



TECHNICAL MANUAL GREEN STAR SA

SOCIO ECONOMIC CATEGORY PILOT

TECHNICAL MANUAL

GREEN STAR SA
SOCIO-ECONOMIC CATEGORY PILOT
DESIGN

AND

SOCIO-ECONOMIC CATEGORY PILOT AS
BUILT

2014

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Authorisations and Disclaimer

The Green Star SA Rating System, its rating tools and this Socio-Economic Category have been developed with the assistance and participation of representatives from many organisations. The rating tools and this Socio-Economic Category are subject to further development in the future. The views and opinions expressed in this Technical Manual have been determined by the GBCSA and its Committees.

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The application of this Technical Manual to all Eligible Projects is encouraged to assess and improve their socio-economic attributes. No fee is payable to the GBCSA for such use of this Technical Manual. The GBCSA offers a formal certification process whereby persons may apply for a particular design or building to be assessed for compliance with the criteria specified in this Technical Manual upon payment of the relevant fee and execution of the required documentation by the applicant. The assessment of such compliance is carried out by the Assessors, and applicants are required to demonstrate achievement of all relevant credits by the provision of relevant documentary evidence. Only designs or buildings which achieve a Green Star SA rating of four or more stars entitle the applicant to use and display the 'Green Star SA™' trademark and to refer to the relevant Green Star SA rating and the Socio-Economic Category (if the project qualifies for this). Any use of this Technical Manual other than in accordance with this procedure does not entitle the user or any other party to promote any rating applied for or achieved using this Technical Manual.

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Acknowledgements

GREEN STAR SA – SOCIO-ECONOMIC CATEGORY PILOT

The Green Star SA – Socio-Economic Category PILOT provides for both Green Star SA – Socio-Economic Category PILOT Design and Green Star SA – Socio-Economic Category PILOT As Built ratings, through separate documentation paths. This Category applies to the majority of the existing Green Star SA rating tools (Office v1; Retail Centre v1: Multi Unit Residential v1, Public & Education Building v1 and Interiors PILOT), which have been developed under license from the Green Building Council of Australia. This Socio-Economic Category has established individual measurement criteria with particular reference to the South African context.

The Green Building Council of South Africa (GBCSA) would like to acknowledge all the parties who have worked on and supported the development of the Green Star SA – Socio-Economic Category PILOT.

SPONSORSHIP

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Green Star SA Credits

The property industry is well-placed to deliver significant long-term environmental improvements using a broad range of measures. More importantly, it is unique in that it can directly influence and create behavioural changes at all stages of the supply chain. However, there are inherent barriers within the industry that often act to ensure that efficiency measures are not adopted, despite the fact that a strong business case can be made for their implementation. Most significantly, these barriers relate to the developer/contractor/owner divisions or split incentives that often result in the benefits of efficiency or improved performance measures not accruing to the party that initiated them.

The Green Building Council of South Africa (GBCSA) was created in order to address some of these barriers. The GBCSA's objective is to promote sustainable development and the transition of the property industry towards sustainability by promoting green building programs, technologies and design practices. A key priority for the GBCSA has been the development of a comprehensive environmental rating system for buildings, known as Green Star SA.

Green Star SA separately evaluates the environmental initiatives of designs; projects and/or buildings based on a number of criteria, including energy and water efficiency, indoor environment quality and resource conservation.

Green Star SA was created to:

- Establish a common language and standard of measurement for green buildings;
- Promote integrated, whole-building design;
- Identify building lifecycle impacts;
- Raise awareness of green building benefits;
- Recognise environmental leadership; and
- Transform the built environment to reduce the environmental impact of development.

Green Star SA will have rating tools for different phases of the building lifecycle (design, construction, operations, refurbishment or fit out) and for different building classes (office, retail, healthcare, education, residential, industrial, public buildings etc.).

Green Star SA has built on existing systems and tools in overseas markets, most notably the Green Star system developed by the Green Building Council of Australia (GBCA), by adapting and establishing individual environmental measurement criteria relevant to the South African marketplace and environmental context.

Green Star SA rating tools use the best regulatory standards to encourage the property industry to improve the environmental impact of development. The rating tools embrace local standards and guidelines, where applicable, to benchmark this improvement.

The GBCSA has developed Green Star SA to provide industry with an objective measurement for green buildings. In assessing those elements that should be rated and to drive change in the market, the GBCSA has been diligent in focusing on areas of environmental impact that are a direct consequence of a building's briefing, design, construction and maintenance – that is, those outcomes that can be directly influenced by stakeholders within the property industry.

Green Star SA Credits

Green Star SA has established a number of categories under which specific key criteria are grouped and assessed. This framework is used by each and every Green Star SA rating tool. The basic Green Star SA structure is shown below.

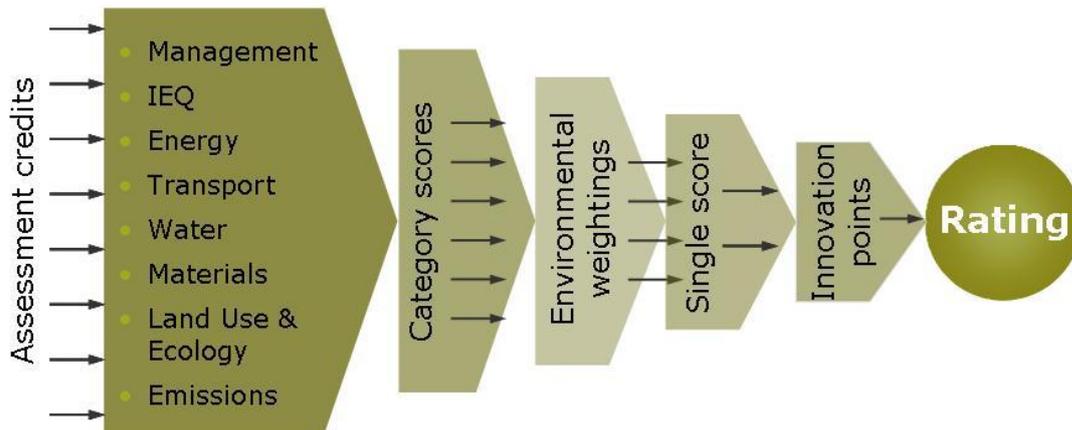


Figure 1: Structure of the Green Star SA rating system

Green Star SA rating tools include nine separate environmental impact categories:

- Management;
- Indoor Environment Quality;
- Energy;
- Transport;
- Water;
- Materials;
- Land Use and Ecology;
- Emissions; and
- Innovation.

(See section below about the introduction of the Socio-Economic Category as an optional addition to this existing set).

The categories are divided into credits, each of which addresses an initiative that improves or has the potential to improve a design, project or building's environmental performance. Points are awarded in each credit for actions that demonstrate that the project has met the overall objectives of Green Star SA and the specific aims of the Green Star SA rating tool.

Green Star SA Credits

Once all credits in each category are assessed, a percentage score for the category is calculated. A Green Star SA environmental weighting factor is then applied to each of the project's category scores to reach a single score. Green Star SA environmental weighting factors vary across rating tools to reflect differing environmental concerns and imperatives for different building types and lifecycle phases.

By applying a weighting to each Category Score, Green Star SA ensures that each category is appropriately represented within the rating tool, in line with current knowledge and GBCSA opinion. The Green Star SA rating tools have the flexibility to allow for periodic updating of credits and weightings within the various tools. This is necessary to allow Green Star SA to adapt to best practice and remain at the leading edge of industry practice.

To encourage the development and spread of innovative technologies, designs and processes that could improve buildings' environmental performance, an 'Innovation' category is included in each Green Star SA rating tool. The Innovation category is not subject to an environmental weighting factor as the innovation could fall under any number of Green Star SA categories.

Category Score

The Category Score is determined for each category based on the percentage of credits achieved, as follows:

$$\text{Category Score} = \frac{\text{Number of points achieved}}{\text{Number of points available}}$$

For example, if 10 Energy points are achieved out of a total available of 26 then the Category Score is 38.5%.

NOTE: the Green Star SA rating is based on Weighted Category Scores and NOT the total number of points achieved.

Weighted Category Score

The Weighted Category Score is calculated as follows:

$$\text{Weighted Category Score} = \text{Category Score (\%)} \times \text{Weighting Factor (\%)} \times 100.$$

Using the example provided in the Category Score section above, the Weighted Category Score for Energy, with a weighting factor of 28%, is $0.385 \times 0.28 \times 100 = 10.78$.

All category weightings are provided in Appendix A.

Single Score

The single (i.e. overall) score is determined by adding together all the Weighted Category Scores plus the Innovation points. The maximum possible score for the weighted categories is 100, with an additional five points available for Innovation, making the maximum attainable score in Green Star SA 105.

The Green Star SA rating is determined by comparing the overall score with the rating scale shown below.

Green Star SA Credits

Overall Score	Rating	Outcome
10-19	One Star	Not eligible for formal certification
20-29	Two Star	Not eligible for formal certification
30-44	Three Star	Not eligible for formal certification
45-59	Four Star	Eligible for Four Star Certified Rating that recognises/rewards 'Best Practice'
60-74	Five Star	Eligible for Five Star Certified Rating that recognises/rewards 'South Africa Excellence'
75+	Six Star	Eligible for Six Star Certified Rating that recognises/rewards 'World Leadership'

Table 1: Green Star SA rating tool scores

As indicated above, the minimum Green Star SA rating is One Star and the maximum is Six Stars. In keeping with its position that Green Star SA recognises and rewards market leaders, the GBCSA will only formally certify designs, projects or buildings that achieve a Green Star SA rating of Four, Five or Six Stars.

Notwithstanding this, the use of Green Star SA rating tools is certainly not restricted to market leaders nor tied to a formal certification by the GBCSA. Green Star SA deliberately maintains the full range of ratings from One Star through to Six Stars so that designs, projects or buildings that do not qualify for certification can use the Green Star SA rating tools as a guide to track and improve their environmental initiatives.

GREEN STAR SA ACCREDITED PROFESSIONALS

To encourage the adoption of environmental initiatives from the earliest project stages throughout design, construction and operation of a building, all Green Star SA rating tools award two points in the Management category to projects that have a Green Star SA Accredited Professional as a member of their team. In the case of Green Star SA – Public & Education Building, the Green Star SA Accredited Professional's involvement must have commenced prior to schematic design and be engaged throughout the design, construction and delivery period. Please refer to Man-1 'Green Star SA Accredited Professional' section for further information.

Green Star SA Accredited Professionals are experienced building industry practitioners who have demonstrated their understanding of the Green Star SA rating system and the benefits of integrated design. To become a Green Star SA Accredited Professional, candidates must attend a GBCSA Green Star SA Accredited Professional course and pass the associated exam. Refer to the GBCSA website (<http://www.gbcsa.org.za>) for updates regarding how to maintain Green Star SA Accredited Professional Status. The GBCSA has developed an on-line directory of Green Star SA Accredited Professionals (see <http://www.gbcsa.org.za>) to enable easy identification and provide the contact details of these qualified service providers.

Green Star SA – Socio-Economic Category PILOT

INTRODUCTION OF THE SOCIO-ECONOMIC CATEGORY (SEC) PILOT

For the first time, GBCSA is moving beyond the traditional 'green' focus to include broader sustainability impacts. The concept of sustainability usually spans three factors: social, economic and environmental. The GBCSA has been clear since it began using Green Star SA rating tools that they would be rolled out initially with an exclusive focus on environmental impacts, but that social and economic impacts would also be considered / included at a later stage. The GBCSA board of directors agreed that the vision must begin to extend beyond environmental sustainability, recognising that environmental, social and economic sustainability are fundamentally intertwined. The inclusion of socio-economic factors into the Green Star SA tool was initiated in 2011 to support the extension of the GBCSA's vision.

GBCSA has had a significant impact in advancing green building particularly in the formal, commercial property market in South Africa (SA). However, at a national policy level, the major focus tends to be on huge societal challenges such as poverty, unemployment, inequality, lack of education and skills, and poor health. This is the same for most developing countries. Each of these national development priorities can be addressed, at least to some extent, through the process of designing, building and operating a green building.

Applying a Green Star SA rating tool that incorporates socio-economic factors will allow private companies and public entities to benefit from demonstrating their commitment to socio-economic development issues, alongside or as part of their Corporate Social Responsibility.

Green Star SA - Socio-Economic Category PILOT validates the socio-economic initiatives of new or base building refurbishments which are being rated under any of the existing Green Star SA tools - Office v1; Retail Center v1; Multi Unit Residential v1, Public & Education Building v1 and Interiors PILOT.

The Socio-Economic Category PILOT has been launched as a separate optional category, which does not affect the current 4, 5 and 6 Star rating or scoring system. Only projects which are registering or are registered for one of the above-listed existing Green Star SA tools can apply to register for a Socio-Economic Category rating. Projects that achieve a rating for the SEC PILOT will get additional recognition for this, alongside their Green Star SA rating. On the Green Star SA certificate and on the plaque for the building, the words 'Plus Socio-Economic Category PILOT' will be added.

The Green Star SA – Socio-Economic Category PILOT provides for both Green Star SA – Socio-Economic Category 'Design' and Green Star SA – Socio-Economic Category Building 'As Built' certification criteria. All credits are the same for both ratings, although the documentation requirements differ.

It includes 7 possible credits: Employment Creation; Economic Opportunity; Skills Development & Training, Community Benefit, Empowerment, Safety & Health and Mixed Income Housing. The first 6 of these 7 credits apply to all the existing Green Star SA rating tools, but the last one -Mixed Income Housing -only applies to the Multi Unit Residential tool.

The following minimum score requirement will apply for achieving the SEC PILOT rating:

- For Office v1; Retail Center v1, Public & Education Buildings v1 and Interiors PILOT, out of a possible maximum of 13 points (for the 6 applicable credits in the SEC), achievement of

Green Star SA – Socio-Economic Category PILOT

at least 6 points is required to be awarded the Socio-. Economic Category PILOT rating along with the project's Green Star SA rating.

- For Multi-Unit Residential v1: There are 7 applicable credits in the SEC, which includes an additional 'Mixed Income Housing' credit which doesn't apply to the other tools. Out of a possible maximum of 15 points, achievement of at least 7 points is required to be awarded the Socio-Economic Category PILOT rating along with the project's Green Star SA rating.

Any points achieved above this minimum requirement score are also eligible to count towards the achievement of 0.5 points in the Innovation Category of the applicable Green Star SA rating being sought (for the 'main' tool), up to a maximum number of Innovation points. The following scoring system applies for points achieved above the minimum requirement:

- For Office v1; Retail Center v1, Public & Education Buildings v1 and Interiors PILOT, each additional SEC PILOT point achieved above the minimum of 6 will earn 0.5 Innovation points, up to a maximum of 3.5 Innovation points. Therefore:
 - Achieving a total of 8 points will earn 1 Innovation point
 - Achieving a total of 10 points will earn 2 Innovation points
 - Achieving a total of 12 points will earn 3 Innovation points
 - And points achieved between these also apply on an incremental basis e.g. achieving 9 points will earn 1.5 Innovation points, or achieving 11 points would earn 2.5 Innovation points etc.
- For Multi-Unit Residential v1, each additional SEC PILOT point will earn 0.5 of an Innovation point, up to a maximum of 4 Innovation points. Therefore:
 - Achieving 9 points will earn 1 Innovation point
 - Achieving 11 points will earn 2 Innovation points
 - Achieving 13 points will earn 3 Innovation points
 - Achieving 15 points will earn 4 full Innovation points
 - And points achieved between these also apply on an incremental basis e.g. achieving 8 points will earn 0.5 Innovation points, or achieving 10 points would earn 1.5 Innovation points etc.

Those projects which do not target a SEC PILOT rating, but achieve SEC PILOT credit points below the minimum requirement will be allowed to target Innovation points at the same rate of 0.5 Innovation points per SEC PILOT point earned.

The PILOT phase is set to last for a minimum of 12 months, to allow for adequate testing and feedback from projects and stakeholders.

After the PILOT phase, a decision will be made about fully integrating the SEC into Green Star SA tools, alongside the existing categories.

ASSESSMENT CREDITS

The Green Star SA – Socio-Economic Category PILOT includes 7 possible credits: Employment Creation; Economic Opportunity; Skills Development & Training, Community Benefit, Empowerment, Safety & Health and Mixed Income Housing. The first 6 of these

Green Star SA – Socio-Economic Category PILOT

7 credits apply to all the existing Green Star SA rating tools, but the last one - Mixed Income Housing - only applies to the Multi Unit Residential tool.

For each credit the following topics are described in this Technical Manual:

- Aim of Credit;
- Credit Criteria;
- Documentation Requirements;
- Additional Guidance;
- Background; and
- References.

Points are awarded within credits for achieving performance-based objectives and for adopting policies and procedures to improve a project's socio-economic impact.

In some instances credits may not be applicable. This situation usually depends on the nature of the building and the inclusion or otherwise of a variety of typical building features or contexts. These specific instances are clearly defined in this Technical Manual. Whenever a credit is deemed 'Not Applicable', points are not awarded, and instead are excluded from the Points Available, used to calculate the Category Score. This modification prevents distortion of the Category Score (up or down) for issues that cannot be addressed and are not applicable to the project.

Green Star SA Certification

A development cannot publicly claim a Green Star SA rating unless the GBCSA has certified the rating, and the same applies for a Socio-Economic Category rating. The GBCSA will commission two third-party Assessors to check and validate the project's self-rating and recommend (or oppose) a Green Star SA Certified Rating.

Green Star SA – Socio-Economic Category PILOT certification identifies projects that have demonstrated a commitment to a specific level of socio-economic sustainability (in addition to the environmental sustainability demonstrated through the 'main' rating tool it is certified alongside), by informing the industry of the design performance of the project in terms that are widely understood and accepted.

The benefits of certification include:

- Gaining market recognition as a responsible and caring leader in the green building industry;
- Demonstrating commitment to socio-economic development;
- Establishing a competitive commercial advantage when seeking occupants/users of the facility; and
- Validating the achievement through third party assessment.

CONFIRMING ELIGIBILITY

It is the responsibility of each Project Team to check the most current Eligibility Criteria on the GBCSA website at the time of registration and to ensure that their project is eligible. The relevant Eligibility Criteria of the 'main Green Star SA tool', which is being used for rating the project, will apply. There are no specific Eligibility Criteria for the Socio-Economic Category in addition to this.

Whenever unsure, Project Teams can request an eligibility confirmation from the GBCSA by forwarding a brief description of the project to greenstarsa@gbcsa.org.za.

Registration does not guarantee assessment; no project will be assessed if it is deemed ineligible against the Eligibility Criteria current at the time of registration.

The GBCSA reserves the right to deny eligibility to assessment of any project that is deemed to compromise the Green Star SA brand, and to revise these criteria to better achieve the goals of the Green Star SA rating tools.

CERTIFICATION PROCESS

Up to date information on the Green Star SA certification process is outlined in detail on the GBCSA website (www.gbcsa.org.za). Templates, forms and checklists are available on this website to guide projects through the process. Rating for the Socio-Economic Category will be the same 'generic' process, which all projects are involved with for rating using any of the existing Green Star SA tools. It is as follows:

Green Star SA Certification

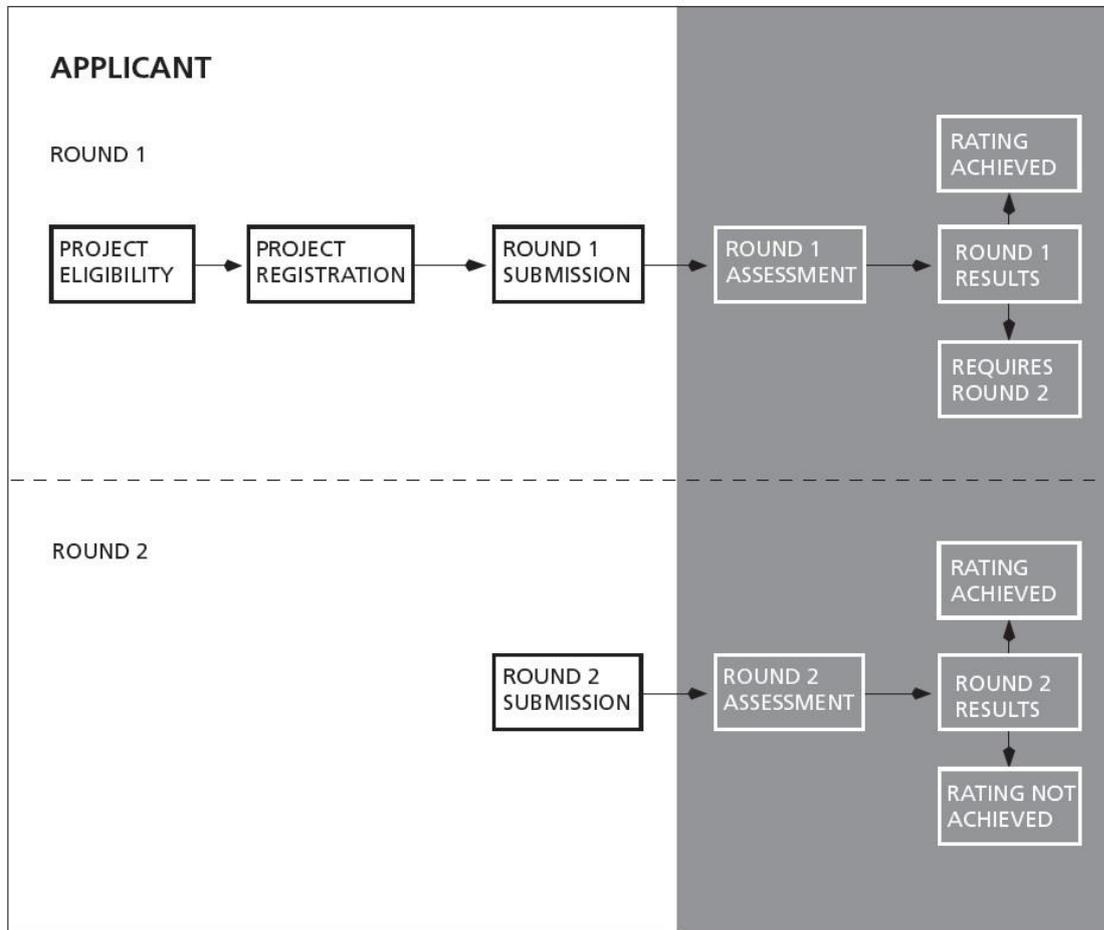


Figure 2: Overview of certification process (adapted from GBCA).

