





UPGRADING OF THE CYCLING SERVICE ROAD ON THE NORTHERN ACCESS TO SEVILLE, IN THE MUNICIPALITY OF LA RINCONADA, C01, I01

La Rinconada Town Hall

EXECUTION OF THE WORKS FOR THE CONDITIONING OF THE CYCLIST SERVICE ROAD IN THE NORTH ACCESS TO SEVILLE, IN THE MUNICIPALITY OF LA RINCONADA, in accordance with the project drafted by Mr. Fernando Peraita Lechosa, Civil Engineer, member of the Civil Engineers Association N^o. 5,707.

1. INTRODUCTION - SUMMARY

The work began with a compilation of existing documents and the collection of topographic data "in situ", with visits to analyze the current situation, and data on the existing infrastructure in the area has been gathered from the municipal technicians.

The objectives of the project are the following:

- Mitigate climate change as the project has a 100% climate and environmental contribution.
- Adaptation to Climate Change by planting 400 trees along the route of the lane that will provide the necessary shade to reduce the ambient temperature through which cyclists pass, although the temperatures of the environment will increase progressively in the coming years.
- Sustainable Use and Protection of Water and Maritime Resources through the installation of drip irrigation for the walnut plantations by means of a controlled system that reduces the excess of irrigation and the prevention of waste of resources.
- Circular economy: The adaptation of the bicycle lane and its integration into the metropolitan network of bicycle lanes contemplated in the Andalusian Bicycle Plan will make sustainable mobility possible.
- Pollution Prevention and Control: It has two fundamental points. On the one hand, the adequacy of the bicycle lane next to the highway will reduce the number of trips in combustion vehicles, thus reducing CO2 emissions among others and the consumption of polluting materials. In addition, the planting of 400 trees will contribute to the absorption of CO2 and will provide more than 1.5 km of shade, thus reducing temperatures. In particular, the Celtis Australis (hackberry) variety is extremely suitable for absorbing carbon dioxide.
- The Protection and Restoration of Ecosystems and Biodiversity objective has a 100% climate and environmental contribution, which is already recognized by the Annex to Regulation 2021/241 establishing the Resilience and Recovery Mechanism.







2. CHARGES

The total investment in this action amounts to €636,010.71, of which 90% has been financed by the Next Generation-EU Funds. VAT is not eligible.

Contrato	Precio sin IVA	IVA	Total
Dirección de la obra del carril bici metropolitano	9.500,00€	1.995,00€	11.495,00€
Redacción del proyecto del carril bici metropolitano	14.500€	3.045€	17.545€
Obras del carril bici metropolitano	501.628,69€	105.342,02€	606.970,71€

3. COMMUNICATION MEASURES

According to Article 9 of Order HFP/1030/2021 of September 29, 2021, and in order to ensure the provision of targeted, consistent, effective and proportionate information to multiple audiences, including the media and the public, the Member State shall:

- Have a strategy at Member State level to raise awareness and ensure recognition of the contribution of the MRR to Europe's recovery and, in particular, to the dual ecological and digital transition.
- Establish and maintain a single web space providing information on the MRR and related projects and communicate the specific web link to the Commission.
- Ensure that final recipients of Union funding under the RRM recognize the origin and ensure visibility of Union funding.

The material for the communication and awareness-raising operations on the executed operation were included in the contract, co-financed by the Next Generation-EU funds and disseminated by the Town Hall of La Rinconada.

It should be noted that all communications included the elements required by the reference regulations: the European emblem, the reference to the Next Generation-EU co-financing and the slogan "Recovery, Transformation and Resilience Plan". In addition to appearing in this report, these elements also appear in advertisements, tender documents, videos, invoices.













1. CONSTRUCTION SIGN FOR THE METROPOLITAN BIKE LANE(I)



1. CONSTRUCTION SIGN FOR THE METROPOLITAN BIKE LANE(II)



Periodo 2020-2026





Fondo Europeo de Desarrollo Regional



Financiado por la Unión Europea NextGenerationEU



Next Generation

PEOS > Next Ge tion > Periode

Zona de bajas emisiones: proyecto metropolitano

wectos PRTR ca 1: A 1: Plan de



3. WEB SITE OF THE TOWN HALL OF LA RINCONADA Link: https://www.larinconada.es/es/fondos-europeos/nextgeneration/periodo-2020-2026/proyectos-prtr/palanca-1-agenda-urbana-y-rural/c1-plan-de-movilidad-sostenible-enentornos-urbanos/zona-de-bajas-emisiones-proyecto-<u>metropolitano</u>

Noticias



La Rinconada comienza la puesta en servicio de 2,5 km de carril bici Next Generation MEDIO AMBIENTE | 25/10/2023 Discurre desde Pago de Enmedio a Majaravique, dispondrá de arbolado e iluminación, tiene un importe de 800.000 euros y estará listo el próximo mes de febrero

