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Supporting Safer Cities

ENHANCING LAST MILE CONNECTIVITY

a safety analysis of the Lok Kalyan Metro Station

This Report has been prepared as part of the Project being undertaken with NDMC to Enhance the Last Mile Connectivity along the metro stations within its jurisdiction. The safety audits were conducted by Smt. Anju Bhatnagar, architect from NDMC along with Safetipin team.

NDMC
नई दिल्ली नगरपालिका परिषद्

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Lok Kalyan

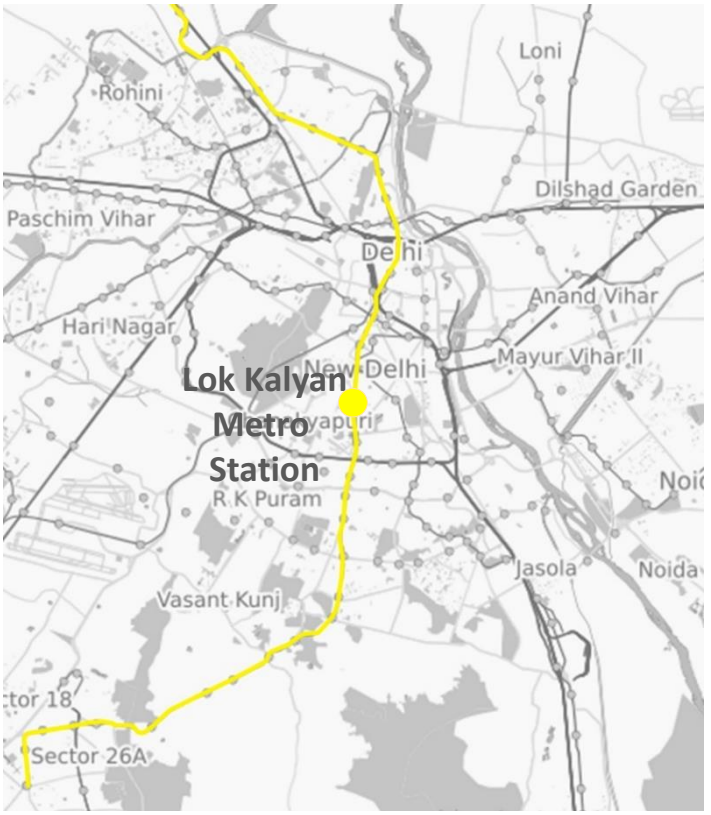
SAFETY SCORE: 3.4/5

SafetiPin, is a map-based mobile phone and online application, which works to make communities and cities safer by providing safety-related information collected by users and by trained auditors. At the core of the app is the Women's Safety Audit. A Women's Safety Audit (WSA) is a participatory tool for collecting and assessing information about perceptions of urban safety in public spaces. The audit is based on nine parameters – Lighting, Openness, Visibility, Crowd, Security, Walkpath, Availability of Public Transport, Gender Diversity and Feeling.

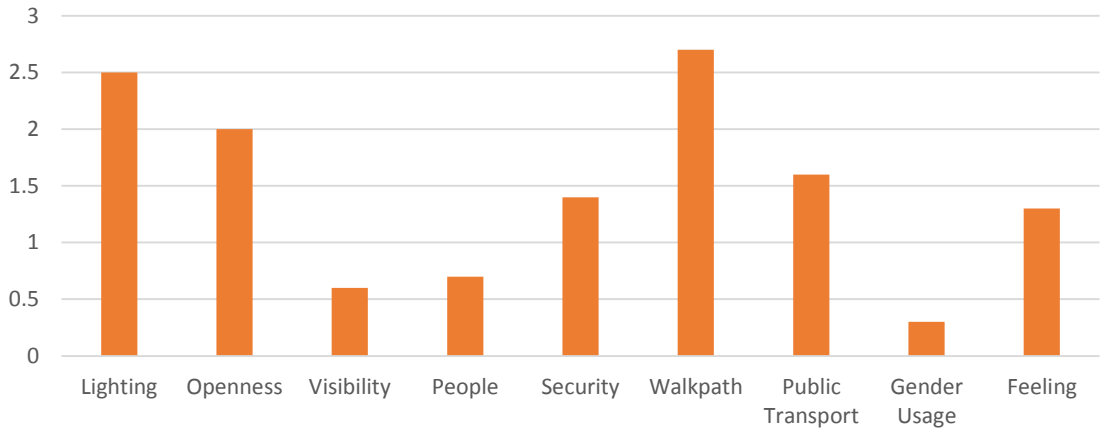
The audits were conducted by an architect from NDMC along with Safetipin team. The assessment was done post sunset till 9pm.

