

**A RELOOK
AT GURGAON'S
INFRASTRUCTURE
FOCUS AREA: ROADS**

GURGAON – INFRASTRUCTURE

Gurgaon today has emerged as the city with one of the highest income generators of the country. It is the hub of IT, Automobile and BPO companies and is fast emerging as a big centre of hospital tourism, education, nightlife and entertainment.

While the city has grown at a rapid pace the development of its infrastructure has lagged behind by several yards. Roads, drainage system, pedestrian paths and in fact the entire infrastructure of the city needs a major overhaul. Whatever infrastructure the city has today is insufficient, outdated and scientifically incorrect.



Roads



Drainage



Traffic Lights



Street Furniture



Landscaping



Public Transport



Bus Stands



Railway Station &
Main Bus Stand



Sanitation

With respect to infrastructure, the major concerns areas are:

- 1) Poor quality of roads. Lack of regular maintenance of roads*
- 2) Absence of storm drains & sewer lines.*
- 3) Waste disposal, sanitation and cleanliness.*
- 4) Scientifically incorrect as well as substandard quality of road dividers, medians and traffic islands.*
- 5) Lack of proper pedestrian paths.*
- 6) Lack of FOBs on critical roads.*
- 7) High tension cables which have been hung on poles.*
- 8) Absence of proper and safe public transport system*
- 9) Absence of bus shelters in most parts of the city*
- 10) Bus stand and railway station*
- 11) Street lights*
- 12) Landscaping of the city*
- 13) Beautification*
- 14) Use of substandard material while developing infrastructure. In Gurgaon many footpaths have crumbled within 6 months of its construction.*
- 15) Multiple agencies managing the city – results in staggered and incoherence development of the city*

ROADS

Roads in the city have by and large been always in a bad shape. There is not a single road in the city which can be called the showpiece road of Gurgaon. That's quite surprising since Gurgaon is home to many top ranking consultants and is one of the wealthiest cities of the country.

Main reasons which can be attributed for Gurgaon roads being of such a poor quality are:

- *Selection of sub standard contractors who have no access to latest road making techniques. Results in poor quality of finished product.*
- *Lack of supervision on part of the local administration. Quality check is needed every few hours.*
- *Lack of proper rolling of bitumen layers during road making as well repairing process.*
- *Layering of roads in the wrong season. March to June is technically the best time to make roads in the NCR. Shockingly, road works in Gurgaon in some years started in June and July also. In fact, in 2015 sections of the Golf Course Extension Road (Southern Periphery Road) were layered with three coats of bitumen while it was raining. Results are for all to see – the craters opened up on the road at many spots.*
- *Collection of water on the roads and flowing of water along the edge of the roads due to the absence of storm drains and wrong sloping of roads. In some cases, storm drains are present but they are either blocked, broken or are above the surface of roads.*
- *Clogging of sewer lines resulting in water flowing over the roads. This issue is rampant in many areas of the city.*
- *Absence of check on the plying of vehicles with more than specified tonnage . This damages the road.*
- *Absence of proper and strong road shoulders. This results in the erosion and breaking of road edges.*
- *Absence of road maintenance in the colonies maintained by private parties.*
- *No central authority to take a overall view of roads in Gurgaon. This has resulted in patchy road laying and repairs.*

It's been observed that most of the newly laid as well as repaired roads in Gurgaon, on an average, do not last for more than 6 months. Mostly the reason cited for this is rain. Incidentally, places like United Kingdom, which receives rains almost through the year, has roads which last a minimum of 10 years. This exhibits a completely disastrous state of affairs and points clearly towards the presence of corruption and inefficiency in the entire city management chain.

Roads – What we need to do

Making of roads definitely does not require rocket science but it certainly requires strict adherence to internationally stipulated road making parameters.

On studying the deficiencies of roads in Gurgaon we can sum up some areas which, if taken care of, can give world class roads to Gurgaon.

