Sub Zones as described as per **IRC: SP: 55 -2014** hereunder:
 - a. Advance Warning Sub-Zone
 - b. Transition Sub-Zone
 - c. Work Sub-Zone
 - d. Termination Sub-Zone

7.5 Traffic safety and control

- i) As per **Clause -112.4 section -100 of MORTH 5th Revision** concessionaire shall take all necessary measures for the safety of traffic during construction and provide, erect and maintain such barricades, including signs, marking, flags, lights and flagmen as per the traffic management plan submitted by us and approved by the Engineer, referred to in **Sub-Section 112.1**. Before taking up any construction, an agreed.
- ii) Phased programme for the diversion of traffic on the highway shall be drawn up in consultation with the Engineer.
- iii) The barricades erected on either side of the carriageway/portion of the carriageway closed to traffic, shall be of strong design to resist violation, and painted with alternate black and white stripes. Red lanterns or warning lights of similar type shall be mounted on the barricades at night and kept lit throughout from sunset to sunrise.
- iv) At the points where traffic is to deviate from its normal path (whether on temporary diversion or part width of the carriageway) the channel for traffic shall be clearly marked with the aid of pavement markings, painted drums or a similar device to the directions of the Engineer. At night, the passage shall be delineated with lanterns or other suitable light source.
- v) One-way traffic operation shall be established whenever the traffic is to be passed over part of the carriageway inadequate for two-lane traffic. This shall be done with the help of temporary traffic signals or flagmen kept positioned on opposite sides during all hours. For regulation of traffic, the flagmen shall be equipped with red and green flags and lanterns/ lights.
- vi) On both sides, suitable regulatory/warning signs as approved by the Engineer shall be installed for the guidance of road users. On each approach, at least two signs shall be put up, one close to the point where transition of carriageway begins and the other 120 m away. The signs shall be of approved design and of reflective type, as directed by the Engineer.

7.6 Safe means of access

- Access to the site will be restricted to unauthorized personnel.
- At all times, a safe and protected means of access will be provided for personnel.
- An access for emergency evacuation will be provided.

7.7 Permanent barricade

Permanent barricades provided along the construction work of road will channelize the vehicles along the existing road. Main intention of this barricade is to make traffic aware about the construction work in progress. This is a psychological barrier preventing vehicles from going astray in to construction area.

Permanent barricade will be made of GI sheets fixed with properly anchored with steel. GI wire will be used to fasten the sheets for better stability. These sheets will be painted with alternate yellow and black inclined strips or red and white vertical strips. For night visibility red reflective sheets will be fixed on barricades.

7.8 Pavement barricade

The finished kerb on the median side of carriageway will be pavement barricade preventing the vehicles from entering into the area under construction. The portion of kerb above the finished asphalt top will prevent vehicles from crossing the median under construction, and its further entry into construction area. In eccentric and concentric widening situations kerb will be the pavement barricade wherever its casting has been completed.

7.9 Delineators

Delineators will be of cylindrical shape and will be made of concrete. They will be painted with black and white circumferential strips. Red colored reflectors or retro reflective sheet will be fixed to the delineator so as to make it visible to the traffic from either direction during night. These delineators will be placed at a suitable spacing to guide the drivers along a safe path and control the flow of traffic.







7.10 Flashing beacons/ road blinkers

Flashing beacons/ blinkers will be provided during night at places where construction activities will obstruct the main flow of traffic or at diversions where a switching of traffic occurs.

7.11 Construction entry/ exit points

Construction entry/ exit points will be clearly identified and marked. Construction traffic will be allowed to enter/ exit the construction area through these openings only. These will be marked with signboards or red colored flag

8. SIGN BOARDS

	Category	Colour	Shape	Examples
Regulatory/ Mandatory	Normal Regulatory (NR) Signs	As given in IRC:67-2012	Circular	
	Work Zone Regulatory (WR) Signs	Red & White	Rectangular	
Warning Sign	Normal Warning (NW) Signs	As given in IRC:67-2012 but in yellow background	Triangular	
	Work Zone Warning (WW) Signs	Black & Yellow	Rectangular	
Informatory Signs	Work Zone Information Signs (IS)	Black & Yellow	Rectangular	
	Work Zone Direction on Signs (DS)	Black & Yellow	Rectangular	

8.1 Normal regulatory sign boards

Stop sign is used in road works as per temporary traffic management plan where traffic is required to stop and that the vehicle shall proceed past the stop line only after ascertaining that this will not cause danger.



The **GIVE WAY** sign is used to assign right- of-way to the vehicles controlled by the sign must give way i.e. yield to other traffic having the right of way due to road works. Vehicles controlled by this sign need to slow down or stop when necessary to avoid interfering with conflicting traffic.



The sign shall be located at the **entry to the one-way** street due to detour or traffic diversion plan



The signs shall be located at road section where the vehicles are not allowed to enter on account of Work zone traffic management plan



This sign will be where a side road forms a T-junction with a two-way road and traffic is required to turn in one direction due to road works



This sign will be where a side road forms a T-junction with a two-way road and traffic is required to turn in one direction due to road works



The sign shall be erected to prohibit overtaking in approach warning zone. It can be placed both sides and can be repeated for emphasis



The sign shall be used to indicate that drivers must give way to oncoming vehicles. If necessary a definition plate can be installed below the sign written 'Give way to oncoming vehicles'. Definition plate can be written either in



English or Hindi or in regional language as appropriate

The sign shall be erected to prohibit parking on account of road works



The sign shall be erected to prohibit parking, waiting and standing on account of road works



The "No Parking" sign is used on the roads to prevent any parking of vehicles on the main carriageway which will lead to congestion



The sign shall be erected where entry is prohibited for vehicles whose axle load exceeds a particular limit in a temporary road or a structure for construction



The sign shall be erected in advance of an overhead structure where entry height has been restricted due to road works



The sign shall be erected where entry of vehicles exceeding a particular length is prohibited on account of construction activities



The sign shall be erected where entry is prohibited for vehicles whose laden weight exceeds the indicated limit as the temporary road or structure cannot afford the weight beyond that indicated



The sign shall be located in advance warning zone to prescribe the speed limit and warrants reduction in the speed on approaches. It can be repeated with a lower value at the start of taper and also in the diverted pathway



The sign to indicate the diversion that are lawfully to be taken on account of work zone management plan and the traffic to move in the Ahead direction



The sign to indicate the diversion that are lawfully to be taken on account of work zone management plan and traffic to move ahead and right direction



The sign to indicate the diversion that are lawfully to be taken on account of work zone management plan and traffic to move ahead and left Direction



The signs indicate the diversion that are lawfully be taken and direction of movement with respect to the position of sign installed and traffic to move in left direction



The signs indicate the diversions that are lawfully be taken and direction of movement with respect to the position of sign installed and traffic to move in right direction



The diversions that are lawfully be taken in advance approximately 50 m ahead due to temporary traffic management plan



The sign is for the diversion that are lawfully be taken in advance approximately 50 m ahead due to temporary traffic management plan



The sign shows keep left of sign placed due to road works traffic diversion.



The sign shows keep right of sign placed due to road works traffic diversion



The sign shows vehicle can pass either side due to road works traffic diversion



The sign shall mean that only pedestrians are allowed and the traffic is not allowed on this portion of street due to temporary traffic management



This sign shall indicate the point at which all prohibitions imposed upon traffic due to road works traffic management ceases to apply



8.2 Work zone regulatory sign boards

Sign is to indicate that road ahead has been closed as part of temporary traffic management plan



The sign to be installed where a pathway or opening is kept for entry of works traffic only and all other traffic has to follow the WTMP provided for them



The sign is installed so that approaching traffic shall realize that the road that kept apparently opened is wrong way for them on account of temporary diversion and traffic shall not enter into it



It is mandatorily to inform that traffic control exists ahead through any of the methods of alternate one way movement



The sign shall be located at the very point where the traffic



The sign shall be located at the very point where the traffic



shall be deflected to a diverted pathway. The arrow shall be right if the deflection is to the right of approach direction. The sign shall be positioned in such a way that head beam from an approach vehicle will directly collide with the sign for better visibility

has to take a sharp deflection in its movement direction. The arrow shall be reversed if the deflection is to the right of approach direction. The sign shall be positioned in such a way that head beam from an approach vehicle will directly collide with the sign for better visibility

The sign to be used in alternate one way movement through portable traffic signal wherein traffic has to wait when red light blows



The sign to be used in alternate one way movement with STOP & GO control where traffic has to wait when STOP board is shown for them



Sign for traffic diversion at the very location where the sign is installed. It shall be positioned in such a way that signs falls in the funnel of the head beam from an approaching vehicle



Sign to indicate the one way movement to direction to which arrow is shown. The arrow direction be reversed if it is to the right of approach direction. It shall be positioned in such a way that signs falls in the funnel of the head beam from an approaching vehicle



Sign to indicate that road has been closed for through traffic. However, local or residential traffic can go up to a point, beyond which it will be totally blocked



Sign to indicate that road has been closed for all traffic due to temporary traffic management plan



Sign to indicate that exit has been closed for all traffic



Sign to permit exit only



The "GO" board in STOP and GO traffic control in work zone in a one lane two directional traffic control. The illumination of both in STOP and GO boards shall be uniform across the sign face and neither partial nor intermittent illumination is permitted



The "SLOW" board to slow down the traffic



8.3 Warning Sign

Sign to indicate change of direction to left in a work zone



Sign to indicate change of direction to right in a work zone



Sign in case of a reverse bend where first is right turn in a work zone



Sign in case of a reverse bend, where first bend is a left turn in a work zone



Sign to indicate a traffic control in an alternate one way movement ahead through a portal signal.



Sign to traffic from left is merging as part of temporary traffic management plan



Sign to traffic from right is merging as part of temporary traffic management plan



Sign to indicate road suddenly narrows due to road construction



Sign to indicate to pavement width widens ahead in a temporary traffic control zone



Sign to indicate narrow bridge ahead where the width of carriageway is less than the normal width of carriageway in work area



Sign to indicate to steep ascent more than 10% in a traffic control zone



Sign to indicate to steep descent more than 10% in a traffic control zone



Sign to indicate that left traffic lane tapers due to construction work



Sign to indicate that right traffic lane tapers due to construction work



Sign to warn that pedestrians are crossing in work zone



Sign to warn that school in work zone area



Sign to warn that two way movement is ahead as part of WTMP



Sign to warn that one (right) lane closure out of two lanes



Sign to warn that one (right most) lane closure out of three lanes



Sign to warn that one (right most) lane closure out of four lanes



Sign to warn that traffic has to be shifted to other carriageway due to WTMP



Sign should be displayed when men or machines are working on the road or adjacent to it. The sign with supplementary plate "END" shall be provided at the leaving side of the work zone



Sign to warn that sudden dip in road profile to road work area



where traffic revert back to normal flow

Sign to warn speed reduction hump ahead due to work zones



Sign to warn speed reduction with rumble strip due to work zones



Sign to warn about rough road in a temporary traffic control zone



Sign to warn about rough road in temporary traffic control zone



Sign to warn about loose gravel may be thrown due to traffic movement in road works



Sign to warn road is slippery due to road works



Sign indicate single Chevron in a temporary diversion



Sign indicate that stop and go traffic control established using Flagman in an alternate one movement as part of WTMP



8.4 Work zone warning signs

Sign to indicate the road works progresses ahead and sign is installed in the advance warning area



Sign to indicate the temporary traffic diversion and can be installed in the advance warning area



Sign to indicate slow traffic ahead due to road works and can be installed in advance warning area



Sign to inform of one lane road due to traffic control and can be installed at advance warning area



Sign to inform the closure of road at 500 m ahead



Sign to inform the Detour of traffic at 300 m ahead



Sign to warn of blasting zone at 500 m ahead



Sign to inform roadwork ends at the end of traffic control zones



Sign to inform the through traffic that construction vehicles are likely to exit from the work zone in order join the main stream and be cautious



8.5 Work zone informatory sign boards

Sign to indicate the footpath for pedestrian to walk.



Sign to warn that footpath has been closed due to roadwork.



Sign to inform the pedestrians to proceed the arrow leading to



Sign to inform of cycle track and for a facility for cyclist to avail



Sign to inform approaching traffic to take a detour due to temporary traffic diversion plan



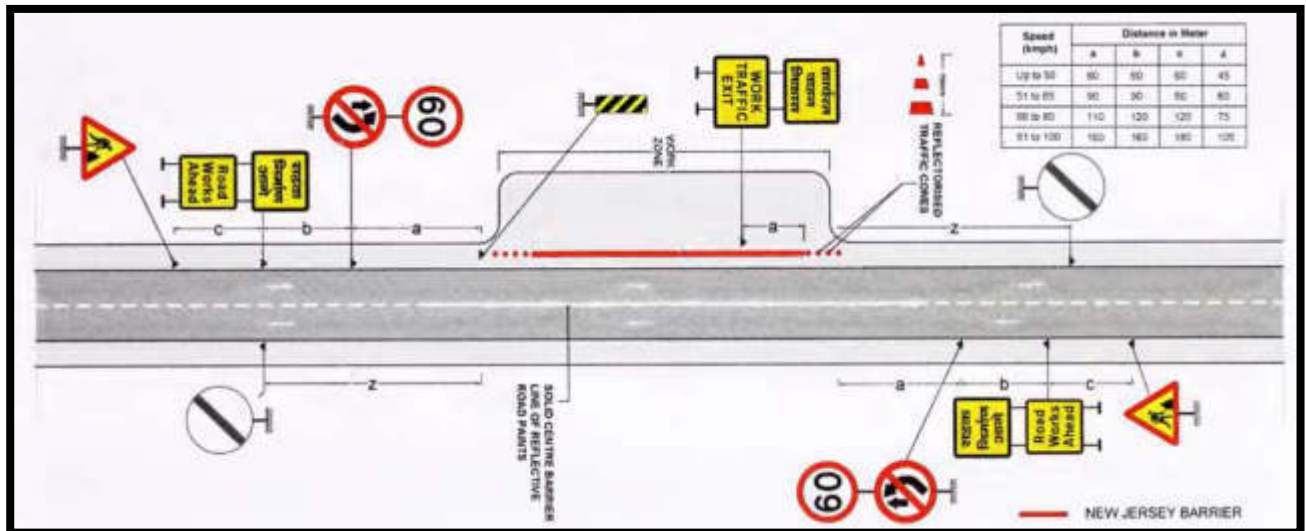
Sign to inform of end of detour.