Lok Kalyan (previously known as Race Course) is an underground metro station on Delhi Metro's yellow line. Located in Lutyens Delhi, it is surrounded by residences of the country's senior administration officials.

An area of approximately 500m radius around the metro station has been studied and 119 audit pins have been generated. The area outside the metro entry/exit and the bus stop were studied.

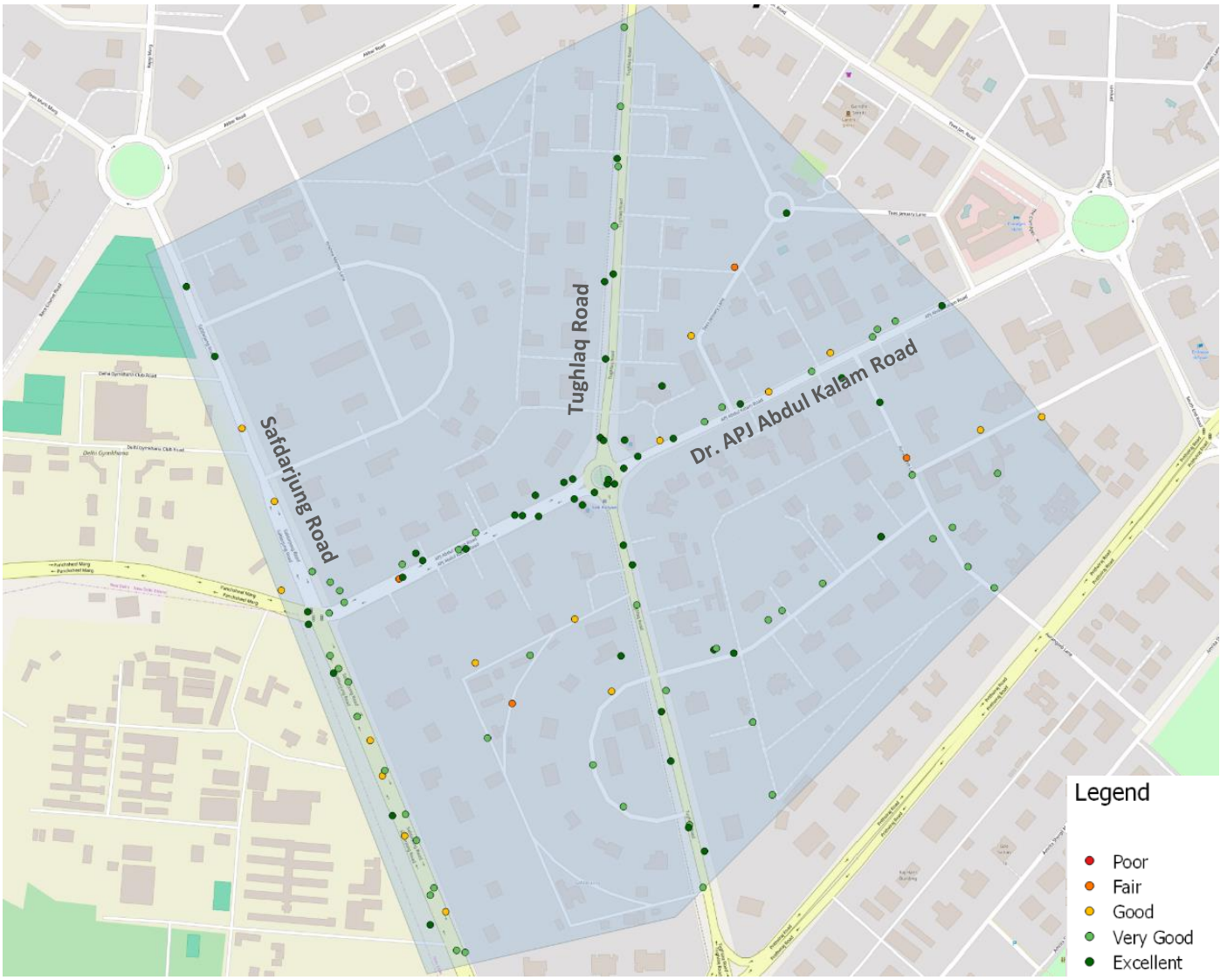


Average Audit Parameters (on a scale of 3)



Safety Audits indicate that the area around the metro station is safe. When compared to main roads, audit points within the neighbourhood have been rated lower in terms of safety score. Due to the absence of para transit facility at the neighbourhood level, Public Transport has been rated Average. Due to regular patrolling, Security is rated Average as well.

