



Environment and Spatial Planning  
*Ministry of Housing, Spatial Planning and  
the Environment*

# Criteria for the Sustainable Public Procurement of **Roads**

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# 1 Introduction

The Dutch government wants to take concrete steps towards a sustainable society, and to set a good example. Each year, government organisations spend more than EUR 50 billion on the purchase of Supplies, Services and Public works. By purchasing sustainably, the government can significantly boost the market for Sustainable Public Products. Governmental authorities have set clear objectives to achieve this: the central government is aiming for 100% Sustainable Public Procurement in 2010, while the municipalities aspire towards 75% in 2010 and 100% in 2015. Provincial governments and water boards have set themselves the target of at least 50% in 2010. 100% Sustainable Public Procurement is understood to mean that all purchases meet the minimum requirements that have been set for the relevant product groups at the time of purchase. More information on this topic is available from the website Sustainable Procurement ([www.agentschapnl.nl/sustainableprocurement](http://www.agentschapnl.nl/sustainableprocurement)).

NL Agency supports government authorities in various ways to help reach these objectives. These include developing criteria for Supplies, Services and Public works procured by these authorities. This document focuses on the criteria for the Roads product group, the elaboration of the criteria in specification texts and a more detailed assessment of the criteria, as well as a number of points for attention in the pre- and post-procurement stages. Additional background information and considerations regarding the content of the criteria can be found in the criteria document on the website Sustainable Procurement [www.agentschapnl.nl/duurzaaminkopen/criteria](http://www.agentschapnl.nl/duurzaaminkopen/criteria), available in Dutch only.

## Sustainable potential

Almost all investments in the civil engineering sector are government investments. Government is thus a dominant player in this sector and has a great potential to influence the market. For a small part of the Roads product group, the potential market influence is less because here other principals besides government are also active. Consider for example certain activities which are necessary to lay out an industrial or housing estate. These may be commissioned by a project developer.

For the entire main group Civil Engineering (in Dutch, GWW), the annual purchasing volume is estimated at between 4.5 and 8 billion euros.

## 1.1 Definition of the product group

This criteria document indicates the manner in which and with what criteria sustainability may be implemented when calling for tenders for services and works in the entire life cycle of Roads. The criteria are applicable to calls for tender for design services, traditional performance contracts and integrated contracts. The criteria do not therefore apply to the steps prior to the call for tender. However, points for consideration have been formulated for this.

The product group Roads concerns all road types distinguished in the Road Construction Choice Model (*Keuzemodel Wegconstructies*) from CROW (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 (busy), city access road);
- Lightly-loaded road (water board road (quiet), 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. Integration and harmonisation with other directly associated product groups such as Construction Works, Sewerage, Green Facilities and Public Lighting is still to be done.

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.

For the benefit of the contracting authority, a number of CPV codes that might be of relevance to this product group have been included in this document. The selection is by no means exhaustive or complete. The contracting authority will remain responsible for compiling the correct set of CPV codes to match the relevant tender.

The following CPV codes apply to this product group:

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

## 2 Sustainability in the procurement process

The criteria in this document have been classified in the various steps of the public procurement process. More information about these steps and how to combine them with sustainability can be found in the Sustainable Public Procurement Manual. This manual can be downloaded from the website Sustainable Procurement [www.agentschapnl.nl/sustainableprocurement](http://www.agentschapnl.nl/sustainableprocurement).

### 2.1 Preparatory stage (points for consideration)

In the preparation of a call for tender, many choices are made which have a great impact on sustainability. The inclusion of sustainability in the preparation of projects is not current practice and demands additional policy from the government bodies concerned. By involving sustainability in an explicit way at all stages, sustainable calls for tender gain more content and a sustainable realisation at a higher level becomes possible.

Every purchase or call for tender starts with drawing up the inventory of the needs of the internal or external customer. Sustainability can be incorporated into this stage by considering whether the purchase is truly necessary and whether a more sustainable alternative might be available. Specific points for consideration regarding procurement for the Roads product group are:

#### Ensuring sustainability in the project

Ensuring sustainability demands that at an early stage, even before the formal start of the procurement phase, the sustainability aspects of the project are considered within the procuring organisation. In practice this will mean a collaboration among the project leader (advocate of technology and project result), the purchaser (financial advocate) and for example the environmental coordinator (sustainability advocate).

