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## OPERATIONAL REQUIREMENTS FOR CITY STREETS AND ROADS

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### ABSTRACT

*This article provides recommendations on the repair and maintenance of roads, the main tasks of the maintenance service. It is known that the growth of traffic in recent years, the emergence of transit traffic of international carriers through the territory of the Republic, these facilities play an important role in improving the efficiency of the road transport complex. In addition, the highways will provide comfortable and safe movement for passengers and drivers. The main focus in planning the repair and maintenance of highways should be to follow a program of action structured according to a clear scheme to achieve one or more goals and objectives under certain conditions.*

**KEYWORDS:** *Road Maintenance, Perspective Plans Safe Movement, Assessment Of Technical Condition, Roadside Facilities, Infrastructure, Category, Master Plan, Recreation Areas, Parking, Relief Condition, Cement Ditches, Water Pipes.*

## INTRODUCTION

Road repair and maintenance works are divided into the following types: on repair: perfect repair; current repair. On storage: highway maintenance; winter storage; landscaping. The main tasks of the road repair and maintenance service are:

- organization of timely quality maintenance and repair of roads in accordance with the classification of repair and maintenance of roads and ensuring the interval between repairs;
- assessment and constant monitoring of the technical condition of the road and its structures;
- Development and implementation of annual and long-term plans to improve the safety of pedestrians and vehicles, the technical and operational condition of roads and structures;
- identification and accounting of traffic-hazardous sections of roads and bridges, as well as the development and implementation of measures to improve traffic safety at different times of the year;
- Development of measures to eliminate traffic restrictions and interruptions, to eliminate the consequences of seasonal deformations and natural disasters, to timely inform interested organizations and road users about the traffic conditions on the road;
- organization and development of automated databases on technical accounting and certification of roads and their structures, traffic accounting, condition of roads and bridges, information retrieval and other automated systems;
- maintaining the constant compliance of all means of high-speed communication, automation, telemechanics and computer technology on road organizations and highways, improving these tools, expanding their use for automatic traffic control;
- preparation of assignments for the project of engineering and architectural equipment of roads, landscaping, architectural and artistic decoration, landscaping and snow protection from snow and sand;
- Ensuring the effective use of buildings, structures, vehicles, vehicles and other fixed assets for the organization of timely repair and maintenance of roads;
- Development and implementation of measures to improve the quality and reduce the cost of road repair, maintenance, including the use of new scientific and technical achievements and best practices, modern technologies, local building materials, automation and mechanization of production processes and elimination of manual labor implementation of measures;
- Together with the Departments of Internal Affairs and local authorities to develop and implement measures to ensure the protection of roads and their structures, to monitor compliance with the rules of protection and proper use of roads and their structures, the rational use of natural resources in road repair and maintenance;
- Standard service life between repairs is a period of time that is cost-effective and is equal to the estimated service life. This will ensure a minimum of total road, transportation and non-transportation costs [1].

In recent years, as a result of increasing traffic, transit traffic of international carriers through the territory of the Republic and structural changes in the fleet, the movement of vehicles of the design group with a load capacity of 130 kN, which leads to many disturbances in the road structure. As a result, the demand for perfect repairs is emerging ahead of schedule. This requires the revision and refinement of existing existing standards. The problem is exacerbated by the slow pace of repair work in the country, the poor quality of work and materials. As a result of untimely repairs, the number of “unrepaired roads” is increasing today, accounting for 59% of the public road network.

Today, the existing problems in the use of roads in the country, such as obsolescence of existing machinery, lack of modern technologies, low quality and inadequacy of construction materials, high demand for qualified specialists in the field, exacerbate the problem.

When planning the repair and maintenance of roads, it is necessary to follow a program of action structured according to a clear scheme to achieve one or more goals and objectives under certain conditions. In order to solve these tasks and achieve the set goal, it is necessary to carry out a full set of technical and organizational measures on the equipment and elements of the road, traffic organization and safety. The types and composition of works provided for in the classification of road repair and maintenance complement each other and represent a single system of measures aimed at ensuring the operational quality of the road in accordance with traffic requirements [2].

**Materials and methods of research.** Storage operations have a very broad meaning for all elements of the highway during the year, artificial structures, carriageway, embankment and highway area, streets and airfields, and are usually divided into two groups:

Spring - summer and autumn period - when washing, sweeping and dusting of bus stops and pavilions; whitewashing of road constructions and signs, cleaning and washing of road barriers, signs; cleaning and washing of ditches, side ditches, cement ditches, culverts and overpasses, bridge supports and roads; clearing of return roads, dividing roads, roadsides and waste-filled slopes; mowing and leveling of grass on sloping and return roads, cutting of bushes and small shrubs; processing of cut bushes and small meadows, use of chemical pesticides, watering and pruning of trees, whitewashing of trees, timely elimination of small-scale minor repairs, etc.