Registration

Registering a project with the GBCSA declares the intent to pursue certification under a specific rating tool and is the first step in the certification process. Registration establishes a connection with the GBCSA and gives the project access to essential information and assistance with the submission process. Projects should register as soon as possible during the project, though there is no deadline during the design or construction process. Registration takes place through a form in the Green Star SA certification section of the GBCSA website (www.gbcsa.org.za).

Part one of the Certification Fee (50%) must be paid to the GBCSA upon registration of a project, and an executed Certification Agreement (sent to the project owner upon registration) must be received by the GBCSA to finalise a project's registration. Details of the Certification Fees can be found on the GBCSA website. Part two of the certification fee – the other 50% - is due when the project submits for Round 1 certification.

Green Star SA Certification

The same registration process and terms will apply for the Socio-Economic Category PILOT, as projects will register for the 'main' Green Star SA rating tool **plus** the Socio-Economic Category. An additional registration fee, over and above the applicable fee for the 'main' Green Star SA tool (published on the GBCSA website), will be payable for those project wishing to target the Socio-Economic Category rating. For those projects already registered for Green Star SA certification, an Addendum to the existing agreement will be arranged.

Please note that registering a project simply declares the intent to pursue certification and should not be confused with actual project certification, which is awarded by the GBCSA once a project has demonstrated its achievement of a certain rating level.

Preparing the Submission(s)

Once your project is registered, the project team should prepare documentation, drawings and calculations to satisfy the Green Star SA credit documentation requirements. If appointed, the Green Star SA Accredited Professional should take responsibility for the quality of submission.

It is important to ensure that documentation for all claimed credits adheres to the Documentation Requirements outlined in the Green Star SA – Socio-Economic Category PILOT Technical Manual, as there are only two rounds of Assessment.

Assessors will not award the point(s) unless it is demonstrated that all the requirements have been met exactly as detailed in the Technical Manual. See the GBCS website for the most up to date templates and submissions forms.

Round 1 Submission

From the date of receipt of the Round 1 submission at the GBCSA offices, the GBCSA provide the Round 1 assessment results in 7 weeks.

Part two of the Certification Fee (50%) must be paid to the GBCSA on or before the Round 1 submission date, and projects must also provide the completed Round 1 pre-submission checklist found on the GBCSA website when they submit.

Please note that if a Credit Interpretation Request (CIR) or Technical Clarification (TC) has been submitted, an assessment cannot take place until it has been resolved.

The GBCSA will conduct a pre-assessment submission quality review of a project submission prior to the commissioning of a review by the Assessors. A project may be required to resubmit the submission prior to Round 1 assessment if the submission quality review suggests that the quality of the submission would result in an erroneous or extended assessment. There is no fee associated with the pre-assessment completed by the GBCSA.

Round 1 Assessment

The Assessment Panel, containing two third-party Assessors, will review the submission. Recommendations will then be made to the GBCSA. The GBCSA reserves the right to question the findings of the Certification Assessment Panel.

The GBCSA will forward the results of the Round 1 assessment to the project contact and the applicant. The project may accept the results as the final rating or request to resubmit documentation for credits 'to be confirmed' for a Round 2 assessment.

Green Star SA Certification

Round 2 Submission

Upon receipt of the results of the Round 1 Assessment, the project may request to resubmit documentation for credits 'to be confirmed'. Each project has only one opportunity for resubmission, which may include:

- Additional/revised documentation to demonstrate fulfilment of Credit Criteria;
- Alteration to project design that results in meeting Credit Criteria; and
- Credit Interpretation Requests (CIRs) to clarify alternative compliance.

From the date of receipt of the Round 2 submission at the GBCSA offices, the GBCSA provide the Round 2 assessment results in 5 weeks.

Projects must also provide the completed Round 2 pre-submission checklist found on the GBCSA website when they submit.

Round 2 Assessment

Assessment of the Round 2 submission will follow the procedures outlined above for Round 1 assessment.

Certified Rating Awarded

If the assessment validated the project's achievement of the minimum score or above, the GBCSA will award a Certified Rating and notify the Applicant.

Certified Rating not Awarded

If a desired Certified Rating is not achieved, the project may be eligible to Appeal select credits for a fee to re-asses. Please contact the GBCSA for further details.

Technical Clarifications and Credit Interpretation Requests

The Green Star SA Technical Clarifications (TC) and Credit Interpretation Request (CIR) rulings provide an essential source of information to all projects undertaking Green Star SA assessment. They are available on the GBCSA website (www.gbcsa.org.za).

Technical Clarifications often represent the GBCSA answers to technical queries and complement Green Star SA Technical Manuals (e.g. the Assessment Team will use the Technical Clarifications as public precedent). They do not amend but clarify the Credit Criteria or Compliance Requirements. They are an extension of the Technical Manual; it is the responsibility of the project teams to stay up-to-date with this section of the GBCSA website.

The CIR rulings offer alternative compliance options whenever those have been deemed equivalent in meeting the Aim of Credit. A registered project may submit a CIR if the project team feels that the Aim of Credit has clearly been satisfied via a solution that does not adhere to the stated Credit Criteria/Additional Guidance of the relevant Technical Manual.

Green Star SA Updates and Feedback

Updating the Green Star SA – Socio-Economic Category PILOT

Green Star SA – Socio-Economic Category PILOT was pioneered on the basis of information available at the time of its development, and often in the absence of adequate published research, and clear benchmarks or guidelines for these socio-economic issues as they pertain to the design, construction and ultimate operation of individual building projects.

As more research is undertaken in this area, the Socio-Economic Category will be updated to reflect new and relevant information, standards, practices, tools and references.

Green Star SA rating tools and this Socio-Economic Category may also be updated as a result of credit interpretations from the certification process. In these cases, the GBCSA reviews the credit and, if the new credit interpretation is adopted, the relevant Green Star SA rating tool and the associated Technical Manual is updated to reflect the change. All Green Star SA tools have an allocated version number to reflect these changes.

Green Star SA rating tools may also be revised on the basis of stakeholder feedback.

Feedback on Green Star SA – Socio-Economic Category PILOT

The GBCSA encourages feedback on all Green Star SA rating tools, including Green Star SA – Socio-Economic Category PILOT.

Feedback is to be sent to greenstarsa@gbcsa.org.za for consideration by the GBCSA.

Glossary

Note that this Glossary contains the relatively few key terms, which relate particularly to this new Socio-Economic Category. These are in addition to the set of applicable terms in the Glossary of the relevant 'main' Green Star SA tool under which the project is being rated. For example, if the project is being rated under Office v1, then the Glossary terms in the Office v1 Technical Manual will apply in the usual way, and these in the SEC Glossary are additional to that.

Some of the terms from the 'main' Glossaries of the existing Green Star SA, which are used in the Socio-Economic Category, are repeated here for ease of reference. If there is any duplication or conflict in meanings between glossary items here below or in a Glossary of another Green Star SA tool, then the meaning attached in this Glossary will apply.

Assessor

A person or persons, independent of the GBCSA, independent of the project client, design team and contractor, nominated by the GBCSA, knowledgeable and with experience in the green building industry, or who has such other appropriate assessment qualifications as the GBCSA may from time to time determine.

Bargaining Council

Trade unions and employers' organisations may form bargaining councils. Bargaining councils deal with collective agreements, solve labour disputes, establish various schemes and make proposals on labour policies and laws. Refer to Section 28 and 29 of the Labour Relations Act No. 66 of 1995 which explains the bargaining council's powers and functions.

Broad-Based Black Economic Empowerment

The economic empowerment of all black people including women, workers, youth, people with disabilities and people living in rural areas through diverse but integrated socio-economic strategies that include, but are not limited to:

- Increasing the number of black people that manage, own and control enterprises and productive assets;
- Facilitating ownership and management of enterprises and productive assets by communities, workers, cooperatives and other collective enterprises;
- Human resource and skills development;
- Achieving equitable representation in all occupational categories and levels in the workforce;
- Preferential procurement; and
- Investment in enterprises that are owned or managed by black people.¹

B-BBEE (or BBBEE)

See Broad-Based Black Economic Empowerment

¹ Definition taken from the Broad-Based Black Economic Empowerment Act (Act 53 of 2003). See <http://bee.thedti.gov.za/01.htm>

Glossary

BBBEE Construction Codes of Good Practice

Construction Codes of Good Practice: 2000 – 2800 for BBBEE of 2009, which was derived from the Construction Sector Charter of 2008, and subsequently published as a Sector Code on black economic empowerment in terms of section 9(1) of the BBBEE Act (53 of 2003), as issued in the Government Gazette No. 32305 in 2009.

BBBEE Generic Codes of Good Practice

BBBEE Codes of Good Practice as issued in the Government Gazette No. 29617 in 2007.

Building

The base building development seeking Green Star SA certification.

CIDB

See Construction Industry Development Board

CIR

See Credit Interpretation Request.

Client

The building/project owner or developer responsible for the development/refurbishment of the building and for the engagement (directly or indirectly) of the design team and the contractor.

Commissioning

The advancement of an installation from the state of static completion to full working order to the specified requirements. It includes the setting to work of an installation, the regulation of the system and the fine tuning of the system.

Contract Value

The Rand value that will be required to complete the works for the entire project, including site works (landscaping, external paving, etc.). The contract value must include contractor fee, contingencies and any other items included as part of the contract amount, but exclude demolition works, consultants fees, design fees, project management fees, VAT, works outside the site area, and buildings or areas within the site that are not being assessed for purposes of Green Star SA. In the Socio-Economic Category PILOT the contract value excludes occupant allowances, even if these form part of the contract value (as per Green Star SA Multi Unit Residential v1 tool).

Contractor

The main contractor or builder engaged to complete the scope of works for the project.

Construction Commencement

The time at which the Project Site is handed over from the Principal Agent to the Contractor to commence the scope of works of the contract.

Construction Industry Development Board

See <http://www.cidb.org.za>

Glossary

Credit Interpretation Request

Credit Interpretation Requests are submitted prior to assessment by a project that clearly meets the Aim of Credit but does not adhere to the stated Credit Criteria of the relevant Technical Manual. CIRs are considered by the GBCSA with the consultation from the Technical Working Group and other independent consultants, and the resulting rulings may set precedent and be used to update Green Star SA rating tools.

Deemed to Satisfy

Prescriptive provisions which satisfy performance requirements, or stated level of performance.

Department of Health (South Africa)

See <http://www.doh.gov.za>.

Department of Trade and Industry (South Africa)

See <http://www.dti.gov.za>

Design Team

The professionals normally engaged in the design and contract administration of a building project. These typically include architects, engineers (e.g. structural, civil, mechanical, electrical, hydraulics, fire etc.), project manager, cost consultant and building surveyor plus other specialists including green building consultant, landscape architect, acoustics consultant, façade engineer, lighting consultant, etc.

DoH

See Department of Health (South Africa)

DTI

See Department of Trade and Industry (South Africa)

Dwelling

For the purposes of Green Star SA, a self-contained residential unit provided with adequate sanitary and cooking facilities, having a class of occupancy or building as 'H3 Domestic Residence' as per SABS 0400-1990.

Eligible Project

A project that complies with the requirements contained in the Green Star SA Eligibility section of this Technical Manual.

Enterprise Development

Interventions financial or non-financial, that are provided to a developing business or businesses to assist in growing the capacity of the beneficiary business.

Equivalent Area

The area of a sharp edged circular orifice which would pass the same air flow rate and at the same applied pressure difference as a ventilation opening.

Extension

A wing or structure added to an existing building.

Glossary

GBCSA

See Green Building Council of South Africa.

Green Building

A Building that incorporates design, construction and operational practices that significantly reduce or eliminate its negative impact on the environment and its occupants; an opportunity to use resources efficiently while creating healthier environments for people to live and work in.

Gross Floor Area

See 'List of Areas', 'Technical Manual & Submission Guidance' Section.

Green Building

A Building that incorporates design, construction and operational practices that significantly reduce or eliminate its negative impact on the environment and its occupants; an opportunity to use resources efficiently while creating healthier environments for people to live and work in.

Green Building Council of South Africa (GBCSA)

A national, not-for-profit organisation that is committed to developing an environmentally sustainable property industry for South Africa by encouraging the adoption of green building practices. See <http://www.gbcsa.org.za>.

Hazard identification

The identification and documenting of existing or expected hazards to the health and safety of persons, which are normally associated with the type of construction work being executed or to be executed. (See also Hazard Identification and Risk Assessment.)

Health and Safety

See Occupational Health and Safety.

HIRA

See Hazard Identification and Risk Assessment.

Hazard Identification and Risk Assessment

The South African 1993 Occupational Health and Safety (OSH) Act (Act 85 of 1993) introduces the principles of conducting 'Hazard Identification and Risk Assessment' (HIRA) in Section 9 (2) (d) and this is now a mandatory requirement for the design stage of all construction as part of the OSH Act, as amended. See this Department of Labour 1993 OSH Act for more information².

International Association for Public Participation

See <http://www.iap2.org>

IAP2

See International Association for Public Participation

² <http://www.labour.gov.za/DOL/downloads/legislation/acts/occupational-health-and-safety/amendments/Amended%20Act%20-%20Occupational%20Health%20and%20Safety.pdf>

Glossary

International Finance Corporation

See <http://www.ifc.org/>

IFC

See International Finance Corporation

Justify

Where project teams are requested to provide justification for certain claims within the Green Star SA submission, the actual quantitative or qualitative impact of the specific claim must be clearly demonstrated in relation to the Green Star SA Technical Manual requirements in order to prove compliance. Quantitative demonstration should be via referenced calculations or simulations, whereas qualitative demonstration should be referenced by supporting documentation or evidence such as recognised standards, guidelines or research papers.

Leadership in Energy and Environmental Design (LEED)

The US-based LEED Green Building Rating System® is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. See <http://www.usgbc.org/leed>.

LEED

See Leadership in Energy and Environmental Design.

Life Cycle

All phases associated with the life of a product i.e. creation, distribution, sale, installation, use, care and disposal/reuse/recycle.

Material Cost

The cost of a material may include transport/shipping costs to the project site, but may not include installation costs, equipment for installation, contractor fee, contingencies, VAT or any other amounts.

Mixed-Income Housing

A type of housing delivery programme, usually government driven, to promote mixed-income housing delivery through regulations and/or incentives that require or encourage property developers to include a proportion of housing units for low and moderate income households.³ Usually a deliberate effort to construct and/or own a multifamily development that has the mixing of income groups as a fundamental part of its financial and operating plans.⁴

A new, constructed mixed income housing development includes diverse types of housing units, such as apartments, town homes, and/or single-family homes for people with a range of income levels. Mixed income housing may include housing that is priced based on the dominant housing market (market-rate units) with only a few units priced for lower-income residents, or it may not include any market-rate units and be built exclusively for low- and moderate-income residents⁵.

³ *Western Cape Provincial SDF: Inclusionary Housing Discussion Document, 2009.*

⁴ *Brophy, P. C., & Smith, R. N. (1997). Mixed-income housing: Factors for success. Cityscape: A Journal of Policy Development and Research 3 (2): 5*

⁵ *Joseph, M. L., Chaskin, R. J., & Webber, H. S. (2007). The Theoretical Basis for Addressing Poverty Through Mixed-Income Development. Urban Affairs Review, 42 (3): 371*

Glossary

Mixed-Use Development

The use of a single building for different purposes simultaneously.

Occupational health and safety

Occupational safety and health (OSH) is generally defined as the science of the anticipation, recognition, evaluation and control of hazards arising in or from the workplace that could impair the health and well-being of workers, taking into account the possible impact on the surrounding communities and the general environment.⁶

Occupied Space

Areas that are predominantly:

- Work spaces (e.g. cellular offices, open plan offices, meeting rooms, food preparation areas, laboratories, consulting rooms, workshops - small scale and high density it work spaces);
- Large event spaces (e.g. dry sports halls, swimming pool areas, halls, arts theatres, libraries, assembly areas, sales areas – general, sales areas – chilled, performance areas (stage), check in areas, baggage reclaim areas, security check areas, fitness suites, gyms, fitness studios and ice rinks);
- Common areas (e.g. receptions, waiting rooms, eating/drinking areas, laundries, common rooms/staff rooms/lounges, public circulation areas, foyers and lobbies); and
- Learning spaces (e.g. classrooms and lecture rooms) are all expected to form part of the Occupied Space.

Most corridors are to be excluded from the calculation of Occupied Space. Where corridors are exclusively used for transit between spaces (i.e. do not act as a foyer, lounge, waiting space, or reception), and where these corridors are bound in both sides by a wall these are to be excluded. Where a corridor is part of a shared space, this corridor, or section of a corridor, cannot be excluded and is considered part of the adjacent space. Occupied Space also excludes enclosed fire stairs, storage areas, toilets, tea kitchens, changing facilities, bathrooms, display areas, IT equipment rooms and plant-rooms.

OHS

See Occupational Health and Safety.

Peri-Urban Area – A less densely populated area which is usually immediately adjoining an urban area, between the suburbs and the countryside, or on the ‘urban fringes’ away from high-density parts of cities and towns. The transition zone, or interaction zone, where urban and rural activities are juxtaposed.

⁶ Definition from International Labour Organisation’s “Fundamental Principles of Occupational Health and Safety”, 2008.)

Glossary

Personal Protective Equipment

Equipment used to place a barrier between a person working and a potential hazard which will cause them bodily harm. This would include protective clothing, helmets or hard hats, safety goggles, masks, safety harnesses, physical barriers, or other garments, equipment, substance or accessories designed to protect the wearer's body from injury or harm. (It could be worn, held or otherwise used to render the person safe). The hazards addressed by protective equipment include physical, electrical, heat, chemicals, biohazards, and airborne particulate matter. In this instance it refers to particularly to protective equipment worn for job-related occupational safety and health purposes, as required by the South African 1993 Occupational Safety and Health (OSH) Act, typically on a building construction site.

PPE

See Personal Protective Equipment

Practical Completion

The stage of completion where the works or a section thereof, as certified by the principle agent, is substantially complete and can effectively be used for the purpose intended (JBCC Series 2000).

Project Site

The land or place on, over, under, in or through which the scope of works is to be completed, as defined for the purposes of Green Star SA certification.

Project Team

Comprising the Design Team members and Construction Team members; generally those responsible for the definition, delivery and completion of the scope of works for the project.

Project Value

See 'Contract Value'.

Redevelopment

The restoration and improvement of an existing structure or property.

Refurbishment

The upgrading of either (or both) a building's fabric and services with the aim of enhancing its ability to attract tenants, improve rental growth and maximise market value. Refurbishment (Full) – Where a building, or portion of a building, is vacated and withdrawn from stock for refurbishment, including replacement of plant and services. Refurbishment (Partial) – Where a building or portion of a building is vacated and withdrawn from stock for refurbishment, which normally is restricted to cosmetic improvements.

Relevant Project Team Member

A member of the Project Team; no specific profession or skills are required for the purpose of 'Documentation Requirements'.

Risk Assessment

A programme to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard. (See also Hazard Identification and Risk Assessment.)

Glossary

Rural Area - Any geographic area that is located outside of cities and towns, as prescribed by the official metropolitan or municipal boundaries. The Rural Development Framework (1997) published by South African government is used, defines rural areas as having the following two characteristics:

- Sparsely populated areas in which people farm or depend on natural resources, including villages and small towns that are dispersed through these areas; and
- Areas that include large settlements in the former homelands, which depend on migratory labour and remittances as well as government social grants for their survival, and typically have traditional land tenure systems.

SABS

See South African Bureau of Standards.

SANS

See South African National Standard.

SAPOA

See South African Property Owners Association.

Shared Building Infrastructure

Infrastructure shared by two or more buildings, including, but not limited to: waste services, delivery yards, toilet facilities and car parks.

Site

See Project Site.

South African Bureau of Standards (SABS)

See <http://www.sabs.co.za>

South African National Standard (SANS)

Standards written by SABS, which are normally not mandatory unless referenced by legislation.

South African Institute of Architects (SAIA)

See <http://www.saia.org.za>

South African Property Owners Association (SAPOA)

See <http://www.sapoa.org.za>

Specifications

Specifications refer to written documentation that are prepared for and submitted to a contractor, at the tender or scoping stage of a project, in order for a contractor to price a building development. Many credits require extracts from specifications to be submitted to show compliance with their Credit Criteria. Circumstances under which alternatives to extracts to specifications are allowed to be submitted in compliance with the Documentation Requirements of a credit, are provided in the 'Standard Documentation Types – Guidance' section of this Technical Manual.

Glossary

Suitably Qualified Professional

A person suitably experienced by profession, training, or demonstrable experience, to calculate, confirm, commit or provide comment on, the field, subject or topic as required for the purpose of 'Documentation Requirements' as necessary.

Supporting Documentation

With reference to 'Documentation Requirements'; other documentation submitted within the same credit of a submission.

TWG

See Technical Working Group.

Technical Working Group (TWG)

An advisory panel convened by the GBCSA and designated as the 'Technical Working Group'.

Usable Area – The floor area capable of exclusive occupation by the tenant or use by the occupier. For commercial buildings such as offices and retail centers, the definition for 'usable area' provided by South African Property Owners Association (SAPOA) on 1st August 2005 would apply. This would consist of the total area of the building enclosed by the Dominant face, adjusted by deducting all Common Areas and Major Vertical Penetrations, with no deductions made for columns. The equivalent concept would apply for multi-residential developments and public and education buildings, with usable area referring to space which can be used for socio-economic activities and excluding areas which can't be used for this purpose such as bathrooms, stairwells, entrance and foyer areas, parking space etc.

Technical Manual and Submission Guidance

A GUIDE TO THE STRUCTURE OF GREEN STAR SA CREDITS

Aim of Credit

Asserts which socio-economic issue this credit is targeting, what the guiding principles behind the credit are, and what the desired outcomes are.

Credit Criteria

Explains clearly how the Aim of Credit section is to be met. Where the Aim of Credit is the guiding principle, Credit Criteria outlines measures that must be undertaken within a project to achieve it. It is important to read this section carefully as every project must meet the criteria outlined in this section for the credit to be awarded.