The parameter of Lighting and Walkpath has been rated Good. With high boundary walls and few street vendors, Visibility has been rated Poor. The parameter of People and Gender Usage is rated Below Average and Poor respectively. Overall, auditors have rated the Feeling in this area as Average.

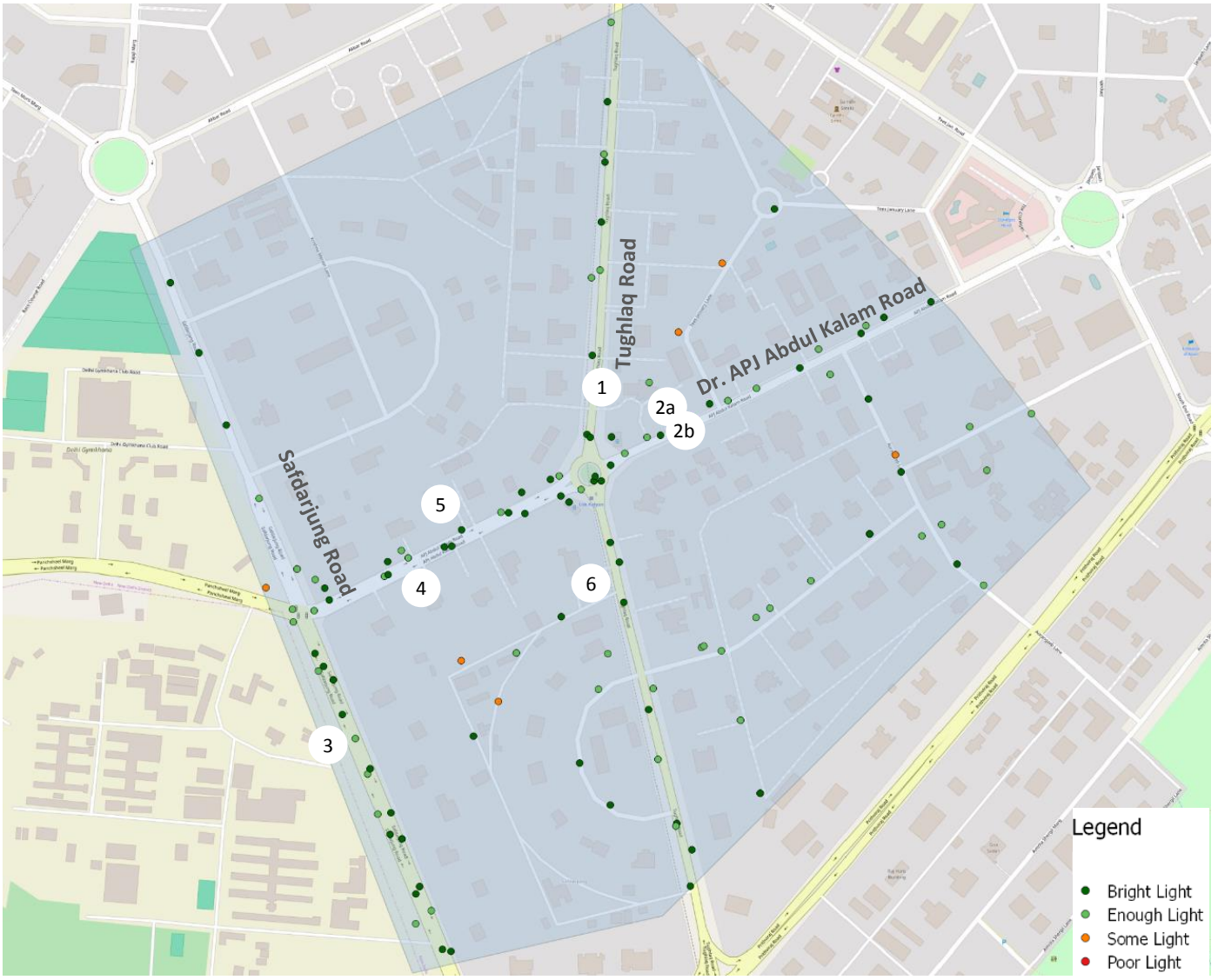


Map indicating Safety Score

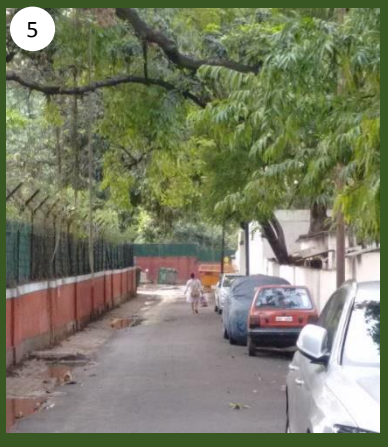
Lighting

Lighting Parameter has been rated 2.5/3 i.e. Good. In this audit area, streetlights were found operational throughout. But the streetlights are installed facing only vehicular carriageway on both sides of the main road. Therefore, the footpath flanked by trees and shrubs is poorly lit. Pedestrian scale streetlights should be installed on the footpath.

Additionally, streetlights need to be installed in some inner lanes. At present, they are illuminated by lights from adjoining building i.e. temporary source. Regular pruning of trees should be carried out at points where streetlights are hidden behind trees' foliage.