9. TRAFFIC MANAGEMENT PLAN FOR SPECIFIC CONDITIONS

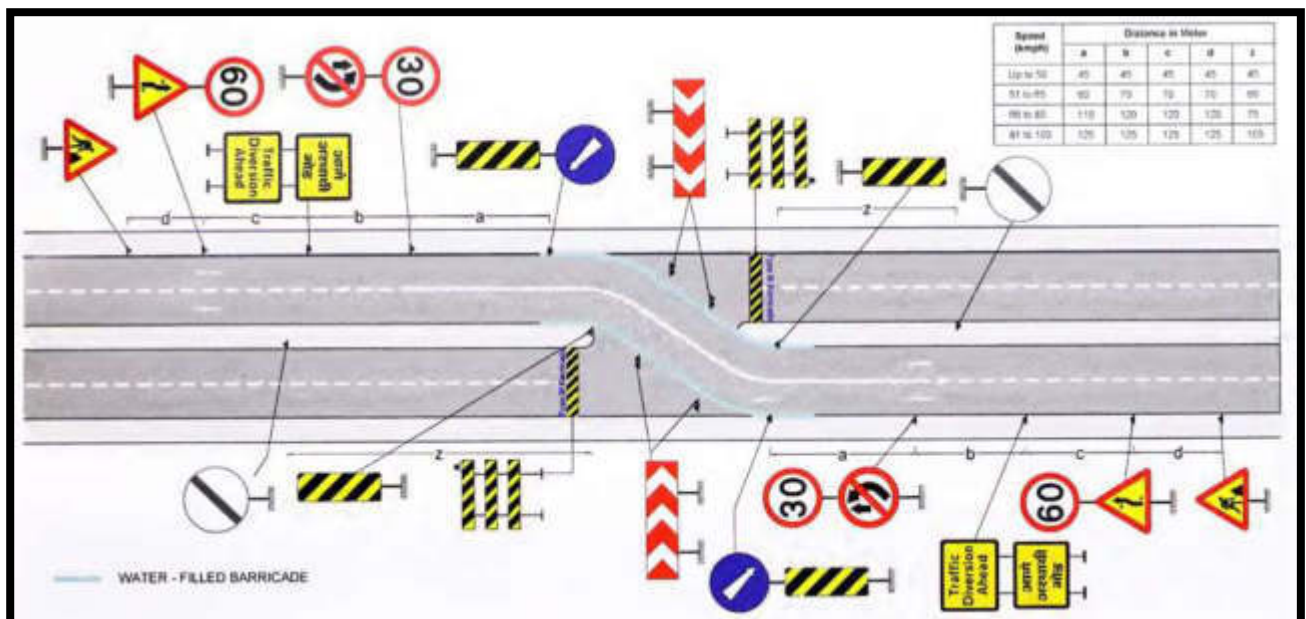
9.1 Two lane to four lane (eccentric widening)

The Layout Shown is applicable when two lane highways are upgraded to 4 – Lane, with eccentric widening. In the first stage the new carriageway would be constructed on the sides. While the new carriageway is being constructed, the traffic will continue to ply through the existing road. Layout of signs and barriers would be as shown.



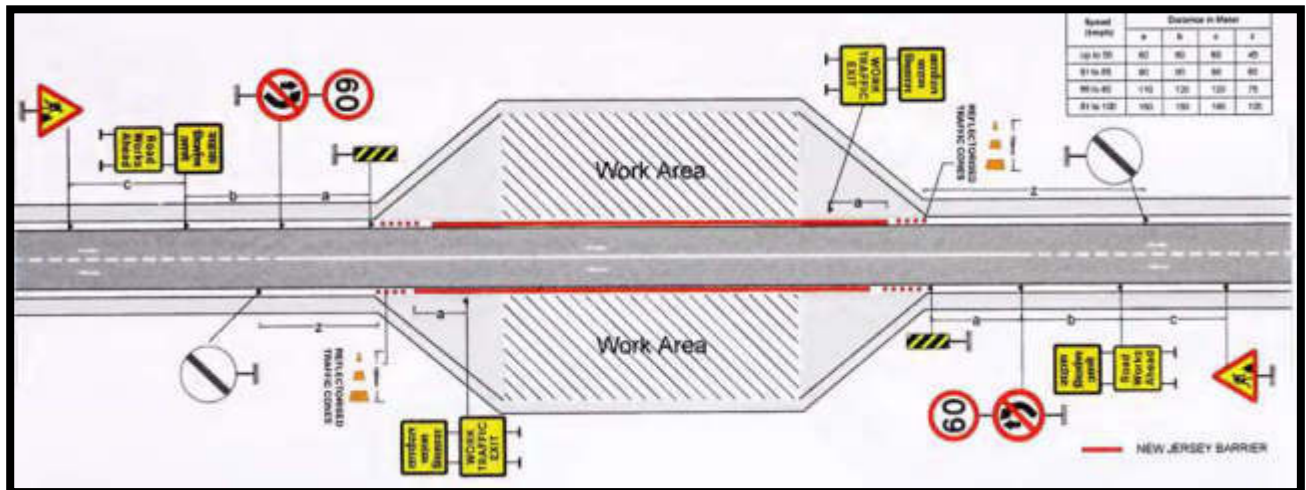
9.2 Two lane to four lane (shifting of traffic from one carriage to other)

The layout is applicable for the second stage of eccentric widening when new carriageway has been constructed and existing carriageway is taken up for strengthening or overlay, where traffic has to be shifted from one carriageway to other, the cross over length is critical and shall be carefully provided, meeting the site requirements.



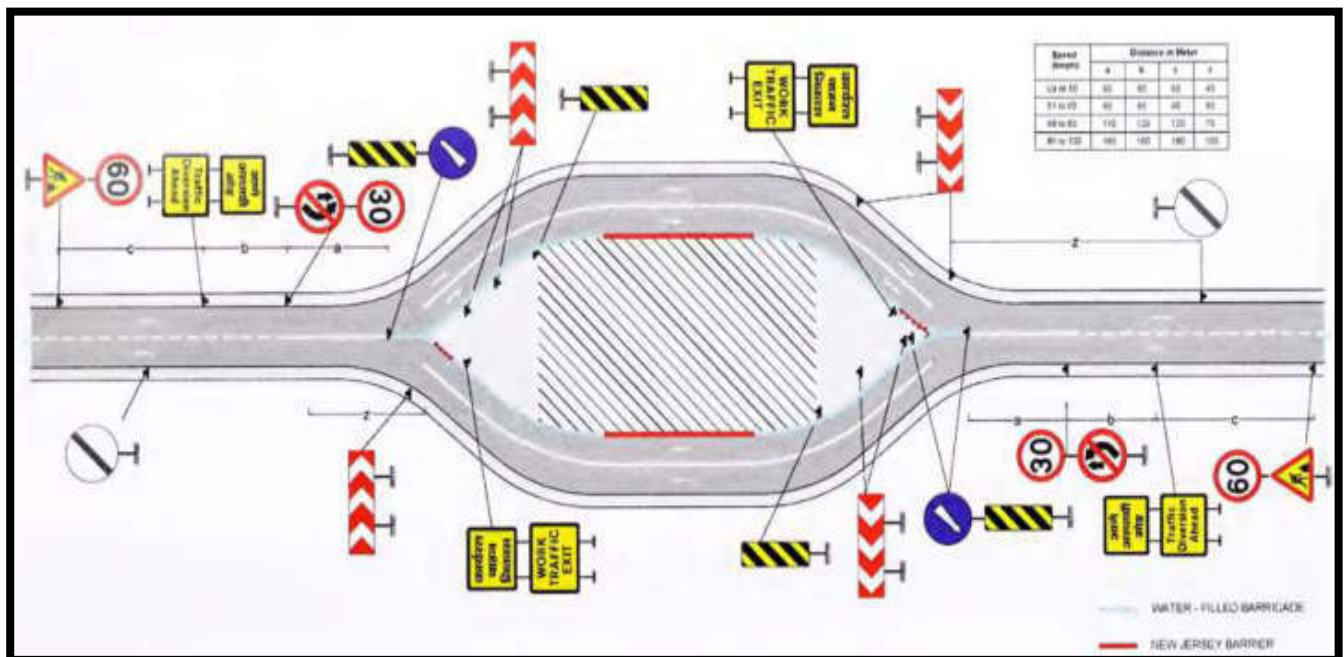
9.3 Two lane to four lane (concentric widening)

The layout shown is applicable for concentric widening of a two lane highway 4- lane highway. In the first stage, construction of service road or diversion road would be taken up on the sides and traffic would continue to move on main highway on both directions.



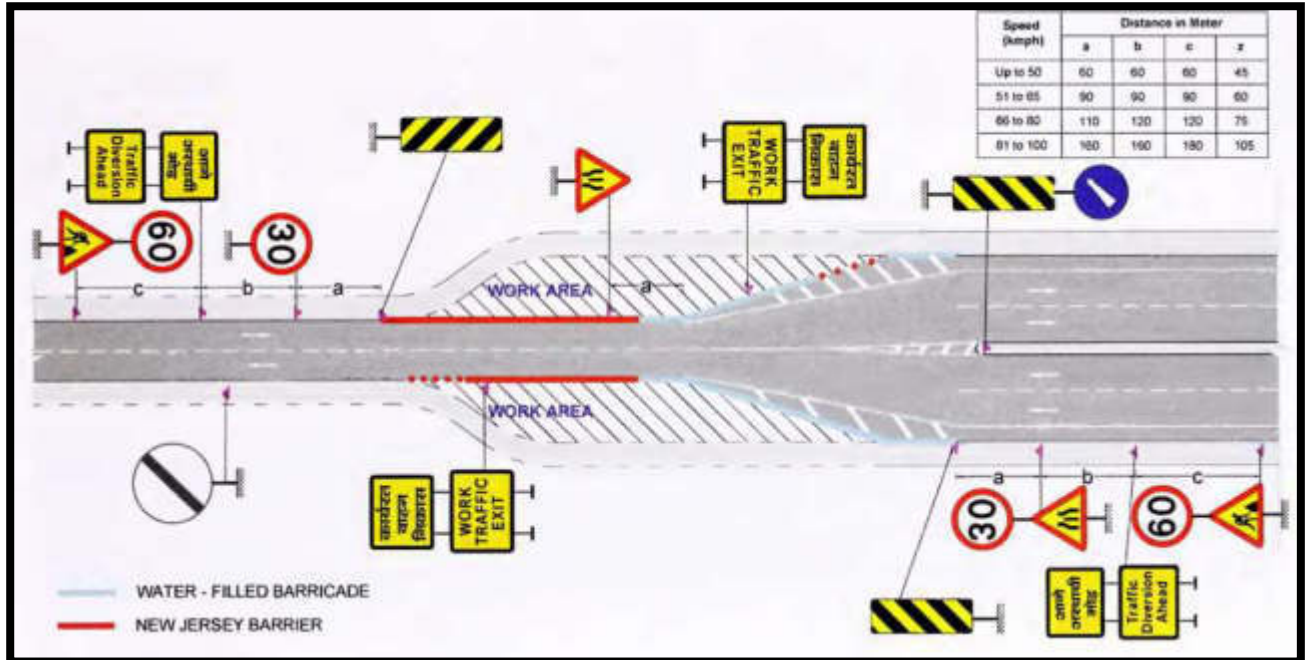
9.4 Two lane to 4 – lane (concentric widening)

The layout is applicable for the second stage of upgrading 2- lane highway to 4- lane. The traffic would move on newly constructed service/ diversion road in each direction and widening work on both carriageways including median is done in the central cordoned portion. Necessary warning signs will be given to inform of road work being undertaken. Layout for signs and barriers would be as shown.



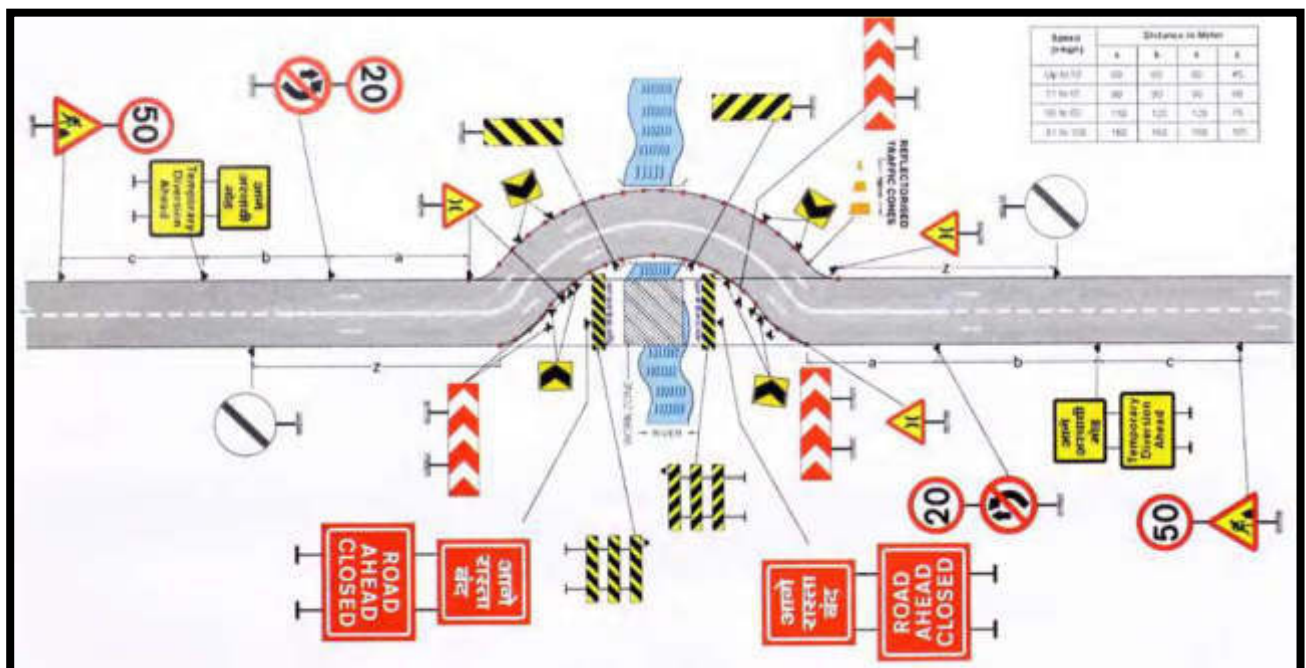
9.5 2 lane to 4- lane concentric

The layout is the third stage of concentric widening for 2- lane to 4- lane showing/ forward movement of work zone to the next stretch for progress of construction activities.



