



**Environmental criteria for sustainable public  
procurement of**

# **Roads**

**Version 30 March 2017**

# 1. Scope/definition

The product group Roads concerns all road types distinguished in the CROW Road Construction Choice Model (Keuzemodel Wegconstructies), with the utilisation functions in parentheses:

- main road network (motorway, trunk road, urban motorway);
- heavily-loaded road (urban motorway, provincial road);
- moderately-loaded road (water board road with normal and relatively large amounts of traffic, city access road);
- lightly-loaded road (water board road with low amounts of traffic, neighbourhood access road, service road, agricultural road);
- road in residential district (residential area, car park, residential street);
- road in accommodation area (shopping precinct, square);
- cycle paths;
- footpaths.

The criteria in this document are currently applicable to road construction, including necessary embankments. Criteria for crash barriers will form part of this product group in due course. Road marking and signage are not included in this version because there is little sustainability gain to be made here, particularly in relation to other aspects of the Roads product group.

The following products, with their corresponding CPV codes, are part of this product group. This list of products is non-exhaustive.

Products	CPV code
Landscaping design of roads and motorways	45112730-1
Consultancy on road construction	71311210-6
Service provision for road construction engineering	71311220-9
Material for construction of motorways	34929000-5
Construction of motorways and roads	45233000-9
Materials for road maintenance	44113900-4
Maintenance of main roads	45233139-3
Road activities	45233140-2
Road maintenance	45233141-9
Road repair	45233142-6
Road management	63712200-5
Road inspection services	71631480-8
Demolition activities	45111100-9

This document describes the environmental criteria. Information about the other elements of sustainable public procurement, such as social conditions and social return, may be found on the PIANOo website, on the specific product group page: <https://www.pianoo.nl/document/10845/productgroep-wegen>.

## 2. Criteria documents and approach to sustainable groundwork, road and hydraulic engineering

The core of the Sustainable Groundwork, Road and Hydraulic Engineering Approach is to allow sustainability aspects to be a consideration from an early planning stage, with a focus on the whole life cycle of the infrastructure or object(s) to be built. This is the approach that facilitates the biggest gains in sustainability, and it allows a good and broad-based consideration of People, Planet and Profit to be made in every project (see also <http://duurzaamqww.nl/>).

The AmbitionWeb has a key role in the Sustainable Groundwork, Road and Hydraulic Engineering Approach. It helps clarify ambitions at an early stage of a project, so they can then be maintained throughout the entire project process, from start to finish. For more information about the Sustainable Groundwork, Road and Hydraulic Engineering Approach and AmbitionWeb, see <http://duurzaamqww.nl/ambitieweb>.

The AmbitionWeb revolves around a number of sustainability themes, each with three ambition levels:

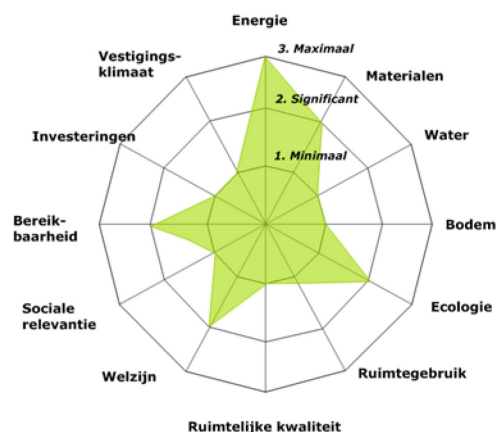
1. insight into the biggest impactors and flows for the theme in question, with the achievement of a minimum level, “state of the art”;
2. drafting specific reduction targets and achieving a significant improvement on the theme in question;
3. adding value, instead of just making things “less bad”. Not only is the impact on people/planet/profit zero, but a positive contribution is made.

Part of level 1 is meeting the suitability requirements, minimum requirements and contract provisions of the Sustainable Procurement criteria documents. The award criteria may be used to make a contribution to levels 2 and 3.

The following table presents the themes, based on the classification used in the criteria documents, on which the buyer can actually have an impact by using the requirements and criteria in this criteria document. It should be noted that a slightly different classification is used in the AmbitionWeb.