Lighting Rating



As seen in Pic 1, streetlights are installed on both sides of the main road throughout the audit area. These streetlights installed along the footpath are facing the vehicular carriageway. This results in brightly lit road, but dim lit footpath (Pic 2a and 2b). Additional streetlights need to be installed to provide pedestrian scale lighting on the footpath.

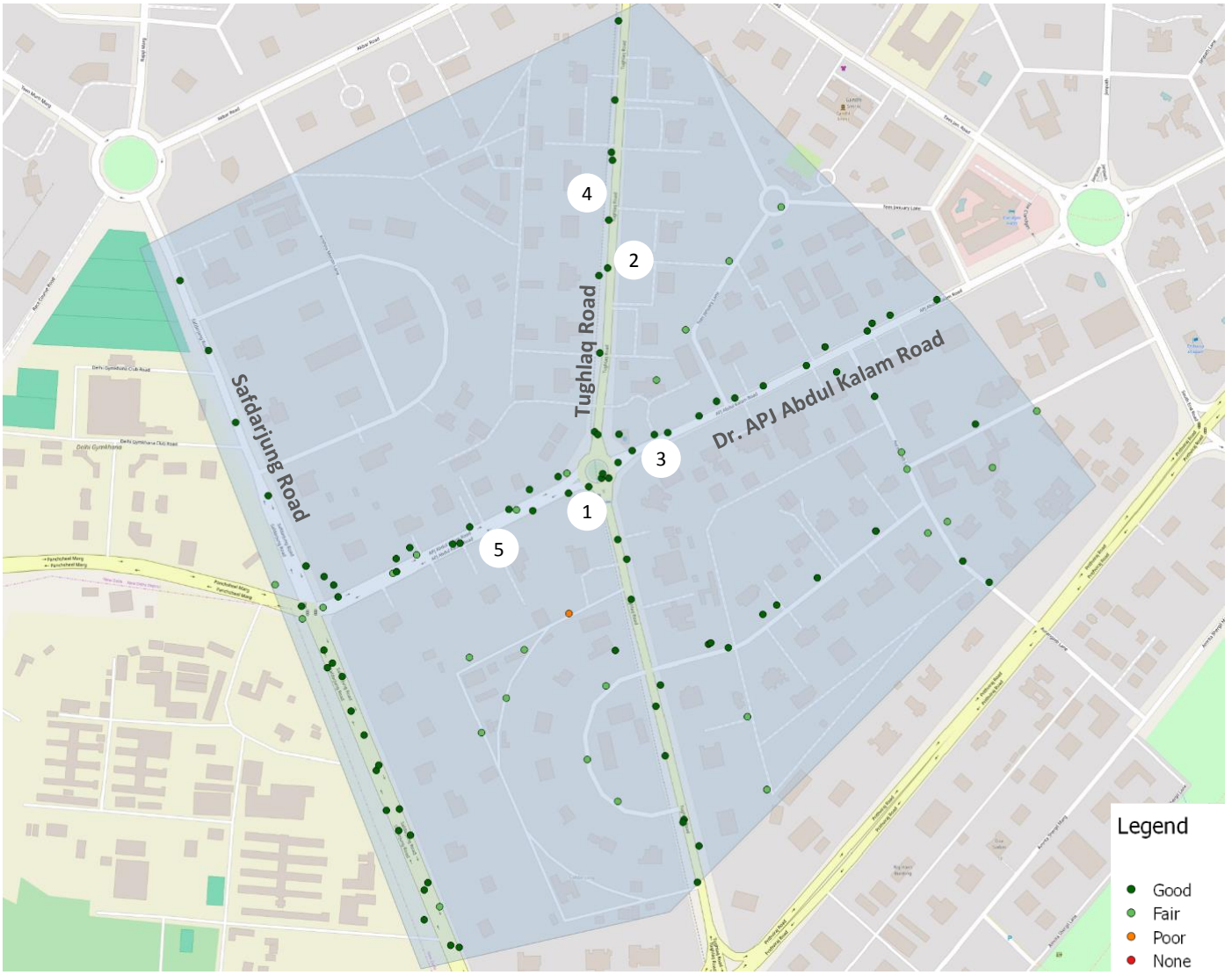
The footpath in this area is flanked by trees (Pic 3). Therefore, care has to be taken while installing streetlights between trees for lighting the footpath. Pedestrian scale lights should be installed along the edge wherever required. Also, the foliage needs to be pruned regularly as the overgrown leaves shield the light fixture resulting in poor illumination (Pic 4).