In the sustainable design of roads, certain conditions are of importance to a proper organisation and the incorporation of sustainability into the process. Below are listed some general **attention points for the process**, as these are also to be found in the National Civil Engineering Sustainable Building Package (NP GWW = Civil Engineering <http://www.crow.nl/zoek?q=nationaal+pakket&c=okt&c=pub&c=cur&c=con&c=faq>):

- Organise sustainable building in the project (NP GWW 100);
- Take account of sustainable building in the project plan (NP GWW 101);
- Take account of sustainable building in the composition of the project team (NP GWW 103);
- Take account of sustainable building in communication (NP GWW 102);
- Take account of sustainable building in the financing of the project (NP GWW 104);
- Draw attention to risks in civil engineering projects, particularly with regard to the environmental effects to be realised (NP GWW 105);
- Take account during the design of future management and maintenance (NP GWW 106).

Besides ensuring sustainability in the process, there are opportunities to safeguard **sustainability in the design, in the execution of works, in the usage phase or at the end of the lifetime**. Below are some points for consideration:

- Attune the route to the surroundings (NP GWW 500);
- Avoid over- and under-dimensioning (NP GWW 501);
- Aim for energy saving in civil engineering works (NP GWW 503);
- Employ alternative energy sources (NP GWW 504);
- Harmonise the design with future management and maintenance (NP GWW 505);
- Harmonise the material choice and design with the envisaged lifetime (NP GWW 509);
- Aim for re-use of materials which are released (NP GWW 511);
- Prevent nuisance from vibration and noise (NP GWW 512);
- Limit the production of waste in construction, use and management (NP GWW 513);
- Limit pollution from water draining off (NP GWW 514);
- Restrict traffic nuisance during implementation and maintenance (NP GWW 515 and the manual *Slim reizen langs wegwerkzaamheden* ('Clever travelling past road works'), June 2007, Directorate General of Public Works and Water Management);
- Restrict disruption of the surface and ground water system and the natural level and course of groundwater during the construction and use of works, and the natural quality of the groundwater in the construction and use of works (NP GWW 201, 202, 203 and 204);
- Prevent barrier effects for fauna when constructing civil works (NP GWW 205);
- Attune the groundwork to the surroundings (NP GWW 400);
- Restrict damage to landscape, natural and historico-cultural values (NP GWW 401);
- Use secondary or reusable materials in ground works (NP GWW 403);
- In the comparison of cost aspects, employ Total Costs of Ownership.

## 2.2 Specification stage (criteria)

During the specification stage, the needs of the internal or external customer are translated into a tender document. This stage entails the formulation of:

- Criteria for supplier qualification. These could include grounds for exclusion, suitability requirements, i.e. requirements with regard to suppliers, and, in the case of restricted procedures, any selection criteria, i.e. wishes with regard to suppliers.
- A description of the minimum requirements pertaining to supply, service or task (the Schedule of Requirements).
- Award criteria, i.e. wishes regarding Supplies, Services and Public works. These are only applicable when the tendering process is based on the principle of the Most Economically Advantageous Offer ('Economisch Meest Voordelige Inschrijving' or EMVI).
- The contract stipulating the contract provisions.

The criteria in this document have been formulated to support the purchaser in the Sustainable Public Procurement of Roads. The criteria have been subjected to legal review. However, every procurement and tender process is unique. For that reason, the drafting of a tender document remains the responsibility of the purchaser.

More information on the various types of criteria and the various tender options can be found in the Sustainable Public Procurement Manual. Innovation is also included in the award criteria, where relevant. Innovation is oriented towards the development and introduction of new ideas and products.

### Overview of criteria

The criteria apply to new construction, reconstruction and also to the management and maintenance of existing roads. In Table 3.1 below, the various contract forms are distinguished: inviting tenders for design services (design), traditional implementation contracts and integrated contracts (design & construct).