Documentation Requirements

Describes the requirements that a project needs to meet for its submission to be successful when assessed by the Assessors.

All projects must meet the Documentation Requirements to be awarded the credit points. Please note that the Assessors are not in a position to make assumptions on this matter, but must make a decision based on evidence provided. All documentation must therefore be provided to the letter of the Technical Manual. In addition, the Assessors reserve the right to request additional documentation in order to clarify any credit point.

Each credit has a submission checklist that lists the documentation requirements for the assessment of a Design and an As Built rating. All evidence collated must meet requirements set out in the 'Design Rating' or 'As Built Rating' documentation section of each credit in the Technical Manual. Note that each project should submit documentation relevant to Design or As Built, not both, depending upon which certification is being pursued.

Additional Guidance

This section contains additional information, which is applicable. All information in Additional Guidance is mandatory. The Assessors reserve the right to determine whether or not the project needs to meet the requirements of this section.

Background

Explains why the issue in the credit is important, with relevant background information, and may include explanations of why and how certain assessment measures were derived.

References & Further Information

All credits within the Green Star SA rating tools are based on research, and some of this research is provided as reference material in this section.

Technical Manual and Submission Guidance

NOTE: The List of Areas (defining e.g. Gross Floor Area etc.) and Space Type Definitions provided in the Technical Manual of the 'main' rating tool being used for the project (e.g. Office v1, Retail Centre v2, Multi Unit Residential v1 or Public & Education Building v1) will apply.

SUBMISSION GENERAL SECTION

In addition to the documentation which must be submitted as per the 'Documentation Requirements' stipulated for each credit, the project' Green Star SA submissions (both Round 1 and Round 2) must contain a 'General Section' containing the following information:

Project overview document, which provides a brief summary and description of the project. This need not be detailed, however should contain enough information to allow the Assessors to become familiar with the project prior to the assessment (a project brief would suffice).

Site documentation comprising of either;

- A site plan identifying the existing building(s) or structure(s) (if present), the extent of both the development footprint and the boundary of the project site (for the purposes of the Green Star SA submission) and the erf size;

OR

- An aerial photograph identifying the existing building(s) or structure(s) (if present), the extent of both the development footprint and boundary of the project site (for the purposes of the Green Star SA submission) and the erf size.

Area schedule identifying the development area parameters, including the site area, development footprint area, landscape area, building footprint area, Gross Floor Area (GFA), and Occupied space. This information must correlate with that entered into the 'Building Input' page of the Green Star SA – Socio-Economic Category PILOT spread sheet.

Rating tool spread sheet in the form of the spread sheet file, with all credits and calculators completed (as applicable).

GBCSA correspondence between the GBCSA and the Project Team pertaining to general queries, Eligibility Rulings, Technical Clarifications (TCs) or Credit Interpretation Requests (CIRs).

Applicant Declaration & Pre-Submission Checklist as contained in the rating tool spread sheet, completed and signed where appropriate.

Project Teams must ensure that all documentation above is included in the 'General' section of the submission. Submissions lacking this information will not pass the pre-assessment submission quality review and will be returned to the project team.

Technical Manual and Submission Guidance

STANDARD DOCUMENTATION TYPES - GUIDANCE

To provide further guidance pertaining to the compilation of Green Star SA submissions, key requirements of the most common 'Documentation Requirements' are provided below.

The intent of this guidance is to communicate the intent of the documentation, the core characteristics of the specific piece of documentation and tips to assist Assessors in assessing the documentation. In general, high-quality submissions with respect to the guidance below will achieve a greater number of points within Round 1 than a poor quality submission.

Characteristics of high-quality submissions include;

- Diligent selection of the required documentation and the avoidance of excessive or superfluous or un-solicited information (i.e. "less is more");
- Documentation is concise and well defined;
- Effort has been made to lead the Assessors to key pieces of information (e.g. through the use of highlights, clouds, arrows etc.); and,
- Information is consistent across the submission (e.g. areas, occupancy, servicing strategies).

The following guidance is provided for the most common pieces of documentation only. Project Teams should use their judgement in applying the same principles to other pieces of documentation in accordance with the Green Star SA – Socio-Economic Category Technical Manual.

Calculator extract

<i>Description & Intent:</i>	This is simply a print-off of the completed applicable Green Star SA calculator embedded with the rating tool spread sheet. The intent is to demonstrate the data entered into the calculator and the resulting calculator input.
<i>Key Requirements:</i>	The data entered into the calculator must be consistent with the information demonstrated in other 'supporting documentation'. Where data entered into the calculator cannot be confirmed by the Assessors within supporting documentation, the point(s) will not be awarded.
<i>Quality Tips:</i>	Key information MUST be highlighted (e.g. through the use of highlights, clouds, arrows etc.) to guide Assessors.
<i>Indicative Page Limit:</i>	Print options for calculators are pre-set within the rating tool.

Technical Manual and Submission Guidance

Extract(s) from Contract

<i>Description & Intent:</i>	A contract represents a legal agreement between two (or more) parties. For the purpose of Green Star SA, a contract outlines the legal commitment by a party to satisfy a Green Star SA requirement. The intent of this documentation requirement is to demonstrate the legal obligation to the Assessors with regards to a particular Green Star SA requirement (e.g. the Contractor must recycle a stated percentage of demolition & construction waste).
<i>Key Requirements:</i>	The contract must be valid and legally binding. As such it must be signed by representatives of the applicable parties.
<i>Quality Tips:</i>	Where the Contract is a large document, extract(s) should include the cover page, contents, the specific Green Star SA requirements and the page where the parties have signed. The full contract should NOT be submitted, only the necessary extracts. Key information MUST be highlighted (e.g. through the use of highlights, clouds, arrows etc.) to guide Assessors.
<i>Indicative Page Limit:</i>	Regardless of the size of project, all extract(s) necessary to demonstrate the contractual agreement should typically be less than 5 pages (± 2 pages).

Extract(s) from tender documentation

<i>Description & Intent:</i>	<p>Tender documentation is documentation that is prepared for and submitted to a contractor, at the tender stage of a project, in order for a contractor to price a building development. Tender documentation typically consists of both drawings and specifications. For the purposes of Green Star SA, tender documentation demonstrates the intent to procure a green building to the Assessors. This intent may be demonstrated through drawing(s) and/or extract(s) of specification(s). The GBCSA acknowledges that sufficient information to demonstrate the procurement of a design initiative may be provided on a drawing or within a specification.</p> <p>For Design submissions, Construction drawings or specifications are deemed as equivalent to tender documentation provided they contain all information requested in the relevant credit. Also, Site Instructions and Contract Instructions are acceptable provided that they provide all information requested in the specific credit, and are supported by documentary evidence of the acceptance of such an instruction by the relevant party.</p>
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Technical Manual and Submission Guidance

- Key Requirements:** Regardless of the type of tender documentation submitted, the documentation **MUST** demonstrate the necessary information as required by the applicable Green Star SA Technical Manual. Should an extract(s) from tender documentation fail to demonstrate information deemed required by the applicable Green Star SA Technical Manual, point(s) will not be awarded.
- Quality Tips:** Key information **MUST** be highlighted (e.g. through the use of highlights, clouds, arrows etc.) to guide Assessors.
- Indicative Page Limit:** The number of drawings/pages will be dependent on the size and complexity of the project, however only extracts from specifications should be submitted. I.e. if the portion of the specification which shows compliance as per the Technical Manual is two pages long, then only the two page extract should be submitted and not the full specification.

Extract(s) from Quantity Surveyor report

- Description & Intent:** The Quantity Surveyor report is a report that outlines all the necessary information with regards to the project in terms of quantity and cost. A specific report may or may not be prepared which addresses the Green Star SA related issues only. The intent of this report is to communicate quantities, costs and/or calculations completed to demonstrate compliance with credit criteria. Calculations may be completed by the Quantity Surveyor, or the information confirmed by the Quantity Surveyor may be used by suitably qualified professionals or relevant project team members to complete calculations.
- Key Requirements:** The Quantity Surveyor report must clearly identify the necessary information as requested within the Green Star SA Technical Manual for the specific credit.
- Quality Tips:** Key information **MUST** be highlighted (e.g. through the use of highlights, clouds, arrows etc.) to guide Assessors.
- Indicative Page Limit:** The length of the report extract required will vary depending on the project as well as the specific credit, but should typically be less than 5 pages long (± 2 pages).

Short report

- Description & Intent:** For the purposes of Green Star SA, short reports are used to communicate key aspects of the design to the Assessors and to demonstrate compliance with Credit Criteria. Short reports should be viewed as a “summary” or “introduction” of the design initiative and provide the Assessor with an overview of how the project has met the specific Credit Criteria. After reading a short report, an Assessor should be fully aware of how the project has met the Credit Criteria, with the necessary calculations or summary provided.

Technical Manual and Submission Guidance

Key Requirements: Short reports must reference the supporting documentation and reflect the design. They provide a key link between the Assessors and the supporting documentation. All data referenced within the short report must be evident in the supporting documentation. It is important to emphasise that the short reports themselves DO NOT form part of tender documentation or as built documentation; they merely communicate this information and demonstrate calculations (where necessary).

Quality Tips: The short report must be consistent with the supporting documentation. Key information MUST be highlighted (e.g. through the use of highlights, clouds, arrows etc.) to guide Assessors.

Indicative Page Limit: Short reports should be no more than 5 pages (± 2 pages).

Statement of confirmation

Description & Intent: A statement of confirmation communicates the confirmation of a particular aspect of the project to the Assessors. The intent of this documentation is obtain a legally binding confirmation.

Key Requirements: It must be demonstrated who is confirming the information and it must be clear what information is being confirmed. Statement of confirmation MUST be signed by the party confirming the information.

Quality Tips: Statement of confirmation must be signed by the relevant party and key information highlighted.

Indicative Page Limit: Statement of confirmation should be no more than 2 pages (± 1 page).

Tender / As Built drawing(s)

Description & Intent: Tender / Construction drawings are documentation that is prepared for and submitted to a contractor, at the tender stage of a project, in order for a contractor to price a building development or construct a building development. Drawings provide geometrical/spatial information to the Contractor. It is important to note that these drawings are formal contract documents.

As Built drawings are documents that are prepared by the contractor, or by the professional team informed by the contractor, and show the details of the final constructed development. As Built drawings must include any variations from the original design, which have taken place during construction.

Key Requirements: The drawings must be clearly marked "For Tender" or "For Construction" (Design rating) or "As Installed" or "As Built" (As Built rating).

Technical Manual and Submission Guidance

Quality Tips: Key information **MUST** be highlighted (e.g. through the use of highlights, clouds, arrows etc.) to guide Assessors.

Indicative Page Limit: The number of drawings/pages will be dependent on the size and complexity of the project, but only the drawings needed to show the specific items requested by the credit must be submitted.

AIM OF CREDIT

To encourage and recognise developments, which create employment opportunities through design decisions, and construction practices that include facilities for micro-enterprises, targeted employment for priority groups and labour-intensive construction methodologies.

CREDIT CRITERIA

Up to two points are awarded as follows:

Part 1: Increase in employment levels or targeted employment during construction

One point is awarded where option A, B, C or D is achieved:

Option A – Employment generation results

- The total labour cost⁷ of the Contract Value⁸ of the building exceeds:
 - 30% for a building of one or two storeys high or
 - 25% for a building of more than two storeys high

OR

Option B – Employment generation process

- Employment is created through the implementation of labour-intensive construction methods, which are identified on a project for specific activities (using a process outlined in the Additional Guidance section). At least 75% of the identified activities must be implemented, and the total labour cost of these implemented activities must collectively form at least 1.5% of the total Contract Value. (See example in Additional Guidance, and the Calculator provided.)

OR

⁷ See Additional Guidance section below for explanation of what labour cost includes and excludes. The Additional Guidance section includes definitions, explanations and requirements for other parts of this credit as well.

⁸ See the Glossary for all common terms used in Green Star SA tools, which are presented with capitals like this.

SEC- 1 EMPLOYMENT CREATION (PILOT)AVAILABLE **2****Option C – Compliance with SANS 1914-5 standard for targeted labour participation**

The project complies with the requirements of Part 5 of the SANS 1914-5:2002 standard for Targeted Construction Procurement, which is for Participation of Targeted Labour. (It can be purchased at <http://www.sabs.co.za>).

Note that this standard is mainly used in government project tenders (wherever they apply) for the construction phase of the building. Also note that any projects which are subject to specifications relating to the Expanded Public Works Programme (see 'Guidelines for the Implementation of Labour Intensive Infrastructure Projects under Expanded Public Works Programme' at: http://www.epwp.gov.za/archives/technical_legalguidelines.pdf) will automatically also require compliance with SANS 1914-5:2002 as the Expanded Public Works Programme (EPWP) Guidelines specify this standard as part of their requirements.

OR

Option D – Targeted employment for priority disadvantaged groups

- At least 10% or more of the total labour (including subcontractors) employed during construction are disadvantaged persons who are collectively from the target groups of youth, women or disabled persons, as measured by % of the labour cost of the Contract Value.

Part 2: Facility provided for micro-enterprise employment opportunities

One point is awarded where:

- In the completed project, a minimum of 50m² is provided for a facility to be used for employment creation for individuals and micro enterprises e.g. food kiosks, market space for informal traders or shoe polishing services etc. The space for this facility can be provided in the finished building, or on the Project Site area or on the pavement/ public area adjoining the site (with appropriate permissions).

DOCUMENTATION REQUIREMENTS

Green Star SA - Design	Green Star SA - As Built
Submit all the evidence and ensure it readily confirms compliance.	Submit all the evidence and ensure it readily confirms compliance.
<p>Part 1: Increased/ targeted employment:</p> <p>Option A Extracts from tender documentation (1)</p> <p>Option B Short report (1) Extract(s) from tender documentation (2)</p> <p>Option C Extract(s) from tender documentation (3)</p> <p>Option D Extract(s) from tender documentation (4)</p> <p>Part 2: Facility for micro-enterprise employment opportunity:</p> <p>Short report (5) Tender drawing(s)</p>	<p>Part 1: Increased/ targeted employment:</p> <p>Option A Short report (1) Statement of confirmation (1)</p> <p>Option B Short report (2) Statement of confirmation (2)</p> <p>Option C Short report (3) Statement of confirmation (3)</p> <p>Option D Short report (4) Statement of confirmation (4)</p> <p>Part 2: Facility for micro-enterprise employment opportunities:</p> <p>Short report (5) As built drawing(s)</p>

FOR DESIGN:**Part 1. Option A**

Extract(s) from contract/ tender documentation (1) to show how target employment levels are specified for the Design Team, the main construction contract and for the various sub-contracts/activities that will fall under this. This is to include a schedule produced by a quantity surveyor which summarizes how the labour percentages proposed will be achieved, indicating specific sub-contracts/activities (and their expected labour portion), and indicating how these add up to the total contract value and the total labour percentage required to achieve this credit.

Part 1. Option B

Short report (1) (page limit: 3 pages) produced and signed off by a senior representative (management staff or project consultant) of the building owner/ developer that describes how the Credit Criteria have been met, including the following:

- Briefly describing the analysis, which was conducted to identify any construction activity, which could lead to a greater use of labour or increased employment levels.
- Listing the identified activities, with an estimation of how each activity generates additional labour above a 'baseline' of the person/man-hours which would have been required if the conventional construction method or originally planned activity would have been implemented.
- Identifying which of these activities will be implemented, and demonstrating that this constitutes at least 75% of the previously identified activities, and that the total labour cost of these implemented activities collectively form at least 1.5% of the Contract Value. (See Additional Guidance section for example of this.)
- For the above two points, a Calculator for this labour-intensive employment generation process (Option B) is provided in the online Socio-Economic Category Excel spreadsheet tool (see <http://www.gbcsa.org.za/rating-tools/green-star-sa-rating-system/>), and an extract of the completed calculator can be submitted to show which activities have been identified, which of them are to be implemented, what the collective outcome of this will be in terms of additional labour, and how this meets the requirement for the credit point.

Extract(s) from tender/contract documentation (2) to show how labour-intensive goals and methods are specified for the Design Team, and for the main construction contract and the various sub-contracts/activities that will fall under this. This is to include a schedule produced by a quantity surveyor, which summarizes the identified labour-intensive activities to be implemented and related employment levels.

Part 1. Option C

Extract(s) from contract/ tender documentation (3) to show that the SANS 1914-5:2002 is specified for compliance in the construction contract works, and to highlight any specified targets or 'Contract Participation Goal/s' set for this particular project.

Part 1. Option D

Extract(s) from contract/ tender documentation to show that the targeted employment groups of youth, women and persons with disabilities are collectively specified as a minimum proportion of 10% of total labour to be employed. The demographics of workers employed are to be disaggregated to show the proportions of those, which are to from the categories of Women, Youth and Persons with Disabilities.

SEC- 1 EMPLOYMENT CREATION (PILOT)AVAILABLE **2****Part 2**

Short report (5) (page limit: 5 pages) produced and signed off by a senior representative (management staff or project consultant) of the building owner/ developer that describes how the Credit Criteria have been met, including the following:

- Briefly describing the plan for how the facility will be used after practical completion, and how it will be implemented and operated over time, including the institutional arrangements for managing the occupants and maintaining the space;
- Submitting written commitment by the developer or the ultimate building owner that specifies the use of the allocated space for the intended purpose of 'sole proprietor' individuals or micro-enterprises for a minimum 3 year period. The space should be exclusively for their use rather than for larger, formal commercial enterprises e.g. a corporate canteen or a dry cleaning business.

Tender drawing(s) to show the space allocated for employment creation and economic opportunity for micro enterprises, demonstrating that it is a minimum of 50m².

FOR AS BUILT:**Part 1. Option A**

Short report (1) (page limit: 5 pages) by the main construction Contractor that describes how the Credit Criteria have been met, including the following:

- Briefly describing each construction activity implemented which lead to an increase in the use of labour on the project
- Include a schedule of expenditure on labour from the main contractor, giving calculations of this as a percentage of the total project cost.

Statement of confirmation (1) from a professional Quantity Surveyor (not the Main Contractor's Quantity Surveyor) to confirm that the short report reflects the project information accurately.

Part 1. Option B

Short report (2) (page limit: 5 pages) by the main construction Contractor that describes how the Credit Criteria have been met, including the following:

- Briefly describing the identified construction activities implemented which led to a greater use of labour.
- Listing the identified activities, with a schedule outlining how each activity generated additional labour above a 'baseline' of the person/man-hours which would have been needed if the conventional construction method or originally planned activity would have been implemented.
- Demonstrating that the implemented activities constitute at least 75% of the previously identified activities, and that the total labour cost of these implemented activities collectively form at least 1.5% of the total Contract Value.
- For the above two points, a Calculator for this labour-intensive employment generation process (Option B) is provided in the online Socio-Economic Category Excel spreadsheet tool (see <http://www.gbcsa.org.za/rating-tools/green-star-sa-rating-system/>), and an extract of the completed calculator can be submitted to show which activities were identified, which of them were implemented, what the collective outcome of this was in terms of additional labour, and how this meets the requirement for the credit point.

Statement of confirmation (2) from a professional Quantity Surveyor (not the Main Contractor's Quantity Surveyor) to confirm that the short report reflects the project information accurately

Part 1. Option C

Short report (3) (page limit: 4 pages) produced and signed off by a senior representative (management staff or project consultant) of the building owner/ developer that describes how the Credit Criteria have been met, including the following:

- Briefly describing how the project complied with the requirements of the SANS 1914-5:2002 standard during construction, by providing a summary of the reporting required at the end of the construction phase (i.e. a final summary of the reporting in Section 5), showing how the specific targets which were set for this particular project have been met. The detailed information about the individuals hired as targeted labour (as specified in Section 5.2) should be made available to the GBCSA Assessor on demand.

Statement of confirmation (3) from a professional Quantity Surveyor (not the Main Contractor's Quantity Surveyor) to confirm that the short report reflects the project information accurately

SEC- 1 EMPLOYMENT CREATION (PILOT)AVAILABLE **2****Part 1. Option D**

Short report (4) (page limit: 4 pages) produced and signed off by a senior representative (management staff or project consultant) of the building owner/ developer that describes how the Credit Criteria have been met, including the following:

- Briefly describing how the proportion of employment of targeted groups was met in terms of a percentage of labour cost remuneration.
- The demographics of workers employed are to be disaggregated to show the proportions of those, which were from the categories of Women, Youth and Persons with Disabilities.

Statement of confirmation (4) prepared and signed off by the Main Contractor to confirm that the short report reflects the employee demographic information accurately. Proof of the demographics of the people employed from the targeted categories should be made available on request.

Part 2

Short report (5) (page limit: 5 pages) produced and signed off by a senior representative (management staff or project consultant) of the building owner/ developer that describes how the Credit Criteria have been met, including the following:

- Briefly describing how the facility will be used after practical completion, and how it will be implemented and operated over time, including the institutional arrangements for managing the occupants and maintaining the space;
- Submitting written commitment by the developer or the ultimate building owner that specifies the use of the allocated space for the intended purpose of 'sole proprietor' individuals or micro-enterprises for a minimum 3 year period. The space should be exclusively for their use rather than for larger, formal commercial enterprises e.g. a corporate canteen or a dry cleaning business. Where available, agreements with individuals or micro enterprises set to occupy the space may be provided as an alternative.

As built drawing(s) to show the space allocated for employment creation and economic opportunity for micro enterprises, demonstrating that it is a minimum of 50m².

ADDITIONAL GUIDANCE

Part 1. Increase in employment levels and targeted employment during construction

The focus in this part of the credit is on the construction phase of the building, and particularly the low and semi-skilled worker categories, as this is where the greatest employment potential is to be found. The skills training and development credit (SEC 3) compliments and links to this credit, as it's essential for improving 'employability' and career development over time.

Increased employment in the design stage of the building was considered, but because it is an intensely human resource based activity as it is there is not much potential to increase the current levels of employment, compared with the construction stage where for example mechanised processes can be replaced with labour-intensive methodologies. However, the nature of employment in the design stage is addressed in other ways in SEC-3 Skills Development and Training, and SEC-5 Empowerment.

