



WP 4 Energy Supply

Report or technical documentations of the target areas in Siauliai

2011.10.27

Summary of the draft version of technical documentation for two target areas

Lieporiai park

1.1. Works basis

Arrangement of Siauliai Lieporiai park territory with accesses (Grinkevičiaus St., Lieporiai St., S. Darius and S. Girenas St., Statybininku st.) technical project is being prepared on the company „Geokada” 2011 prepared and coordinated the background.

1.2. The scope of projection works

According to the design of work tasks expected of adjacent street arrangement, reconstruction of worn asphalt surface, installation of car parking spaces and traffic operations infrastructure. Sidewalks are completed at the park board and replacing the cover, fitted jogging track. In the park area it is planned to put in order the lawn, to install playgrounds for various age groups adapted to children's, to create a senior recreation area. As a key element of the park, is creation of multifunctional purpose sports ground (rugby, football) with a solid surface at the tribunes. In the technical documentation will be estimated park and stadium lighting, storm sewer and drainage networks, the stadium is designed irrigation system and drainage networks.

The planned area is relative because the plot is not formed.





The territory is divided into several key areas: access to the park, pond, sports courts, a senior zone and children's playgrounds.

Park access:

- Lieporiai street will be narrowed to 7m. Side parking spaces will be installed on both sides of the street. From the park side of the sidewalk, bike path and cross-country trail is designed to 1.5 m in width. On the other side the old sidewalk will be reconstructed. Between the sidewalk and parking spaces installed lawn. A technical 1 m wide sidewalk is planned next to parking spaces.
- Grinkevičiaus street carriageway width is 6 m. parking places will be installed on both sides of the street. From the park side of the sidewalk, bike path and cross-country trail is designed to 1.5 m in width.
- Builders street carriageway width of 10.5 . Parking places will be installed on both sides of the street. The reconstruction of existing bus stop shelters. From the park side of the sidewalk, bike path and cross-country trail is designed to 1.5 m in width.
- S. Darius and S. Girėnas street carriageway width of 10.5 Section installed on the school side parking spaces. From the park side of the sidewalk, bike path and cross-country trail is designed to 1.5 m in width.

The accessibility of the sites and adjacent areas are available from all of the projected streets. Since the projected street traffic is not great, intersections will be controlled by road signs. Crossings are designed letterpress, reducing the speed of vehicles and ensuring greater traffic safety. Streets' markings and lay out of traffic signs will be a part of the technical documentation.

Driveways and sidewalks at the intersection should be equipped with ramps for pedestrians, bicycles and trolleys. Sidewalk ramps developed in width, degrading the street side to the asphalt pavement level. All crossings should be equipped with a warning system for blind people.

Pond area, according to the IUDC provides for installation of the park administration buildings, and outdoor café (seasonal). The existing pond is formed, for triggering the slopes, installation of berths available from the pad surface. Central part of the island is formed with small bridge. This provides space for sculpture.

Along the central part of the park at "The rowan avenue" a multifunctional sports game ground is projected.

The park will be equipped with two playgrounds designed for different age groups from 1-5 to 6-12 years of age. The southern part close to the kindergarten, there is an existing children's playground.

2. The current situation

Projected area is located next to Grinkevičiaus Street, Lieporiai St., S. Darius and S. Girėno, Builders st. the streets.

Territory of the street perimeter of the site completely decomposed sidewalks. Parking, play areas for children and other living facilities does not meet modern needs. There is a



neglected area of the park, there is no clear structure, greenery Obsolete, sometimes crashing and dry trees.

There is solid wood, which is intended to inventory.

3. Design solutions

3.1. Architectural solutions, cladding and landscaping

According to the task of designing the work area include:

equipped children's playgrounds, sports fields, managed pond, installed seniors zone. Area planted to form a new structure of the green leafy trees and bushes are formed, the processing of existing plantations. Designed benches. Fitted (reconstructed) paths and sidewalks block - tiles, asphalt and compacted stone dust surface, changed sides. Installed lighting. Reconstruction of street pavement, changed sides. CF section). Installed asphalted car park.