There are no streetlights installed in some inner lanes (Pic 5). In some lanes, though streetlights are present (Pic 6), there is low illumination along the boundary wall. With the vehicular parking, the pavement along the boundary lane is further shaded. In inner lanes, streetlights should be installed along the boundary wall, thus ensuring uniform illumination.

Walkpath

Walkpath Parameter has been rated 2.7/3 i.e. Good. Existing footpath was found to be well maintained throughout the audit area. Table top crossing and ramps are provided throughout for the physically challenged. However, with the bollards placed inconveniently, the footpath is not conveniently accessible.

Additionally, tactile paving for visually challenged is provided only at the bus stops and it is obstructed by an advertisement board. These shortcomings should be looked at and rectified. Other obstructions found were vehicles, barricades etc. Vehicular parking on the pavement should be disallowed.

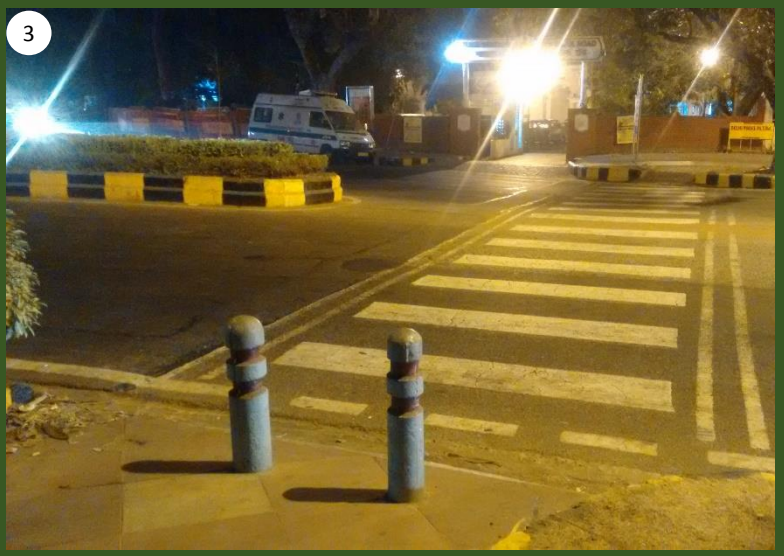


Walkpath Rating

1

2

3



4

While metro station's premises have been equipped with tactile paving, there is no tactile paving once you move out of the lift to guide the visually challenged (Pic1). The ramp provided with bollards on its edge is not convenient for people on wheelchair. Also, seen in Pic 2 tactile paving at the bus stop is obstructed by the advertisement board, and ends abruptly. Proper tactile paving should be provided throughout on the footpath, clear of any obstruction. As seen in Pic 3, at many audit points bollards are placed in a way that is inconsistent and inconvenient. While one side of the road has bollards that are not comfortable for disabled, the other side doesn't have any. The bollards should be placed in a way that it is convenient for the physically challenged but prevent vehicles from accessing the footpath.