Option A and D

The labour cost calculation should include the following:

- All remuneration for the labour categories of unskilled, semi-skilled, skilled and artisans involved in the construction phase of the building, including the payroll values, wages, allowances, and training stipends for those getting practical skills training.
- The roles of Site Foreman from the construction team
- Labour employed by the main contractor as well as sub-contractor labour from the same categories as first bullet point above i.e. unskilled, semi-skilled, skilled and artisan
- "Foreign labour" i.e. those who are legally working in South Africa

The labour cost calculation should exclude:

- Remuneration or fees for built environment professionals (BEP) involved with design and consulting, and project management (the overall professional Project Manager for the project).
- The roles of the Contract Manager and Site Manager/ Supervisor

Note that the labour cost being considered here is exclusively for those directly involved in the construction works on the project site. It does not cover labour used in other aspects of the 'value chain' or 'supply chain' e.g. for extraction industries like mining and quarries, or for the manufacture and transport of the products and materials which are used in buildings (everything from cement, to electrical cables, to elevators, to flooring etc.).

Option A and B

It is acknowledged that the construction industry is labour intensive by nature, but employment potential can be maximised. The general intent is to create maximum meaningful employment by identifying and implementing labour-intensive design features and construction methods. An increase in the labour cost should be offset by a decrease in the plant and equipment cost.

Design decisions can incorporate features that require more labour-intensive construction activities. The choice of materials, choice of prefabrication of components or in-situ components and actual specifications related to design requirements can all have a substantial impact on the labour intensity of the resulting construction activities. Some examples are:

- Choice of building covering materials such as masonry covering in place of cladding;
- Using paving in place of asphaltting;
- Design of internal detail that uses more labour-intensive activities;
- Design of finishes that uses more labour-intensive activities;
- Specification of less prefabricated components and more on site construction of components;
- Design of roofing and choice of roofing materials;
- Design and choice of materials for ceilings; and
- Use of carpentry shuttering versus prefab or steel shuttering.

Construction methodologies can also be approached creatively, and by implementing construction activities in different ways it is possible to increase the use of labour as described in the following examples:

- Using labour to do activities such as landscaping, fencing, paving, trenching and digging foundations wherever appropriate;
- Constructing timber roof trusses on site in place of using prefabricated components;
- Construction of building components and materials on site such as concrete bricks, manhole covers and kerbing; and
- Using labour intensive construction methods for components such as finishes, brickwork and ceilings.

Further ideas can be found in the CIDB guide on labour-based methods as per Reference section below.

The employment created should be what is often referred to as 'meaningful' work and ideally be coupled with skills development to encourage sustainability of employment by individuals on other projects. To ensure that meaningful employment is achieved and that legislated applicable wages are paid, a compulsory component of this credit is that the main contractor must be registered with the relevant building bargaining council or industry employer organisation, and employees must be paid at least the minimum levels of the published wage rates as prescribed by the bargaining council for the skills and region. (The South African Labour Guide provides a list of relevant bargaining councils).

Option A

A smaller increase in labour cost is required for buildings that are more than two storeys high. Multi storey buildings typically require more equipment or machinery than single/two storey buildings to make construction feasible in this context, for example using cranes for transport of materials to point of work.

Option B

The following process is prescribed for projects that target this option for credit compliance:

- Each design team member, including the quantity surveyor, is to conduct an analysis at the design stage of the project to identify any construction activity, which could lead to a greater use of labour.
- List these activities in a schedule with an estimation of how each activity would generate additional labour above a 'baseline' of the person/man-hours which would have been required if the conventional construction method or originally planned activity would have been implemented.
- Implement at least 75% of the identified activities, such that the total labour cost of these implemented activities collectively form at least 1.5% of the total Contract Value.

A Calculator for this labour-intensive employment generation process (Option B) is provided in the online Socio-Economic Category Excel spreadsheet tool (see <http://www.gbcsa.org.za/rating-tools/green-star-sa-rating-system/>).

As an example, see the following calculation based on a possible (theoretical) scenario where there is implementation of 4 out of 5 identified methods to achieve higher than usual employment levels for a project.

SEC- 1 EMPLOYMENT CREATION (PILOT)

	Possible labour intensive methods identified for this project	Methods actually implemented	Additional labour cost % of total from each method above 'conventional baseline' case
1	<i>Masonry instead of cladding as a covering material</i>	1	0.4%
2	<i>Carpentry shuttering instead of steel shuttering</i>	1	0.3%
3	<i>Paving used instead of asphalt</i>	1	0.2%
4	<i>Labour-intensive brickwork</i>	1	0.7%
5	<i>Timber roof trusses constructed on site instead of prefabricated components</i>	0	0%

Total number of methods (to be) implemented:

4 of 5

Percentage of methods implemented:

80%

Total additional labour contribution (as a % of generated by all implemented methods:

1.6%

This meets the credit criteria (for Part 1, Option B), in that 80% exceeds the minimum 75% rate of implementation for identified methods, and the additional labour contribution of 1.6% of the total Contract Value exceeds the minimum of 1.5%.

Option C

This option is particularly relevant for those government construction projects where the SANS 1914-5:2002 standard applies.

There is no benchmark for achievement specified in the published SANS 1914-5 standard, but targets or 'contract participation goals' (CPG) are set for each individual project depending on its specific context. Compliance with the process methodology and reporting requirements specified, as well as attainment of the target or CPG if one is specified is considered to be achievement for the purposes of this credit.

SEC- 1 EMPLOYMENT CREATION (PILOT)

Note that any projects which are subject to specifications relating to the Expanded Public Works Programme (see 'Guidelines for the Implementation of Labour Intensive Infrastructure Projects under Expanded Public Works Programme' at:

http://www.epwp.gov.za/archives/technical_legalguidelines.pdf) will automatically also require compliance with SANS 1914-5 as the Expanded Public Works Programme (EPWP) Guidelines specify this standard as part of their requirements.

The intent of both of these key government-led standard or policy 'specifications' are certainly aligned with the employment creation intent of this credit.

Although EPWP targets have been specified for only a few building construction projects to date, there is a 2013 policy directive from the national Department of Public Works to include the implementation of EPWP on all construction and maintenance projects so this is set to increase. The SANS 1914-5 standard is also likely to be specified on an increasing number of projects.

Option D

The concept of targeted employment and preferential procurement has been well established in policy and practice in South Africa, and has been particularly driven by the public sector. The likes of the Preferential Procurement Policy Act (2000) and the Preferential Procurement Regulations (2001) established this, including the aim of contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of race, gender or disability and referred to as historically disadvantaged individuals (HDI). These have been translated into SANS standards, and the relevant specification for 'Engagement of Targeted Labour' provides for the setting of targeted labour participation and requires contractors to engage labour in accordance with the specified conditions.

The 2001 Preferential Procurement Regulations were replaced in 2011 with revised regulations which now provide preferences in terms of the B-BBEE contribution level. There are many parts of this Socio-Economic Category which do relate to the B-BBEE codes and scorecard system. However, the concept of targeted employment for priority groups is still considered to be important and is thus included as one of the options in this credit. It should also be noted that this Option D is not related to any preferential procurement system which applies particularly to public buildings (which may be using other standards, regulations or guidelines), but it is related to the outcome of targeted employment conducted by a project.

Now in the current context of 2013, the groups which appear to be a priority for targeted employment are: youth, women and disabled persons. This is informed by the likes of the priority needs expressed in the National Development Plan (2012) and the stipulations of the Expanded Public Works Programme (EPWP) implementation guidelines.

For the purposes of this credit, the 'youth' age category is defined as being 18-29 years of age. (This definition is as per the so-called youth wage subsidy Bill which was signed into law in December 2013 in the form of the 'Employment Tax Incentive Act No 26 of 2013'.)

SEC- 1 EMPLOYMENT CREATION (PILOT)AVAILABLE **2**

It is a measure that relates to the nature of who is employed, rather than to the quantity of people employed. The focus is on providing income-earning work opportunities for some of the most disadvantaged groups of people.

Part 2. Facility provided for micro-enterprise employment opportunities

The point allocated to the facility for employment creation applies where the finished project contains an internal or external space that is permanently allocated for the provision of employment creation through the facilitation of enterprise opportunities for micro enterprises and individuals. E.g. a market space for informal traders, or something like the foyer area of the Cape Town main Civic Centre building where kiosk space has been provided for local people operating in micro enterprises to sell refreshments on working (week) days. This space for this facility can be provided in the finished building, or on the Project Site area or on the pavement/ public area adjoining the site (with appropriate permissions). It should be positioned in a relevant place, which is conducive for good visibility or access, as the intention is that the micro enterprise should be able to thrive as a successful income-generator for the individuals stationed there.

Points are only be awarded where the facility provided is accompanied by a written commitment that specifies the use of the allocated space for the intended purpose of employment creation for a minimum of at least 3 years, and that it will be for the exclusive use of informal micro enterprises or 'sole proprietor' individuals which have a turnover of less than R1 million per annum (which is related to the South African Revenue Service qualification level for Turnover Tax).

BACKGROUND

Employment creation has a significant socio economic benefit and is a powerful tool in poverty alleviation. In the South African context it forms part of legislation and government policy to address unemployment and poverty alleviation.

This credit should be seen as closely related to the Skills Development and Training credit (SEC-3), as there is a commonly held view (amongst industry players and experts) that employment levels and 'employability' of people is inextricably linked to improved skills levels, and particularly practical work experience. Employment is considered to be a 'necessary' but not 'sufficient' condition in order to see progress with socio-economic development. Thus targeting SEC-3 is strongly recommended alongside this credit.

Measurement of employment in terms of 'number of jobs' or 'hours of work' is not incorporated due to the complexity of different activities and related employment required for each different project type and location which makes it practically impossible to establish a benchmark for this.

SEC- 1 EMPLOYMENT CREATION (PILOT)

The benchmarks for spending on labour used here have been determined based on:

- Current trends in a small sample of building construction cases in the public and private sectors,
- The experience of 20 industry representatives and experts consulted and
- Some research and calculations were conducted

Research (based on sources from 1996 - 2012⁹, updated to reflect 2013 values and appropriate proportions of civil and building works) indicates that a weighted average for labour component for conventional style building construction is about 25% for low rise buildings (up to 2 storeys), and the maximum possible estimate for labour intensity is about 42%. For high-rise buildings (3 or more storeys), the maximum labour intensity level is estimated as 32%.

There are two main implications from this research for Part 1, Option A:

- The differential between the labour component of low and high rise buildings is about 10%, which is significant and helps inform the current benchmark differential above.
- The current benchmarks could be set higher, and this will be tested during application of this Socio-Economic Category and may be increased over time.

Furthermore, movement from a current 'conventional' labour content average to the estimate for a 'labour intensity maximum' would entail an estimated increase labour intensity of 7% of the works value. Thus the achievement rate set in Part 1, Option B will also be tested in application and could still be increased over time.

A range of options for achievement are included, to accommodate a wide range of public and private sector projects and different project contexts.

Providing a space for micro-enterprise operation in the building (Part 2) can be seen to be creating economic opportunity (which is SEC 2), but it is included in this credit as the benefit is intended for individuals and very small micro-enterprises rather than the business or company level which is the main target for SEC 2. Many socio-economic issues are inter-linked, and the Green Star system does allow for 'overlap' and inter-linkages.

The minimum size of 50m² for the employment creation facility inside building size is not referenced on any existing standard, as research could not determine an existing benchmark. 50m² is deemed to be a "minimum practical size" in terms of being adequate for micro-enterprise activity of this nature.

The intended purpose for this allocated space is to provide an employment creation opportunity for a minimum 3 year period. This should include making this space affordable for 'sole proprietor' individuals or micro-enterprises (free or very low rental) and exclusively for

⁹ The research sources quoted by expert Vincent Oloo (2013) include the following: Stats SA1999 statistical data for the construction sector and its main sub-sectors; the SARB quarterly bulletin of Dec 1999 (p 1027); surveys of total employment and earnings from the Sept 1999 census brief; Havemann and Van Gaas (2001); Kokosi Ext 7 project master plan costing for a mixed income development (2012) from Gauteng Department of Local Government and Housing; and the 'Sustainable housing policy for the City of Johannesburg: Phase II implementation guidelines', and Final Report by Synconsult (2001) with data adapted from the National Economic Forum (NEF) Technical Focus Group (1994).

their use rather than for larger, formal commercial enterprises e.g. a corporate canteen or a dry-cleaning business.

REFERENCES & FURTHER INFORMATION

Broad-Based Black Economic Empowerment (BBBEE) Codes of Good Practice 2007. Published by the national Department of Trade and Industry.

http://www.thedti.gov.za/economic_empowerment/bee_codes.jsp

Construction Sector Charter (2009) – a sector Code of Good Practice for BBBEE. Published by the national Department of Trade and Industry.

<http://www.info.gov.za/view/DownloadFileAction?id=102535>

Construction Industry Development Board (CIDB), 2005 'Labour-based methods and technologies for employment intensive construction works - A CIDB guide to best practice'.

http://www.cidb.org.za/Documents/KC/cidb_Publications/Prac_Docs/other_prac_docs/prac_docs_labour_based_methods.pdf

Guidelines for the Implementation of Labour Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP).

http://www.epwp.gov.za/archives/technical_legalguidelines.pdf

Labour Relations Act No. 66 of 1995. Section 28 and 29 which explains the bargaining council's functions.

<https://www.labour.gov.za/legislation/acts/basic-guides/basic-guide-to-bargaining-councils>

SANS 1914-5:2002. Targeted Construction Procurement. Part 5 on Participation of Targeted Labour.

www.sabs.co.za

South African Labour Guide (2010), includes information on the different bargaining councils

www.labourguide.co.za/general/bargaining-councils-updated-april-2010-129

AIM OF CREDIT

To encourage and recognise the growth and development of small, micro and medium sized enterprises (SMMEs) through interventions in the design, construction and operational phases of a building, including procurement of goods and services and enterprise development support programmes.

CREDIT CRITERIA

Four points in total are available as follows:

Part 1 – Small and medium sized business development support.

Two points will be awarded for adherence to either of the following two intervention options

Option A – Enterprise development support for small and medium enterprises

- The value of enterprise development¹⁰ expenditure on small and medium sized enterprises¹¹ (SMEs) by the project exceeds a certain percentage of the total Contract Value plus Design Team costs as detailed in the *Table SEC-2.1* below.

Nature of enterprise development recipients	Enterprise development expenditure as a % of total Contract Value plus Design Team cost exceeds the following:
i) Black women-owned SME(s) (where more than 30% of an enterprise is owned by black women) OR	0.1%
ii) Black-owned SME (s) (where more than 50% of an enterprise is owned by black people) OR	0.15%
iii) Any combination of categories i) and ii) above OR	0.13%
iv) Any kind of SME with any combination of ownership regardless of race and gender	0.2%

Table SEC-2.1: Enterprise Development Categories

Note: Achievement of the specified minimum % (of enterprise development expenditure) related to any ONE of the corresponding options (i, ii, iii or iv) for SMEs in the above Table SEC-2.1 will qualify for the 2 points available for Part 1.

¹⁰ Enterprise development is defined in the Additional Guidance section, associated with the concept as expressed in the 'generic' BBBEE Codes of Practice (2007) and particularly in the Construction Charter Codes (2009), but as a project specific measure not for overall corporate/ organisational efforts.

¹¹ See definitions of small, medium and micro sized enterprises (SMEs and SMMEs) in the 'Additional Guidance' section below.

SEC- 2 ECONOMIC OPPORTUNITY (PILOT)AVAILABLE **4**

For projects of a total Contract Value above R200 million, the nature of Enterprise Development undertaken must meet the requirements of Code 2600 of the Construction Codes of Good Practice: 2000 – 2800 for BBBEE (2009) for Enterprise Development, except for one difference in that the recipients must be small and medium sized enterprises (SMEs), as detailed in Table SEC-2.2 in the Additional Guidance section.

For projects of a total Contract Value of less than R200 million, the type of Enterprise Development is at the discretion of the project (no compliance with any Codes is required), following the process outlined in the Additional Guidance section, and the recipients must be any SME companies as defined in Table SEC-2.2 in the additional guidance section.

For all projects, the measurement of the financial value of the contribution is as the Key Measurement Principles (section 3, page 66) of the 2007 BBBEE Code of Good Practice.

OR

Option B – Compliance with CIDB standard for enterprise development

- The project complies with the CIDB ‘Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts’ (Government Gazette No. 36190, dated 25 February 2013, or subsequent revisions or amendments, accessible at <http://www.cidb.org.za/knowledge/publications/standards/default.aspx>), in that it meets a minimum contract participation goal (CPG) of 5% of the total project value on selected contracts to be undertaken by joint-venture partners or to be sub-contracted to developing contractors that are also to be beneficiaries of enterprise development support from the main contractor.

Part 2 – Procurement

Two points are available for adherence to any two of the following three interventions:

Option A

- **Procurement during construction:** One point will be awarded where procurement of project-specific goods and services during the construction phase (including sub-contracting) constitutes either of the following:

Procurement from	Minimum value of the total Contract Value
Any SMME businesses	30%
SMMEs which are Black-owned or Black Women-owned (combined)	25%

Table SEC 2-2 – Thresholds for procurement from categories of SMMEs

See example of this in Additional Guidance. Definitions of SMMEs also included in Table SEC 2.3 in Additional Guidance.

OR

Option B

- **Local content:** One point is awarded where materials, products, services (including labour) that are produced or generated within the borders of South Africa exceed 70% of the total Contract Value. (See Additional Guidance section for more detail.)

Mechanical, electrical and plumbing components and specialty items such as elevators and equipment such as chillers are excluded from the calculation for this credit. (In line with other exiting Green Star SA tools. See Additional Guidance section for more detail.)

OR

Option C

- **Procurement during operations:** One point will be awarded where procurement of operational services from small, micro and medium size enterprises (SMMEs, as defined in Table SEC-2.3,) with any BEE Level achievement during the operational phase of the building exceeds 50% of the facilities maintenance and operational annual budget.

DOCUMENTATION REQUIREMENTS

Documentation requirements for small business development:

Green Star SA - Design	Green Star SA - As Built
Submit all the evidence and ensure it readily confirms compliance.	Submit all the evidence and ensure it readily confirms compliance.
<p>Part 1 – Small and medium sized business development</p> <p>Option A 1. Extract(s) from contract/ tender documentation (1)</p> <p>Option B 2. Extract(s) from contract/ tender documentation (2)</p> <p>Part 2 – Procurement</p> <p>Option A 3. Short report (3)</p> <p>Option B 4. Short report (4)</p> <p>Option C 5. Short report (5)</p>	<p>Part 1 – Small and medium sized business development</p> <p>Option A 1. Short report (1) 2. Statement of confirmation (1)</p> <p>Option B 3. Short report (2)</p> <p>Part 2 – Procurement</p> <p>Option A 4. Short report (3)</p> <p>Option B 5. Short report (4)</p> <p>Option C 6. Short report (5)</p>

Part 1. Option A

Extract(s) from contract/ tender documentation for the appointments of the main Contractor and for the Design Team (where applicable), indicating the relevant clauses requiring enterprise development support for SMEs and the nature of the SME recipients to be targeted (specifically in terms of race and gender), and demonstrating that in total this contracted commitment meets the quantum required for credit compliance (enterprise development expenditure measured as a percentage of the total of Contract Value plus Design Team costs).

Short report (1) (page limit: 10 pages) produced and signed off by a senior representative (management staff or project consultant) of the building owner/ developer that describes how Credit Criteria have been met, including:

- A table/list of what Enterprise Development has been conducted, with a breakdown of information on recipient enterprises and the enterprise development conducted as follows:
 - Name(s) of recipient SME(s)
 - Type(s) of Enterprise Development conducted
 - Type(s) of ownership of recipient SME(s), specifically percentage of black ownership and black woman ownership
 - Type(s) of proof for ownership submitted by recipient SME(s) e.g. a BEE certificate, shareholder's certificate, documents from the Companies and Intellectual Property Commission (CIPC), affidavits etc.
 - For projects above R200 million, confirmation (yes/no) that
 - A formal relationship exists with the recipient
 - A business needs analysis has been conducted and an agreed business development plan is in place
 - Targets (financial value) for Enterprise Development expenditure by main contractor or Design Team (whichever applicable) achieved,
- Calculation showing the enterprise development target achieved, proving credit compliance.

Statement of confirmation (1) from the senior manager who is responsible for BBBEE Scorecard results and reporting (the person with the role of 'Champion' as stipulated in the 2009 Construction Charter who is responsible for verification reporting), or in the case of organisations which do not use/ report on the BBBEE Scorecard then the senior manager who is responsible for enterprise development. The statement is an expression of confirmation of the accuracy of the nature of black and black women ownership of the supported enterprises which is in the above Short Report, based on the annually updated BBBEE certification, affidavits or other verification information from the SMEs which are in their possession and which can be made available to the GBCSA Assessor on request.

Part 1. Option B

Extract(s) from contract/ tender documentation (2) indicating the relevant clauses which show that the CIDB 'Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts' is specified for in the design and main construction contract/s. Highlight any specified targets or 'Contract Skills Development Goals' set for this particular project, and if they are different from those of the Standard.

Short report (2) (page limit: 10 pages) produced and signed off by a senior representative of the building owner/ developer (staff manager or consultant) that briefly describes how the Credit Criteria have been met, including the following:

- Annexing the final compliance report as per Section 3.3.2 and 3.3.3 of the Standard, and highlight the parts which show the value of the CPG achieved, and the breakdown of the procurement value from each of the targeted (recipient) enterprises.
- For ease of assessment, include a final calculation showing that the total procurement value from these targeted (black-owned) enterprises meets the goal of a minimum of 5% of the contract amount for the construction works, proving credit compliance.
- A statement of confirmation of the nature of black ownership of the targeted enterprises, which have received support, based on the affidavit statements from these enterprises which are in the possession of the project and which can be made available to the GBCSA Assessor on request. (The affidavits are as per the requirement of this CIDB Standard.)