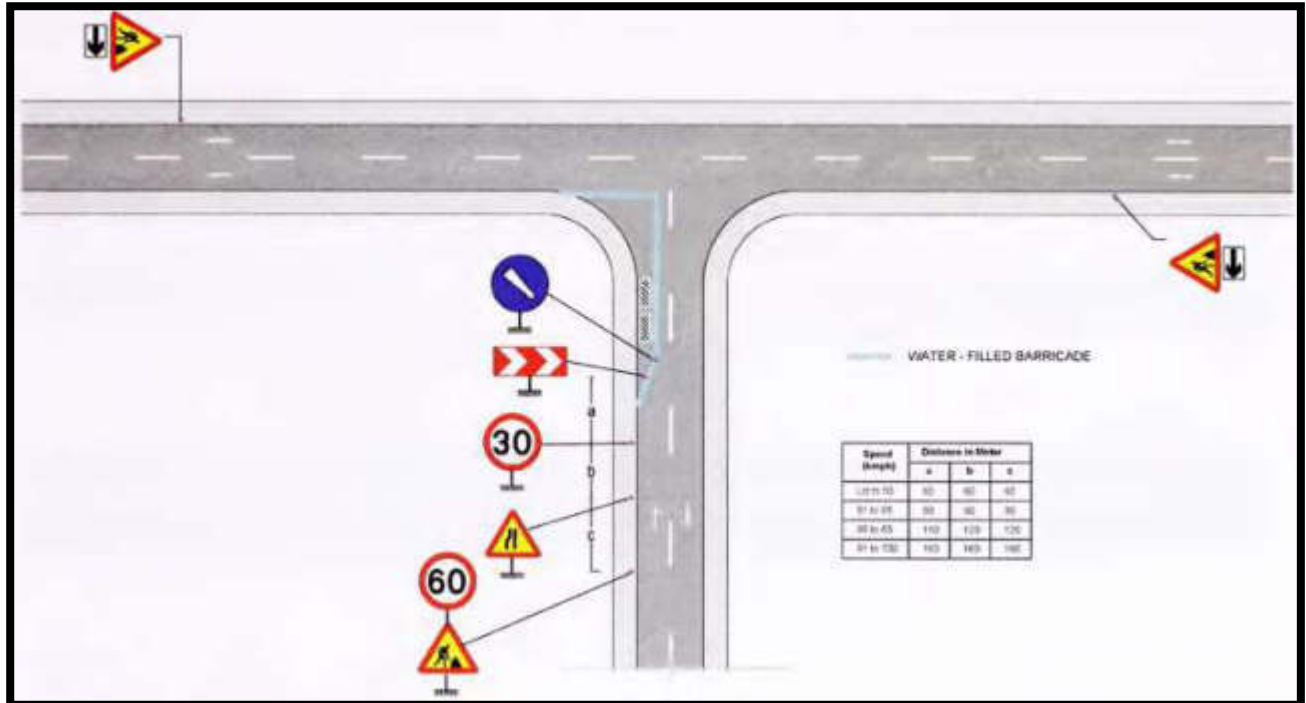
9.6 Temporary diversion for reconstruction of CD works

The layout shown is applicable when a cross drainage structure has to be constructed and where a temporary diversion will need to be constructed for maintaining the traffic flow. The diversion in most cases would be on embankment; therefore delineation is essential for both day and night time.



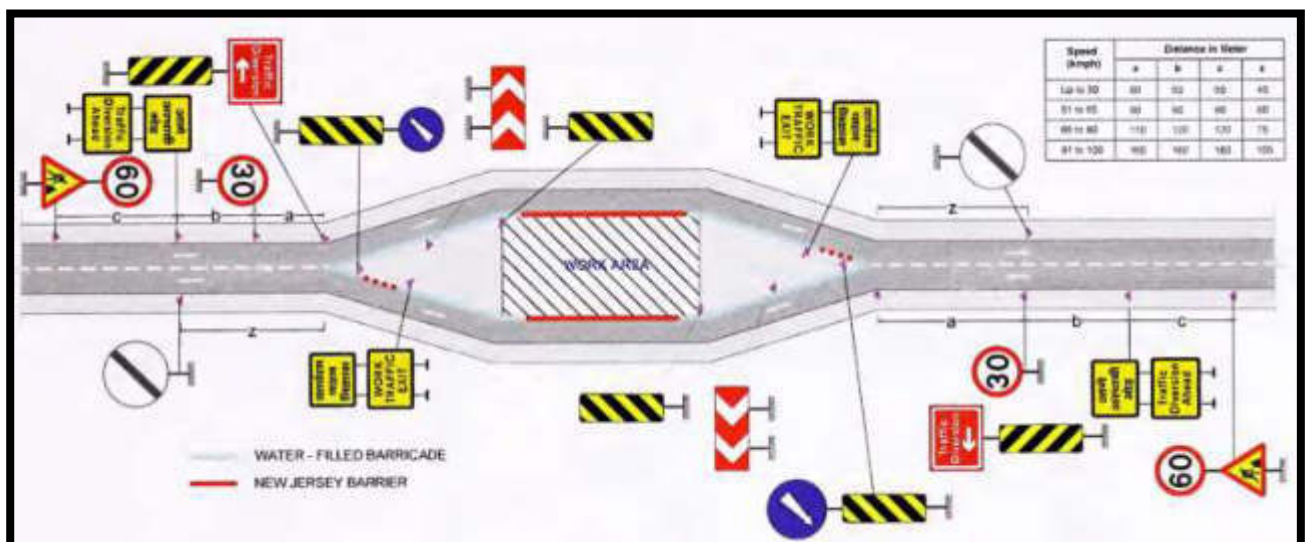
9.7 Road work in junction area

The layout shown is applicable some work at the junction area involving deflection of traffic.



9.8 One direction for major work at the centre of road

This situation may arise for major works in road in urban area. The first stage, diversion road would be constructed for both direction one way traffic movement as shown in layout for safe movement of through traffic and actual work will be undertaken subsequently in the central portion.



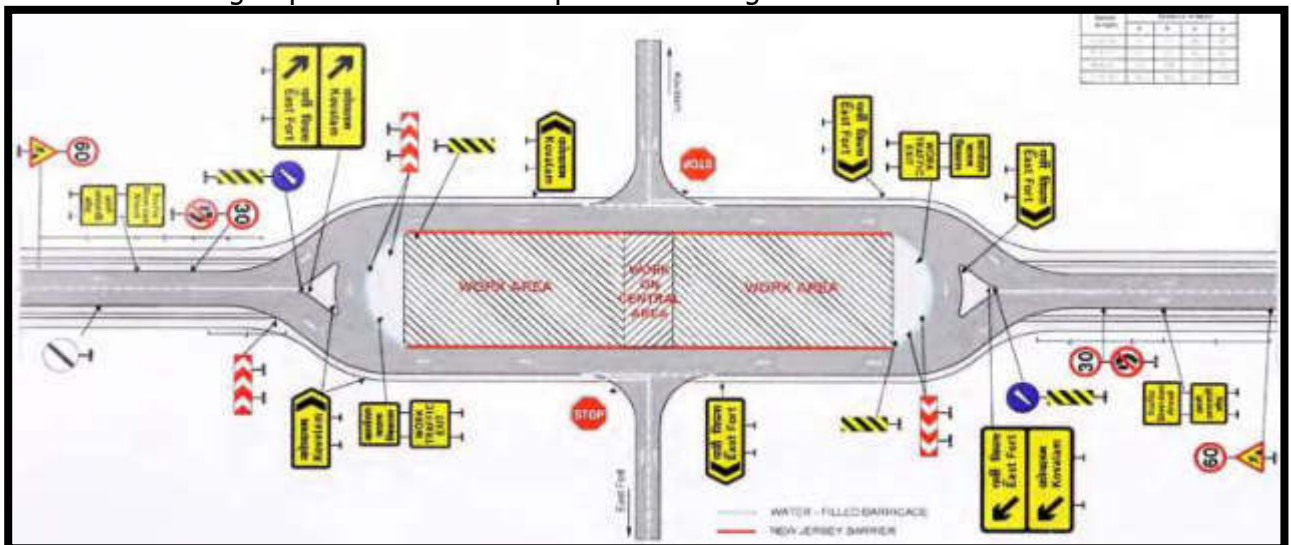
9.9 Stage -1 of flyover/ vup construction

The layout shows the stage – 1 in flyover/ VUP construction. In the first stage, the traffic will be diverted to a service road or temporary road. The turning movements would continue at the existing intersection and construction of piers/ embankment/ RE wall would be taken up in the cordoned portion. Carefully planned pedestrian markings on the roads and protected safe passage for crossing of pedestrians shall be provided through work area.



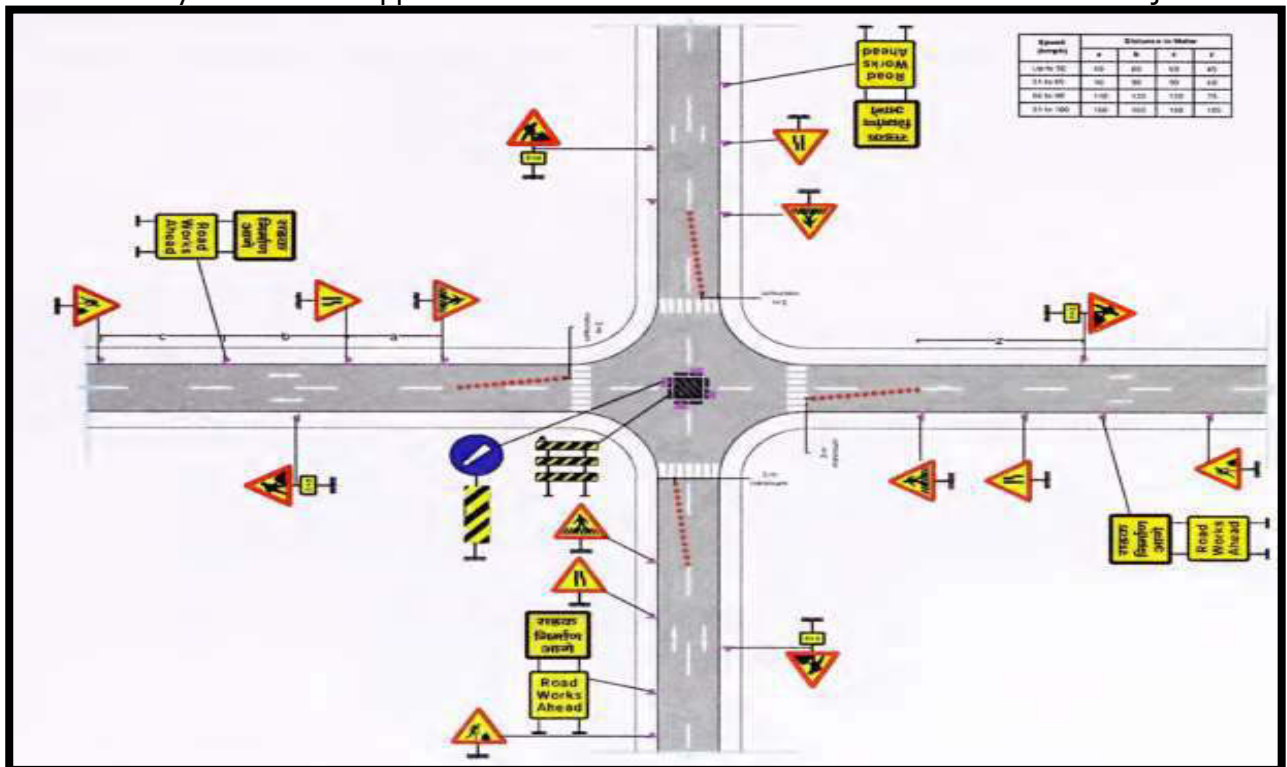
9.10 Stage – 2 of flyover/ vup construction

The layout shows stage-2 of flyover/ VUP construction. In the second stage, the central portion will be taken up and junction will be blocked for direct cross road movement. During this short period of time, cross road movement will be accommodated like a circulatory movement using U- turn, whereas the through traffic will continue to ply through service road/ temporary road. Direction signs would be carefully planned and installed. Carefully planned pedestrian marking on the roads and protected safe passage for crossing of pedestrians shall be provided through work area.



