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Problems in Designing Modern City Streets and Roads

Azamov Rahmatali Rohatali

Namangan Engineering Construction Institute

Abstract: *In this article, some problems in the design of city streets and roads, incorrect distribution of areas allocated to the city road region, difficulties arising in the process of operation of engineering communication networks located in the road region, development of engineering communication networks It is necessary to prevent issues such as traffic jams that occur on our roads during the repair process, subsidence of pavements as a result of stress on the road surface, and increased spending of funds during the reconstruction of roads as a result of cracking (fracture) explained about.*

Keywords: *Road area, engineering communication networks, operation, reconstruction, road surface, crack, footpath, landscaped area, carriageway, traffic lane, drainage structure, red line.*

Enter

As we know, the design of city streets and roads is carried out on the basis of complex calculations. City streets and roads are of great importance in the infrastructure and development of the city. City streets and roads are an engineering structure designed for vehicles, trams, trolleybuses and pedestrian traffic in the city territory. As our cities develop, the city streets and roads also develop and reflect a new image. Today, great importance is attached to the greening of city streets and roads, and the creation of new types of landscape. As a result of the increase in the number of vehicles moving in our cities and traffic jams on our roads, reconstruction works are being carried out on our city streets and roads.

The main part

Designing urban streets and roads is more complicated than designing highways. In the city streets and roads, the area allocated mainly to the road zone, that is, the distance between the red lines, is taken in relation to the number of vehicles and pedestrians moving on the city streets and roads. In the area of the road divided into city streets and roads, there is a carriageway, a strip separating opposite directions, a green area, a drainage facility (latoks), pedestrian and bicycle paths, tramways, trolleybuses, outdoor lighting lights, and engineering communication networks will be placed. City streets and roads can have 4 to 8 lanes for vehicles. Taking into account the twenty-year pace of traffic in the future, where streets and roads are being designed the number of lanes is selected, each lane is 3.75 m wide. The width of sidewalks is chosen based on the amount of pedestrian traffic, they can be from 1.5 to 4.5 m. When calculating the width of the sidewalks, it is considered that one pedestrian occupies a distance of 0.75 m. The landscaped area is mainly located on the edge of the road and between the sidewalks. The landscaped areas located between the drainage structure and the sidewalks located on the edge of the carriageway are mainly planted with semi-shrub trees and grasses that do not have a negative effect on the traffic of cars and pedestrians. In order to increase the speed of movement on the streets and roads of the city, greening of the strip separating the opposite directions is beneficial.

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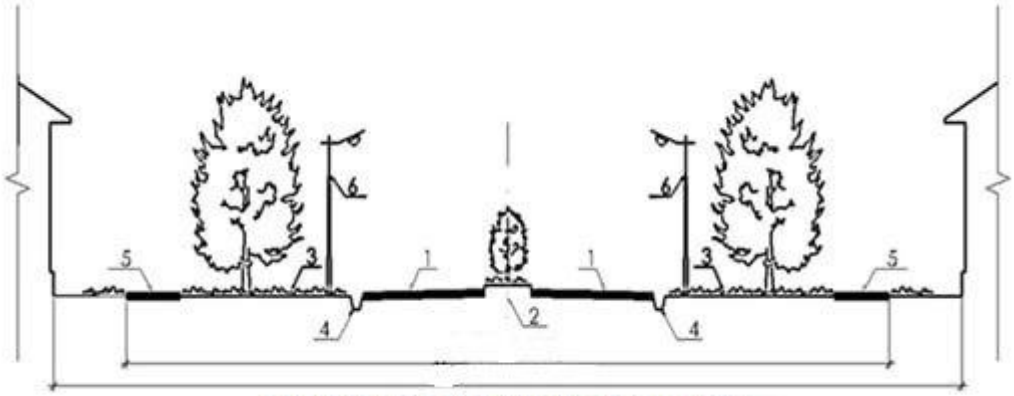
In order to create convenience for passengers, tram and trolleybus tracks will be placed at both ends of the traffic section. Due to the need to lay separate railway tracks for tramways, trolleybus routes are currently being designed in modern cities.



city streets and roads elementary

Engineering communication networks are placed on city streets and roads in the areas allocated to the road region. Engineering communication networks placed in the road region include gas pipes, drinking water pipes, telephone cables, internet lines, sewage pipes, hot water pipes, electric cables, street lighting cables. Currently, engineering communication networks are placed in the traffic area, in the green area, under the sidewalks.

Engineering communication wells located in the traffic section

Results

The streets and roads of the newly designed and reconstructed city are being designed by calculating the speed of movement of twenty years. As a result of the increase in the population in cities, the number of vehicles moving on city streets and roads is rapidly increasing. It is necessary to expand the traffic section of the roads, i.e. to increase the number of traffic lanes. In the process of widening the city's streets and roads, high-rise buildings and structures located in the roadside area, as well as sidewalks, cause the cutting of valuable and perennial trees in the landscaped area. As a result, there will be a sharp increase in the amount of money spent on the construction of city streets and roads

In order to reduce the amount of money spent on the reconstruction of city streets and roads in the future, to prevent damage to high-rise buildings and structures and sidewalks, and to preserve valuable and perennial trees, the following works should be carried out during the planning process. need to increase:

- to leave an additional 3.75 meters of reserve space in the landscaped area between the drainage facility and the footpath located on the edge of the carriageway,
- planting lawns on the reserved area and carrying out architectural landscape works.

As a result of the implementation of the above activities in the design process, in the future city streets and roads, high-rise buildings and structures, without destroying the sidewalks, without cutting perennial and valuable trees, and by spending a small amount of money. It allows you to increase the number of cars and roads by 2. That is, it will be possible to easily expand our newly built city streets and roads in the future.

As a result of the placement of engineering communication networks in the traffic section of the city streets and roads, it has a negative impact on the destruction of roads, subsidence of roads, the occurrence of traffic jams during the repair of engineering communication networks, and the organization of safe movement. is doing.

Uncapped engineering communication wells located in the carriageway

In order to eliminate the above negative consequences, engineering communication networks should be placed in green areas and on sidewalks. Through this, the service life of city streets and roads will be increased, the organization of safe traffic, engineering we manage to prevent traffic jams caused by the repair of communication networks.

Summary

When designing city streets and roads, it is necessary to design them with the long future in mind. It is important to place engineering communication networks in green areas and on sidewalks in order to increase the service life of city streets and roads, as well as to organize safe movement. Leaving a reserve of green space for the future expansion of city roads and streets will allow future road expansion without cutting down buildings, sidewalks, and perennial and valuable trees. High-rise buildings and structures are being destroyed, perennial trees are being cut down for the reconstruction of roads and roads.

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