**Table 3.1 Overview of criteria for roads**

| Area of application                           | New construction and reconstruction |                    |           | Existing roads Management and maintenance |                    |           | Demolition |
|---|-------------------------------------|--------------------|-----------|---|--------------------|-----------|------------|
|   | Design                              | Design & construct | Construct | Design                                    | Design & construct | Construct |            |
| <b>Criterion</b>                              |                                     |                    |           |   |                    |           |            |
| <b>Road construction minimum requirements</b> |                                     |                    |           |   |                    |           |            |
| Processing/removal of released substances     | -                                   | X                  | X         | -   | X                  | X         | X          |
| <b>Award criteria</b>                         |                                     |                    |           |   |                    |           |            |
| <b>Sustainable road</b>                       |                                     |                    |           |   |                    |           |            |
| Sustainable material usage                    | O                                   | O                  | O         | O   | O                  | O         | -          |
| Closed soil balance                           | O                                   | O                  | -         | O   | O                  | -         | O          |
| Use of road infrastructure as energy source   | O                                   | O                  | -         | O   | O                  | -         | -          |
| <b>Contract provisions</b>                    |                                     |                    |           |   |                    |           |            |
| Management and maintenance plan               | -                                   | X                  | X         | -   | X                  | X         | -          |

X = include in this phase

- = do not include in this phase

O= optional

In the 'procurement' of roads, it is not generally sufficient to merely include the criteria for Roads. In general, the simultaneous carrying out of ground works, the use of heavy vehicles or mobile machinery, the installation of cables and pipelines and the purchase of electricity will also need to be considered.

The criteria for these and other product groups may be found on the website: [www.agentschapnl.nl/sustainableprocurement](http://www.agentschapnl.nl/sustainableprocurement).

## 2.2.1 Supplier qualifications

No criteria have been formulated for this specific product group with regard to supplier qualification. More information on the possibilities of incorporating sustainability at this stage of the process can be found in the Sustainable Public Procurement Manual.

## 2.2.2 Schedule of requirements

### Minimum requirements

|                           |   |
|---------------------------|---|
| Minimum requirement no. 1 | <p><i>(For construct)</i></p> <p><b>Processing/removal of released substances</b></p> <ol style="list-style-type: none"> <li>1. If stony substances are broken up, the breaking must take place according to BRL 2506.</li> <li>2. Tar-containing asphalt (granulate) must be transported away to a processing and treatment establishment in the Netherlands, licensed on the grounds of the Environmental Management Act, for the thermal cleaning of the tar-containing material.</li> <li>3. <i>(In the case of a temporary establishment, which does not come within the Environmental Management Act and the Activities Decree)</i> 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><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Statement from the tenderer that he complies with this minimum requirement.</li> </ol> <p><u>Further means of proof with regard to an aspect mentioned under point 1.</u></p> <ol style="list-style-type: none"> <li>2. A description of the means by which the tenderer complies with this requirement. If the tenderer or subcontractor possesses a KOMO product certificate 'BRL 2506 <i>beton en/of menggranulaat</i>' (concrete and/or mixed granulate) in the name of the tenderer or subcontractor, this requirement is fulfilled.</li> </ol> |
| Notes for purchaser       | <p><i>Explanation of point 2 of this criterion</i></p> <p>The purchaser is advised to employ CROW publication 210 '<i>Richtlijn omgaan met vrijkomend asfalt – Aandacht voor de teerproblematiek</i>'</p>   |

|  |   |
|--|---|
|  | <p>(Guideline for dealing with released asphalt – Attention to the tar problem).</p> <p><i>Explanation of point 3 of this criterion</i></p> <p>The part of the requirement concerning the separation of waste substances is 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><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. No further verification.</li> </ol> <p><u>Further means of proof with regard to an aspect mentioned under point 1.</u></p> <ol style="list-style-type: none"> <li>2. A description of the way in which the granulate is processed, from which can be deduced whether this conforms to BRL 2506 concrete and/or mixed granulate.</li> <li>3. A statement from the entity processing the granulate.</li> <li>4. Check of the certificate on <a href="http://www.bouwkwiteit.nl">www.bouwkwiteit.nl</a>.</li> </ol> |
|--|---|