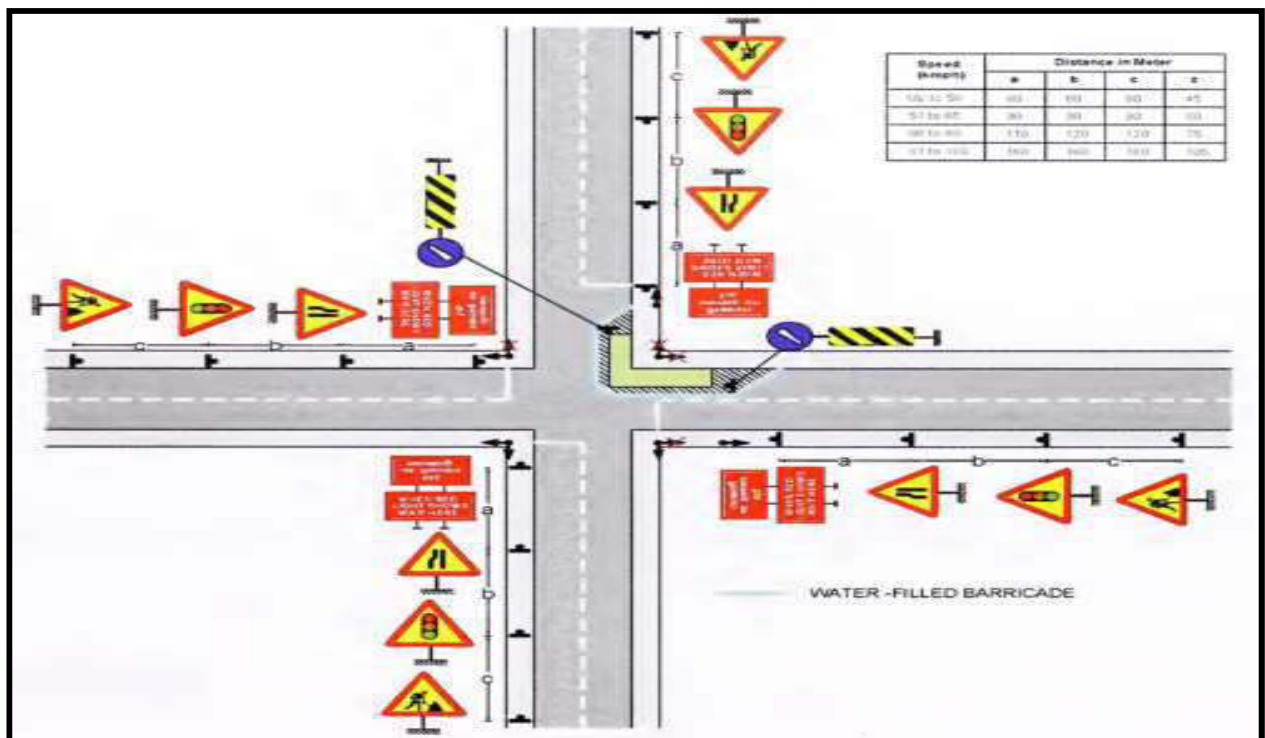
9.11 Road work at the centre of a junction

The layout shown is applicable when works are to be carried out at the centre of junction



9.12 Road work at the corner of a junction with temporary signal control

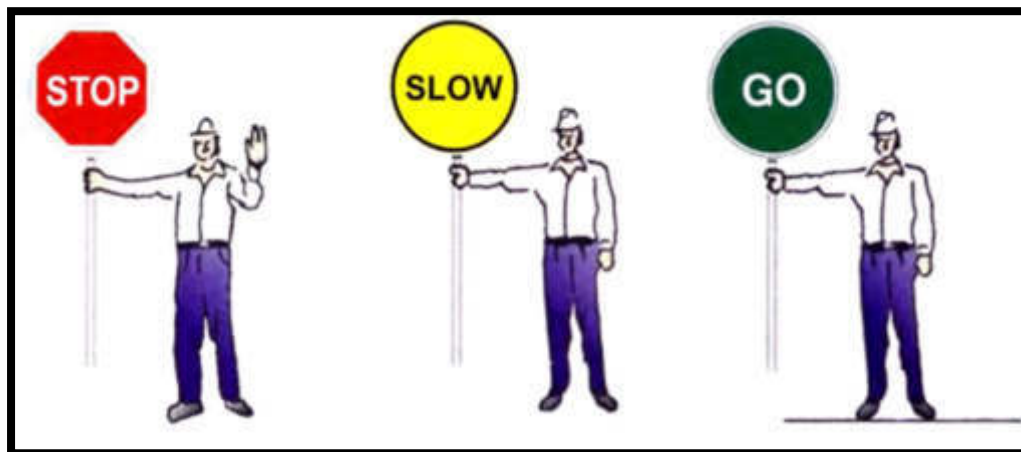
The layout shown is applicable when some works to be carried out at the corner with temporary signal control arrangement.



9.13 Deployment of Flagman

The flagmen or flaggers shall be deployed where:

- Workers or equipment intermittently block an unprotected traffic lane
- One lane is used for two direction of traffic
- Guidance, warning and control of traffic is considered necessary




10. COLOR CODE FOR HELMETS

Department	Colour Code	Helmet	Jacket
Manager, Executive, Engineers & Above / visitor (For Visitor with "VISITOR" sticker)	White		
Safety Department	Green		
Lab Technician/ Surveyor/ Foreman	Orange		
Electrical Department	Red		
Supervisors	Blue		
Technician/ Operator and Driver			
Work Man	Yellow		

ANNEXURE

1. LIST OF FORMAT

Sl. No	TITLE	Doc. Ref. No.	LOCATION
1	EMPLOYEES INDUCTION FORMAT	DBLMSHPL/EHS/001	Project Site
2	EHS TRAINING	DBLMSHPL/EHS/002	Project Site
3	ACCIDENT/ NEAR MISS INVESTIGATION	DBLMSHPL/EHS/003	Project Site
4	FIRE EXTINGUISHER INSPECTION	DBLMSHPL/EHS/004	Project Site
5	HYDRANT SYSTEM INSPECTION	DBLMSHPL/EHS/005	Project Site
6	FIRST AID BOX INSPECTION	DBLMSHPL/EHS/006	Project Site
7	CAMP INSPECTION	DBLMSHPL/EHS/007	Project Site
8	SAFETY COMMITTEE MEETING	DBLMSHPL/EHS/008	Project Site
9	BLASTING WORK PERMIT	DBLMSHPL/EHS/009	Project Site
10	HEIGHT WORK PERMIT	DBLMSHPL/EHS/010	Project Site
11	EXCAVATION WORK PERMIT	DBLMSHPL/EHS/011	Project Site
12	HOT WORK PERMIT	DBLMSHPL/EHS/012	Project Site
13	ELECTRICAL WORK PERMIT	DBLMSHPL/EHS/013	Project Site
14	CONFINED WORK PERMIT	DBLMSHPL/EHS/014	Project Site
15	VEHICLE INSPECTION	DBLMSHPL/EHS/015	Project Site
16	HYDRA INSPECTION	DBLMSHPL/EHS/016	Project Site
17	CRANE INSPECTION	DBLMSHPL/EHS/017	Project Site
18	UNSAFE CONDITION/ UNSAFE ACTION	DBLMSHPL/EHS/018	Project Site
19	SAFETY BELT INSPECTION	DBLMSHPL/EHS/019	Project Site

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND	<u>EMPLOYEES INDUCTION FORMAT</u>	Doc. ID EHS/001
---	--	--------------------

Date:

Name of Employee:

Employee Code:

Project Site:

The Induction covered the following topics and understood by EHS Dept.:


Topics	✓ / X	Remarks
1. Emergency Preparedness Plan		
2. Personal Protective Equipment		
3. Fall Protection		
4. Electrical Safety		
5. Fire Prevention		
6. Environment Safety Plan		
7. Lockout/ Tagout		
8. Traffic Safety		
9. Vehicle Driving Safety		
10. Emergency Evacuation Plan		
11. Emergency Contact Details		

Note: If (X) put remark.

Employee Signature

EHS Dept.

Project Manager

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND	<u>EHS TRAINING FORMAT</u>	Doc. ID EHS/002
---	-----------------------------------	--------------------

Project Site:

Date:

Name of Topic/ Subject:

Sr. No.	Name of Employee	Designation	Department	Signature
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

Faculty Name:

Signature:

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND		ACCIDENT/ INCIDENT/ NEAR MISS CASE FORMAT		Doc. ID EHS/003
Project Site:			Date:	
Name & ID of Injured Person:			Dept.:	
Location:			Designation:	
Witness	Name	Department	Designation	Singature
Nature of Accident: Description of Accident:				
Concern Dept.				

Investigate by EHS Dept.

Brief Description of Accident:

Cause of Accident:


Corrective Action/ Preventive Action:

Investigate by:

EHS Dept.

Concern Dept.

Project Manager

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND	<u>FIRE EXTINGUISHER INSPECTION</u> <u>FORMAT</u>	Doc. ID 'EHS/004'
---	--	----------------------

Project Site:

Month:

Sr. No.	Extinguisher ID	Location	Type	Capacity	Date of Inspection	Next Due Date	Status/ Remarks
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							


Check Point:

Fire Extinguishers Body condition
 Handle condition
 Pressure Gauge Condition
 Pressure Gauge in Green Zone
 Discharge Hose/ Horn Condition
 Extinguisher's Hanging/ Stand Condition

Checked by
 Name & Signature

Received by
 Name & Signature

Project
 Manager

 <small>DILIP BUILDCON LTD. INFRASTRUCTURE & BEYOND</small>	HYDRANT SYSTEM INSPECTION FORMAT	Doc. ID EHS/005
---	---	--------------------

Hydrant Point Inspection Sheet

Project Site:						Month:		
Sr. No.	Location	Hydrant Point	Hose Reel	Hose 15 Mtr/ 30Mtr	Nozzle	Date of Inspection	Next Due Date	Remarks
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								


Pump Inspection Sheet

Sr. No.	Pump Name & No.	Oil Level	Diesel Level	Water Level Of Tank	Pressure Gauge Condition	Date of Inspection	Next Due Date	Remarks
1								
2								
3								
4								

Checked By
Name & Signature

Received by
Name & Signature

Project
Manager

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND	<u>FIRST AID BOX INSPECTION FORMAT</u>	Doc. ID EHS/006
---	---	--------------------

Project Site:

Month:

Sr. No.	Location	Date of Inspection	Status

Remarks:

Check List:


Antiseptic Liquid
antiseptic Lotion
Bandage/ Paper Tape
Banded
Absorbent Cotton
Expiry Date of Material

✓	OK
X	NOT OK

Checked by
Name & Signature

Received by
Name & Signature

Project
Manager

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND	<u>CAMP INSPECTION FORMAT</u>	Doc. ID EHS/007
---	--------------------------------------	--------------------

Project Site:

Date:

Camp Name/ No.:


Particular	Status	Remarks
Nos. Of employees leaving in camp		
Good Housekeeping in Leaving area		
Separate waste bin for material		
Separate kitchen area from leaving area		
Drinking water facilities		
Usable water facilities		
Sanitation arrangements		
Waste water arrangement		
Area free from Mosquito/ Snak		
Electricity cable arrangement		
Adequate lighting arrangement		

Recommended:

Inspected by
Name & Signature

Received by
Name & Signature

Project
Manager

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND	<u>SAFETY COMMITTEE MEETING</u> <u>FORMAT</u>	Doc. ID EHS/008
---	--	--------------------

Project Site:

Month:

Safety Committee Meeting Participants


Sr. No.	Name	Designation	Dept.	Signature

Topics are discussed in meeting

Sr. No.	Topics	Responsibility	Remarks

EHS Dept.
Name & Sign

Project
Manager

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND	<u>BLASTING WORK PERMIT FORMAT</u>	Doc. ID EHS/009
---	---	--------------------

Project Site:

Date:

Blasting Contractor:

License No.:

Name of the Site Engineer/ Manager seeking work permit:

Name of the Site Safety Engineer/ Manager:

Name of site supervisor:

Work Permit valid from

_____ (time) on _____ (date) to _____ (time) on _____ (date)

Location:

Description of Work:

I confirm that I have been given charge of the above mentioned work and I will take all necessary precautions to avoid danger to the workers engaged at the above site as well as property. I will abide by the recommendations of the Safety Engineer/ Manager and implement them and I will assign jobs to only trained personnel.

(Name and Signature of Site Engineer/ Manager)

Sl. No.	Safety Precautions	Yes	No	NA
1	All concerned personnel are instructed about the nature of work			
2	Access ladder/crawling ladder to work/roof provided & properly secured			
3	Safety clearance/check list for scaffold erection obtained/submitted			
4	All workers have valid height passes/ blasting passes			
5	Safety net/ Barrication provided the work place			
6	Closed all the way through Red Man Flag.			
7	Use of Siren/ Whistle for indication of blasting work			
8	Work area is properly cordoned/barricaded			
9	Work area is properly illuminated			
10	Proper access to site is ensured			
11	Openings are properly covered with safety net/steel jalli & barricaded			
12	Electrical equipments are checked for earthing			
13	Portable electrical equipments are tested by site maintenance section			
14	All rotating parts of machine are well guarded			
15	Whether any inflammable is present in vicinity of the area of hot job			
16	Fire extinguisher is available at the work site			
17	Half-an-hour fire watch is complied after hot jobs			
18	s			
19	Personal Protective Equipment: Helmet/Shoe/Hand Gloves/Goggles/Ear Muff/Ear Plugs/Safety Belt/Face Shield/Nose Mask			
20	Workers are in good health on the day of work			


(Name & Signature of Safety Department)

Return Permit: _____ (time) on _____ (date) work done.

Name & Signature
Concern Dept.

Name & Signature Safety Dept.