5

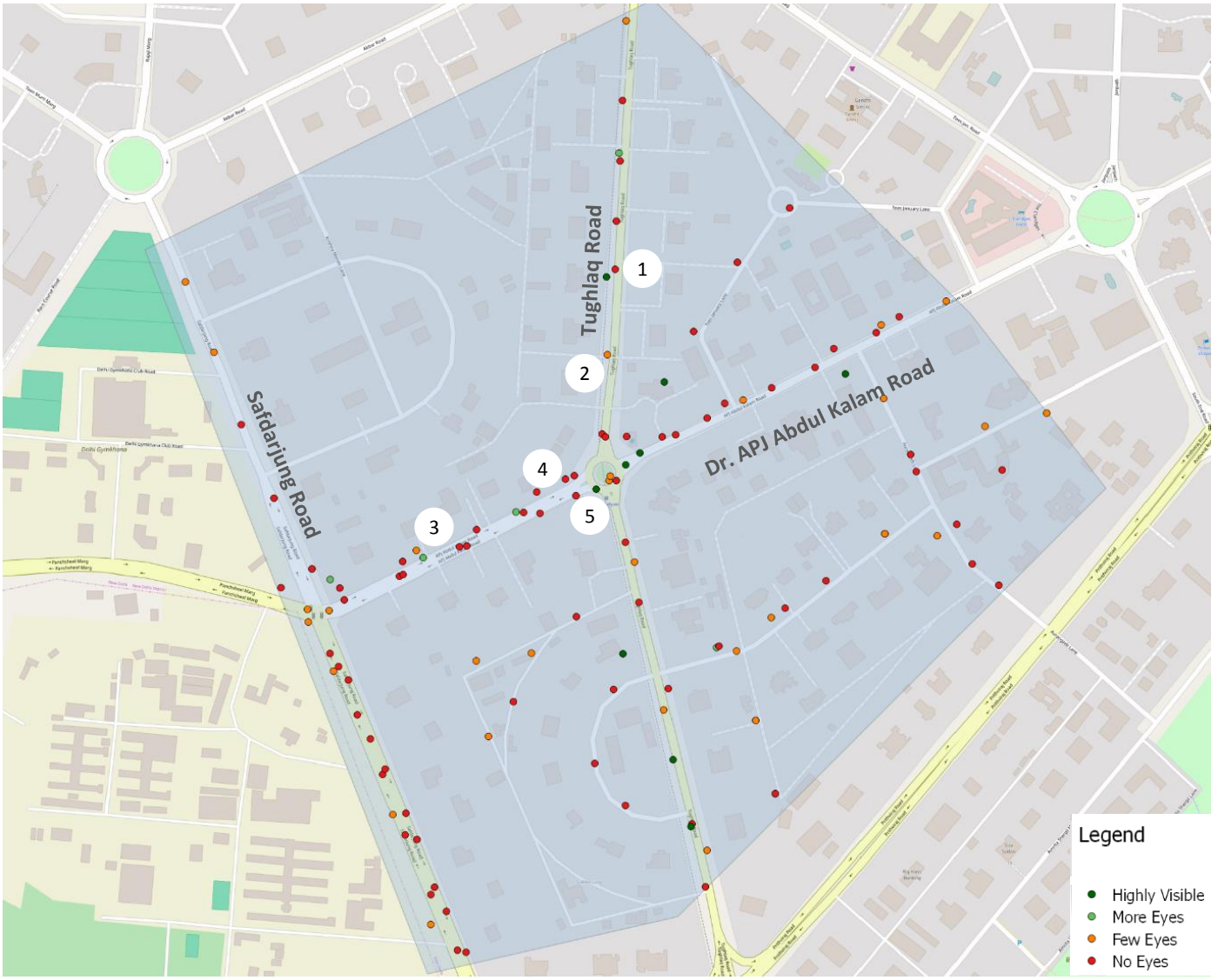
Seen in Pic 4, a Hanuman Temple built on the pavement hampers the smooth movement of the pedestrians. This has resulted in pedestrians walking on the vehicular carriageway. On few days, the activities of temple extend till the road. This pavement should be reclaimed for the pedestrians. The space currently occupied by vehicles and barricades should be cleared or the pedestrians.

Vehicular parking on the pavement was seen at few other audit points (Pic 5). In such cases, a separate space should be provided for the parking and the footpath should be raised at a level.

Visibility

Visibility Parameter has been rated 0.6/3 i.e. Poor. Largely, the audit area offers very poor or no eyes on the street owing to high boundary walls. Though the solid part of the wall is low, the height attained using wooden fence and grills restrict the visual contact. In such cases, the opaque part of the boundary walls should be taken down.