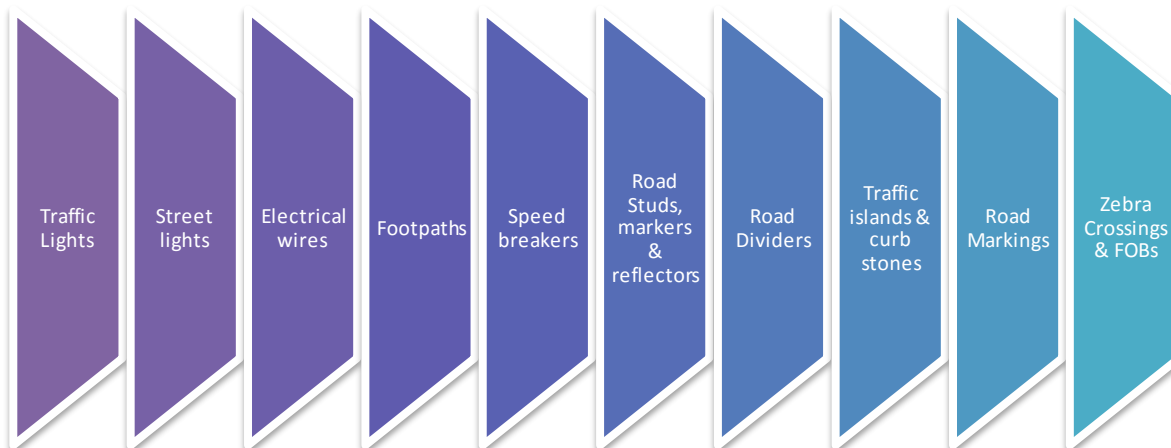
They are:

- *Maintaining proper gradient of roads. This will ensure that water does not collect on the roads and vehicles don't tumble at sharp bends.*
- *Presence of gutters with serrated covers along the road. Gutters with serrated covers (covers with gaps) are better than having pipes at certain intervals. Pipes open get choked.*
- *Making concrete roads in low lying areas of the city which are often prone to water logging. Attention should be given to providing a good dry base while making concrete roads.*

- *Pipes should be used to pass cables below the roads and footpaths. Extra pipes should be provided at vantage points for future expansion. This practice will ensure roads are not damaged during repair to wires etc.*
- *Ensuring that the shortlisted contractors are competent enough to make roads using the latest civil engineering techniques*
- *Experts should be deployed to monitor and record road carpeting progress. They should be made accountable for lapses and quality issues.*
- *Strict penalty for the contractor in case of substandard job.*
- *Contracts for roads should include clauses for quality guarantee and cost free maintenance during the guarantee period.*
- *Regular maintenance of roads. This can be made possible by having relevant officers taking a complete round of the city at least twice a week.*
- *HUDA, MCG and Town Planners office to maintain a common emergency number to report matters related to roads and traffic lights. If each and every complaint is taken care of then it will be very easy for the city managers to keep the roads of Gurgaon in perfect condition all through the year.*

STREET FURNITURE OF GURGAON

Street furniture includes:

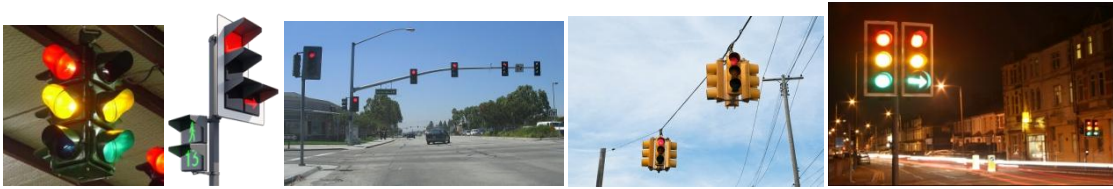


All above items which are an integral part of any city's infrastructure needs a serious overhaul in Gurgaon. Most of the above listed items are either missing, wrongly installed, are in bad condition or have become obsolete.

Looking at the profile of the Millennium City it's absolutely important to ensure that Gurgaon gets not only world class roads but also has high tech and glossy street paraphernalia.

What can be done?

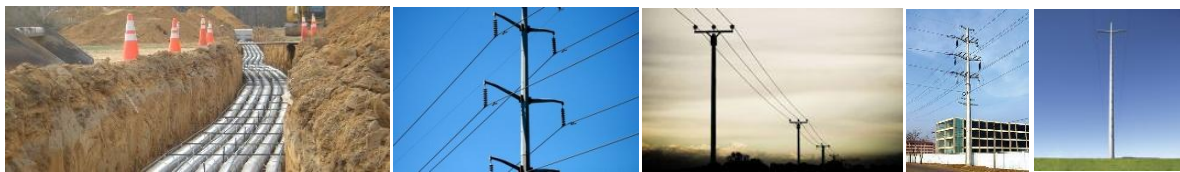
- **Traffic Lights:** *Need to install smart LED based signals fitted on black finished poles. Lights should be installed keeping in mind the nature of the road. Lights can be fitted on L shaped fittings, on fittings spanning the width of the road, hanging type lights and so on.*



- **Street Lights:** Sodium, Mercury or LED type fittings to be provided based on the need of the area. Street light poles should be of strong material, installed at correct angle and reinforced in strong concrete. There should be no visible openings on the pole at reachable height.



- **Electrical Wires:** Gurgaon's otherwise beautiful skyline looks ugly due to the hanging power cables. It not affects the aesthetics of the city but is also a big safety hazard. All wiring/cables should be put underground in bunkers or pipes with proper pits for repair and maintenance. Overhead supply should be routed in a neat manner using appropriate poles and conductors with no downward looping of wires. Cables, by and large should not be put overhead.