Coatings were chosen according to STR 2.06.01:1999 "cities, towns and villages in the communication system of the construction of a technical regulation and TVEs 1.01:2008" Automobile Roads "of several technical regulation. According to the regulations set out requirements:

Pedestrian paths within the design:

- Concrete slabs, thickness > 6 cm
- Coal dust under layer 3cm,
- Rubble base layer thickness of 15 cm
- gravel-sand base layer thickness of 20 cm

In the locations where necessary asphalt pavement reconstruction, the road curb is installed in classes IV and V constructive

- top layer of asphalt (AC 11 VS), the thickness of 4 cm
- Asphalt lower layer (AC 16 AU), the thickness of 4cm,
- Asphalt base layer (AC 32 ps), the thickness of 10cm,
- Rubble base layer (0-56), a thickness of 20 cm
- gravel-sand base layer ($k > 2.0\text{m}/\text{par}\grave{a}$), thickness of 40 cm

The rest of the territory there is a natural green lawn, which provides for the civil works replanting. Removed the existing vegetative soil can be stored and later used for lawn install. Lawn:

- Plant a layer thickness of 15 cm
- sown grass mixture.

3.2. Heights plan

Vertical breakdown of the plot remain under the existing topography. Minimal planiruojaht in the right places.

3.3. Earthwork

Earthworks within the minimum is to say compared to the existing green areas. Places where the coating provides installation, the existing soil is removed and the cuttings are formed. Having the proper soil courses and paths planned arrival. Existing vegetative



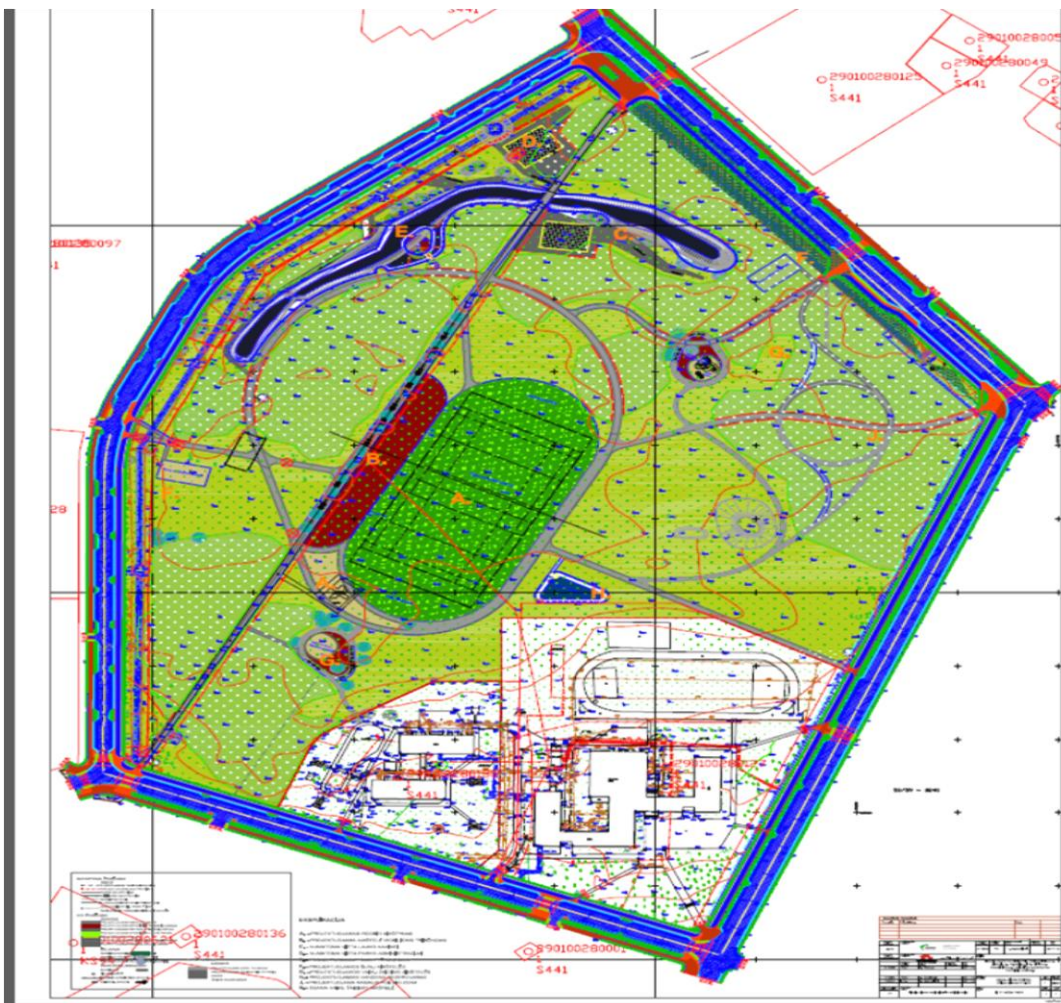
ground earthwork quantities calculation was evaluated in conjunction with a simple primer. Harvested vegetable soil can be stored and later used for lawn installation.