Project Manager

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND	<u>HEIGHT WORK PERMIT FORMAT</u>	Doc. ID EHS/010
---	---	--------------------

Project Site:

Date:

(To be filled by the employee requesting job)

Name of the Site Engineer/ Manager seeking work permit:

Name of the Site Safety Engineer/ Manager:

Name of site supervisor:

Work Permit valid from

_____ (time) on _____ (date) to _____ (time) on _____ (date)

Location:

Description of Work:

I confirm that I have been given charge of the above mentioned work and I will take all necessary precautions to avoid danger to the workers engaged at the above site as well as property. I will abide by the recommendations of the Safety Engineer/ Manager and implement them and I will assign jobs to only trained personnel.

(Name and Signature of Site Engineer/ Manager)

Sl. No.	Safety Precautions	Yes	No	NA
1	All concerned personnel are instructed about the nature of work			
2	Access ladder/crawling ladder to work/roof provided & properly secured			
3	Safety clearance/check list for scaffold erection obtained/submitted			
4	All workers have valid height passes/ blasting passes			
5	Provided Full body harness safety belt			
6	Safety net/ Barrication provided the work place			
7	Provided life line at height			
8	Work area is properly cordoned/barricaded			
9	Work area is properly illuminated			
10	Proper access to site is ensured			
11	Air pressure checked at height (if required)			
12	Electrical equipments are checked for earthing			
13	Portable electrical equipments are tested by site maintenance section			
14	All rotating parts of machine are well guarded			
15	Whether any inflammable is present in vicinity of the area of hot job			
16	Fire extinguisher is available at the work site (if required)			
17	Half-an-hour fire watch is complied after hot jobs (if required)			
18	Work area is well ventilated			
19	Personal Protective Equipment: Helmet/Shoe/Hand Gloves/Goggles/Ear Muff/Ear Plugs/Safety Belt/Face Shield/Nose Mask			
20	Workers are in good health on the day of work			


(Name & Signature of Safety Department)

Return Permit: _____ (time) on _____ (date) work done.

Name & Signature
Concern Dept.

Name & Signature Safety Dept.

Project Manager

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND	<u>EXCAVATION WORK PERMIT FORMAT</u>	Doc. ID EHS/011
---	---	--------------------

Project Site:

Date:

(To be filled by the employee requesting job)

Name of the Site Engineer/ Manager seeking work permit:

Name of the Site Safety Engineer/ Manager:

Name of site supervisor:

Work Permit valid from

_____ (time) on _____ (date) to _____ (time) on _____ (date)

Location:

Description of Work:

I confirm that I have been given charge of the above mentioned work and I will take all necessary precautions to avoid danger to the workers engaged at the above site as well as property. I will abide by the recommendations of the Safety Engineer/ Manager and implement them and I will assign jobs to only trained personnel.

(Name and Signature of Site Engineer/ Manager)

Sl. No.	Safety Precautions	Yes	No	NA
1	All concerned personnel are instructed about the nature of work			
2	Access ladder/crawling ladder to work/roof provided & properly secured			
3	Safety clearance/check list for scaffold erection obtained/submitted			
4	All workers have valid height passes/ blasting passes			
5	Instructed to all personnel about heavy machinery at site			
6	Safety net/ Barrication provided the work place			
7	Take proper safety precaution at excavation site			
8	Work area is properly cordoned/barricaded			
9	Work area is properly illuminated			
10	Proper access to site is ensured			
11	Air pressure checked at height (if required)			
12	Electrical equipments are checked for earthing			
13	Portable electrical equipments are tested by site maintenance section			
14	All rotating parts of machine are well guarded			
15	Whether any inflammable is present in vicinity of the area of hot job			
16	Fire extinguisher is available at the work site (if required)			
17	Half-an-hour fire watch is complied after hot jobs (if required)			
18	Work area is well ventilated			
19	Personal Protective Equipment: Helmet/Shoe/Hand Gloves/Goggles/Ear Muff/Ear Plugs/Safety Belt/Face Shield/Nose Mask			
20	Workers are in good health on the day of work			


(Name & Signature of Safety Department)

Return Permit: _____ (time) on _____ (date) work done.

Name & Signature
Concern Dept.

Name & Signature Safety Dept.

Project Manager

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND	<u>HOT WORK PERMIT FORMAT</u>	Doc. ID EHS/012
---	--------------------------------------	---------------------------

Project Site:

Date:

(To be filled by the employee requesting job)

Name of the Site Engineer/ Manager seeking work permit:

Name of the Site Safety Engineer/ Manager:

Name of site supervisor:

Work Permit valid from

_____ (time) on _____ (date) to _____ (time) on _____ (date)

Location:

Description of Work:

I confirm that I have been given charge of the above mentioned work and I will take all necessary precautions to avoid danger to the workers engaged at the above site as well as property. I will abide by the recommendations of the Safety Engineer/ Manager and implement them and I will assign jobs to only trained personnel.

(Name and Signature of Site Engineer/ Manager)

Sl. No.	Safety Precautions	Yes	No	NA
1	All concerned personnel are instructed about the nature of work			
2	Hot Work near hazardous zone.			
3	Safety clearance/checking of welding machine & earthing			
4	Holder/ Torch proper checked.			
5	Cable/ Tubes are ok.			
6	Safety gunny bags provided the work place (if required)			
7	Take proper safety precaution at work site			
8	Work area is properly cordoned/barricaded			
9	Work area is properly illuminated			
10	Cutting set always in trolley.			
11	Checked proper house keeping at work place			
12	Electrical equipments are checked for earthing			
13	Portable electrical equipments are tested by site maintenance section			
14	Soap solution available.			
15	Whether any inflammable is present in vicinity of the area of hot job			
16	Fire extinguisher is available at the work site (if required)			
17	Half-an-hour fire watch is complied after hot jobs (if required)			
18	Work area is well ventilated			
19	Personal Protective Equipment: Helmet/Shoe/Hand Gloves/Goggles/Ear Muff/Ear Plugs/Safety Belt/Face Shield/Nose Mask			
20	Workers are in good health on the day of work			


(Name & Signature of Safety Department)

Return Permit: _____ (time) on _____ (date) work done.

Name & Signature
Concern Dept.

Name & Signature Safety Dept.

Project Manager

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND	<u>ELECTRICAL WORK PERMIT FORMAT</u>	Doc. ID EHS/013
---	---	---------------------------

Project Site:

Date:

(To be filled by the employee requesting job)

Name of the Site Engineer/ Manager seeking work permit:

Name of the Site Safety Engineer/ Manager:

Name of site supervisor:

Work Permit valid from

_____ (time) on _____ (date) to _____ (time) on _____ (date)

Location:

Description of Work:

I confirm that I have been given charge of the above mentioned work and I will take all necessary precautions to avoid danger to the workers engaged at the above site as well as property. I will abide by the recommendations of the Safety Engineer/ Manager and implement them and I will assign jobs to only trained personnel.

(Name and Signature of Site Engineer/ Manager)

Sl. No.	Safety Precautions	Yes	No	NA
1	All concerned personnel are instructed about the nature of work			
2	Electrical Work near hazardous zone.			
3	Apply LOTO system			
4	All equipments are insulated & tested.			
5	Cable's in ok condition.			
6	RCCB tested (if required)			
7	Use of 33 Kva hand gloves (if required)			
8	Work area is properly cordoned/barricaded			
9	Work area is properly illuminated			
10	Rubber mats available near pannel section			
11	Checked proper house keeping at work place			
12	Electrical equipments are checked for earthing			
13	Portable electrical equipments are tested by site maintenance section			
14	Check alternate supply connection.			
15	Whether any inflammable is present in vicinity of the area of hot job			
16	Fire extinguisher is available at the work site (if required)			
17	Half-an-hour fire watch is complied after hot jobs (if required)			
18	Work area is well ventilated			
19	Personal Protective Equipment: Helmet/Shoe/Hand Gloves/Goggles/Ear			
20	Workers are in good health on the day of work			


(Name & Signature of Safety Department)

Return Permit: _____ (time) on _____ (date) work done.

Name & Signature
Concern Dept.

Name & Signature Safety Dept.

Project Manager

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND	<u>CONFINED WORK PERMIT FORMAT</u>	Doc. ID EHS/014
---	---	--------------------

Project Site:

Date:

(To be filled by the employee requesting job)

Name of the Site Engineer/ Manager seeking work permit:

Name of the Site Safety Engineer/ Manager:

Name of site supervisor:

Work Permit valid from

_____ (time) on _____ (date) to _____ (time) on _____ (date)

Location:

Description of Work:

I confirm that I have been given charge of the above mentioned work and I will take all necessary precautions to avoid danger to the workers engaged at the above site as well as property. I will abide by the recommendations of the Safety Engineer/ Manager and implement them and I will assign jobs to only trained personnel.

(Name and Signature of Site Engineer/ Manager)

Sl. No.	Safety Precautions	Yes	No	NA
1	All concerned personnel are instructed about the nature of work			
2	Availability of Chemical/ Oil (any flammable) near at work area.			
3	Oxygen level checked. (if required)			
4	All rotating parts of machine are well guarded			
5	Proper access to site is ensured			
6	Safety gunny bags provided the work place			
7	Take proper safety precaution at work site			
8	Work area is properly cordoned/barricaded			
9	Work area is properly illuminated			
10	Proper light arrangement at confined zone			
11	Tool's/ Equipments are in ok condition.			
12	Electrical equipments are checked for earthing			
13	Portable electrical equipments are tested by site maintenance section			
14	Life line provided. (if required)			
15	Whether any inflammable is present in vicinity of the area of hot job			
16	Fire extinguisher is available at the work site (if required)			
17	Half-an-hour fire watch is complied after hot jobs (if required)			
18	Work area is well ventilated			
19	Personal Protective Equipment: Helmet/Shoe/Hand Gloves/Goggles/Ear			
20	Workers are in good health on the day of work			


(Name & Signature of Safety Department)

Return Permit: _____ (time) on _____ (date) work done.

Name & Signature
Concern Dept.

Name & Signature Safety Dept.

Project Manager

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND	<u>VEHICLE INSPECTION FORMAT</u>	Doc. ID EHS/015
---	---	--------------------

VEHICLE SAFETY INSPECTION CHECK LIST

Vehicle ID.No.:

Project Site:

Type OF Vehicle:

Date:

Date of last inspection:

Sr. No.	Check Points	Condition	Remarks
1	Tires condition (front, rear, spare)		
2	Hand Brake		
3	Foot brake		
4	Lights (head, tail, parking, brake)		
5	Turn indicators		
6	Horn		
7	Windows Doors condition		
8	First Aid Kit		
9	Flashlight		
10	Fire Extinguisher		
11	Breakdown Kit		
12	Engine Exhaust		
13	Fuel leakage		
14	Noise		
15	Driver License		
16	Registration certificate / Permit		
17	Insurance		
18	Pollution Under Control certificate		
19	Reverse horn / light		
20	Tires air pressure		


S= Satisfactory

U= Unsatisfactory

Inspected by
Name & Signature

Received by
Name & Signature

Project
Manager

 DILIP BUILDCON LIMITED <small>INFRASTRUCTURE & BEYOND</small>	HYDRA/ FORKLIFT INSPECTION FORMAT	Doc. ID EHS/016
--	--	--------------------

HYDRA/ FORKLIFT SAFETY INSPECTION CHECK LIST

Vehicle ID.No.:

Project Site:

Type Vehicle:

Date:

Date of last inspection:


Sr. No.	Check Points	Condition	Remarks
1	Manufacturer's data plate is clean and readable?		
2	Weight capacity certificate is available / legible?		
3	General purpose fire extinguisher is mounted on forklift / hydra?		
4	Seat belt operates properly?		
5	Reverse alarm or warning light, Turn light is operational?		
6	Forks are not distorted or cracked?		
7	Lift chains have equal tension and no broken pins or extra wear?		
8	No loose bolts or cracks on overhead guard and backrest?		
9	No loose lock nuts on tilt cylinders?		
10	No signs of fluid leaks under forklift / hydra?		
11	Adequate fluid (brake, engine oil, hydraulic oil, and coolant) levels?		
12	Rubber tires are not cracked or worn excessively?		
13	Air pressure in inflatable tires meets manufacturer's specs?		
14	Dashboard gauges give proper reading when forklift is in service?		
15	Horns sounds properly?		
16	Parking brake functions correctly?		
17	Adequate tension and free play in steering wheel?		
18	Mast, boom and forks raise, lower, and tilt smoothly?		
19	Clutch engages properly?		
20	Depress brake for 10 seconds, truck / hydra does not drift with pressure?		
21	Engine Exhaust		
22	Fuel Leakage		
23	Noise		
24	Valid Insurance of the vehicle		
25	Operator's valid license		
26	Operator having adequate PPEs		
27	First aid box with the vehicle		
28	Vehicle fitness certificate		
29	Lifting chains, slings etc are certified		

Comments/Corrective Action:

Inspected by
Name & Signature

Received by
Name & Signature

Project
Manager

 DILIP BUILDCON LIMITED INFRASTRUCTURE & BEYOND	<u>CRANE INSPECTION FORMAT</u>	Doc. ID EHS/017
---	---------------------------------------	---------------------------

CRANE SAFETY INSPECTION CHECK LIST

Project Site:

Date:

ID No.:

Date of last inspection:

Sr. No.	Check Points	Condition	Remarks
1	Manufacturer's data plate is clean and readable?		
2	Weight capacity certificate is available / legible?		
3	General purpose fire extinguisher is mounted on forklift / hydra?		
4	Seat belt operates properly?		
5	Warning light auto sensor is operational?		
6	No loose bolts or cracks on overhead guard and backrest?		
7	Horns sounds properly?		
8	Adequate tension and free play in steering wheel?		
9	Clutch engages properly?		
10	Depress brake for 10 seconds, truck / hydra does not drift with pressure?		
11	Engine Exhaust		
12	Fuel Leakage (If any)		
13	Noise		
14	Valid Insurance of the vehicle (If any)		
15	Operator's valid license		
16	Operators eye test certificate (If required)		
17	Operator having adequate PPEs		
18	First aid box with the vehicle		
19	Vehicle fitness certificate		
20	Wire rope, Lifting chains, slings are certified		

S= Satisfactory

U= Unsatisfactory

Inspected by
Name & Signature


Reveived by
Name & Signature

Project
Manager

 DILIP BUILDCON LIMITED <small>INFRASTRUCTURE & BUILDING</small>	<u>UNSAFE ACTION & UNSAFE CONDITION FORMAT</u>	Doc. ID EHS/018
--	---	--------------------

Project Site:

Sr. No.	Location	Unsafe Action/ Unsafe Condition	CAPA (Corrective Action/ Preventive Action)	Responsible department	Before UA/UC		After UA/UC	
					Date	Pic.	Date	Pic.