Below is a list of the requirements and criteria broken down by the individual themes. The criteria documents identify a total of five themes (the corresponding theme from the AmbitionWeb is shown in brackets):

- energy and climate (AmbitionWeb: “energy”);
- supplies and raw materials (AmbitionWeb: “supplies”);
- water and soil (AmbitionWeb: “water” and “soil”);
- living environment (AmbitionWeb: “welfare”);
- nature and space (AmbitionWeb: “ecology”).



The following table presents the themes on which the buyer can actually have an impact by using the requirements and criteria in this criteria document.

Themes	Level 1 AmbitionWeb Selection criteria (SC) Technical specifications (ME) Contract provisions (CB)	Level 2 AmbitionWeb Award criteria (GC)
<b>Energy and climate</b>	CB1. Management and maintenance plan	GC2. Soil balance GC3. Use of road infrastructure as a source of energy
<b>Supplies and raw materials</b>	ME1. Processing/removal of substances released CB1. Management and maintenance plan	GC1. Environmental performance of groundwork, road and hydraulic engineering works GC2. Soil balance

### 3. Assignment of criteria to project phases

The criteria in this document pertain to the initiative behind and the design and completion of new construction and reconstruction of works, as well as the management, maintenance and demolition of existing works. In the following table, the criteria are assigned to the individual phases to which they apply.

Criterion	Area of application	Initiative, design	Completion	Management and Maintenance	Demolition
<b>Technical specifications</b>					
1. Processing/removal of substances released		-	x	x	x
<b>Award criteria</b>					
1. Sustainable material usage		o	o	o	o
2. Closed soil balance		o	o	o	o
3. Use of road infrastructure as energy source		o	-	o	-
<b>Contract provisions</b>					
1. Management and maintenance plan		-	x	x	-

x = include in this phase

- = do not include in this phase

o = optional

#### Mobile vehicles

The environmental criteria for Sustainable Public Procurement of Mobile Equipment contracting apply to any mobile vehicles used.

## 4. Selection criteria

Not defined for this product group.

## 5. Technical specifications

No.	Technical specifications (ME)
ME1	<p><b>Processing/removal of released substances</b></p> <ol style="list-style-type: none"> <li>1. If stony waste is broken up, the breaking must take place according to Assessment Guideline BRL 2506.</li> <li>2. Asphalt and asphalt granulates which contain tar must be transported away to a processing and treatment establishment in the Netherlands, licensed on the grounds of the Environmental Management Act (Wet milieubeheer), for the thermal cleaning of the material which contains tar.</li> <li>3. (In the case of a temporary establishment, which does not come within the Environmental Management Act (Wet milieubeheer) and the Activities Decree (Activiteitenbesluit)) Provisions must be made on the implementation site to store separately or otherwise transport away separately the different types of waste arising from the activities. Provisions must also be made on the implementation site for the separate storage of released secondary raw materials.</li> </ol> <p><i>Explanation of point 2 of this criterion</i> The purchaser is advised to employ CROW publication 210 "Richtlijn omgaan met vrijgekomen asfalt – teerhoudendheid, onderzoek en selectieve verwijdering" (Guideline for dealing with released asphalt – tar retention, analysis and selective removal).</p> <p><i>Explanation of point 3 of this criterion</i> The part of the requirement concerning the separation of waste substances is indeed already a legal requirement for most establishments, arising from the Environmental Management Act, but because temporary establishments do not fall under this, said requirement is therefore stipulated here explicitly.</p>

	<p><i>Verification</i></p> <p>Verification with regard to point 1: The tenderer may be asked to submit a KOMO product certificate “BRL 2506 Recyclinggranulaten voor toepassing in GWW-werken en beton” (BRL 2506 Recycling granulaten for use in Groundwork, Road and Hydraulic Engineering works and concrete). Certificates can be verified on <a href="http://www.bouwkwaliteit.nl">www.bouwkwaliteit.nl</a>.</p>
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## 6. Award criteria