3.4. Marking out

Marking is performed according to the coordinates (coordinate system LKS-94) or other indication of the distances between the coordinates of the objects delineated.

3.5. Specific needs of disabled people solutions

All trails, fields, buildings and other infrastructure is customizable for the needs of disabled people. All designed objects are customized and convenient for the usage for disabled people. Pavement ends at the pedestrian crossings at the intersection of streets or other places of driveways and at entrances to the yards at more than 2 cm height must be equipped with gradients not steeper than 1 / 12





Miglovara target area

Introduction

1.1. Preparation of technical documentation basis

Complex Šiauliai area between Vytautas Žemaitė Miglovaros and M. Valanciaus street Welfare Organizing Project technical developed in Šiauliai City Municipality orders, according to the Šiauliai City in 2011 concluded design conditions and from a technical task. The project is being prepared on the UAB Geokada "2011 prepared and coordinated the background.

1.2. Projektavimo the scope of work

According to the design of work tasks planned street board and changing the arrangement of the cover, changing the sidewalks are completed board and cover, green lawn installing playgrounds, recreation areas, dogs sliding seats. Courtyards and installed a new expanded parking lot. Equipped with coated trash container space. Expected lighting, storm sewer networks, street design of water supply and sewerage networks.

The planned area is relative because the plot is not formed.

The territory is divided into four zones - A, B, C and D.

The area "A" between Miglovaros, M. Valancius, insurgency and Maple Streets. Processed pavements and streets along the perimeter of the yard limits. Installation of a new parking lot and the abolition of the existing sites, which are installed at children's play area.

Territory of the slope provides pine green and recreation area near the installation. Part of the parking lot provides automatic blocking bascule gate, yard and area to organize one-way traffic and limiting signs. Expected in the yard waste containers covered with a lot.

The area "B" between Miglovaros, Zemaites, Maple Street and rebel. Processed pavements and streets along the perimeter of the yard limits. Installed new street along the perimeter of parking lots, and the court extends the range of existing sites. Installation of a new children's playground, planned recreation area. Along Maple Street and provides a yard waste container within the second lot. On the territory of the "B" in the rebel of the street provides traffic limitation road signs.

The territory of the "C" between Maple, Zemaites Vytautas streets and rebel. Processed pavements and streets along the perimeter of the yard limits. Installed new street along the perimeter of parking lots, and the court extends the range of existing sites. Installation of a new children's playground, planned recreation area. Along Maple Street provides waste containers on site.