4. WEB SITE OF THE TOWN HALL OF LA RINCONADA Link: https://www.larinconada.es/es/noticias/13251/larinconada-comienza-la-puesta-en-servicio-de-25-km-de-carrilbici-next-generation













4. PREVIOUS ACTIONS

Current status

- The bicycle lane is built on the west side of the Interurban Section, and is about 3,090m long. The width of the bicycle lane is three meters, with side berms of 50cm on both margins. Between the junction with the A-8002 and the junction with the A-8004, the terrain slopes towards the west. The bike path runs at an average distance of 20m from the A-8009 highway and on the west side there is a service road to the farms for vehicle access. The separation between the bike path and the farm service road is delimited by a fence in a state of deterioration.
- Due to the poor quality of the asphalt base course, the road surface has cracks, most of which have been repaired by thermal lance. The bike path lacks surface treatment, signage and paint on this section. Vegetation is abundant in terms of weeds and shrubs and is almost non-existent in terms of trees.
- From Pk 1+930 to Pk 2+158, the current bike lane is in good condition, and the action in this project is limited to the extension of the surface treatment, signage, trees, irrigation and lighting
- From Pk 2+158 to Pk 3+090 the work will be limited to signage, trees, irrigation and lighting.

Topography

- The Project area is characterized by a very horizontal topography, as it belongs to the alluvial terraces of the Guadalquivir Valley. The active geomorphological processes in the area are the result of the balance between depositional and erosive phenomena.
- The route has almost no slope, between 0% and 2% in the longitudinal direction, ascending from south to north. In the transversal direction, the terrain slopes towards the west with slopes of 2% to 4%.
- The initial topographic data on which the adaptation project is developed are those collected from the proposed action in 2011, a year since when there have been no significant transformations of the terrain over which the route of the cycle path runs.
- The project report concludes that the verified activities of the mapping project are in accordance with the requirements of the Specific Technical Specifications of A.O.P.J.A.







Financiado por la Unión Europea



5. INNOVATIVE ASPECTS AND ENERGY SAVING

Thermal insulation

• Adaptation to the climate: The trees - Celtis Australis/ Almez - provide the necessary shade to reduce the ambient temperature where cyclists ride even if the temperatures of the environment increase progressively in the coming years. It is a deciduous tree that can reach 20 to 25 m in height. With a straight trunk and smooth gray bark, it has a round and wide crown of about 6m in diameter, which allows their crowns to join when planted facing each other on both sides of the lane.

Sustainability and Water Management

• Sustainable Use and Protection of Water and Maritime Resources: Installation of drip irrigation for the walnut plantations through a controlled system that reduces excess irrigation and consequently prevents waste of resources. The water coming from the subsoil after irrigation drains back to the subsoil.

<u>Lighting</u>

• The project proposes a street lighting system with LED luminaires powered by solar energy with integrated collectors. For the installation of columns and luminaires, different heights and spacing of streetlights, 5 m high, with a maximum spacing of 30 m and placed unilaterally (east margin).











6. RESULT

BEFORE





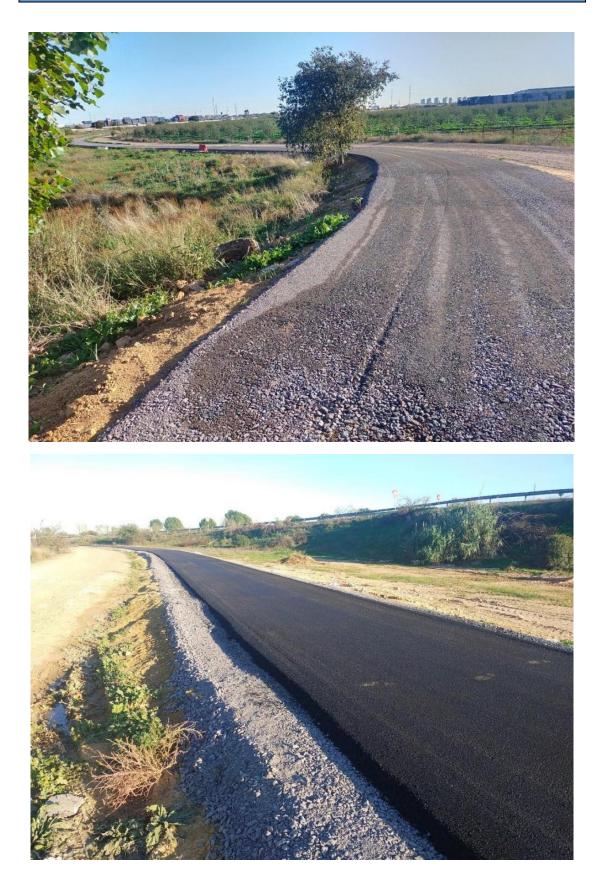








DURING















IRRIGATION INSTALLATION

















AFTER









