Part 2 – Option A

Short report (3) (page limit: 10 pages) produced and signed off by a senior representative of the building owner/ developer (staff manager or consultant) that describes how the Credit Criteria have been met, including the following:

- A schedule/list of what SMME commitments are required (for Design rating submissions) or completed (for As Built rating submissions) with each contributing company including:
 - The make-up of the total contract value, indicating all SMME sub-contract values
 - The scope of goods/services provided by the SMMEs
 - The SMME ownership breakdown (for example, 30% black woman owned)
 - For As Built submissions: the name(s) of the SMME(s) and the type of proof for ownership for each SMME employed/ appointed (for example, BBBEE certificate, shareholder's certificate, CIPC document etc.), which should be made available on request by the GBCSA Assessor.
- Calculation showing the procurement during construction target aimed for (in Design) or achieved (in As Built) proving credit compliance.
- For Design rating submissions, provide extract(s) from contract/ tender documentation showing how the appointment of SMME service providers or procurement of goods through SMMEs is specified in the major contracts for Design Team, the main contractor and key sub-contractors.
- For As Built rating submissions, a statement of confirmation of the nature of black and black women ownership of the enterprises, which are to be employed in the operational phase, based on the submitted proof from these enterprises (affidavits, BBBEE or shareholder certificates etc.) which are in the possession of the project and can be made available on request.

Part 2 – Option B

Short report (4) (page limit: 10 pages) produced and signed off by a senior representative of the building owner/ developer (staff manager or consultant) that describes how the Credit Criteria have been met, including the following:

- A schedule/list of what local content commitments are required (for Design rating) or completed (for As Built rating) by each supplier/service provider including:
 - The make-up of the total contract value (excluding items such as elevators and chillers), indicating the local content values of all relevant sub-contract values
 - For As Built submissions: the name of the supplier/service provider of the local content.
 - For Design rating submissions, provide extract(s) from contract/ tender documentation showing how local content is specified in the major contracts for Design Team, the main contractor and key sub-contractors.
 - Calculation showing the procurement during construction target aimed for (in Design) or achieved (in As Built) proving credit compliance.
-

Part 2 – Option C

Short report (5) (page limit: 10 pages) produced and signed off by a senior representative of the building owner/ developer (staff manager or consultant) that describes how the Credit Criteria have been met, including the following:

- Annual operational budget for completed building estimated (for Design submissions) or budgeted for (for As Built submissions)
- A schedule/list provided by the building owner / manager of what SMME procurement commitments are required (for Design) or actually committed (for As Built) including:
 - The breakdown of the total contract value, indicating all SMME contract values
 - The scope of goods/services to be provided by SMMEs
 - For As Built submissions: names of SMMEs contracted or committed, the nature of their service, and where contracts are already in place this should be stated (confirming that they are for a minimum duration of 3 years, subject to satisfactory performance), and such contracts should be made available to the GBCSA Assessor on request.
- Calculation showing the procurement during construction target aimed for (in Design) or achieved (in As Built) proving credit compliance.

ADDITIONAL GUIDANCE

For Part 1 Option A as well as Part 2 Option A and Option C

Table of definitions of Small, Medium and Micro Enterprises

SIZE OF ENTERPRISE:	For Part 1 - Option A and Part 2 - Option B		For Part 2 - Option C	
	ANNUAL TURNOVER (MILLION RANDES) for Contractors/ Construction-related enterprises	ANNUAL TURNOVER (MILLION RANDES) for Built Environment Professionals (BEPs)	ANNUAL TURNOVER (MILLION RANDES) for other enterprises	PERMANENT EMPLOYEES LESS THAN
Medium	35.1 to 87	11.5 to 52	13.1 to 50	200
Small	5.1 to 35	1.6 to 11.5	1.1 to 13	50
Micro	0 to 5	0 to 1.5	0 to 1	5

Table SEC-2.3: SMME thresholds as they apply for different parts of this credit.

Note: Different values apply for three different parts of the credit which are aimed at SMEs or SMMEs, because different types of enterprises are the intended beneficiaries for these different parts e.g. an emerging construction contractor has a different kind of turnover from a small architecture firm or from a small cleaning service for the operation of a building. See the column headings for which values apply for which parts of the credit

These values have been determined as best as possible, in the absence of updated definitions of SMMEs from the DTI, for this range of 'recipient' enterprise. See Background for more on this. If projects can justify or explain why they would like to provide enterprise development support to, or procure goods and services from, any SME or SMME enterprise (whichever applies) which has a turnover of more or less than what appears in this table, or which does not fit well within the above categories, then this will be considered. The PILOT phase of the Socio-Economic Category is intended to test these kinds of definitions across a range of project applications, and to make improvements where required.

As various related and reference thresholds from sources such as the generic BBEE Codes and sector charters (e.g. Construction and Property), DTI, and SARS are updated, then the figures in the above table will be updated accordingly in future versions of this credit.

Part 1 – Small business development:**Option A – Enterprise development support**

Enterprise Development (ED) is the support interventions that are provided to a developing business or businesses to assist in growing the capacity of the beneficiary business, as it relates to the enterprises involved with this particular project.

This is aligned with the intent and practice of the Code Series 600 section on ‘Enterprise Development’ in the 2007 BBEE Codes of Good Practice, and in particular with the Code Series 2600 in the 2009 Construction Charter Code of Good Practice related to this, in so far as the nature and measurement of what qualifies as a enterprise development contribution. However, the ED contributions which qualify for the purposes of this credit are those which are linked to the project specifically (and not to annual or on-going corporate ED programmes of the players involved) and the definition of recipients for Option A is different from the BBEE Codes of Practice as it has a broader set of SME target beneficiaries (see Table SEC -2.1).

In terms of **verification for the black and women ownership** of the enterprises being supported, the same verification system that is outlined in the 2009 Construction Codes of Practice will apply for projects above R200 million in value. See below on the role of the senior level ‘Champion for Enterprise Development’ appointed within the company to monitor progress and provide proof for submission to a verification agent. For those projects of below R200 million value, the requirement is that if official BBEE certification is not provided, then some form of proof of ownership should be provided (e.g. shareholding certificate) or at minimum a simple affidavit statement from the enterprise stating the nature of their ownership. This documentation is to be collected by the organisations responsible for the enterprise development implementation, and to be made available to the GBCSA Assessor on request.

Enterprise development expenditure is measured as a percentage of the total Contract Value plus Design Team costs. Enterprise development can and should be undertaken by the Design Team and /or the main Contractor. The total expenditure on enterprise development by each role player is added together to achieve minimum enterprise development expenditure as per *Table SEC-2.1*.

The measurement of the financial value of enterprise development activities is as per the Key Measurement Principles (section 3, page 66) of the 2007 BBEE Code of Good Practice e.g. the cost of the training or mentorship provided is measurable by quantifying the cost of the time (excluding travel time) spent by staff or management in carrying out such activities.

Note: Enterprise development efforts, activities and expenditure on the project contribute to company enterprise development contributions for company BBEE Code scorecard measurement which can offset the cost of this credit, if the target beneficiary is a black-owned company as defined in the relevant scorecard.

Rationale for different requirements for projects valued above and below R200 million

Larger companies and projects typically have greater resources available for formally structured enterprise development programmes, such as what is specified in the 2009 Construction Codes of Good Practice. For the purposes of Green Star SA, smaller companies or projects, which generally have lower capacity, are not expected to manage such comprehensive programmes. Smaller programmes tend to be an insufficient size of investment to warrant the efforts required for the process of a formal programme.

Projects above a total contract value of R200 million

For these larger projects, enterprise development expenditure must be used to implement an enterprise development programme that meets the requirements of Code 2600 of the Construction Codes of Good Practice: 2000 – 2800 for BBEE (2009), with the only differences being that

- The recipients must be SMEs and
- Support in only 2 development areas is required (not 3 as stipulated in the Construction Code 2600, as limited project duration may not allow for more than this).

Clauses 2, 3, and 6 of Code 2600 contain the relevant requirements, which are summarised as follows:

Pre-requisites for the enterprise development relationship

- Existing relationship in place
- Maximum equity holding of 20% in the beneficiary company

Recipients must be legal entities, employing at least 3 people. Note that while the Codes stipulate that the entity must be 50% or more black owned or 30% or more black women owned, this is not a pre-requisite for this Credit. Instead, achievement is more broadly structured according to the above Table SEC-2.1: Enterprise Development Categories.

Requirements for the programme

- Conduct a Needs Analysis
- Generate a programme with milestones and at least two areas of development from the following non-exhaustive list:
 - Management and labour skills transfer
 - Establishment of administrative systems and/or cost control systems
 - Planning, tendering and programming skills transfer
 - Business skills transfer with emphasis on entrepreneurial and negotiation skills
 - Technical skills transfer with emphasis on innovation
 - Legal compliance
 - Procurement skills transfer
 - Establish credit rating/ history and financial loan capacity/ history
 - Contractual knowledge transfer
- Schedule of activities to address the identified development areas, with at least three areas addressed per recipient in the measurement period
- Resources allocated
- Champion for Enterprise Development appointed from senior management level, to monitor progress and proof for submission to a verification agent

The focus of the enterprise development expenditure is the implementation of a formal enterprise development programme as specified by the 2009 Construction Charter Codes of

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Good Practice. Therefore a minimum of 80% of the expenditure on enterprise development must be spent within a structured, formal programme.

A maximum of 20% of the total Enterprise Development expenditure may be used for any of the following interventions which are a non-exhaustive list of other kinds of Enterprise Development activities selected from the generic (not Construction Charter) Code 600 of the BBBEE Codes of Good Practice (2007), many of which involve financial support:

- Grant conditions to beneficiary entities (enterprise development recipient businesses);
- Investments in beneficiary entities;
- Loans made to beneficiary entities;
- Guarantees given or security provided on behalf of beneficiaries;
- Provision of preferential credit facilities to beneficiary entities, for example:
 - Provision of finance to beneficiary entities at lower than commercial rates of interest;
 - Relaxed security requirements or absence of security requirements for beneficiary entities unable to provide security for loans; and
 - Settlement of accounts with beneficiary entities over a shorter period of time in relation to the normal payment period, provided the shorter period is no longer than 10 days;
- Facilitating access to credit for beneficiary entities without access to similar credit facilities through traditional means owing to a lack of credit history, high-risk or lack of collateral;
- Direct costs incurred in assisting and hastening development of beneficiary entities;
- Overhead costs directly attributable to enterprise development contributions;
- Enterprise development or developmental capital advanced to beneficiary entities;
- Preferential credit terms granted to beneficiary entities;
- Preferential terms granted in respect of supply of goods or services to beneficiary entities;
- Contributions made to settling service costs relating to the operational or financial capacity of efficiency levels of beneficiary entities;
- Payments made to third parties to perform enterprise development on the benefactor's behalf;
- Discounts given to beneficiary entities in relation to the acquisition and maintenance costs associated with the grant to those beneficiary entities of franchise, licence, agency, distribution or other similar business rights;
- The creation or development of capacity and expertise for beneficiary entities needed to manufacture or produce goods or services previously not manufactured, produced or provided in the Republic of South Africa;
- Provision of training or mentoring to beneficiary entities which will assist the beneficiary entities to increase their operational or financial capacity.

For projects above a threshold Contract Value of R200 million the following guidelines from Code 2600 apply when calculating the value of enterprise development expenditure on SMEs:

- The recipients of all enterprise development contributions would be subcontractors or suppliers to the project;
- The recipients of all enterprise development programmes need to:
 - Be a legal entity compliant with the SA Revenue Services requirements;
 - Be an employer of at least 3 permanently employed personnel, not merely a one-person operation with temporary employees.

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- Enterprise development recipients must be a minimum of 50% black owned or 30% black women owned, however, this requirement is superseded by the thresholds provided in *Table SEC-2.1* of this credit and is therefore not applicable as a requirement for this credit.
- The enterprise development relationships would contain the pre-requisites described in clause 2 of Code 2600;
- The enterprise development programme would also need meet the requirements of clause 3 of Code 2600, relating to conducting a well thought out and managed programme based on a needs analysis, and the kinds of activities/ interventions which qualify (of which only 2 areas of support are needed).

Projects below a total contract value of R200 million

For smaller projects with a Contract Value of less than R200 million, points are awarded where the following process is adopted and implemented:

- A scoping exercise of the value chain of the project is undertaken to identify opportunities where any kind of SMEs (defined in *Table SEC-2.2*) can be developed. It does not have to be construction-related skills, but can also be general business or financial management skills. The aim would be to develop small enterprises to be able to take up procurement opportunities. E.g. Owner-driver scheme set up in construction period for truck drivers to supply services to the completed building such as maintenance supplies or waste removal.
- One or more of the above identified opportunities is selected and a capacity building / enterprise development programme is implemented with an identified SME. The nature of small business development interventions is at the discretion of the project. They can take any format, and can build on an existing programme.
- An enterprise development or capacity building programme is provided and the expenditure on this programme exceeds the percentage of the total project value provided in *Table SEC-2.1*.
- No formal planning and reporting processes are required for the enterprise development programme. No formal agreements with beneficiaries are required, and no equity holding conditions apply.

Additional possible support for enterprise survival and development

In order to promote the on-going survival and development of small and medium sized enterprises, there are other interventions related to the conditions of contract, which are encouraged (*but not mandatory for the purposes of this credit*) such as prompt payment and performance reporting. For more information about these kind of interventions, see the CIDB's 'Subcontracting in the South African Construction Industry: Opportunities for Development' (2013).

Small Business Development. For the purpose of this credit, the focus is specifically on the development of small businesses, which are essential generators of employment. In some parts of the credit SMEs are targeted, and in other parts SMMEs are targeted. See the above **Table SEC 2-3** for the definitions of different sizes of enterprise, which apply for this and other parts of the credit.

Option B - Compliance with CIDB standard for enterprise development

This option is particularly relevant for those government projects, which stipulate compliance to this CIDB standard for the project. It is linked to the concept and practice of 'enterprise development', as expressed in the BBEE Codes of Good Practice.

In terms of **verification for the black and women ownership** of the enterprises being supported, the same verification system that is outlined in the CIDB 'Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts' (gazetted on 29 January 2013) will apply. Formal formal verification from an accredited verification agent is not stipulated. Affidavit statements from the targeted enterprises state the nature of their ownership. These affidavits are to be collected by the project, and made available on request. A letter of confirmation from a senior manager is included as a documentation requirement.

Part 2 – Procurement

Option A - Procurement during construction

An SMME business is defined as a small, micro or medium sized business as detailed in *Table Sec-2.3*. The intention is to promote procurement from small and medium businesses in the construction industry.

This excludes the employment/ appointment of SMMEs in other parts of the 'value chain' or 'supply chain' leading up to or following the construction phase e.g. for extraction industries like mining and quarries, or for the manufacture and transport of the products and materials which are used in buildings (everything from cement, to electrical cables, to elevators, to flooring etc.).

A black-owned business is defined as a business with a black ownership of more than 50% and black women-owned business is defined as a business with a black women ownership of more than 30%. In terms of **verification for the black and women ownership** of the enterprises being supported, formal verification from an accredited verification agent is not required as small businesses are often not set up for this. If some form of official BBEE certification is not available from the SMME, then a simple affidavit statement on the nature of their ownership will suffice, or other proof such as a shareholding certificate. These documents affidavits are to be collected by the project, and made available on request. A letter of confirmation from a senior manager is included as a documentation requirement.

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Procurement during construction (for Option A) is defined as the purchase of goods (materials and products) and services (that include labour) that are specific to the construction of the project and therefore includes procurement from subcontractors, professional services and labour brokers who supply labour for the construction of the green building. The total procurement from all these companies is measured during the construction phase and totaled. This total is divided by the Contract Value to determine if the threshold percentage is achieved.

Part 2. Option A

Example of a national project which has a Contract Value of R150 million, where the benchmark can be exceeded through two different methods.

One method:

ELEMENT	RAND VALUE	% OF TOTAL CONTRACT VALUE
Total Contract Value	R250,000,000	100%
i) Procurement value from Black-owned SMMEs during construction	R55,000,000	22%
ii) Procurement value from Black Women-owned SMMEs during construction	R15,000,000	6%
Total procurement value from Black-owned and Black Women-owned SMMEs during construction – a combination of i) plus ii) above.	R70,000,000	28%

Therefore the procurement of targeted SMMEs exceeds the minimum value of 25% for these combined categories of SMME, as 28% exceeds the minimum of 25% for Black-owned or Black Women-owned SMMEs.

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OR an alternative method:

ELEMENT	RAND VALUE	% OF TOTAL CONTRACT VALUE
Total Contract Value	R250,000,000	100%
Procurement of SMMEs which are not Black-owned or Black-women owned	R87,500,000	35%

Therefore the procurement of targeted SMMEs exceeds the minimum value of 30% for this category of SMME, as 35% exceeds the minimum of 30% for any SMME.

Option B - Local Content

The objective is to promote the procurement of materials, products and services (including labour) which are designed, developed, produced or generated in South Africa to support development of the local economy and employment, and stimulate the development of local supply of content in building projects. The minimum percentage target is measured as a percentage of the total Contract Value to construct the building, excluding Fittings, Fixtures and Equipment (FF&E) as this SEC will apply to base building tools where FF&E is normally the responsibility of the tenant not the developer.

Local content is defined as follows:

- Materials and products that were extracted, harvested, processed and manufactured within the borders of South Africa and are permanently installed on the project site.
- Services, including unskilled, semi-skilled and skilled labour costs and qualified professionals, where such service providers or labourers are South African citizens, or have valid work or residency permits if they are from other countries.
- The value of local content excludes shipping costs into South Africa, equipment for installation (i.e. tools and plant such as drills and scaffolding which are used on multiple projects) as well as contingencies.

In cases where some materials or component parts of a product are imported and assembled in South Africa, the materials and labour from South Africa (including installation costs on site, contractors' fees and transport) must make up at least 40% of the product value. This threshold for local 'value added' in manufacturing has been set to prevent claims for imported materials and products with only nominal 'value add' in South Africa.

The definition of Local Content for this Socio-Economic Category has adopted certain principles from the Mat-11 credit, but it targets employment creation as opposed to carbon efficiency and includes services and labour components as well.

The Design Team should undertake an exercise to determine how the amount of foreign content required in the project can be reduced. This can be achieved by using design decisions that maximize South African content and sourcing previously imported goods and services.

Notwithstanding the above intention to seek opportunities for local content wherever possible, and recognizing the national/ government drive to promote the beneficiation of raw materials, the following mechanical, electrical and specialty items are currently excluded from the cost of the Total Contract Value for the calculation for this credit, because in most cases these are still not produced in South Africa:

- Lifts and escalators
- Generators
- Chillers
- Any other product type which the project can motivate are not locally available

If projects can demonstrate that they have supported increased levels of local production, then this could be considered for submission as an innovation point. For example, if a project can show it procured an escalator locally (which is now manufactured locally according to the above definition) instead of procuring the escalator from overseas where it normally comes from, then the project could target an innovation point. (Note that award of innovation points are not guaranteed, but are assessed on merit on a case-by-case basis).

Option C - Procurement during operations

The intended outcome is to provide economic opportunities for SMMEs during the operational phase of the building. SMME procurement could include maintenance, cleaning or waste removal, security, catering or other related operational services. SMMEs are defined in Table SEC-2.2.

The minimum duration for contract periods for the SMMEs should be 3 years, contingent on satisfactory performance.

The operational budget is whatever the landlord/ property owner is responsible for in terms of maintaining and operating the building. They may vary somewhat, depending on the nature of the building ownership and management, but it should include all areas of operating a building such as: maintenance, cleaning or waste removal and security.

BACKGROUND

Part 1. Option A. Small business development

The methodology to establish the benchmarks in *Table Sec-2.1* took into consideration the (generic) 2007 BBBEE Codes of Good Practice, specifically Code 600 which defines the compliance target of 3% of Net Profit After Tax (NPAT) as the target for Enterprise Development contributions. The Code has two types of target beneficiaries. Category A are enterprises with an annual turnover of below R35 million which are 50% black owned or 30% black women owned. This is the only category that is relevant as 100% of the Enterprise Development contributions are computed in this category.

Therefore:

$$\frac{\text{Enterprise Development contribution}}{\text{Net Profit After Tax}} = 3\%$$

Assuming a profit margin of 3% (as determined with some contractors in October 2012),

$$\frac{\text{Enterprise Development contribution}}{\text{Project Value}} = 0.09\%$$

Therefore a benchmark of 0.1% of project value was established for the first category of enterprise development beneficiary (black women-owned businesses) and 0.5% increments utilized thereafter (for black-owned businesses, and then any small business).

All expenditure on Enterprise Development can be claimed for company BBBEE scorecard rating purposes. This expenditure would be claimed by the company that incurred the expense whether it be the developer, the Design Team of the main Contractor.

Part 1. Option B - Compliance with CIDB standard for enterprise development

This option is particularly relevant for those government projects which stipulate compliance to this CIDB standard for the project. It links to the concept and practice of 'enterprise development' as expressed in the BBBEE Codes of Good Practice.

This CIDB standard for enterprise development currently applies to the main contractor in the construction phase of the building, and not for the built environment professionals (BEPs) involved in the project (which are included for some other CIDB standards, such as for skills development).

However, if the Standard is extended to include the BEP services of a project (Design Team professionals in Green Star SA terminology), or if a separate standard for them is produced in this regard, then these are likely to be included in future versions of the Socio-Economic Category.

Part 2. Option A - Procurement during construction

In deciding which groups to target for small business procurement, there was due consideration given to targeting small businesses from the local communities in close geographical proximity to the project. The common practice in the industry is to define the local community differently for each project depending on project location and requirements and the capacity of the local communities. This was not possible to define in a common way for all building projects that may use this rating tool. Therefore, it was decided that small business generally would be the target groups for economic opportunity through procurement, with preference given to black-owned, and black women-owned businesses.

Part 2. Option B – Local Content

The threshold for local content of what typically occurs on projects in South Africa was established through contributions from the Technical Working Group and an expert Peer Review panel.

Part 2. Option C - Procurement during operations

The threshold for procurement during the operational phase of the building was established from the values being achieved by a few current public and private sector owned and managed buildings during 2012.

Definitions of SME and SMME in Part 1-Option A, Part 2-Option A and Part 2-Option C

There do not appear to be any directly relevant, 'tailor-made' and updated figures to define small, medium and micro sized enterprises (called SMMEs) for the range of recipient enterprises to fit different parts of this credit. The original SMME definitions provided by the National Small Business Act of 1996 have unfortunately not been updated by the DTI since then. They were also meant for all kinds of small businesses rather than for any particular industry or type of activity e.g. construction materials or building operation and maintenance services.