The territory of the "D" between Maple, rebel, and Vytautas M. Valanciaus streets. Processed pavements and streets along the perimeter of the yard limits. Installed new street along the perimeter of parking lots, and the court extends the range of existing



sites, and Vytautas M. Valanciaus street corner provides for a new parking lot with Automatic lifting roadblocks, Maple Street at the site destroyed by the installation of perimeter streets, cars, building perpendicular to the street. Installation of a new children's playground, recreation area planned for installation in a fenced dog lot of sliding. Waste containers provide lots along Maple, M. Valanciaus and Vytautas streets. Maple streets and rebel projected traffic restriction signs indicating the courtyard area.

2. Current situation

Projected area of the city of Siauliai Vytautas Žemaitė Miglovaros and M. Valanciaus streets.

Territory of building a mix of apartment and individual, one-apartment houses, office buildings.

Territory of the street perimeter of the site is fully equipped with sidewalks, which has a significant impact for pedestrians, particularly students passing in the vicinity of a school safety. Parking, play areas for children and other living facilities does not meet modern needs. Storage containers open, irregular and insecure.

Territory is not valuable trees to be retained, but most of them are intended to preserve and expand the green areas.

3. Design solutions

3.1. Plot plan

The target area consists of some form of multi-family home lots and surrounding streets, and are therefore relative.

Territory of the design objects:

- Children's playground;
- Benches and recreational areas;
- Sliding the dog park;
- Box of waste container sites;
- Managed areas, equipped with walkways, sidewalks, streets, parking lots;
- Managed engineering and other infrastructure;

3.2. Architectural solutions, cladding and landscaping

According to the task of designing the work area include:

The intention is to install a playground for children (see Architecture section). Fully planted green area to form a new structure of deciduous trees and bushes formed. Designed benches. Fitted (reconstructed) paths and sidewalks of concrete tiles, changed sides. Installed lighting. Reconstruction of street pavement, changed sides.

Playgrounds and walkways with heavy foot and vehicle load is projected in such have a constructive:

- Concrete slabs, the thickness of 8 cm



- Coal dust under layer 3cm,
- Rubble base layer thickness of 15 cm
- Resistant to frost a layer of sand with a thickness of 30 cm. ($K > 2 \text{ m / day}$)

Pedestrian paths within the design:

- Concrete slabs, thickness $> 6 \text{ cm}$
- Coal dust under layer 3cm,
- Rubble base layer thickness of 15 cm
- gravel-sand base layer thickness of 20 cm

Locations where asphalt pavement reconstruction is necessary

- top layer of asphalt (AC 11 VS), the thickness of 4 cm
- Asphalt lower layer (AC 16 AU), the thickness of 4cm,
- Asphalt base layer (AC 32 ps), the thickness of 10cm,
- Rubble base layer (0-56), a thickness of 20 cm
- gravel-sand base layer ($k > 2.0\text{m}/24 \text{ hours}$), thickness of 40 cm

The rest of the territory there is a natural green lawn, which provides for the civil works replanting. Removed the existing vegetative soil can be stored and later used for lawn install. Lawn:

- Plant a layer thickness of 15 cm
- sown grass mixture.

3.3. Heights plan

Vertical breakdown of the plot remain under the existing topography.

3.4. Earthwork

Earthworks within the minimum is to say compared to the existing green areas. Places where the coating provides installation, the existing soil is removed and the cuttings are formed. Having the proper soil courses and paths planned arrival. Existing vegetative ground earthwork quantities calculation was evaluated in conjunction with a simple primer. Harvested vegetable soil can be stored and later used for lawn installation.

3.5. Marking out

Marking outperformed the coordinates (coordinate system LKS-94) or other indication of the distances between the coordinates of the objects delineated (see Stake Out Plan ").

3.6. Specific needs of disabled people solutions

Customizable with disabilities within the design of all trails, fields and buildings. All designed objects are easy to customize and use for disabled people. Pavement ends at the pedestrian crossings at the intersection of streets or other places of driveways and at entrances to the yards at more than 2 cm height must be equipped with gradients not steeper than $1 / 12$