 DILIP BUILDCON LIMITED <small>INFRASTRUCTURE & BEYOND</small>	<u>SAFETY BELT INSPECTION</u> <u>FORMAT</u>	Doc. ID FHS/019
--	--	---------------------------

SAFETY BELT INSPECTION CHECK LIST

Belt ID.No.:

Project Site:

Type of Belt:

Date:

Date of last inspection:

Sr. No.	Check Points	Condition	Remarks
1	As per specification		
2	Belt Strips		
3	Safety belt physical condition		
4	Tag condition		
5	Hanging-Rope condition		
6	Huck condition		
7	Buckle condition		
8	Lock condition		
9	Knot condition		
10	Wearing proper condition		

S- Satisfactory
U- Unsatisfactory

Inspected by
Name & Signature

Received by
Name & Signature

Project
Manager

Name of the project:- Four laning of Sangli-Solapur (**Package-IV:** Mangalwedha to Solapur) Section of NH:166 from existing Ch. Km. 314.969 to 370.452 (Design Ch. Km. 321.600 to km. 378.100) of length 56.50 km in the state Maharashtra on Hybrid Annuity Mode.

Grievance Register

Client Name:- National Highways Authority of India

Concessionaire:- DBL Mangalwedha Solapur Highways Pvt. Ltd.

LONG EXERCISE BOOK

Grievance Details

SR.No	Grievance	Date of Raise	Detail of Resolution	Grievance Evised by	Details of Resolution

Compliance to ADB Observations on Environment & Social Due Diligence Report (ESDDR)
of
DBL Mangalwedha Solapur Highways Pvt Ltd (DMSHPL) – Environmental
Safeguards

S.No.	ADB Comment on Environmental Safeguards	IIFCL response/clarifications
1.	Please mention the date of sanction of the funding to DMSPHL in Para 14 of ESDDR.	Date of sanction is 12.9.2018, which has been added in Para 14 of the revised ESDDR.
2.	IIFCL has confirmed compliance of this sub-project with IIFCL's Environmental and Social Safeguards Framework (ESSF). Please confirm that the sub-project fully complies with ADB's Safeguard Policy Statement (SPS), 2009.	Added in Para 57 of the revised ESDDR.
3.	The environmental permissions are reported to be in progress for two camp sites (obtained for the third camp site at Mangalwedha). Please ensure that the said construction plant and machineries are commissioned only after obtaining the consents to operate from the state pollution control board and other environmental permissions for the camp sites. Please provide copies of environmental permissions as and when issued to DMSHPL. Also please confirm that these camp sites are not in agricultural land.	Developer has informed that construction plants have been set up at two camps, as per consents obtained from State Pollution Control Board. For Mangalwedha camp site the CTE/CTO was already shared with the ESDDR. CTO for Wagholi & Solapur camp have been received and are attached as Annexure 3B & C of the revised ESDDR. Developer has informed that these sites are on non-agricultural land (Refer para 29)
4.	Please confirm that the locations identified for borrow areas (either used or being used) are complying with the then prevailing environmental regulations of India. The Appendix 5 of ESDDR shall be updated to include permissions issued under the environmental regulations by the relevant environmental regulators. Please provide the supporting documents as and when issued to DMSPHL.	LIE report of July 2020 states that the Company is using cut material. The borrow area permissions will be shared as and when procured by the developer as per prevailing regulations. Annexure 5 of the ESDDR is sample copy of permit of borrow area. The current guidelines as per MOEF&CC Notification, dated 28 March 2020 for borrow areas is attached as Appendix I for reference, this exempts borrow areas from requirement of environmental clearance.
5.	Please include the copies of environmental permits obtained for the quarries, mines, and construction plants used to procure construction materials as an appendix with the ESDDR.	The permission from setting up construction plants have been shared with the ESDDR. Permissions from Village Panchayats, Mining Department, and Pollution Control Board taken by Developer have also

		been shared with the ESDDR.
6.	IIFCL has confirmed absence of any rare, endangered, or threatened species (flora) within the sub-project's impact corridor for the entire length of the sub-project. Please also confirm absence of any rare, endangered, or threatened faunal species within the sub-project's impact corridor for the entire length of the sub-project.	Any rare, endangered, or threatened faunal species are absent within the sub-project's impact corridor for the entire length of the sub-project (Para 35 of the ESDDR).
7.	IIFCL has confirmed that the environmental impact assessment study for the sub-project was not conducted (not a statutory requirement). DBL prepared an environmental management plan (EMP) for the sub-project. Please confirm that the said EMP has identified all environmental impacts and proposed requisite mitigation measures to address those impacts and is acceptable. IIFCL shall continue to monitor the implementation of the EMP.	<p>Yes, the EMP prepared is project specific and has been submitted to NHAI (Concessioneing Authority) by developer. EMP prepared for DMSHPL has identified all environmental impacts and included requisite mitigation measures (Para 36 of revised ESDDR).</p> <p>IIFCL shall monitor the implementation of EMP.</p>
8.	IIFCL has confirmed that 3405 trees are proposed to be cut due to this sub-project for which necessary permissions have been obtained from the state forest department. ESDDR has indicated that 3385 trees have already been cut and about 48000 trees for avenue and median plantation are proposed by DMSPHL (Para 56). Appendix 12 has mentioned 11083 trees proposed for avenue plantation. Please check the reported numbers and confirm that the required nurseries have been identified for the proposed work reported to be commencing from August 2020.	<p>2654 number of trees are proposed to be cut at project (the error was already reported to ADB), out of this 2099 were cut till July 2020. Permission has been obtained for tree cutting.</p> <p>The reported numbers of about 48000 trees to be planted are correct. As per Avenue Plantation plan 11083 number of trees are proposed to be planted. In median plantation, 666 number of plantation will be done per km of the road stretch, which works out be around 37,629 plantations. Therefore, a total of about 48000 plantations will be done in avenue and median plantations put together.</p> <p>Developer has confirmed that nurseries have been identified & work order generated for avenue & median plantation. The Median Plantation has already started at site and plantations are done for more than 10 km length & records are maintained at site.</p>
9.	The details of monitoring of parameters carried out so far for ambient air quality, ambient noise levels and water quality should be included in the ESDDR. Please include the analyses of parameters tested during the execution of works and provide	Developer has informed that all environmental impacts are being managed through EMP. Further during discussions developer has informed that there is no provision of getting air, water, noise monitoring at project as per

	its assessment of the efficacy of the EMP implementation.	<p>Concession Agreement. Developer has informed that a record of EMP implementation is being kept at the site and regular checks are done to assess the efficacy of EMP implementation. Sample copy of EHS report was attached as Annexure 11 of the ESDDR.</p> <p>Developer has been informed get monitoring done as per CTO requirement. This is mentioned in Table 3 of the revised ESDDR.</p> <p>Developer has been informed to share the monitoring reports with IIFCL to check the efficacy of management measures.</p>
10.	It is noted that safeguards staff of IIFCL was not able to conduct a field visit for this sub-project as a part of its due diligence due to on-going coronavirus disease (COVID-19) pandemic in the sub-project area. IIFCL has assured that it would conduct a field visit as soon as the possible. IIFCL is requested to conduct detailed field-based environmental due diligence to confirm absence of residual or any missed environmental impacts. In case of any environmental impacts are observed, the ESDDR would be suitably revised and submitted to ADB for review and clearance.	Noted and site visit will be done when it is safe for IIFCL staff to conduct site visit.
11.	Please include the photographs of public consultations conducted by the developer as well as of the implementation of EMP provisions such as water sprinkling for dust suppression, workers using PPE, construction plant fitted with pollution control measures, maintenance of camp haul roads, etc. in the ESDDR.	Photographs are attached as Appendix II.
12.	Please further strengthen the section on the grievance management system by providing the analysis of the complaints received and resolved. The copies of entries in the complaint registers maintained at the site may please be provided as annexure in the ESDDR.	Developer has informed that no complaints have been received so far at the project. Copy of Grievance register maintained at the project is attached as Annexure 15 to the ESDDR.
13.	Please ensure that the DMSHPL follows the COVID-19 pandemic related health and safety measures at work sites and offices.	Developer has confirmed that they are following the COVID-19 pandemic related health and safety measures as per the guidelines and directions issued by the central and state governments at

		project site.
14.	Please confirm the number of laborers for which the labor license is issued for this sub-project.	Number of labour is 200 as per initial labour license and current license is the renewal of same. Copy of original labour license is attached for reference as Appendix III of the compliance sheet.
15.	Please confirm that the insurance policy taken by the EPC contractor covers all unskilled, semi-skilled and skilled laborers engaged by the EPC contractor and its sub-contractors for this sub-project. Please mention the clause in the attached Appendix 7 that specifically mentions this coverage.	Please refer page 3 of the insurance policy, which states “Road Paving, Tarring and Road Making_ All categories of employees of DBL & Sub-contractor engaged in DBL – Highly Skilled, Skilled, Semi-Skilled, Unskilled, Engineers, Supervisors, Managers, Daily Labour Etc.” This information has been added to Table 2 point no 8 of the ESDDR.
16.	The insurance policy also refers to an exclusion of communicable diseases from the coverage. The ESDDR shall specifically mention the health and safety plan being followed by DMSPHL and DBL to respond to ongoing COVID-19 pandemic and confirm that the said H&S plan is being implemented effectively along with the guidelines issued.	Developer has confirmed that they are following the COVID-19 pandemic related health and safety measures as per the guidelines and directions issued by the central and state governments at project site (Para 42 of the ESDDR). Photographs of the Covid-19 management measures shared from site are attached as Appendix I.
17.	The total length of the road mentioned is 56.500 km (meets the design chainages stated in the ESDDR). However, based on the existing chainage readings, it is 55.483 km. IIFCL is requested to clarify this difference.	As per Concession Agreement the length of projects is 56.500 Km. As per Concession Agreement, the Authority had resolved to augment the existing road from Km 314.969 to Km 370.452 and the Design chainage of proposed road is from Km 321.600 to Km 378.100 – approximately 56.500 Km. Therefore, the difference is due to design chainage.
18.	Please provide the name of the entity responsible as Lenders’ Independent Engineer.	LSI Financial Services are the Lenders’ Independent Engineer.
19.	The latest IE report referred to in the ESDDR as supporting /reference document is of October 2019 (Para 30). IIFCL is requested to refer to a report which is as latest as possible.	The latest IE report available with IIFCL was for October 2019, which has been reviewed and referred to in the ESDDR. However, latest LIE reports have been referred for the ESDDR.
20.	The response to screening questions on climate change and disaster risk requires to be reassessed. Please revisit the REA checklist provided with ESDDR.	No such impacts are anticipated.
21.	IIFCL is requested to ensure continued compliance of the sub-project with the	Noted

	environmental and labor regulations of India through timely renewals of relevant permissions and adhering to the terms and conditions stipulated therein.	
22.	IIFCL to ensure that regular field verification would be undertaken by its safeguards team to assess and confirm compliance with the agreed environmental measures by the concessionaire, including carrying out public consultations during execution.	Noted



भारत का राजपत्र The Gazette of India

सी.जी.-डी.एल.-अ.-28032020-218948
CG-DL-E-28032020-218948

असाधारण
EXTRAORDINARY
भाग II—खण्ड 3—उप-खण्ड (ii)
PART II—Section 3—Sub-section (ii)
प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं. 1088]

नई दिल्ली, शनिवार, मार्च 28, 2020/चैत्र 8, 1942

No. 1088]

NEW DELHI, SATURDAY, MARCH 28, 2020/CHAITRA 8, 1942

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 28 मार्च, 2020

का.आ. 1224(अ).—खनिज विधि (संशोधन) अधिनियम 2020 (2020 का 2), खान और खनिज (विकास और विनियमन) अधिनियम, 1957 (1957 का 67) (जिसे इसमें इसके पश्चात् एमएमडीआर अधिनियम कहा गया है) द्वारा 10 जनवरी, 2020 से प्रभावी संशोधन किया गया है और अन्य बातों के साथ कानूनी निर्वाधन के अंतरण के लिए उपबंधों से संबंधित नई धारा 8ख का अंतःस्थापन किया गया है;

और, एमएमडीआर अधिनियम की धारा 8ख की उप-धारा (2) यह उपबंध करता है कि इस अधिनियम में या तत्समय प्रवृत्त किसी अन्य विधि में अंतर्विष्ट किसी बात के होते हुए भी, धारा 8क की उप-धारा (5) और उप-धारा (6) के उपबंधों के अधीन अवसान होने वाले खनन पट्टे का सफल बोली लगाने वाला और उस अधिनियम के अधीन या तद्वीन बनाए गए नियमों के अधीन उपबंधित प्रक्रिया के अनुसार नीलामी के माध्यम से अर्जित सभी विधिमान्य अधिकार, अनुमोदन, निकासी, अनुज्ञप्ति और इसी प्रकार दो वर्ष की अवधि के लिए पूर्ववर्ती पट्टेदार पर निहित होना समझा जाएगा;