### 2.2.3 Award criteria

#### Award criteria

|                      |   |
|----------------------|---|
| Award criterion no.1 | <p><i>(For design, design &amp; construct and construct)</i></p> <p><b>Sustainable material usage</b></p> <p>The lower the environmental impact – calculated using an environmental life cycle analysis – is than [X], the higher the tender will be evaluated. The LCA must be conducted according to NEN 8006 and the harmonised method for the determination of environmental impact.</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. An LCA according to NEN 8006.</li> </ol>             |
| Notes for purchaser  | <p>An LCA instrument for civil engineering, DuboCalc, is expected to become available during the course of 2009. For the surfacing construction and the sand bed, use may also be made of the LCA module in the Roads Assessment Model (<i>Afwegingsmodel wegen</i>, CROW, 2008).</p> <p>In applying the LCA method, it is necessary that the contracting authority supplies a reference.</p> <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. No further verification.</li> </ol> |

|                             |   |
|-----------------------------|---|
| <p>Award criterion no.2</p> | <p><b>Soil balance</b></p> <p>The less the transport of soil, which is suitable as a secondary building material, occurs over the boundaries of a work, the higher the tender will be evaluated.</p> <p>This criterion will be evaluated as follows:</p> <p>The larger the proportion of soil released from the work (possibly in exchange with neighbouring works) which is used within the work (in volume percentage/m<sup>3</sup> or mass percentage/ton) the higher the tender will be evaluated.</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. A description of the tenderer's soil stream plan.</li> </ol> |
| <p>Notes for purchaser</p>  | <p>In the award, a tender with a completely closed soil balance (released soil which is suitable as secondary building material is completely re-used) may for example be evaluated higher than a tender which does not have a completely closed soil balance.</p> <p>The purchaser will determine the unit to be used (m<sup>3</sup> or tons) depending on the nature of the work.</p> <p>The purchaser must determine in advance with which neighbouring works exchange can take place.</p> <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. No further verification.</li> </ol>                       |

|                             |   |
|-----------------------------|---|
| <p>Award criterion no.3</p> | <p><i>(For design and design &amp; construct)</i></p> <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.</p> <p>This criterion will be assessed on for example the amount of energy generated in GJ / year.</p> <p>In the assessment will be considered:</p> <ul style="list-style-type: none"> <li>- Technical reality content;</li> <li>- Consequences for the utilisation possibilities of the road;</li> <li>- Consequences for maintenance;</li> </ul> <p>[further criteria to be entered by the purchaser].</p> <p>The tender will be evaluated as follows: [...]</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. The description.</li> </ol> |
|-----------------------------|---|

|                     |   |
|---------------------|---|
| Notes for purchaser | <p>The contracting authority must itself further detail the aspects in this criterion.</p> <p>For more detail on these aspects, refer to the National Civil Engineering Sustainable Building Package (<i>Nationaal Pakket Duurzaam Bouwen GWW</i>).</p> <p>Suggested measures for this part:</p> <ul style="list-style-type: none"> <li>- Generation of sustainable energy on the project site and/or cultivation of biomass for the generation of sustainable energy.</li> <li>- Use of the road infrastructure as energy source.</li> </ul> <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. No further verification.</li> </ol> |
|---------------------|---|

## 2.2.4 Contract

|                         |  |
|-------------------------|--|
| Contract provision no.3 | <p><b>Management and maintenance plan</b></p> <p>At the handover of the road, a management and maintenance plan must be supplied, in which are described the maintenance measures required to keep the road in good order. The plan should describe the means of management and maintenance, necessary to maintain the sustainable aspects of the road. [to be completed further by the contracting authority]</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 (at least describing inspection points, methods, estimated number of person-hours);</li> <li>• Description of the maintenance intervals to be taken into account for a period of XX years, with associated instructions (at least describing maintenance activities and necessary materials and an estimate of number of person-hours and any relationship with other activities for which for example excavation is necessary).</li> </ul> |
| Notes for purchaser     | <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>  |

## **2.3 Utilisation stage (points for consideration)**

No specific points for consideration have been formulated for the utilisation stage for this product group. Refer if relevant to the points for consideration as formulated in section 2.1.