There are few kiosks present on APJ Abdul Kalam road and Tughlaq road. Street Vendors are present near the metro station and the bus stops. The wide footpath and green belt around the metro station and bus stops can be redesigned to accommodate street vendors and street furniture. This can help in improving visibility for the pedestrians.



Visibility Rating

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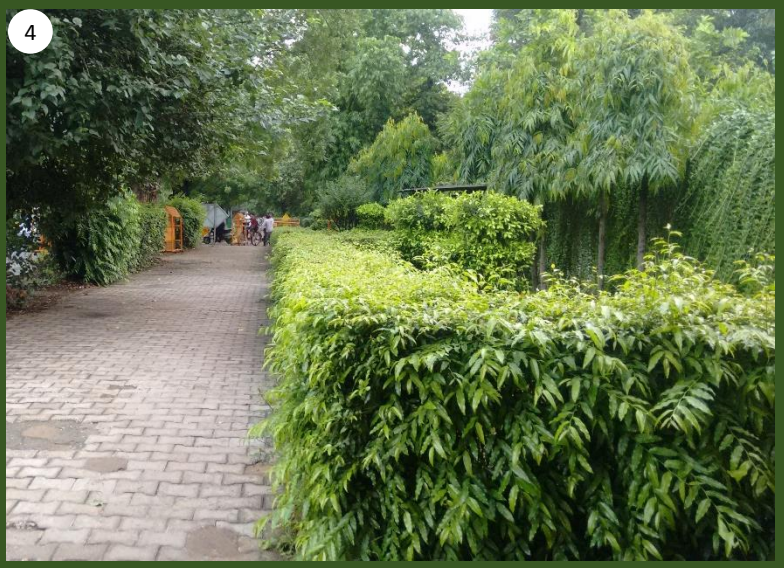


5

In a neighbourhood with high boundary walls, street vendors present at various audit points provide some visibility. As seen in Pic 1 and 5, hawkers are present near the bus stop and metro station respectively. But in the absence of a designated space, hawkers end up occupying the footpath. On the path leading to the metro station, there is some vacant space that can be put to use as a designated hawker zone. Similarly, at the bus stop, hawkers can be provided a designated space. The space should be equipped with street furniture for vendors and commuters.

Seen in Pic 2, a kiosk which is set up clear of the footpath. This space can be further enhanced by providing street furniture along the edge. A public toilet should also be provided, clear of the footpath.

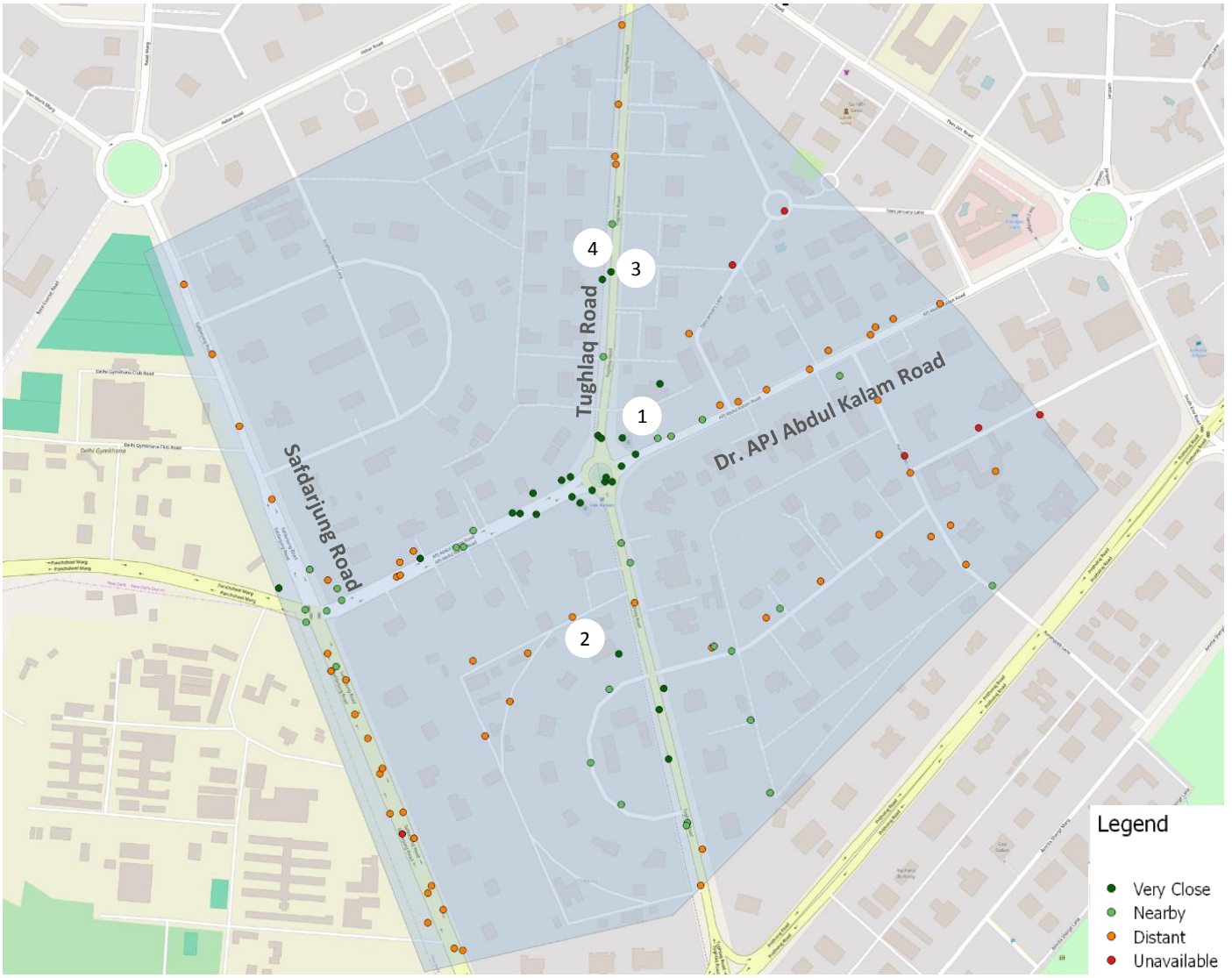
Most residences in this area have high boundary walls as seen in Pic 3. The solid part of the wall is low and the rest of the wall has grills which is made opaque using wooden fence. To improve visibility, this fence should be taken down.