The 2007 draft of the Construction Charter BBBEE Codes included definitions for SMMEs, which was useful, and these can be updated using Consumer-Price Index (CPI) methods.

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However, the current 2009 Construction Charter BBBEE Codes version superseded the 2007 version, and the terms which are used for 'Exempted Micro Enterprises' (EMEs) and 'Qualifying Small Enterprises' (QSEs) typically relate to what is required from small and micro enterprises in terms of them being **implementers** of the codes and scorecard reporting (what they don't have to do or what they can do differently), rather than as **beneficiaries** - which is what we are looking for here. For example, the beneficiaries of enterprise development are defined by race and other qualifications, but not by size of the enterprise. Furthermore, there does not appear to be any definition for medium sized enterprises in the 2009 Construction Charter BBBEE Codes.

The figures in **Table SEC-2.3** have thus been updated as best as possible, given the absence of clearer guidance. A range of source references have been considered including:

- CPI-related updates of the annual turnover thresholds provided in the DTI SMME definitions from 1996;
- The current SARS Turnover Tax threshold;
- Alignment with the existing 2009 Construction Charter BBBEE Codes of Good Practice, particularly turnover definitions for EME and QSE, even though they might not be directly relevant
- The previous 2007 version of the Construction Charter with CPI-related updates of thresholds, particularly for the medium sized category
- The thresholds contained in the proposed amendment to the 'generic' BBBEE Codes of Good Practice which are to be finalised shortly, but will take time to be adapted for use in various sector charters (e.g. QSE is proposed with a R50 million annual turnover).

As and when these sets of figures are updated in future, then they be considered, and future versions of this Socio-Economic Category will also be updated accordingly.

It's worth highlighting again that if projects can justify or explain why they would like to provide enterprise development support to, or procure goods and services from, any SME or SMME enterprise (whichever applies) which has a turnover of more or less than what appears in this table, or which does not fit well within the above categories, then this will be considered. The PILOT phase of the Socio-Economic Category is intended to test these kinds of definitions across a range of project applications, and to make improvements where required.

REFERENCES & FURTHER INFORMATION

CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts (2013).

If the latest version gazetted in January 2013 is not on the CIDB website, then it can be found at: http://www.exclaim.co.za/fileadmin/Issue_No.1_of_2013/Document%205.pdf

The 2012 final draft (just before being gazetted) is available at:

http://www.cidb.org.za/Documents/KC/cidb_Publications/Best_prac_scheme/Framework_for_Indirect_Targeting_2012_02_22.pdf

CIDB (2013) 'Subcontracting in the South African Construction Industry: Opportunities for Development'.

http://www.cidb.org.za/Documents/KC/cidb_Publications/Ind_Reps_Other/ind_reps_Subcontracting_in_the_SA_Construction_Industry.pdf

Department of Trade & Industry (2007) (Generic) BBBEE Codes of Good Practice. In particular Code 100 and Code 600.

http://www.thedti.gov.za/economic_empowerment/bee_codes.jsp

Department of Trade & Industry (2009) Construction Charter BBBEE Codes of Good Practice. In particular Code 2600 of the Construction Charter Codes 2000 – 2800

http://www.thedti.gov.za/economic_empowerment/bee_sector_charters.jsp

National Small Business Act (1996), which falls under Department of Trade and Industry.

www.info.gov.za/acts/1996/a102-96.pdf

Department of Trade & Industry (2012) Revised BBBEE Codes of Good Practice and B-BBEE Technical Assistance Guidelines (TAG).

http://www.thedti.gov.za/economic_empowerment/bee_codes.jsp, and
<http://www.polity.org.za/article/revised-broad-based-black-economic-empowerment-bbbee-codes-of-good-practice-and-b-bbee-technical-assistance-guidelines-the-tag-gazette-no-35754-notice-800-2012-10-05>

AIM OF CREDIT

To encourage and reward the skills development, training and provision of practical work experience opportunities for people employed in the categories of unskilled, semi-skilled, skilled, supervisory, technical and Design Team graduates who are part of the design and construction project.

CREDIT CRITERIA

Up to three points are awarded for:

Option A – Cost of skills development and training as a proportion of total employment

- Expenditure on practical skills development and training during the project period exceeds a certain percentage of the total project employment payroll as detailed in Table 1, and the outcomes of the expenditure and skills development initiatives are demonstrated.

Table 1: Thresholds for skills development expenditure

Applicable percentage to be exceeded	Related point allocation
Over 2%	1 point
Over 2.5%	2 points
Over 3%	3 points.

OR

Three points are awarded for:

Option B – Compliance with CIDB standard for developing skills

- The project complies with the CIDB 'Standard for Developing Skills Through Infrastructure Contracts (May 2013 final version, set to be gazetted by September 2013, can be found at: http://www.cidb.org.za/Documents/Corp/SF_Task_Team_Feedback_Skills_2013.pdf), in that it meets a specified Contract Skills Development Goal (CSDG) by providing different types of workplace opportunities (including mentorship) for occupational and professional learning and skills development over the project period which leads to recognised qualifications.

SEC- 3 SKILLS DEVELOPMENT & TRAINING (PILOT)

AVAILABLE

3

See the Standard for exact specifications, which apply depending on the nature of the design, engineering and/or construction works, involved, but as they relate to the typical design and construction of green buildings (and particularly those being built by government):

- The CSDG for professional services contracts related to the design phase of the building (Design Team) is expressed in hours, and shall be not less than the professional fees in millions of Rands multiplied by 150.
- The CSDG relating to the construction phase of the building is skills development expenditure to the value of 0.5% of the contract works, where the value of the skills development is measured according to a set of notional costs for numbers of hours or 'head count' of skills development opportunities provided in the Standard (Table 3, page 7), and at least 67% of those being developed are 'unemployed learners'.

Green Star SA – Design	Green Star SA – As Built
Submit all the evidence and ensure it readily confirms compliance.	Submit all the evidence and ensure it readily confirms compliance.
Option A 1. Short report (1) 2. Extract(s) from tender documentation (1) 3. Statement of confirmation (1) Option B 4. Short report (2) 5. Extracts from tender documentation (2) 6. Statement of confirmation (2)	Option A 1. Short report (1) 2. Statement of confirmation (1) Option B 3. Short report (2) 4. Statement of confirmation (2)

DOCUMENTATION REQUIREMENTS

Option A

Short Report (Page limit: 7 pages) produced and signed off by a senior representative (management staff or project consultant) of the building owner/ developer that describes how the Credit Criteria have been met by:

- Briefly outlining the structured skills development which is planned (for Design rating submissions) or completed (for As Built rating submissions) for the overall project.
 - Provide a calculator extract from the Skills Development Expenditure Calculator which is provided in the online Socio-Economic Category Excel spreadsheet tool (see <http://www.gbcsa.org.za/rating-tools/green-star-sa-rating-system/>), showing what values have been entered and the output results for what is planned and committed to (for Design) or actually implemented in the completed project (for As Built). This includes a breakdown of:
 - The payroll value contributions from the developer, the Design Team and the main construction contractor (including for sub-contractors under them) making up the 'total project employment payroll' and
 - The different types of structured skills development and training which was conducted by the developer, the Design Team and the main construction contractor (and sub-contractors under them where relevant) showing the calculation that indicates how the target is achieved. It should also demonstrate that a minimum of 75% of the expenditure is on skills development and providing practical workplace learning opportunities, and that a maximum of 30% is for the time cost of mentoring.
 - For As Built submissions, a schedule must be provided which lists the names of the developed/trained employees per company, along with their corresponding skills development and workplace learning outcomes, showing their status at the start of the project and at the end of the project.
-

Extract(s) from tender documentation indicating the relevant tender clauses requiring the nature and quantum of skills development and training expenditure by the Design Team and the main construction contractor (for their own employees and for any sub-contractors employees) to meet a stipulated percentage of payroll value.

Note that where companies are not hired through a tender process, then the equivalent clauses in the relevant Terms of Reference, Scope of Work or appointment contracts should be submitted. This applies to any tender documentation requirement for this entire credit.

Statement of confirmation which must be signed off by senior representatives of the developer, the Design Team and the main construction contractor, confirming that the skills development expenditure and payroll values which they are responsible for is correctly reflected in the Short Report.

Option B. Compliance with CIDB Skills Development standard

Short report (2) (Page limit: 7 pages) produced and signed off by the building owner/ developer's senior representative (staff or project consultant) that describes how Credit Criteria have been met by describing:

- The commitments in place with (for Design rating submissions) or achieved by (for As Built rating submissions) each company including:
 - Targets for skills development expenditure by Design Team and / or main contractor (whichever applicable) aimed for (for Design rating) or achieved (for As Built rating).
 - Annexing the 'Workplace Training Plan' (for As Built rating) or the 'Final contract compliance training report' specified in the Standard in section 4 (page 9). On completion of the project (for As Built rating) the records related to all workplace training, mentorship and training programmes (including signed off reports of hours worked, log books, contracts with service providers etc.) are to be made available on request for verification for assessment purposes.
 - Calculation showing how the Contract Goal for Skills Development is aimed for (in Design rating) or achieved (in As Built rating) proving credit compliance.
-

Extracts from tender documentation (1) to show that the CIDB 'Standard for Developing Skills Through Infrastructure Contracts' (2013, or subsequent gazetted version) is specified for the design and main construction contract/s. Highlight any specified targets or 'Contract Skills Development Goals' set for this particular project, and if they are different from those in Table 2 of the Standard.

Statement of confirmation which must be signed off by senior representatives of the developer, the built environment companies involved in the design, and the main construction contractor, confirming that the information in the Short Report for the parts which they are responsible for is correctly reflected.

ADDITIONAL GUIDANCE

Option A

The value of the ‘total project employment payroll’ should include all remuneration in the form of wages and salaries paid to all employees involved in the project, for their work directly related to the project, and consultants’ fees for time spent working on the project. This includes the payroll values for the developer, the Design Team, the main construction contractor and sub-contractors working under the main contractor. (In some cases, such as for built environment professionals, people will only work directly on the project for a portion of their time).

It should exclude:

- Payroll costs that were not directly associated with the project, such as annual performance bonuses or pension allowances.
 - Stipends for learners being trained, and remuneration for learners who are productively used on the project and where this work experience counts towards a recognised qualification. These are to be included as skills development and training expenditure. (This principle aligns with the term ‘Leviable Amount’ in the 2009 Construction Charter B-BBEE Codes, which relates to the original definition in the Skills Development Levy Act of 1999.)
-

The skills development and training expenditure will apply to the development, design and construction phases of the project and to the key role players across the full project period, as follows:

- The developer’s expenditure to be included.
- The Design Team (built environment professionals) expenditure to be included.
- The main construction Contractor’s expenditure to be included.
- Skills development and training for the employees of construction Sub-Contractors is optional on this credit, and may be included as qualifying expenditure where projects choose to include this.

The combined average of the expenditure should be above the applicable percentage of the total employment payroll value. (Where one or more of the three different sets of players does not individually meet the target, if another player exceeds the target then the target can be reached collectively.)

A Skills Development Expenditure Calculator is provided in the online Socio-Economic Category Excel spreadsheet tool (see <http://www.gbcsa.org.za/rating-tools/green-star-sa-rating-system/>), and this provides a framework for the calculation of the combined average of the expenditure from the key role players from each phase of the project, as well as for the payroll value, and for the ultimate calculation required for proving credit compliance.

Compliance with the following parameters is compulsory for qualification of the award of points for this credit.

- All skills development, experiential learning and training to be conducted in a 'structured' way, meaning that it is planned for, reported on, and that it leads towards officially recognized qualifications. (This is as per the general intension and requirements of legislation and policies such as the 1998 Skills Development Act and 2007 'Generic' B-BBEE Codes of Practice and the later 2009 Construction and Property industry Charters.)
 - Only the expenditure on training and mentoring for employees who spend a minimum of 25% of their work time on the building over the project design and construction period will qualify;
 - Expenditure on training and mentoring on professionals will only qualify where such professionals have less than five years' experience;
 - A maximum of 25% of the total skills development expenditure to be spent on formal training programmes (and their related costs), and a minimum of 75% (the bulk) to be spent on skills development and providing practical workplace learning opportunities (where the greatest need is expressed);
 - A maximum of 30% of the total skills development expenditure can be calculated as the time cost of mentoring;
 - Any expenditure on Adult Basic Education and Training (ABET) will qualify for learners whose lack of numeracy and literacy skills prevents them from participating in more advanced skills programmes;
 - Expenditure on health and safety-related training does not qualify as part of the expenditure required for points to be awarded.
-

SEC- 3 SKILLS DEVELOPMENT & TRAINING (PILOT)

AVAILABLE

3

Skills development and training expenditure which qualifies for various intervention options, only as it relates to work done directly associated with the project, is as follows:

Type of training opportunity	Types of cost which qualify
<p>Experiential learning opportunities for</p> <ul style="list-style-type: none"> • University of Technology learners who have completed the theoretical phase of their training but still require the practical part; • FET college learners who require placement in industry workplace for workplace learning as part of their National Certificate Vocational and N-programmes; and • University graduates who require further experience in industry workplace to achieve professional registrations. 	<p>Learner stipends for training/ learning periods, trade tests/ summative assessments, job-related tools and safety equipment, and management fees for any training agencies or facilitators involved.</p> <p>Where learners work productively on the project and are remunerated for this (post the training period minimum wage applies), and where this work counts towards a recognised qualification, then this remuneration is included.</p>
Type of training opportunity	Types of cost which qualify
<p>Mentorship input</p>	<p>Hourly time cost of mentor providing the mentoring for recorded contact time only</p>
<p>Skills programmes and formal training courses</p> <p>The cost of bursaries or scholarships for full time students generally is excluded, except for where a student works on the project part time e.g. during university holidays. In cases such as this, then a pro-rata amount of the cost of their bursary/ scholarship for that year can be claimed e.g. if the student works for two months of the calendar year on the project, then 17% (2 out of 12 months) of that year's fees can be added as skills development expenditure towards the final total.</p>	<p>Course fees, trainers fees, training facilities, related accommodation and travel, learner stipends, tools and equipment required, assessment and moderation, trade tests, examination fees and management fees for any training agencies or facilitators involved.</p> <p>Where bursary/ scholarship students work directly on the project part time, then the cost of their remuneration (including any stipends) for this work is included, as well as a pro-rata amount of their bursary/ scholarship costs as explained in the column to the left.</p>

<p>Apprenticeships, Learnerships, Internships and Candidacies – providing practical skills and theoretical training during the project period to enable learners to ultimately take their respective trade tests.</p>	<p>Course fees, assessment and moderation, trade tests, examination fees and management fees for any training agencies or facilitators involved.</p> <p>Where learners work productively on the project and are remunerated for this (post the training period when the stipend no longer applies, but minimum wage for such work does), and where this work on the project counts towards a recognised qualification, then this remuneration for their labour on the project is included.</p>
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Table 2: Nature of skills development expenditure, which qualifies.

Note that skills development expenditure is in addition to the skills development levy amount, which is paid to the relevant Sector Education and Training Authority (as per Skills Development Act of 1999 and Skills Development Levies Act of 1999), as per the principle expressed directly in the B-BBEE Property Charter codes.

An alternative calculation method for the skills development expenditure is to use the notional costs (related to 'head count') specified in Table 3 (page 7) of the CIDB 'Standard for Developing Skills Through Infrastructure Contracts' as a, where it is applicable for construction Contractors and built environment professionals (Design Team) but not for the developer. (See the May 2013 final version, set to be gazetted by September 2013, can be found at: http://www.cidb.org.za/Documents/Corp/SF_Task_Team_Feedback_Skills_2013.pdf) Note that the values in Table 3 will be updated by the CIDB from time to time (usually annually) and the most recent values which appear on the CIDB website (www.cidb.org.za) would apply.

If this option is taken, then to make up the total expenditure value for Option A the developer's skills development expenditure should be added, as well as remuneration to learners who are productively used on the project where this work experience counts towards a recognised qualification (as this is excluded from the CIDB notional cost calculation). These three elements should be indicated separately, as part of a final calculation of the total skills development expenditure towards achievement of Option A for this credit.

Skills development and training should be on steps towards the ultimate achievement of a formally recognised qualification, as achieving a full qualification is unlikely in the limited duration of most building design and construction projects which might only last up to about 18 months in total. (For example, 2 units out of 24 standards towards an occupational qualification for a person.)

Investment in skills, which are considered to be in short supply in South Africa, is strongly encouraged, but not compulsory. There is no single up-to-date and comprehensive enough list of 'scarce skills' to cover the full range of project requirements. However, there have been a few of these developed in recent years, which are good guidelines. For example, the Construction Education and Training Authority (CETA) publishes a scarce skills list as part of the sector skills plan which is periodically updated. It does not include all requisite skills, but it is a good guideline for meaningful skills development for Design Teams and contractors.

The reference section below also includes other relevant and useful 'scarce skills' guide documents from the Construction Industry Development Board (CIDB), Council for the Built Environment and the Department of Labour.

Option B

This option is particularly relevant for those government projects, which stipulate compliance to this CIDB standard for the project.

The Standard includes definitions and information relating to the contract value, a range of intervention options which apply and various conditions for compliance. A notable condition is that previously employed learners may not account for more than 33% of the CSDG i.e. two thirds of the recipients have to be unemployed learners.

Unemployed learners are defined in the Standard, but this generally refers to people need to get practical workplace learning to achieve a qualification rather than 'casual labour'.

The Contract Skills Development Goals (CSDG) for different classes of design, engineering and construction works contracts may change over time. The prevailing CSDG will apply when these 2013 values are superseded. The notional costs outlines in Table 3 will be updated from time to time by the CIDB (usually annually), and the prevailing cost structure will apply. Both of these updates over time will be reflected on the CIDB website (www.cidb.org.za).

BACKGROUND

Option A

Training and career development increases the earning potential of the recipient and will have a direct socio-economic impact on employability and income generating capacity. To help address the shortage of skills in the South African construction sector, this credit seeks to reward skills development and programmes of a broad nature, with providing opportunities for practical workplace experience as a priority, and also including management development programmes, performance management, and career development.

There is currently a vast need for students who have completed the theoretical part of their qualifications as artisans, technicians and graduates to be employed by consultants and contractors to complete their (on-the-job) experiential training. Practical workplace training that is employment related is therefore critical. The costs which qualify for skills development and training expenditure have been defined broadly, and in a way that intends to capture the value of all relevant opportunities provided by the project, especially for practical workplace learning. (The option of adult numeracy and literacy training is also included to enable some people to 'step onto the ladder of learning', although currently this may not tend to be a very common form of formal training in the construction-related industry.)

The measure of skills development as a '% of payroll for all employees' is aligned with the equivalent measure in the 2009 Construction Charter B-BBEE Codes - in particular Section 1.1.1. in the Code 2400 for Skills Development which has a compliance target of 1.5% of the 'Leviable Amount'¹² to be spent on Skills Development on all employees. This applies for construction-related companies and associated built environment professionals (BEPs). A similar measure is included in the 2009 Property Charter B-BBEE Codes, although there the 1.5% is required to be spent on Black employees.

The key differences between the measure in this credit, and that expressed in the 2009 Construction and Property Charters are that:

- This measure applies only to what was spent in relation to the project and not overall (annual) corporate expenditure of each player,
- There are no requirements for expenditure proportions to be allocated for specific race or gender categories for this credit, but each player can choose to meet the requirements for this as stipulated in the respective Charter, which they fall under (which they might be doing anyway).

¹² The 'leviable amount' refers to the term used in the National Skills Development Levies Act of (Section 3 on Imposition of Levy, page 3), covering all remuneration (gross income) to employees, but excluding pension-related payments and payments to learners.

The threshold targets / benchmarks in the credit criteria have been informed by existing policies and legislation, which applies to players in this industry, including the 2007 Generic B-BBEE Codes of Practice and particularly the 2009 Construction Charter and 2009 Property Charter Codes. The thresholds are likely to be increased over time, to reflect the industry benchmarks, which are expected to increase with future legislation, best practice, Skills Levies and the proposed amendments to the Generic BBEE Scorecard, which should come into effect by 2015.

Skills development by the (construction-related) sub-contractors is considered to be important, because often a significant proportion of people are employed by them (in terms of the overall project employment) and it is a level where there is a huge need for skills development and training. Not with-standing the above, the skills development of sub-contractor employees has not been included as a mandatory requirement, because it is considered to be very complex to implement and measure, with rather onerous administration and effort involved for the project. However, the main contractor can invest in the skills development of sub-contractor employees and the measurement of this spend will remain at main contractor level and will qualify towards achievement of the credit.

Where skills development and training costs qualify, they can be claimed against the annual Skills Levy contribution which companies are obliged to pay to the relevant Sector Education and Training Authority, up to a stipulated portion of the annual contribution.

For both Option A and Option B

Some kinds of skills development could be considered to be related to 'Enterprise Development' which is covered in the Economic Opportunity credit (SEC-2), although the nature and subject-matter of the interventions may be somewhat different. If it does align, such an overlap or 'double reward' is permitted (and exists across Green Star SA tools and the Codes of Good Practice and Charters / Scorecards.)

Option B

This CIDB Standard for developing skills through infrastructure contracts has been recently developed. A key intention is to address the urgent need to provide workplace learning opportunities for learners in this country.

It offers a useful set of notional costs to measure the skills development opportunities provided, and comprehensive measurement and reporting criteria. It includes provision for professional services to accommodate the built environment professionals which are involved in construction-related projects. Under this Standard, contractors may also devolve the responsibility for skills development to sub-contractors, but this is not mandatory.

REFERENCES & FURTHER INFORMATION

Construction Education and Training Authority (CETA)'s scarce skills list.

<http://www.ceta.org.za/Research/ScarcSkills.asp>

Construction Industry Development Board (CIDB) Standard for developing skills through infrastructure contracts. Final version from May 2013 set to be gazetted by September 2013.

http://www.cidb.org.za/Documents/Corp/SF_Task_Team_Feedback_Skills_2013.pdf

Council for the Built Environment (2009) National Built Environment Skills Audit report.

<http://www.cbe.org.za/>

Department of Labour (2007) National Scarce Skills List.

<http://www.labour.gov.za>

Department of Labour (1999) Skills Development Levies Act.

<http://www.labour.gov.za/DOL/legislation/acts/skills-development/skills-development-levies-act>

Department of Labour (1998) Skills Development Act, with more recent amendments.