और, एमएमडीआर अधिनियम की धारा 8ख की उप-धारा (3) यह उपबंध करता है कि तत्समय प्रवृत्त अन्य विधि में अंतर्विष्ट किसी बात के होते हुए भी, यह उस भूमि पर जिसमें नया पट्टा के प्रारंभ से दो वर्ष की अवधि के लिए पूर्ववर्ती पट्टेदार द्वारा खनन संक्रियाएं कार्यान्वित किए जा रहे थे, निरंतर खनन संक्रियाओं को नए पट्टेदार के लिए विधिपूर्ण किया जाएगा;

और, एमएमडीआर अधिनियम को पूर्वोक्त संशोधन के प्रयोजन के लिए केंद्रीय सरकार, भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना सं. का. आ. 1533 (अ), तारीख 14 सितंबर, 2006 (जिसे इसमें इसके पश्चात् ईआईए अधिसूचना, 2006 कहा गया है) के सुसंगत उपबंधों को सम्मिलित करने के लिए आवश्यक समझती है।

और, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय में सड़कों के लिए साधारण पृथ्वी का उपयोग करने के लिए पूर्व पर्यावरणीय अनापत्ति की अपेक्षा के अधित्याग के लिए अभ्यावेदनों की प्राप्ति पर; और पारंपरिक समुदाय द्वारा अंतर ज्वारीय क्षेत्र के भीतर चूने के गोले (मृत भू-पटल), पवित्र स्थानों, आदि के मैनुअल निकासी;

अतः, अब, केन्द्रीय सरकार, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उप-नियम (4) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, लोकहित में, उक्त नियमों के नियम 5 के उप-नियम (3) के खंड (क) के अधीन सूचना की अपेक्षा से अभिमुक्ति के पश्चात् और अधिसूचना सं. का. आ. 4307 (अ), तारीख 29 नवंबर, 2019 को अधिकांत करते हुए, ईआईए अधिसूचना, 2006 में निम्नलिखित संशोधन करती है, अर्थात् :-

उक्त अधिसूचना में, -

(i) पैरा 11 में, उप-पैरा (2) के पश्चात् निम्नलिखित उप-पैरा अंतःस्थापित किया जाएगा, अर्थात् :-

“(3) खान और खनिज (विकास और विनियमन) अधिनियम, 1957 (1957 का 67) की धारा 8क की उप-धारा (5) और उप-धारा (6) के उपबंधों के अधीन अवसान होने वाले खनन पट्टे का सफल बोली लगाने वाला और उस अधिनियम के अधीन और तद्विना बनाए गए नियमों के अधीन उपबंधित प्रक्रिया के अनुसार नीलामी के माध्यम से चयनित नया पट्टा के प्रारंभ की तारीख से दो वर्ष की अवधि के लिए पूर्ववर्ती पट्टेदार पर निहित पूर्व पर्यावरणीय अनापत्ति विधिमान्य अर्जित किया गया समझा जाएगा और यह नया पट्टा प्रारंभ की तारीख से दो वर्ष की अवधि के लिए या उसमें उल्लिखित निबंधनों शर्तों के अनुसार नया पर्यावरणीय अनापत्ति, नया निकासी अभिप्राप्त होने तक, इसमें से जो भी पूर्वतर हो, उक्त पट्टा क्षेत्र पर पूर्ववर्ती पट्टेदार का स्वीकृत पर्यावरणीय अनापत्ति के निबंधनों और शर्तों के अनुसार निरंतर खनन संक्रिया नया पट्टेदार के लिए विधिपूर्ण होंगी;

परन्तु, सफल बोली लगाने वाला नया पट्टा मंजूर करने की तारीख से दो वर्ष की अवधि के भीतर विनियामक प्राधिकरण से पूर्व पर्यावरणीय अनापत्ति के लिए आवेदन करेगा और अभिप्राप्त करेगा।”;

(ii) अनुसूची के मद 1 (क) के सामने, स्तंभ (5) के खंड (2) के टिप्पण के पश्चात् निम्नलिखित खंड अंतःस्थापित किया जाएगा, अर्थात् :-

“(3) उक्त पट्टा के अवसान के पश्चात् पूर्ववर्ती पट्टेदार द्वारा खनन और खनिज (विकास और विनियमन) अधिनियम, 1957 (1957 का 67) के उपबंधों के अधीन खनन पट्टे के अवसान होने तक भीतर पड़ी पहले से ही खनिज बाह्य सामग्री का निष्क्रमण या निष्कासन और परिवहन उस अधिनियम के अधीन और तद्विना बनाए गए नियमों के अधीन उपबंधित प्रक्रिया के अनुसार नीलामी के माध्यम से चयनित सफल बोली लगाने की इस प्रकार अनुज्ञात खनन हैसियत के भाग के रूप में नहीं होगा।”

(iii) परिशिष्ट – IX के लिए, निम्नलिखित परिशिष्ट प्रतिस्थापित किया जाएगा, अर्थात् :-

“परिशिष्ट – 9

कतिपय मामलों के पर्यावरणीय अनापत्ति की अपेक्षा से छूट

निम्नलिखित मामलों को पूर्व पर्यावरणीय अनापत्ति की अपेक्षा नहीं होगी, अर्थात् :-

1. मैनुअल खनन द्वारा साधारण मिट्टी या बालू की कुम्हारों द्वारा मिट्टी के घड़े, लैम्प, खिलौने, आदि बनाने के लिए उनकी प्रथाओं के अनुसार निकासी।
2. मैनुअल खनन द्वारा मिट्टी की टाइलें बनाने द्वारा जो मिट्टी की टाइलें बनाते हैं, के लिए साधारण मिट्टी या बालू की निकासी।
3. किसानों द्वारा बाढ़ के पश्चात् कृषि भूमि से बालू के जमाव को हटाना।

4. ग्राम पंचायत में अवस्थित स्रोतों से बालू और साधारण मिट्टी को वैयक्तिक उपयोग या ग्राम में समुदाय कार्य के लिए प्रथा के अनुसार खनन।
5. सामुदायिक कार्य जैसे ग्रामीण तालाबों या टैंकों से गाद हटाना, महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार और गारंटी स्कीमों, अन्य सरकारी स्कीमों, प्रायोजित तथा सामुदायिक प्रयासों द्वारा ग्रामीण सड़कों, तालाबों या बांधों का संनिर्माण।
6. सड़क, पाइपलाइन, आदि जैसे रेखीय परियोजनाओं के लिए साधारण मिट्टी की निकासी, निष्कासन या प्रयोग करना।
7. बांधों, तालाबों, मेड़ों, बैराजों, नदी और नहरों की उनके अनुरक्षित तथा आपदा प्रबंधन के प्रयोजन के लिए तलमार्जन और गाद निकालना।
8. गुजरात में गुजरात सरकार की तारीख 14 फरवरी, 1990 की अधिसूचना सं. जीयू / 90 (16)/ एमसीआर-2189 (68) / 5 – सीएचएच द्वारा बंजारा और ओड द्वारा बालू के पारंपरिक उपजीविका कार्य।
9. पारंपरिक समुदाय द्वारा अंतर ज्वारीय क्षेत्र के भीतर चूने के गोलों (मृत भू-पटल), पवित्र स्थानों, आदि के मैनुअल निकासी।
10. सिंचाई या पेयजल के लिए कुओं की खुदाई।
11. यथास्थिति, ऐसे भवनों की नींव के लिए खुदाई जिनके लिए पूर्व पर्यावरणीय अनापत्ति अपेक्षित नहीं है।
12. जिला कलेक्टर या जिला मजिस्ट्रेट या किसी अन्य सक्षम प्राधिकारी के आदेश पर किसी नहर, नाला, ड्रेन, जल निकाय, आदि में होने वाली दरार को भरने के लिए साधारण मिट्टी या बालू का उत्खनन ताकि किसी आपदा या बाढ़ जैसी स्थिति से निपटा जा सके।
13. ऐसे क्रियाकलाप, जिन्हें राज्य सरकार द्वारा विधान या नियमों के अधीन गैर खननकारी क्रियाकलाप के रूप में घोषित किया गया है।”

[फा. सं. जेड-11013 / 47 / 2018-आई. ए. II (एम)]

गीता मेनन, संयुक्त सचिव

टिप्पण : मूल अधिसूचना भारत के राजपत्र, असाधारण, भाग II, खंड 3, उप-खंड (ii) में सं. का. आ. 1533 (अ), तारीख 14 सितंबर 2006 द्वारा प्रकाशित की गई थी और निम्नलिखित सं. द्वारा पश्चात्कर्ती संशोधन किया गया :-

1. का. आ. 1949 (अ), तारीख 13 नवंबर, 2006;
2. का. आ. 1737 (अ), तारीख 11 अक्टूबर, 2007;
3. का. आ. 3067 (अ), तारीख 1 दिसंबर, 2009;
4. का. आ. 695 (अ), तारीख 4 अप्रैल, 2011;
5. का. आ. 156 (अ), तारीख 25 जनवरी, 2012;
6. का. आ. 2896 (अ), तारीख 13 दिसंबर, 2012;
7. का. आ. 674 (अ), तारीख 13 मार्च, 2013;
8. का. आ. 2204 (अ), तारीख 19 जुलाई, 2013;
9. का. आ. 2555 (अ), तारीख 21 अगस्त, 2013;
10. का. आ. 2559 (अ), तारीख 22 अगस्त, 2013;
11. का. आ. 2731 (अ), तारीख 9 सितंबर, 2013;

12. का. आ. 562 (अ), तारीख 26 फरवरी, 2014;
13. का. आ. 637 (अ), तारीख 28 फरवरी, 2014;
14. का. आ. 1599 (अ), तारीख 25 जून, 2014;
15. का. आ. 2601 (अ), तारीख 7 अक्टूबर, 2014;
16. का. आ. 2600 (अ), तारीख 9 अक्टूबर, 2014;
17. का. आ. 3252 (अ), तारीख 22 दिसंबर, 2014;
18. का. आ. 382 (अ), तारीख 3 फरवरी, 2015;
19. का. आ. 811 (अ), तारीख 23 मार्च, 2015;
20. का. आ. 996 (अ), तारीख 10 अप्रैल, 2015;
21. का. आ. 1142 (अ), तारीख 17 अप्रैल, 2015;
22. का. आ. 1141 (अ), तारीख 29 अप्रैल, 2015;
23. का. आ. 1834 (अ), तारीख 6 जुलाई, 2015;
24. का. आ. 2571 (अ), तारीख 31 अगस्त, 2015;
25. का. आ. 2572 (अ), तारीख 14 सितंबर, 2015;
26. का. आ. 141 (अ), तारीख 15 जनवरी, 2016;
27. का. आ. 648 (अ), तारीख 3 मार्च, 2016;
28. का. आ. 2269 (अ), तारीख 1 जुलाई, 2016;
29. का. आ. 2944 (अ), तारीख 14 सितंबर, 2016;
30. का. आ. 3518 (अ), तारीख 23 नवंबर, 2016;
31. का. आ. 3999 (अ), तारीख 9 दिसंबर, 2016;
32. का. आ. 4241 (अ), तारीख 30 दिसंबर, 2016;
33. का. आ. 3611 (अ), तारीख 25 जुलाई, 2018;
34. का. आ. 3977 (अ), तारीख 14 अगस्त, 2018;
35. का. आ. 5733 (अ), तारीख 14 नवंबर, 2018;
36. का. आ. 5736 (अ), तारीख 15 नवंबर, 2018;
37. का. आ. 5845 (अ), तारीख 26 नवंबर, 2018;
38. का. आ. 345 (अ), तारीख 17 जनवरी, 2019;
39. का. आ. 1960 (अ), तारीख 13 जून, 2019;
40. का. आ. 236 (अ), तारीख 16 जनवरी, 2020;
41. का. आ. 751 (अ), तारीख 17 फरवरी, 2020; और
42. का. आ. 1223 (अ), तारीख 27 मार्च, 2020।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE**NOTIFICATION**

New Delhi, the 28th March, 2020

S.O. 1224(E).—WHEREAS, *vide* the Mineral Laws (Amendment) Act, 2020 (2 of 2020), the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957) (hereinafter referred to as MMDR Act) has been amended with effect from the 10th day of January, 2020 and, *inter alia*, new section 8B relating to the provisions for transfer of statutory clearances has been inserted;

AND WHEREAS, sub-section (2) of section 8B of the MMDR Act provides that notwithstanding anything contained in this Act or any other law for the time being in force, the successful bidder of mining leases expiring under the provisions of sub-sections (5) and (6) of section 8A and selected through auction as per the procedure provided under this Act and the rules made thereunder, shall be deemed to have acquired all valid rights, approvals, clearances, licences and the like vested with the previous lessee for a period of two years;

AND WHEREAS, sub-section (3) of section 8B of the MMDR Act provides that notwithstanding anything contained in any other law for the time being in force, it shall be lawful for the new lessee to continue mining operations on the land, in which mining operations were being carried out by the previous lessee, for a period of two years from the date of commencement of the new lease;

AND WHEREAS, in pursuance of the aforesaid amendment to the MMDR Act, the Central Government deems it necessary to align the relevant provisions of the notification of the Government of India in the erstwhile Ministry of Environment and Forests number S.O. 1533 (E), dated the 14th September, 2006 (hereinafter referred to as the EIA Notification, 2006);

AND WHEREAS, the Ministry of Environment, Forest and Climate Change is in the receipt of representations for waiver of requirement of prior environmental clearance for borrowing of ordinary earth for roads; and manual extraction of lime shells (dead shell), shrines, etc., within inter tidal zone by the traditional community;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986), read with sub-rule (4) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government, after having dispensed with the requirement of notice under clause (a) of sub-rule (3) of the rule 5 of the said rules, in public interest, and in supersession of the notification number S.O. 4307(E), dated the 29th November, 2019, hereby makes the following further amendments in the EIA Notification, 2006, namely:-