Also, the footpath at some audit points is flanked by tall shrubs from both sides (Pic4), making it unsafe at night. The height of the shrubs should be maintained at 1m to provide some visual contact.

Public Transport

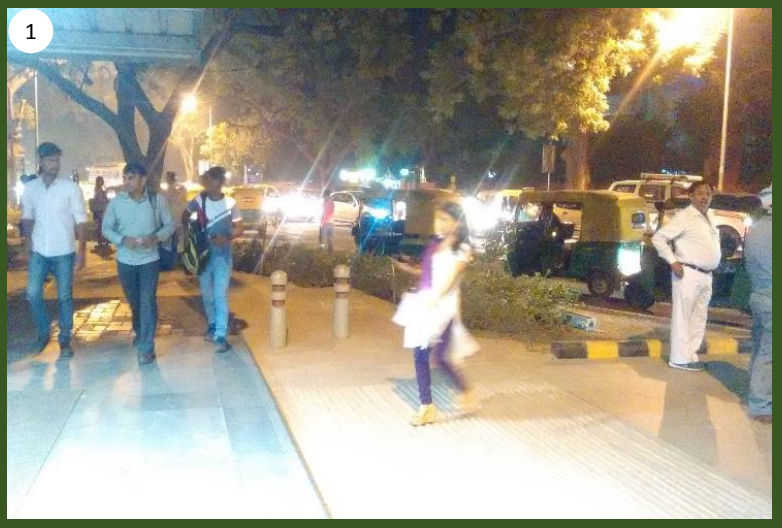
Public Transport Parameter has been rated 1.6/3 i.e. Average. This is because the bus stops are located at large distances from each other. At some points, bus shelter was found only on one side of the road. Bus shelters should be provided on both sides of the road.

Also, there is no designated parking space for the auto at the entry/exit gate of metro station. It results in autos occupying the main road. Designated stands for auto are needed to be created near the metro station and bus stops.



Public Transport Rating

1



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As seen in Pic 1, at the entry/ exit of metro station, one can see autos waiting. But in the absence of proper parking space, autos occupy main carriageway. Auto stand should be set up here with proper parking space for them.

As we move away from the metro station, the rating of public transport decreases. To improve the public transport facility in this area, para-transit stands should be set up at the bus stops, and also within the residential neighbourhood (Pic 2).

At some audit points, bus shelter was found only on one side of the road (Pic 3, 4). At such points, bus stop is identified through the marking on the road (Pic 4). The bus shelter should be provided for people on both sides of the road. Space should be provided for auto stand as well.

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