# Green Star Short ReportRound [1/2]

Ensure all prompts shown in Blue text have been responded to.

Green Star – Office Design v3

Credit: Mat-5 Concrete

Project Name: [name]

Project Number: GS- [####]

Points available: 3 Points claimed: [1, 2, 3 or, N/A]

1. Credit Compliance

The following chapters of this template are relevant for projects targeting points for this credit:

* 1. Reduction of Portland cement

The project has reduced the absolute quantity of Portland cement, as an average across all concrete mixes, by replacing it with supplementary cementitious materials. Based on credit compliance requirements, the project has replaced at least [30/40%] of Portland cement measured by mass across all concrete used in the project compared to the reference case as described in Table 2.

Figures used in Table 1 are used to calculate the amount of Portland cement replaced in the project. [Not all/all] of the concrete mixes used in the project have exactly the same concrete strength grades shown in Table 1. If concrete strength grades shown below are not the same, provide links below to documentation provided by the concrete technologist or designer calculating concrete strength grades through linear interpolation of the two closest performing concrete mix reference cases.

Table Portland cement content concrete strength grades as defined in AS1379

|  |  |
| --- | --- |
| Concrete strength grade (MPa following AS1379) | Portland cement content to be used in establishing the reference case (kg Portland cement/m3 concrete) |
| 20 | 280 |
| 25 | 310 |
| 32 | 360 |
| 40 | 440 |
| 50 | 550 |
| 65 | 550 |
| 80 | 610 |
| 100 | 660 |

Table Concrete mix breakdown and credit achievement

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Mix Label | Mpa (following AS1379) | Volume (m3) | Reference Case Portland Cement Content (kg/m3) | Total Portland Cement Content Under the Reference Case | Actual Portland Cement Content (kg/m3) | Actual Total Portland Cement Content |
| [Mix 1] |  |  |  |  |  |  |
| [Mix 2] |  |  |  |  |  |  |
| [Mix 3] |  |  |  |  |  |  |
| [Mix 4] |  |  |  |  |  |  |
| [Mix 5] |  |  |  |  |  |  |
| etc |  |  |  |  |  |  |
| Overall Total Portland Cement (kg) | **[x]** |  | **[y]** |
| Overall percentage of replacement (%) | **[1-(y/x)(100)=%]** |
| Portland cement content was reduced by [%] and [1/2] point/s are claimed |

[Please insert hyperlinks to documents which support this claim]

Therefore, as demonstrated in section 1.1 this project is eligible to achieve [1 or 2] point(s) for reducing greenhouse gas emissions and resource use associated with the use of Portland cement.

* 1. Water and Aggregate

The project uses at least 50% captured or reclaimed water (measured across all concrete mixes in the project) for mixing concrete. One point [has/has not] been achieved for meeting water captured or reclaimed requirements and meeting one of the following criteria and calculated in Table 3:

* [At least 40% of coarse aggregate in the concrete is crushed slag or another alternative material (measured by mass across all concrete mixes in the project), and the use of the slag/alternative material has not increased the use of Portland cement by over five kilograms per cubic meter of concrete. This is demonstrated in Table 4.]
* [At least 25% of fine aggregate (sand) inputs in the concrete are manufactured sand or other alternative materials (measured by mass across all concrete mixes in the project), and the use of the such material has not increased the use of Portland cement by over five kilograms per cubic meter of concrete. This is demonstrated in Table 5.]

Table Water diversion

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Mix Label | Mix Volume (m3) | Total (L/ m3) | Total Water Content | Reclaimed or Captured Component (L/ m3) | Total Reclaimed or Captured Component (L/ m3) |
| [Mix 1] |  |  |  |  |  |
| [Mix 2] |  |  |  |  |  |
| [Mix 3] |  |  |  |  |  |
| [Mix 4] |  |  |  |  |  |
| [Mix 5] |  |  |  |  |  |
| Totals |  | **[x]** |  | **[y]** |
| Overall percentage of replacement (%) | **[(y/x)(100)=%]** |

[Please insert hyperlinks to documents which support this claim]

Table Coarse Aggregate

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Mix Label | Mix Volume (m3) | Total (L/ m3) | Total Coarse Aggregate in Mix  | Alternative Coarse Aggregate Component (kg/ m3) | Total Alternative Coarse Aggregate |
| [Mix 1] |  |  |  |  |  |
| [Mix 2] |  |  |  |  |  |
| [Mix 3] |  |  |  |  |  |
| [Mix 4] |  |  |  |  |  |
| [Mix 5] |  |  |  |  |  |
| Totals |  | **[x]** |  | **[y]** |
| Overall percentage of replacement (%) | **[(y/x)(100)=%]** |

[Please insert hyperlinks to documents which support this claim]

Table Fine Aggregate

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Mix Label | Mix Volume (m3) | Total (L/ m3) | Total Fine Aggregate in Mix  | Alternative Fine Aggregate Component (kg/ m3) | Total Alternative Fine Aggregate |
| [Mix 1] |  |  |  |  |  |
| [Mix 2] |  |  |  |  |  |
| [Mix 3] |  |  |  |  |  |
| [Mix 4] |  |  |  |  |  |
| [Mix 5] |  |  |  |  |  |
| Totals |  | **[x]** |  | **[y]** |
| Overall percentage of replacement (%) | **[(y/x)(100)=%]** |

[Please insert hyperlinks to documents which support this claim]

Therefore, as demonstrated in section 1.2 this project is eligible to achieve [1] point for reductions in aggregate and water use associated with concrete production.

The following chapter is for projects that are targeting this credit as ‘Not Applicable’.

* 1. Credit ‘Not Applicable’

The project’s material cost of new concrete represents less than 1% of the project’s contract value. This credit is therefore excluded from the points available used to calculate the Materials Category Score and is marked as ‘Not Applicable’.

Table 1.1 Cost of Concrete

|  |  |
| --- | --- |
| Total Cost of New Concrete  | [$] |
| Project’s Contract Value | [$] |
| Percent Value of Concrete | **[%]** |

[Please insert hyperlinks to documents which support this claim]

Therefore, as demonstrated in section 1.3 this credit is considered ‘Not Applicable’ and is excluded from the points available used to calculate the Materials Category Score.

## Discussion

[Insert any issues you would like to highlight and clarify to the Assessment Panel.]

Author Details:

[Insert name, position and contact details of author]

[Date]

––– **Report end** –––