No.	Award criteria (GC)
GC1	<p><b>Environmental performance of buildings and groundwork, road and hydraulic engineering works</b></p> <p>The lower the environmental impact, calculated using an environmental life cycle analysis and expressed in MKI value, is than [XX], the higher the tender will be rated. The LCA must be conducted in accordance with the Environmental Performance of Buildings and Groundwork, Road and Hydraulic Engineering Works Calculation Method (based, in part, on EN 15804); for the current version, see <a href="http://www.milieudatabase.nl">www.milieudatabase.nl</a></p> <p><i>Explanation</i></p> <ul style="list-style-type: none"> <li>• The standard LCA tool within the Sustainable Groundwork, Road and Hydraulic Engineering Approach (Aanpak Duurzaam GWW) is <a href="#">DuboCalc</a>. DuboCalc is an LCA tool compatible with the calculation method referred to above.</li> <li>• DuboCalc allows MKI calculations of different tenderers to be compared to each other.</li> <li>• When using the Environmental Performance of Buildings and Groundwork, Road and Hydraulic Engineering Works Calculation Method, the contracting authority must give a definition for the calculation (i.e. a selection of certain project components, such as groundwork, paving construction, conduction, etc.). The contracting authority may also give the tenderer a reference value (MKI) and a value which the tenderer can use to give the maximum notional reduction obtained. If no reference value is given, the tenders will have to be assessed on the basis of expert judgement.</li> <li>• Try to ensure there is no double counting when award criteria are combined. If an MKI calculation is used, double counting can be avoided by tailoring the scope of the calculation to this calculation.</li> </ul> <p><i>Verification</i></p> <p>The tenderer may be asked to substantiate the environmental performance as bid. DuboCalc offers the option to supply a report that provides this substantiation.</p>
GC2	<p><b>Soil balance</b></p> <p>The larger the proportion of soil released from the work (possibly in exchange with works within a radius of &lt;X km&gt;) which is used within the work (in volume percentage/m<sup>3</sup> or mass percentage/tonne), the higher the tender will be rated.</p> <p><i>Explanation</i></p> <p>The purchaser will determine the unit to be used, either m<sup>3</sup> or tonnes, depending on the nature of the work.</p> <p>The purchaser must determine in advance the distance within which exchange of soil will still be rated. To optimise the soil balance, this can also be included in the definition of GC1 Environmental Performance of Groundwork, Road and Hydraulic Engineering Works (GC1 Milieuprestatie GWW-werken).</p> <p><i>Verification</i></p> <p>The tenderer may be asked to provide a description of the soil stream plan.</p>
GC3	<p><b>Use the road infrastructure as energy source</b></p> <p>The more the road structure is used as energy source, the higher the tender will be evaluated. This also includes energy produced from biomass.</p> <p>This criterion will be assessed on the amount of energy generated in GJ/year.</p> <p><i>Explanation</i></p> <p>The contracting authority must further detail the aspects in this criterion itself.</p> <p><i>Verification</i></p>

	The tenderer may be asked to submit documentation demonstrating compliance with the requirements above.
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## 7. Contract provisions

No.	Contract provisions (CB)
CB1	<p><b>Management and maintenance plan</b></p> <p>Upon completion of the road, a management and maintenance plan must be supplied which describes the maintenance measures required to keep the road in good order. The plan should describe the means of management and maintenance that are necessary to maintain the sustainable aspects of the road.</p> <p>The plan should consist in any case of the following sections:</p> <ul style="list-style-type: none"> <li>• description of the management measures to be taken into account with inspection intervals for a period of XX years, with associated instructions. This must at least describe inspection points, methods and estimated number of man hours;</li> <li>• description of the maintenance intervals to be taken into account for a period of XX years, with associated instructions. This must at least describe maintenance activities and necessary materials and an estimate of the number of man hours and any relationship with other activities for which, for example, soil transport is necessary.</li> </ul> <p><i>Explanation</i></p> <p>The sustainable aspects of the road may be relevant for example to the maintenance and management of certain materials and installations. Low-maintenance asphalt, for instance, requires a different maintenance regime from traditional asphalt. And a road which is used as energy source will demand a different kind of maintenance from a road where this is not the case.</p> <p>If a change takes place such that a new maintenance and management plan is necessary, separate agreements must be made with the tenderer for this. Provisions for this may also be laid down in the contract.</p>