- **Footpaths:** Footpaths need to be designed scientifically so that they are friendly for the pedestrians, baby prams and wheel chairs. Internationally specified height guidelines should be followed to ensure cars don't get damaged during parking. UTTIPEC stipulates that footpath should be 150mm above the road surface touching the kerb stone.

Footpaths need to be properly reinforced with concrete so that they do not sink down during the rainy season. The base of footpath has to be solid enough to hold the tiles above.



- **Speed breakers:** It is advisable to construct flat topped speed breakers at junctions which can double up as pedestrian crossing. Height of these flat topped speed breakers should match that of the adjacent footpath. This will make it easy for wheelchairs and prams to cross. Caution signage should be there before a speed breaker.



- Road studs, markers and reflectors (delineators):** In a road safety drive in Gurgaon some years back (2012), most of the roads in Gurgaon were fitted with reflecting studs and reflecting posts. Most of the studs are still present but majority of the reflector posts have disappeared or are damaged. The reason of their disappearance – faulty installation. These reflectors were just pushed into the ground with a bit of cement for support. Over a period of time due to constant thrashing by passing people and animals most of the posts broke. To ensure longevity these posts need to be fitted on raised concrete surface with solid grouting.

Road studs, on-road markers and reflecting delineators should be extensively used on Gurgaon roads to improve night driving safety.



- Road Dividers & central verge:** The main negative aspect of road dividers and central verges in Gurgaon is that they are made of very poor material. This results in their breakage even by a small hit. Material matching standard international specifications should be used to construct road dividers, verge, U-turn heads and traffic islands.



- Traffic Islands, Roundabouts & Kerb Stones** – Most of the traffic islands found in Gurgaon are in a shattered and crumbling state – the main reason being, again, is the use of substandard material and use of outdated design and engineering. Traffic Islands and kerb stones made to specs can never break even if a vehicle climbs over it. Broken and dilapidated traffic islands, roundabouts, kerbs and medians give a war-torn-city like look to Gurgaon.



- **Road Markings** – For safe and easy movement of traffic it is very important to have bold and easily-visible-at-night on- road markings. Unfortunately, Gurgaon is way behind in this area.



- **Zebra Crossings & Foot Over Bridges (FOB)-**

Zebra crossing: Gurgaon does not have proper zebra crossings nor does it have FOBs (some are coming up). Most of the zebra crossing actually serve very little purpose as they are not properly marked, are wrongly placed and moreover motorists have no regard for them.

What we need is:

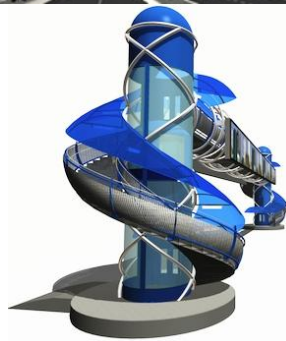
- Zebra crossing should be placed at points which have traditionally been crossing points or at a place which connects important locations on both sides of the road.
- Zebra markings should be dark and should be of good reflecting paint.
- For added comfort and safety of pedestrians, raised type crossings should be used. This would serve the dual purpose of a speed breaker as well as a zebra crossing.
- Reflector studs should be fixed on the road over the stop lines a little (2 to 3m) before the zebra crossing.
- Board indicating the presence of pedestrian crossing should be installed at the specified distance.



Foot Over Bridges: FOBs had recently started coming up in Gurgaon but the work currently (18/09/2015) is on hold due to some issues with the contractor. Hope this is resolved at the earliest and FOBs are completed before the end of this year.

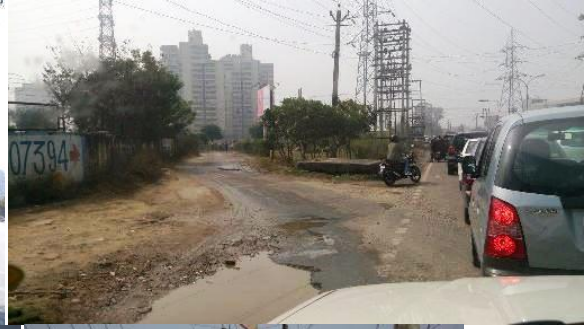
Point to note:

- Like the pedestrian crossings, FOBs should be made at points which have for long been used as crossing points and at places connecting busy locations like hospitals, malls and metro stations.
- It would good if they are aesthetically designed. Anything appealing will attract more footfalls and thus improve road safety.



WHAT GURGAON HAS





WHAT GURGAON SHOULD HAVE