<http://www.labour.gov.za/DOL/legislation/acts/skills-development/skills-development-act-and-amendments>

Department of Trade & Industry (2007) B-BBEE Codes of Good Practice (Generic)

http://www.thedti.gov.za/economic_empowerment/bee_codes.jsp

Department of Trade & Industry (2009) Construction sector Charter B-BBEE Codes

http://www.thedti.gov.za/economic_empowerment/bee_sector_charters.jsp

Department of Trade & Industry (2009) Property sector Charter B-BBEE Codes

http://www.thedti.gov.za/economic_empowerment/bee_sector_charters.jsp

AIM OF CREDIT

To encourage and recognise developments that provide facilities for community or public benefit, which respond to the socio-economic needs or assets of identified communities or stakeholders.

CREDIT CRITERIA

Up to two points are awarded as follows:

Inclusion of a community/ public benefit facility

Two points are awarded for the design and construction of a permanent Community Facility/ Facilities, in the form of either Option A or B:

Option A

- **Space for a facility inside the building**, with a minimum floor space of 50m² of the total Usable Area allocated for this. For example:
 - A pre-primary 'nursery school' or crèche for small children
 - Computer centre with Internet access
 - Education & training facility for local communities
 - Health facilities like a clinic
 - Small business incubation centre or development hub;

OR

Option B

- **Space for a facility on the site, but outside of or separate from the main building** (e.g. an outdoor facility) that will be available to the public on completion of construction, with a minimum size of 50m² of the site area. For example:
 - Playground area;
 - Open landscaped area for active play (minimum area 200m²);
 - Outdoor gym / exercise;
 - Community market;
 - Recycling depot;
 - Open piazza; and
 - Community food garden.

Only one point is awarded for either the design and construction of a permanent Community Facility/ Facilities or the part-time use of a facility, in the form of either Option C or D (Two points are awarded where both Option C and Option D are achieved):

SEC- 4 COMMUNITY BENEFIT (PILOT)AVAILABLE **1****Option C**

- **A facility inside the building that allows part-time use for community/ public benefit activities** e.g. an auditorium, which can be used, as a training venue in the evenings. This ‘multi-purpose’ or shared facility must occupy a minimum floor space of at least 50m² of the total Usable Area in the building;

OR

Option D

A facility built in an identified community, rather than on the project site, if it is not possible to include it in the building or on the site. The facility must occupy a minimum floor space of at least 50m² of Usable Area space. The building cost per m² of the facility must match that of the main building, or alternatively a larger facility at a lower cost per m² may be constructed provided that it has a construction value of at least the equivalent of a 50m² area based on the main building construction cost. The facility must be designed by the project design team, and it must form part of the main project cost. Proof of a direct link to the project must be shown (to make clear that it is not something completely unrelated which would have been built anyway).

In order to achieve any of the points above (under Option A, B, C or D), the following must be adhered to as a consultation and planning step before the design and construction process:

Community consultation and needs assessment

- Conducting community consultation and a undertaking a needs assessment of the identified community/ communities, or a “community-based asset assessment” (which includes skills and materials) using an asset-based community development assessment (ABCD) methodology,

AND

- Where a the project is a public or education building, such as a library or a community hall, and is being built in a rural area, the community consultation and stakeholder engagement must be undertaken with regard to the building as a whole, and not just for the community/public-benefit facility component.

DOCUMENTATION REQUIREMENTS

Green Star SA – Community Benefits Design	Green Star SA – Community Benefits As Built
Submit all the evidence and ensure it readily confirms with compliance.	Submit all the evidence and ensure it readily confirms compliance.
<ol style="list-style-type: none"> 1. Short report 2. Tender drawings 	<ol style="list-style-type: none"> 1. Short report 2. As-Built drawings 3. Signed contract

Short report (page limit: 5 pages) produced and signed off by a senior representative (management staff or project consultant) of the building owner/ developer that describes the community consultation and needs assessments conducted, which should include:

- Briefly describing the communities identified, and the nature of the community consultation process.
- Demonstrating that the consultation with the community was conducted according to a 'best practice' methodology.
- Demonstrating that the needs assessment was conducted according to a 'best practice' methodology.

Tender / As Built drawings including plans, section and/or elevations (whichever relevant) showing the location and size of the relevant facility in relation to the rest of the building and demonstrating accessibility for the specific design purpose as a community/ public benefit facility.

Signed contract (or memorandum of understanding) between the building owner and the operator of the Community Facility, demonstrating what the space will be used for (what public benefit) and that it will be for a period of at least 3 years.

ADDITIONAL GUIDANCE

A community is defined as a group of residents who live, work or visit regularly in the immediate vicinity of the project, or people who come from labour-sending areas for the construction and operational phase of the project ("off-site" communities). Or it can also be another stakeholder group or groups relevant to this development, for example low-income workers such as the construction workers and the cleaners, security and maintenance staff who will work in the building.

SEC- 4 COMMUNITY BENEFIT (PILOT)

Best practice for community consultation. The core values and code of ethics of the International Association of Public Participation (IAP2) are recommended as best practice principles to adhere to in terms of consultation methodologies. Or alternatively, the Western Cape Provincial Government's "EIA Guideline and Information Document Series: Guideline for Public Participation" which is mostly based on the consultation principles of South Africa's National Environmental Act (NEMA) is also a recommended best practice guideline.

Best practice for needs assessment. The International Finance Corporation's (IFC's) publication "Investing in People: Sustaining Communities through Improved Business Practice" provides a recommended methodology for community needs assessment, and the 'asset based community development' (ABCD) methodology is an alternative option, particularly for peri-urban or rural applications.

As part of the needs / assets assessment, the relevant local municipality's Local Economic Development (LED) Programme must be considered, as these documents typically spell out the implementation plan for projects from the most recent Integrated Development Plan (IDP). Other relevant documents, such as the Integrated Development Plan and Spatial Development Framework for each area must also be considered.

Off-site facility construction cost. In instances where the construction cost of the main building is relatively high (e.g. AAA office space) then it might not be appropriate to build the much smaller community facility to exactly the same R/m² value, as this might mean inappropriate kinds of equipment or finishes for the nature of the facility. Therefor an alternative option has been included, whereby a larger facility at a lower cost per m² may be constructed provided that it has a construction value of at least the equivalent of a 50m² area based on the main building construction cost.

For example, if the main building construction cost is R10,000/m², then the minimum facility size of 50m² will mean a minimum value of R500,000 which can be spent on construction of the community facility and this can be for area larger than 50m². In this case the ultimate R/m² value of the facility would then drop below R10,000/m². The intention is not to allow for a poor quality construction for the facility in any way, just some flexibility in terms of size.

BACKGROUND

If a project can include a Community Facility which is well managed and operated as intended, this means that socio-economic benefit will be generated over the full lifetime of the building. This is considered to be a very valuable way in which a building can contribute to the socio-economic development of the country.

However, it is also very important for the project to understand the current socio-economic needs and issues of identified communities, so that the project as a whole and the public-benefit facility in particular can help respond to an aspect or aspects of these needs from the start in the planning and design stages. This has been deliberately addressed in this credit because of a history of poor engagement with communities and stakeholder groups, often leading to fewer benefits received from projects.

The Asset-Based Community Development Institute (ABCD) is at the centre of a growing movement that considers local assets as the primary building blocks of sustainable community development. Building on the skills and resources of local residents and their local context, the power of local associations, and the supportive functions of local institutions, asset-based community development draws upon existing community strengths, rather than their needs, to build stronger, more sustainable communities.

REFERENCES & FURTHER INFORMATION

Asset-Based Community Development Institute.

<http://www.abcdinstitute.org>

[BREEAM rating system for buildings, based in the United Kingdom. Many BREEAM tools make provision for a community facility within the building, or on the site, derived through consultation.](#) For example, Man 7 Shared Facilities in the Education rating tool, which encourages flexible buildings, designed for shared use with the local community.

www.breeam.org

Council for Scientific and Industrial Research (CSIR), 2007 “Sustainable Building Assessment Tool (SBAT)’ methodology

http://www.csir.co.za/Built_environment/Architectural_sciences/sbat.html

[Green Building Council of South Africa \(2011\) Green Star SA Public and Education Building \(PEB\) tool PILOT. It includes recognition and reward for providing a facility for community use/public benefit on the project site.](#)

http://www.gbcsa.org.za/greenstar/public_education.php

Gibberd, J., 2010, Sustainable Building Assessment Tool Light Industrial V1.11

International Association for Public Participation (IAP2),

<http://www.iap2.org>

- Core Values: <http://iap2.affiniscap.com/associations/4748/files/CoreValues.pdf>
- Code of Ethics: <http://iap2.affiniscap.com/associations/4748/files/CodeofEthics.pdf>

International Finance Corporation (IFC) (2012) ‘IFC Performance Standards on Environmental and Social Sustainability’

http://www1.ifc.org/wps/wcm/connect/c8f524004a73daeca09afdf998895a12/IFC_Performance_Standards.pdf?MOD=AJPERES

International Finance Corporation (IFC) (2000) ‘Investing in People: Sustaining Communities through Improved Business Practice’

<http://www1.ifc.org/wps/wcm/connect/1dc2e10048865811b3fef36a6515bb18/CommunityGuide.pdf?MOD=AJPERES>

Provincial Government of the Western Cape, Department of Environmental Affairs and Developmental Planning (2010) “EIA Guideline and Information Document Series – Guideline on Public Participation.”

<http://www.capegateway.gov.za/eadp>

SEC- 5 EMPOWERMENT (PILOT)**AIM OF CREDIT**

To encourage and recognise projects which are committed to and have made achievements in implementing the principles of Broad-Based Black Economic Empowerment (BBBEE).

CREDIT CRITERIA

One point will be awarded where:

It can be demonstrated that 95% of the project, measured as a percentage of Contract Value plus Design Team fees, is (to be) executed by companies which are Level 1, 2 or 3 BEE contributors or are Exempted Micro Enterprises (EMEs), as per the Construction Sector Charter BBBEE Codes of Good Practice (2009).

(See: http://www.thedti.gov.za/economic_empowerment/docs/BEE-SECTOR_CHARTERS/CONSTRUCTION/construction.pdf)

DOCUMENTATION REQUIREMENTS

Green Star SA – Design	Green Star SA – As Built
Submit all the evidence and ensure it readily confirms compliance.	Submit all the evidence and ensure it readily confirms compliance.
<ol style="list-style-type: none"> 1. Statement of confirmation. 2. Extract(s) from tender/contract documentation. 	<ol style="list-style-type: none"> 1. Statement of confirmation.

Statement of confirmation from the developer which:

- Includes a schedule showing all for the companies responsible for at least 95% of project execution (represented by Contract Value plus Design Team fees), showing their BEE certification at Level 1, 2 or 3, or certification as an EME, and their respective contract/budgeted value, showing the calculation that indicates how the target is achieved. The 5% not compliant with credit criteria should be included in the schedule to ensure the total contract value including Design Team fees is accounted for.
- For Design submissions where contracts have not yet been appointed, the relevant contracts must correspond to the extracts from tender documentation. (See below note for public sector projects).
- Must be signed by the developer confirming all information provided is true and correct.

SEC- 5 EMPOWERMENT (PILOT)

- In a Round 1 or Round 2 submission GBCSA assessors can request proof of the BEE status from the project for any of the companies listed on the schedule, and this must be provided to the GBCSA within 5 working days from the date of request.

Extract(s) from tender / contract documentation demonstrating the intention that the credit criteria will be met for the construction phase of the project, in that it stipulates the BEE status targets for the relevant contract(s).

NOTE: Public projects are subject to the public procurement system, where B-BBEE contribution levels cannot be specified as an eligibility criteria but can only be included as a preference for awarding contracts. Public buildings interested in targeting this credit can submit a Credit Interpretation Request (CIR) to show how they are meeting the intent of the credit through different means.

ADDITIONAL GUIDANCE

The implication of this benchmark (which is 95% of the value of the construction phase of the building plus the consulting fees from the Design Team fees) is that the project players included in this measure are the Design Team, the main Contractor and Sub-Contractors.

The 2009 Construction Charter BBEE Codes of Good Practice have been referenced because they typically apply to construction-related companies and Built Environment Professionals (BEPs) which are the players which span the design and construction phases of a building, and this makes up the vast majority of project activity and expenditure. However, if the project justifies the application of BBEE codes from another sector charter (e.g. the 2012 Property Charter which applies to property developers) or the use of the 'generic' 2007 BBEE codes as an alternative, then this will be considered.

Only BEE certificates from BEE Verification Agencies accredited by the South African National Accreditation System (SANAS) will be accepted.

Exempted Micro Enterprises (EME's) as defined in the DTI's 2009 Construction Codes of Good Practice for BBEE are:

- Construction-related businesses (e.g. contractors) with an annual turnover of less than R5 million.
- Built Environment Professionals (e.g. consulting engineers, architects and quantity surveyors) with an annual turnover of less than R1.5 million.

NOTE: For 'As Built' ratings, there should be no difference between public and private projects in the sense that it assesses the outcome of procurement, regardless of the procurement system used. For As Built rating, as indicated above, public projects are subject to the public procurement system, where B-BBEE contribution levels cannot be specified as an eligibility criteria but can only be included as a preference for awarding contracts. Public buildings interested in targeting this credit can submit a Credit Interpretation Request (CIR) to show how they are meeting the intent of the credit through different means.

NOTE: The nature of this credit is under review during the PILOT phase, particularly in terms of achievability of the benchmark in the context of changing BBBEE requirements, and practicality of application through the public sector procurement system. Feedback on this is being actively sought by GBCSA during the PILOT phase.

BACKGROUND

Broad Based Black Economic Empowerment (BBBEE) is the cornerstone of the South African Government's efforts to redress the inequalities of Apartheid rule by giving previously disadvantaged groups economic privileges which were not available to them before. It aims to accelerate the participation of Black people in the economy by encouraging change in the following key areas of business: ownership, management and control, employment equity, skills development, preferential procurement, enterprise development and socio-economic development.

When implemented correctly, BBBEE supports job creation, global competitiveness and economic growth. It also has the potential to reduce the burden on entrepreneurs and help to create a more skilled workforce.

The 95% of project value threshold was set in order to allow the project to contain:

- Small companies which may not yet have their administrative system in place for BEE certification (including EME certificates), and
- Some companies who have not achieved a Level 3 BEE status, but are committed professionals or companies in the green building arena.

It is acknowledged that factors such as the size of the contract and the size of the contractors involved will influence the ease with which this credit can be achieved. Certain contractors which have made great progress in terms of BBBEE may be able to achieve this fairly easily. It is common in Green Star SA that the leaders in a certain field can achieve some points quite easily. The aim is to recognise the achievement of such leaders.

REFERENCES & FURTHER INFORMATION

Department of Labour (1998) Employment Equity Act, No. 55 of 1998

<http://www.info.gov.za/view/DownloadFileAction?id=70714>

Department of Trade and Industry B-BBEE (Broad-Based Black Economic Empowerment) website

<http://bee.thedti.gov.za/>

Department of Trade and Industry (2009) Construction Sector BBBEE Code of Good Practice

http://www.thedti.gov.za/economic_empowerment/docs/BEE-SECTOR_CHARTERS/CONSTRUCTION/construction.pdf

Department of Trade and Industry (2007) Codes 100-800 - Generic Codes of Good Practice on Broad-Based Black Economic Empowerment - Construction Sector Charter, 2007. Government Gazette No. 29617.

<http://bee.thedti.gov.za/34.htm>

Department of Trade and Industry (2009) Codes 2000-2800 - Construction Sector Code of 2009. Also called the Construction Charter.

http://www.thedti.gov.za/economic_empowerment/docs/BEE-SECTOR_CHARTERS/CONSTRUCTION/construction.pdf

Department of Trade and Industry (2012) Property Sector Code of 2012. Also called the Property Charter.

http://www.thedti.gov.za/economic_empowerment/docs/BEE-SECTOR_CHARTERS/Property-sector.pdf

AIM OF CREDIT

To encourage and recognise action taken to improve the primary health of construction workers, and to promote better safety practices and understanding in the construction industry and among Design Teams.

CREDIT CRITERIA

One point is awarded where:

- A primary health programme for construction site employees has been implemented as follows:
 - Conducting primary health assessments (as outlined in checklist below on page 64) for all consenting construction-related employees, including Sub-Contractors employees, at least once during the construction phase and preferably at the beginning of the project, and referring employees for further medical examination or treatment where problems are identified;
 - Conducting a basic health awareness programme for construction-related employees particularly addressing the key health issues identified in the above-mentioned primary health assessments e.g. HIV and AIDS, Tuberculosis and drug and alcohol abuse or malaria, depending on the project;
 - The expenditure on this primary health programme (for both of the above-mentioned assessment and awareness components) must be for a minimum amount of R500 per unskilled/ general, semi-skilled or skilled employee involved in construction.

AND (where relevant)

- In cases where construction staff accommodation or 'labour camps' are provided for the project (typically developments in rural areas far from urban centres), such staff accommodation must be designed, constructed and operated according to 'best practice' standards (see Additional Guidance section).

Achieving this credit requires projects to comply with current national legislative requirements as a prerequisite to achieving this credit, as follows:

- It is demonstrated that the project complies with: the Occupational Health and Safety Act (OH&SA) of 1993; the Construction Regulations 2003 (and as amended in 2014); and other related regulations promulgated in terms of Section 43 of the OH&SA - including that a design Hazard Identification Risk Assessment (HIRA) is conducted by the Design Team and contractor for the project during the design phase (in order to amend design aspects that are unsafe to build and maintain, or put in place measures for prevention of incidents regarding identified hazardous aspects in the construction of the building).

DOCUMENTATION REQUIREMENTS

Green Star SA – Community Benefits Design	Green Star SA – Community Benefits As Built
Submit all the evidence and ensure it readily confirms with compliance.	Submit all the evidence and ensure it readily confirms compliance.
<ol style="list-style-type: none"> 1. Short report 2. Extract(s) from contract / tender documentation 	<ol style="list-style-type: none"> 1. Short report

Short report (page limit: 10 pages) produced and signed off by a senior representative of the building owner/ developer (staff manager or consultant) responsible for health and safety that describes how the Credit Criteria have been met, including the following:

- Describing broadly what the health & safety plan for the project is / has been, and what the project has done to comply with the OH&SA, the Construction Regulations 2003 (and proposed Construction Regulations which are set to be amended in 2014) and related regulations promulgated in terms of Section 43 of the OH&SA. This should include:
 - Describing under various design team member headings what HIRAs have been undertaken at design stage, and indicating what preventative measures have been taken for each of these where relevant, and.
 - Describing what medical screening procedures (e.g. OH&SA-related medical fitness testing) will be or have been conducted for the duration of the project.
- Describing the primary health programmes that will be / has been undertaken for construction site employees for the duration of the project, which includes: a summary of the primary health assessments conducted as well as the resulting referrals and interventions and an indication of the general health status of construction-related employees; and a summary of the awareness programme conducted to respond to the priority health issues identified through the assessments, describing which topics were addressed, how often and through which mechanisms/ events/ channels (see examples in 'Additional Guidance' below) e.g. number of presentation talks from specialists, or number of 'toolbox talks' given on different topics, or number of AIDS and HIV awareness days, or number of health quiz or awareness competitions or promotions.
- For As Built submissions, confirmation of the expenditure amounts that were committed to for the primary health programme on the project (for both assessments and awareness/ training), demonstrating that this met the minimum requirement of R500 per person.

- For those projects where staff accommodation is provided, a description of how the facilities were designed constructed and operated according to 'best practice'.

Extract(s) from contract tender documentation indicating requirements for OH&SA compliance (including medical screening procedures and the HIRA) and for the primary health programme that is in accordance with the credit criteria (including the primary health assessments and awareness components).

ADDITIONAL GUIDANCE

Primary health assessment requirements shall include all the profiling questions, examination checks and testing indicated on the 'Primary Health Assessment Checklist' template provided as an Appendix below on page 64, and also provided as a separate reference document in the Socio-Economic Category PILOT section of the GBCSA website: <http://www.gbcsa.org.za/green-star-rating-tools/socio-economic-category-pilot/>.

Some of the features of this assessment checklist might have been already covered if there will be or has been an OH&SA-related medical screening for 'fitness'. In these instances, there is no need to duplicate the profiling or examination or testing, and the previous report indicating the findings of these can be referenced in those sections. This assessment specifically includes such items for cases where no other medical screening is planned or has been conducted, as they are considered to be important for primary health assessment purposes as well. It would probably make cost and logistical sense if the primary health assessment is done at the same time as the medical 'fitness' screening at the start of the project, to avoid duplication and to also be able to identify upfront the risks and key health issues to address through the awareness programme. Referrals for further testing or treatment should be made where indicated/ appropriate based on the findings of the assessment.

Note that an HIV and AIDS test is included in this assessment checklist, and the implication is that the required pre and post testing counselling service would need to be included.

Also note that primary health assessments (including the HIV and AIDS testing) should be made available to and offered to all construction-related employees, but are to be conducted on a **voluntary** basis only for those who give consent for this.

The testing needs to be done at least once in the construction phase, preferably at the start of construction. If the project construction period extends to more than 2 years, then testing would be required a second time in the third year of construction.

Basic health awareness programme shall at least include the top priority health issues (as discovered through the above-mentioned assessments) as subject-matter content/ topics, and a range of awareness or training formats, mechanisms or channels could be used to convey the health messages e.g. they could be addressed in induction training and regular toolbox talks (which are already a relatively common practice), or through presentation talks from specialists such as nutritionists, or awareness 'focus days' or health quiz or awareness competitions or promotions.

Best practice for construction staff accommodation ('labour camps') provided for the project (typically developments in rural areas far from urban centres) - including their design, construction and operation- is currently identified as the International Finance Corporation (IFC) and European Bank for Reconstruction and Development's guidelines for construction worker accommodation.

BACKGROUND

Despite legislated requirements there is a concerning lack of Health and Safety systems, procedures and adherence in the construction industry in South Africa as a developing country, with a resulting high number of fatality and accident rates which is approximately five times higher than that of developed countries. There is also a high rate of non-compliance with the requirements of the Construction Regulations, with around 50% of construction sites found to be non-compliant in the August 2007 checks conducted in South Africa (CIDB: 2009) as an example.