In the said notification,-

(i) in paragraph 11, after sub-paragraph (2), the following sub-paragraph shall be inserted, namely:-

“(3) The successful bidder of the mining leases, expiring under the provisions of sub-sections (5) and (6) of section 8A of the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957) and selected through auction as per the procedure provided under that Act and the rules made thereunder, shall be deemed to have acquired valid prior environmental clearance vested with the previous lessee for a period of two years, from the date of commencement of new lease and it shall be lawful for the new lessee to continue mining operations as per the same terms and conditions of environmental clearance granted to the previous lessee on the said lease area for a period of two years from the date of commencement of new lease or till the new lessee obtains a fresh environmental clearance with the terms and conditions mentioned therein, whichever is earlier:

Provided that the successful bidder shall apply and obtain prior environmental clearance from the regulatory authority within a period of two years from the date of grant of new lease.”;

(ii) in the Schedule, against the item 1(a), in the column (5), after clause (2) of the Note, the following clause shall be inserted, namely:-

“(3) The evacuation or removal and transportation of already mined out material lying within the mining leases expiring under the provisions of the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957), by the previous lessee, after the expiry of the said lease, shall not form the part of the mining capacity so permitted to the successful bidder, selected through auction as per the procedure provided under that Act and the rules made thereunder.”;

(iii) for Appendix-IX, the following Appendix shall be substituted, namely:-

“APPENDIX-IX**EXEMPTION OF CERTAIN CASES FROM REQUIREMENT OF ENVIRONMENTAL CLEARANCE**

The following cases shall not require Prior Environmental Clearance, namely:-

1. Extraction of ordinary clay or sand by manual mining, by the Kumhars (Potter) to prepare earthen pots, lamp, toys, etc. as per their customs.
2. Extraction of ordinary clay or sand by manual mining, by earthen tile makers who prepare earthen tiles.
3. Removal of sand deposits on agricultural field after flood by farmers.
4. Customary extraction of sand and ordinary earth from sources situated in Gram Panchayat for personal use or community work in village.
5. Community works, like, de-silting of village ponds or tanks, construction of village roads, ponds or bunds undertaken in Mahatma Gandhi National Rural Employment and Guarantee Schemes, other Government sponsored schemes and community efforts.
6. Extraction or sourcing or borrowing of ordinary earth for the linear projects such as roads, pipelines, etc.
7. Dredging and de-silting of dams, reservoirs, weirs, barrages, river and canals for the purpose of their maintenance, upkeep and disaster management.
8. Traditional occupational work of sand by Vanjara and Oads in Gujarat vide notification number GU/90(16)/MCR-2189(68)/5-CHH, dated the 14th February, 1990 of the Government of Gujarat.
9. Manual extraction of lime shells (dead shell), shrines, etc., within inter tidal zone by the traditional community.
10. Digging of wells for irrigation or drinking water purpose.
11. Digging of foundation for buildings, not requiring prior environmental clearance, as the case may be.
12. Excavation of ordinary earth or clay for plugging of any breach caused in canal, nallah, drain, water body, etc., to deal with any disaster or flood like situation upon orders of the District Collector or District Magistrate or any other Competent Authority.
13. Activities declared by the State Government under legislations or rules as non-mining activity.”

[F. No. Z-11013/47/2018-IA.II (M)]

GEETA MENON, Jt. Secy.

Note: The principal notification was published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii) *vide* number S.O. 1533 (E), dated the 14th September, 2006 and subsequently amended *vide* the following numbers:-

1. S.O. 1949 (E), dated the 13th November, 2006;
2. S.O. 1737 (E), dated the 11th October, 2007;
3. S.O. 3067 (E), dated the 1st December, 2009;
4. S.O. 695 (E), dated the 4th April, 2011;
5. S.O. 156 (E), dated the 25th January, 2012;
6. S.O. 2896 (E), dated the 13th December, 2012;
7. S.O. 674 (E), dated the 13th March, 2013;
8. S.O. 2204 (E), dated the 19th July, 2013;
9. S.O. 2555 (E), dated the 21st August, 2013;
10. S.O. 2559 (E), dated the 22nd August, 2013;
11. S.O. 2731 (E), dated the 9th September, 2013;
12. S.O. 562 (E), dated the 26th February, 2014;
13. S.O. 637 (E), dated the 28th February, 2014;

14. S.O. 1599 (E), dated the 25th June, 2014;
15. S.O. 2601 (E), dated the 7th October, 2014;
16. S.O. 2600 (E), dated the 9th October, 2014;
17. S.O. 3252 (E), dated the 22nd December, 2014;
18. S.O. 382 (E), dated the 3rd February, 2015;
19. S.O. 811 (E), dated the 23rd March, 2015;
20. S.O. 996 (E), dated the 10th April, 2015;
21. S.O. 1142 (E), dated the 17th April, 2015;
22. S.O. 1141 (E), dated the 29th April, 2015;
23. S.O. 1834 (E), dated the 6th July, 2015;
24. S.O. 2571 (E), dated the 31st August, 2015;
25. S.O. 2572 (E), dated the 14th September, 2015;
26. S.O. 141 (E), dated the 15th January, 2016;
27. S.O. 648 (E), dated the 3rd March, 2016;
28. S.O. 2269(E), dated the 1st July, 2016;
29. S.O. 2944(E), dated the 14th September, 2016;
30. S.O. 3518 (E), dated 23rd November 2016;
31. S.O. 3999 (E), dated the 9th December, 2016;
32. S.O. 4241(E), dated the 30th December, 2016;
33. S.O. 3611(E), dated the 25th July, 2018;
34. S.O. 3977 (E), dated the 14th August, 2018;
35. S.O. 5733 (E), dated the 14th November, 2018;
36. S.O. 5736 (E), dated the 15th November, 2018;
37. S.O. 5845(E), dated the 26th November, 2018;
38. S.O. 345(E), dated the 17th January, 2019;
39. S.O. 1960(E), dated the 13th June, 2019;
40. S.O. 236(E), dated the 16th January, 2020;
41. S.O. 751(E), dated the 17th February, 2020; and
42. S.O. 1223(E), dated the 27th March, 2020.

Photographs - DBL Mangalwedha Solapur Highways Private Limited



Tool Box Talk at DMSHPL



Hand washing facility at Camp Site



Water Sprinkling at DMSHPL



Safety Measures for COVID 19



Awareness Training about COVID19

Photographs - DBL Mangalwedha Solapur Highways Private Limited



Sanitization at Laboratory



Fire Extinguisher maintenance at Fuel Pump



Safety Awareness at Camp Site



RMC Plant at DMSHPL



Sanitization of Canteen area



Sanitization of Baby Roller



Form VI

(Under Rule 25(1) of the Contract Labour (Regulation and Abolition) Central Rules, 1971)

**Government of India
Office of the Licensing Officer
LICENCE**

Licence No: **CLRA/RLCPUNE/2019/L-39**

Date: **25-Feb-2019**

1. Licence is hereby granted to **DILIP BUILDCON LIMITED (MANGALWEDHA SOLAPUR HIGHWAYS PVT LTD), PLOT NO. 5, INSIDE GOVIND NARAYAN SINGH GATE, , CHUNABHATTI KOLAR ROAD, , CHUNABHATTI, Bhopal - 462016**, through **SMT SEEMA SURYAVANSHI DIRECTOR** under sub-section (1) of section 12 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) subject to the conditions specified in the Annexure.
2. Name and Location of work **FOUR LANINIG OF MANGALWEDHA TO SOLAPUR SECTION OF NH-166 FROM KM.321/600 TO 378/100 PACKAGE IV (LENGTH 56.500 KM) FOR NHAI SOLAPUR., for MANGALWEDHA , SOLAPUR, Solapur, Maharashtra - 413215**
3. Name of the principal employer **SHRI S S KADAM DGM (TECH) & PROJECT DIRECTOR, Watambare to Mangalwedha, Solapur, Maharashtra - 413002**
4. Registration Certificate no. **RLCP-35(06)/2015S** and date of **04-Mar-2015** of the principal employer.
5. The licence shall remain in force till **24-Feb-2020** (date to be indicated).
6. Maximum number of contract labour to be employed on a single day under the licence: **200**
7. Fee Paid Rs **INR 150** (Transaction Id : **2102190001257**)
8. Security Deposit **INR 18000** (Transaction Id : **2102190002319**)
9. Remarks by Licencing Officer: **APPROVED**

ANNEXURE

1. The licence shall be non-transferable.
2. The numbers of workmen employed as contract labour in the establishment shall not, on any day, exceed the maximum number specified in the licence.
3. Except as provided in the rules, the fees paid for the grant or, as the case may be, for renewal of the licence shall be non-refundable.
4. The rates of wages payable to the workmen by the contractor shall not be less than the rates prescribed for the Scheduled Employment under the Minimum Wages Act, 1948 (11 of 1948), where applicable, and where the rates have been fixed by agreement, settlement, award, or by the appropriate Government, not less than the rates so fixed.
5. (a). In case where the workmen employed by the contractor perform the same or similar kind of work as the workmen directly employed by the principal employer of the establishment, the wage rates, holidays, hours of work and other conditions of service of the workmen of the contractor shall be the same as applicable to the workmen directly employed by the principal employer of the establishment on the same or similar kind of work; provided that in the case of any disagreement with regard to the type of work the same shall be decided by the Deputy Chief Labour Commissioner (Central) whose decision shall be final.
(b). In other cases the wage rates, holidays, hours of work and conditions of service of the workmen of the contractor shall be such as may be specified in this behalf by the Deputy Chief Labour Commissioner (Central).
6. Every contract labour shall be entitled to allowances, benefits, facilities etc, as prescribed in the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) and rules made there under.
7. In every establishment where 20 or more women are ordinarily employed as there shall be provided 2 rooms of reasonable dimension for the use of their children under the age of six years. One of such rooms would be used as a play room for the children and the other as bed room for the children. For this purpose the contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the sleeping room. The standard of construction and maintenance of the crèches may be such as may be specified in this behalf by the Deputy Chief Labour Commissioner (Central).
8. No women shall be employed by any contractor before 6 a.m. or after 7 p.m.: Provided that this clause shall not apply to the employment of women in pit head baths, crèches and canteens and as mid-wives and nurses in hospitals and dispensaries.
9. The licensee shall notify any change in the number of workmen or the conditions of work to the Licensing Officer.

10. A copy of the licence shall be displayed prominently at the premises where the contract work is being carried on.
11. The contractor shall comply with all the provisions of the Act and these Rules.
12. The licensee shall, within fifteen days of the commencement and completion of each contract work, submit a return to the Inspector appointed under section 28 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) intimating the actual date of the commencement or, as the case may be, completion of such contract work in Form - VII.

eSign/DSC of Licensing Officer

N M Shetty (RLC(C))

RLC Pune (RLCPUNE)

rlc.pune-mh@nic.in

Note: *This is an online application summary applied on Shram Suvidha Portal.*

Signature Not Verified

Digitally signed by User
Date: 2019.02.25 13:48:27 IST



Compliance to ADB Observations on Environment & Social Due Diligence Report (ESDDR)
of
DBL Mangalwedha Solapur Highways Pvt Ltd (DMSHPL) – Environmental
Safeguards

S.No.	ADB Comment on Environmental Safeguards	IIFCL response/clarifications
1.	IIFCL was requested to confirm that the sub-project fully complies with ADB's Safeguard Policy Statement (SPS), 2009. In response, IIFCL has stated (Para 57 revised ESDDR) that "Based on documentary evidence provided by the Developer and its assessment, the sub project seems to be meeting the requirements of ADB's Safeguard Policy Statement (SPS), 2009." IIFCL is requested to confirm explicitly that the sub-project fully complies with ADB's Safeguard Policy Statement (SPS), 2009. Please elaborate the areas or aspects where IIFCL is not able to ascertain and confirm compliance with ADB's SPS 2009.	Para No. 57 of the ESDDR has been revised as "Based on documentary evidence provided by the Developer and its assessment, the sub project is meeting the requirements of ADB's Safeguard Policy Statement (SPS), 2009. During the proposed site visit by IIFCL team, if any observations on safeguards compliance are found, those will be communicated to ADB and a suitable corrective action plan will be prepared, if required."
2.	It is noted that MOEFCC through its notification SO 1224 (E) of 28 March 2020 has exempted "Extraction or sourcing or borrowing of ordinary earth for the linear projects such as roads, pipelines, etc." under Appendix-IX serial number 6. IIFCL is requested to confirm that the borrow areas utilized under the sub-project (prior to issuance and effectiveness of this notification) had obtained the requisite environmental clearances as per the then prevailing environmental regulations of India. IIFCL is also requested to provide/confirm to provide the sample copies of such environmental clearances by 30 November 2020.	IIFCL has reported on the basis of Lenders Independent Engineer's report, that the developer was using cut material at the sub project till July 2020 (Reference Table 2 point no 7 of ESDDR). Developer has also confirmed that the permissions will be taken as per prevailing Government of India regulations and will be shared with IIFCL as and when procured. Developer has also informed that certain permissions are taken for the identified areas, which were shared with the ESDDR.
3.	IIFCL was requested to include the copies of environmental permits obtained for the quarries, mines, and construction plants used to procure construction materials with the ESDDR. In response, IIFCL has stated that "Permissions from Village Panchayats, Mining Department, and Pollution Control Board taken by Developer have also been shared with the ESDDR." IIFCL has provided copies of the consents issued by the state pollution control board for setting up construction plants and equipment at three sites. IIFCL is requested to provide/confirm to provide the copies of environmental clearances issued under the prevailing environmental regulations for quarries and mines being utilized for sourcing the construction materials by 30 November 2020.	Relevant permissions from mining department of State Government are in place. The actual areas being used for sourcing construction material will be checked during proposed site visit to be conducted by IIFCL. Site visit will be done once it is safe for IIFCL staff to visit.