Winter period - snow removal of carriageways, ascent and descent slopes, turns, curbs, parking lots, bus stops, sidewalks and walkways; removal of icy slips and landslides; clearing snow piles in front and behind barriers; distribution of solid and liquid ice melting materials against freezing; construction of protective trenches and barriers from snowdrifts, removal of compacted snow layers on the carriageway.

In all of these machines (on the highway, in universal tractors on pneumatic tractors) in the development of road technology appeared the first major direction to expand the amount of measurements taken and the model of all types of machines. This, above all, meets the requirements of a market economy and its basic principles. The working capacity, size, power and object of use of the machine must meet the operating conditions.

With the arrival of spring, when the snow melts and the ice layers are lost, all types of coatings are cleaned of mud, dust, sand and materials used in winter slippage.

On hot summer days, dust builds up on fine, gravelly paved, dirt roads, so storage is focused on preventing dust from rising. In the summer, storage of improved coatings will include cleaning with sprinklers or mechanical brushes. Sweeping of the pavement starts from the road axis and continues to the edge of the carriageway. The next transition should cover the previous one 0.25-0.50 m. Depending on the condition of the carriageway, it is periodically washed at the most dangerous sections (intersections and stations) and in places with high aesthetic requirements.

In other sections of the improved coatings, excessive binding material may come out on the surface of the coating under the influence of sunlight during the movement of vehicles. Such plots are treated with a small amount (0.1 ... 0.2 l/ m<sup>2</sup>) of organic solvents (kerosene, diesel, oil), followed by sprinkling of small stones or coarse sand and after 0.5 hours wiped with a machine [3].

In autumn, the maintenance of various paved roads consists of preparations for the winter: mud and soil, waste is removed, cracks are closed, and measures are taken to drain the surface water. Certain types of work at different times of the year are determined by the type of coating.

Storage of unpaved roads consists of leveling the surface with the help of a motor grader or other machines, as well as compacting the soil with a roller, leaving the soil in deep tracks. Fine and gravel pavements are cleaned, transverse waves and deep traces are removed, cross-section elements are corrected, water is removed from the carriageway, most areas are repaired in spring and dust is sprayed or emulsified during the dry seasons. It is leveled from time to time in spring, summer and autumn, which allows for a flat spread of fine stone material.

**Research results.** The main purpose of looking at the pavements during the snowless times of the year is to maintain the transport and operational quality of the road. This eliminates the damage caused by various factors such as moving vehicles, freezing, excessive humidity, temperature changes. These are routine works that are carried out with the technical, material and labor resources of the organizations operating the roads. Let's talk briefly about the technology of doing this.

Cleaning of the coating from mud is carried out regularly in spring, summer and autumn. During these seasons, there are cases of wet soil, dust and plant debris scattered on the road clinging to vehicles. The mud of the carriageway reduces the adhesion of the car wheels to the pavement and contaminates the cars. The mud should be removed immediately. If there is a lot of mud, a motor grader is used, if there is a little bit, metal brushes or machines with sprinklers are used; the brushes scrape the mud, the stream of water washes it away. The mud left in the pits dries and forms dust. Dust is also generated by the erosion of the coating and the erosion of the stone materials used with the bonding materials. Dust rises from the formation of air bubbles in the crack between the moving car wheel and the road surface. When the truck is moving, the dust can reach a height of 6 ... 12 m, its concentration in the air can reach 1.5 ... 2.0 g / m<sup>3</sup>. When there is no wind, dust stays in the air for a long time and has a negative effect on traffic flow: it limits visibility, reduces the capacity of the road due to the need to keep the distance greater, adversely affects people on the road and vehicles, increases the wear of car parts, reduces crop yields in road areas, and in cotton fields, reduces fiber quality, creating favorable conditions for spider reproduction. According to the Cotton Research Institute, 4 million uzs are lost annually in Uzbekistan due to dusting of cotton fields. It is advisable to take these into account when solving the problem of dusting the roads [4].

Dusting of roads consists of a set of measures. These are: cleaning the roadway with brushes, spraying with water, spraying with aqueous chloride solutions, treatment of the road surface with bitumen emulsion, liquid bitumen and other binders.

**FINDINGS:** In short, the repair and maintenance of highways means the organization of convenient and safe service for them on this road, based on the needs of passengers, drivers and vehicles. Repair of roads that are currently unrepaired as a result of untimely repairs. The main purpose of the road service is to increase the economic efficiency of the road transport complex. This has been proven in the example of many developed countries.

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