The Cost of Accidents (CoA) in South Africa is estimated to be around 5% of the value of construction costs, which ultimately is passed onto clients. The total CoA exceeds the cost of Health and Safety (H&S), and therefore investment in H&S makes good sense. (CIDB: 2009)

However, the main reason why safety and health issues feature as a credit is not because of the commercial rationale, but because they have a profound effect on lower-income people in this country. If the 'breadwinner' who supports an extended family is ill, injured, disabled, or dies this has a huge knock-on effect for the quality of life for those he or she supports. Gains which can be made in this area can generate positive socio-economic benefits for individuals and communities.

This credit is not about complying with legislation, but about going beyond that to take proactive steps to address the primary health of employees, and promoting a long term culture of improved safety and health practices in the construction of a building and over the full lifespan of that building.

A medical certificate of fitness is currently only specified for construction workers that work at elevated heights or operators of plant. Over-and-above this, a primary health programme (including assessments) is included in this credit as a requirement because research indicates that generally construction workers in South Africa are 'not healthy', and furthermore they are generally unaware of their poor health status and how to improve their health.

Poor health effects a worker's ability to work, and similarly the working environment could exacerbate existing health issues such as high blood pressure, diabetes, and asthma. Therefore a holistic approach is needed to limit risk to workers and overall project risk

The H&S field is still largely the domain of contractors as opposed to project managers and Design Teams, and few Design Teams demonstrate an understanding of 'designing for construction H&S'. With regards to design HIRAs, contractors cannot participate unless design-build thinking is correct. Relying on Personal Protective Equipment (PPE) only for construction health and safety is not sufficient.

SEC- 6 SAFETY AND HEALTH (PILOT)

Design Teams influence H&S directly and indirectly:

- Directly through: general design; choice of structural frame; details; method of fixing, and specification of materials and finishes and
- Indirectly through: selection of procurement system; preparation of contract documentation; decision regarding project duration; pre-qualification of contractors on H&S, and status of design upon commencement of construction

Design contributes to injuries and fatalities. Design in general has been cited as the cause of 35% of fatal accidents in Europe (Commission of the European Communities, 1993). Out of 450 In the USA, in 34% of reports of construction fatalities and disabling injuries the hazard that contributed to the incident could have been eliminated or reduced if 'design-for-H&S' measures had been implemented (Behm, 2006).

Designers are liable for the impact of design on construction H&S and ergonomics in terms of Section 10 of the South African Occupational Health and Safety Act (1993), and the Construction Regulations (2003, and as amended in 2014) include related design responsibilities.

REFERENCES & FURTHER INFORMATION

Behm, M. (2006). An Analysis of Construction Accidents from a Design Perspective. The Centre to Protect Workers' Rights: Silver Spring.

http://www.construction-innovation.info/images/pdfs/Research_library/ResearchLibraryA/Refereed_Conference_papers/2005-027-A/10_CP_OHS_in_Aust_Construction_Industrys_Response.pdf

Chakravarthy, B. & Nielsen, D. (2011) 'Design Risk Management' presentation for the Institution of Civil Engineers, United Kingdom

www.ice.org.uk/ICE.../Design-Risk-Management-APS-17-10-11.pdf

Construction Industry Training Board (2007) The Construction (Design and Management) Regulations 2007, Industry Guidance for Designers, United Kingdom.

http://www.cskills.org/uploads/CDM_Designers4web_07_tcm17-4643.pdf

Construction Industry Development Board (2009) 'Construction Health and Safety in South Africa – Status and Recommendations'

http://www.cidb.org.za/Documents/KC/cidb_Publications/Ind_Reps_Other/ind_reps_construction_h_s_in_SA_status_recommendations.pdf

Department of Labour (1993) Occupational Health & Safety Act No. 85 of 1993

<http://www.labour.gov.za/DOL/legislation/acts/occupational-health-and-safety/read-online/amended-occupational-health-and-safety-act>

SEC- 6 SAFETY AND HEALTH (PILOT)

Department of Labour (2003) Government Gazette No. 25207 of 2003. Construction Regulations, (Pretoria).

[https://www.labour.gov.za/downloads/legislation/regulations/occupational-health-and-safety/Regulation%20-%20OHS%20-%20Construction%20Regulations%202003.doc/view?searchterm=construction regulations](https://www.labour.gov.za/downloads/legislation/regulations/occupational-health-and-safety/Regulation%20-%20OHS%20-%20Construction%20Regulations%202003.doc/view?searchterm=construction%20regulations)

Department of Labour (2010) Government Gazette Notice 391 Draft Amendment to the Construction Regulations of 2003.

<http://www.polity.org.za/article/occupational-health-and-safety-act-851993-draft-amendment-to-the-construction-regulations-2003-gazette-no-33176-notice-391-2010-05-19>

Department of Labour (DoL) has developed short checklist forms on Occupational Health & Safety (OSH), available for download on their website: <https://www.labour.gov.za>

- [OHS: Have health and safety representatives been appointed at your workplace?](#)
- [OHS: Inspection in the Construction Industry](#)
- [OHS: Inspections by the Department of Labour](#)

European Union. (1992) Council Directive 92/57/EEC of 24 June 1992 on the 'Implementation of minimum safety and health requirements at temporary or mobile work sites' (the 8th individual Directive within the meaning of Article 16 of Directive 89/391/EEC).

http://europa.eu/legislation_summaries/employment_and_social_policy/health_hygiene_safety_at_work/c11120_en.htm

International Finance Corporation and European Bank for Reconstruction and Development, (2009) 'Workers' accommodation: processes and standards - A guidance note by IFC and the EBRD'.

http://www1.ifc.org/wps/wcm/connect/9839db00488557d1bdfcff6a6515bb18/workers_accomodation.pdf?MOD=AJPERES&CACHEID=9839db00488557d1bdfcff6a6515bb18

Medical screening requirement checklist attached as Appendix, and on the GBCSA website, in the section about the Socio-Economic PILOT.

www.gbcsa.org.za/rating-tools/green-star-sa-rating-system/

Smallwood, J.J. (1995) The Influence of management on the occurrence of loss causative incidents in the South African construction industry. Unpublished MSc (Construction Man) Dissertation, University of Port Elizabeth, Port Elizabeth.

<https://www.labour.gov.za/downloads/documents/useful-documents/occupational-health-and-safety/Abridged%20Designing%20for%20Construction%20HS%20%20Ergonomics.pdf>

SEC- 6 SAFETY AND HEALTH (PILOT)AVAILABLE **1**

Smallwood, J.J. (2011) Designing for construction health and safety and ergonomics. Unpublished presentation to the health and safety construction seminar for Department of Labour. In this he also makes reference to the following which does not seem to be easily available online, although the reference immediately above seems to be related: Commission of the European Communities. 1993. Four guides for the 'temporary or mobile construction sites' directive. Brussels: Office for Official Publications of the European Communities.

<https://www.labour.gov.za/downloads/documents/useful-documents/occupational-health-and-safety/Abridged%20Designing%20for%20Construction%20HS%20%20Ergonomics.pdf>

See also: Commission of the European Communities (1993) Safety and health in the construction sector. ISBN is 9282660370 9789282660379.

http://books.google.co.za/books/about/Safety_and_Health_in_the_Construction_Se.html?id=U7AeAAAACAAJ&redir_esc=y

Mark the appropriate box with a \checkmark	Employee Name:	Company:	ID
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PRIMARY HEALTH ASSESSMENT FOR CONSTRUCTION WORKERS

PART 1: HISTORY

1. **Marital status:** _____

2. **Number of children:** _____

3. **What is your current occupation (the job you do now)?**

4. **How old are you?** _____ **years.**

5. **Are you employed as a:**

Casual: \leq 3days/week	Permanent employee	Contract employee	Sub-Contractor	Management	Other
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5.1 **If 'Other', please specify:** _____

6 Have you, or have you ever had, any of the following? <i>If 'Yes' please provide full details at the bottom of the page (* BELOW).</i>		Answer	
		Yes	No
6.1	Problems with your skin (i.e. rashes, sores)?		
6.2	Problems with your heart?		
6.2.1	Chest pain (angina)?		
6.2.2	High cholesterol level?		
6.2.3	Shortness of breath if you climb stairs?		
6.2.4	High blood pressure (hypertension)?		
6.4	Problems with your lungs?		
6.4.1	Asthma?		
6.4.2	TB?		
6.4.3	Bronchitis?		
6.4.4	Coughing for more than two (2) weeks?		
6.5	Problems with your stomach?		
6.6	Problems with bladder or kidney infections?		
6.6.1	Problems passing water?		
6.6.2	VD (drop)?		
6.7	Epilepsy (fits)?		
6.7.1	Unconscious?		
6.7.2	Headaches or migraines?		
6.8	Problems with your ears?		
6.9	Problems with your eyes?		
6.10	Problems with your throat?		
6.11	Problems with the muscles, bones, joints?		
6.12	Problems with your back?		
6.12.1	Have you ever slipped a disk?		
6.13	Have you ever had any sugar in your urine?		
6.14	Have you ever been tested for HIV/AIDS?		
6.15	Have you ever had yellow jaundice?		
6.16	Cancer or tumours of any kind?		

Mark the appropriate box with a \surd	Employee Name:	Company:	ID
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		Yes	No
6.17	Do you take any tablets or medicines on a daily basis, or been given any by Dr or Clinic in past 3 months?		
6.17.1	Type: Dosage:		
6.17.2	Type Dosage:		
6.17.3	Type Dosage:		
6.18	Have you ever been in hospital?		
6.19	Have you ever had an operation?		
6.15	Have you ever had an accident (i.e. sport, car)?		
6.16	Have you ever been injured on duty/while at work?		
6.17	Are there any foods or medicines that cause a rash, itchy skin or make it difficult to breath?		
6.18	Where do you get your medical assistance from: GP? hospital? Clinic?		

*For each of the 'Yes' answers, please provide the following details:

No.	When were the last symptoms?	Treated by?	Specific treatment used	Current status

7. **Family history: Do any of your immediate family have or had any of the following illnesses/diseases?**

Disease	Mother			Father		
	Yes	No	Don't know	Yes	No	Don't know
7.1 High blood pressure (Hypertension)						
7.2 Stroke						
7.3 Heart attack						
7.4 Angina (chest pain)						
7.5 Sugar diabetes (Diabetes)						
7.6 Porphyria						
7.7 Mental Illness e.g. Depression requiring hospitalisation						

8. **Do you drink any alcohol?**

Yes	No
-----	----

If 'Yes' what types of alcohol do you drink?

Type	Frequency				No. of drinks		
	Daily	Weekends Only	Monthly/ bi-monthly	Special Occasions	No. of Glasses	No. of Bottles	
						350 ml	750 ml
8.1.1 Beer							
8.1.2 Wine / Fortified wine / Liqueurs							
8.1.3 Spirits							
8.1.4 Other:							

9. **Do you smoke?**

Yes	No
-----	----

9.1 **How long have you smoked?**

Years	
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9.2 **If 'Yes', what do you smoke?:**

Mark the appropriate box with a \surd	Employee Name:	Company:	ID
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Type	Frequency			
	Daily	Weekly	Monthly	How many?
9.2.1 Cigarettes				
9.2.2 Pipe				
9.2.3 Dagga				
9.2.4 Other:				

10. Do you play sport

Yes	No
-----	----

10.1 If 'Yes', what types of sport do you play?

Type	Frequency			
	Daily to weekly	Weekends	Monthly	Never
10.1.1 Rugby				
10.1.2 Soccer				
10.1.3 Boxing				
10.1.4 Cricket				
10.1.5 Gym				
10.1.6 Other:				

11. What do you do on your off days/spare time?

Type	Frequency			
	Daily	Weekends	Monthly	Never
11.1 Read				
11.2 Watch TV				
11.3 Work at home				
11.4 Church work				
11.5 Other:				

PART 2: PHYSICAL EXAMINATION

2 L = Left; R = Right 0 = Normal, no abnormality detected			
1 = Minor abnormality (minor treatment, no specialist referral)			
2 = Major abnormality (specialist referral, impact on lifestyle, possibly work if untreated)			
General condition	Comments		Score
12.1 Height			
12.2 Mass (Weight)			
12.3 Body Mass Index (BMI)			
12.4 Skin			
12.5 Lymph Glands			
12.6 Varicosities			
	Head and Neck:		
	Comments		
12.7 Corrected Vision (Snellen)	L		R
12.8 Pupils (pearl)	L		R
12.9 Peripheral vision			

Mark the appropriate box with a \checkmark	Employee Name:	Company:	ID
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	ENT:	Comments		Score
12.11	Canals	L	R	
12.12	Drums	L	R	
12.13	Sinuses			
12.14	Throat			
12.15	Teeth			

	CVS:	Comments			Score			
12.16	Pulse Rate							
12.17	BP							
12.18	Respiration							
12.19	Thorax and breasts							
12.20	Lungs							
12.21	Heart							
	Abdomen:							
12.22	Organs							
12.23	Masses							
12.24	Hernia							
	Musculo skeletal:							
12.25	Deformities							
12.26	Spine							
	CNS:							
12.27	Power							
12.28	Co-ordination							
	Skin & appendages							
12.29	Hands							
13	Special Investigations:	Urinalysis						
13.1		Normal	Glucose	Blood	Protein	Other	Other	Other

13.2	HIV and AIDS		Pre-test Counselling	Post-test Counselling		Other (Note)
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14. Remarks from examiner:

15. Referral Requirements (Please record each appropriate organization or person):

15.1	Municipal Clinic	15.3	GP
15.2	Day Hospital	15.4	Specialist

	NAME	SIGNATURE	DATE
WORKER:			
EXAMINER:			
DOCTOR (If seen):			

AIM OF CREDIT

To encourage and recognise developments, which create mixed-income housing options by way of including a proportion/s of more 'affordable' housing, providing a diversity of dwelling types, or provision of accommodation for low-income staff.

NOTE: THIS CREDIT IS ONLY APPLICABLE FOR PROJECTS, WHICH WOULD QUALIFY FOR THE GREEN STAR SA 'MULTI-UNIT RESIDENTIAL' TOOL. SEE ADDITIONAL GUIDANCE SECTION.

CREDIT CRITERIA

Two points are awarded as follows:

Part 1 – Facilitating mixed-income housing

One point is awarded where either Option A, B or C is achieved:

Option A

Design and construction of a portion of the housing facilitates the principle of mixed-income groups, in that a minimum of 10% of the total number of housing units of the building project are accessible for lower income groups i.e. within the same multi-unit residential building or the development. The 10% of 'accessible units' must be made available for the equivalent of no more than 25% of the purchase or rental value of units in the development. (This may include a range of ownership and management options from fully bonded, rent-to-purchase or rent.) Where it is not possible to include the 10% of 'accessible units' within the same building or site, then these can be provided on another site within a radius of 5 kilometres.

OR

Option B

- Design and construction of the housing facilitates the introduction of the principle of mixed-income residents, in that a percentage of the total number of housing units in the project are accessible for mixed-income groups i.e. within the same multi-unit residential building or development. (This may include a range of ownership and management options from fully bonded, rent-to-purchase or rent only.)
 - At least 10% of units must be made available for purchase or rent at the equivalent of no more than 75% of the average purchase or rental value of units in the development.
 - At least 10% of units must be made available for purchase or rent at the equivalent of no more than 60% of the average purchase or rental value of units in the development.

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- At least 10% of units must be made available for purchase or rent at the equivalent of no more than 45% of the average purchase or rental value of units in the development.

If there are any 'outlying' very expensive units within the development, such as penthouse suites, then these should be excluded from the calculation (a maximum of 10% of the total number of units can be excluded).

OR

Option C

- A sufficient variety of housing sizes and types are included in the project so that the total variety of housing within the project achieves at least 0.5 on the Simpson Diversity Index using the housing categories below.

The Simpson Diversity Index score is calculated with the following equation:

Score = $1 - \sum (n/N)^2$ where

- n = the total number of dwellings in a single category, and
- N = the total number of dwellings in all categories.

Housing Categories (where applicable):

- Detached residential – large (greater than 300m²);
- Detached residential – small (less than 300m²);
- Townhouse (including duplexes) - large (greater than 150m²);
- Townhouse (including duplexes) - small (less than 150m²);
- Apartment building – very large unit (greater than 230m²);
- Apartment building - large unit (between 130m² and 230m²);
- Apartment building – medium sized unit (between 70m² and 130m²);
- Apartment building - small unit (between 50m² and 70m²);
- Apartment building - small unit (less than 50m²);
- Live/work large (greater than 70m²);
- Live/work small (less than 70m²);
- Accessory Unit (e.g. granny flat) large (greater than 70m²); and
- Accessory Unit (e.g. granny flat) small (less than 70m²).

(See Additional Guidance and the Calculator provided for more information).

Part 2 – Staff accommodation

One point is awarded where:

- At least 10% additional staff accommodation units (based on total number of residential units) of two-person accommodation or sleep-over facilities are provided on site for low-income operational staff and/or facilities management/ maintenance staff. At least 16m² of space allocation per unit should be allowed for, and each unit may not accommodate more than 2 persons.

DOCUMENTATION REQUIREMENTS

Green Star SA – Design	Green Star SA – As Built
Submit all the evidence and ensure it readily confirms compliance.	Submit all the evidence and ensure it readily confirms compliance.
For all options in Part 1 and Part 2: 1. Tender drawing(s) Plus for Part 1 Options A and B: 2. Sales price schedule Plus for Part 1 Option C: 3. Short report	For all options in Part 1 and Part 2: 1. As built drawing(s) Plus for Part 1 Options A and B: 2. Sales pricing schedule Plus for Part 1 Option C: 3. Short report

Tender / As Built drawing(s), as submitted to the relevant local authority, as proof of the intent to include (for Design) or the inclusion of (for As Built) the lower income housing, and indicating the location and size of the units in relation to the rest of the building / development, or on the alternative site within a 5km radius (where not provided as part of the building/ development).

Sales price schedule as developed for sales and marketing purposes. The schedule must indicate either sales or rental prices, or both where relevant.

Short report (page limit 3 pages) produced and signed off by a senior representative of the building owner/ developer (staff manager or consultant) that describes how the Credit Criteria have been met, including a justification for compliance through a completed calculation of the Simpson Diversity Index and a list of the types and sizes of units in each housing category included in the project, as well as the location of the units included in the calculations. Provide a calculator extract from the Simpson Diversity Index Calculator which is provided in the online Socio-Economic Category Excel spreadsheet tool (see <http://www.gbcsa.org.za/rating-tools/green-star-sa-rating-system>), showing what values have been entered and the output results. The unit names/types must correspond to tender / as built drawings submitted.

ADDITIONAL GUIDANCE

Parts 1 and 2, and all Options.

Application of this credit in multi-unit residential buildings and developments

This credit is associated with the Green Star SA 'Multi-Unit Residential' tool (MUR), which means that it applies to the range of buildings and developments which qualify for rating and certification through this MUR tool. It is available on the GBCSA website, see this link: <http://www.gbcsa.org.za/green-star-rating-tools/multi-unit-residential-tool/>.

A multi-unit residential project is defined as a development with 3 or more dwelling units, common property, shared services and infrastructure among dwellings and an applicable management entity such as a body corporate, home owners association or management operator.

The types of buildings and developments, which currently are included in the MUR tool, are:

- Apartment buildings
- Blocks of flats
- Townhouses
- Detached or semi-attached single access housing developments of 3 or more dwellings – e.g. gated communities, retirement villages, golf estates etc.
- Self-catering student accommodation and multi-family buildings, which include communal kitchen/living/ablution facilities to a maximum of 9 bedrooms per kitchen/living facility.

Buildings or developments not included are:

- Freehold single detached or semi-detached dwelling units with no common property or governance schemes
- Hotels and motels
- Nursing homes
- Boarding houses
- Fully catered dormitories or fully catered student accommodation.

It does apply to a broad range of forms of ownership and management options across the public-private spectrum, including:

- Private ownership, bonded and sectional title
- Private rental, and rent-to-buy
- State-assisted 'gap' / affordable housing (for households earning R3,501 to R15,000 per month¹³)
- State-assisted or other forms of social housing (rental for households earning R2,701 to R7,000 per month¹⁴)
- State-funded low-cost housing (for households earning less than R3,500 per month)
- Other forms of subsidized housing (e.g. donor-funded)
- State or public ownership (and management)
- Public-private partnerships

¹³ Department of Human Settlements (2012) 'Adjustments to the FLISP Programme' and amended policy.

¹⁴ Western Cape Provincial Government (2009) Inclusionary Housing Discussion Document.

It does not apply to a larger scale such as neighbourhoods, precincts or communities (although some residential complexes or gated communities which do qualify can be fairly large). A Green Star SA tool to address this larger scale is still under development.

Option A

An example of 10% of units at 25% of the average cost.

A notional development has 59 units at an average sale value of R4.6 million per unit. 25% of the average value is R1.15 million. For this development, an additional 6 units would have to be offered at this lower sale price, or equivalent for rental. Thus it provides 7 out of a total of 66 units at the lower price, which is equivalent to 10.6% of the total new residential accommodation units, and this meets the credit criterion of a minimum of 10%.

Alternatively, 10% of the 59 units could be made available at 25% of the average value of the other 90%. (Rather than the idea of adding additional units, as above). In this scenario, 53 of the 59 units would have an average sale value of R46 million per unit, and 6 of the units would be offered at 25% of this average value, which is the lower sale price of R1.15 million (or equivalent principle for rentals). This would also meet the credit criterion of a minimum of 10%.

Possibility of innovation point submission for higher achievement levels.

If projects can demonstrate that they have achieved a significantly higher percentage of more 'affordable' options, then this could be considered for submission as an innovation point. However, it should be noted that award of innovation points are not guaranteed, but are assessed on merit on a case-by-case basis.

Option B

An example of 10% units at 75%, 60% and 45% of the average cost.

A national development has 100 units at an average value of R1 million per unit, and a typical size of 150m² each.

- 75% of the average value is R750,000, and 10 of the 100 units would have to be at this price or below.
 - 60% of the average value is R600,000, and 10 of the 100 units would have to be at this price or below.
 - 45% of the average value is R450,000, and 10 of the 100 units would have to be at this price or below.
-

Option C

Simpson Diversity Index Housing Types

- **Detached residential:** also called a single-detached dwelling or separate house is a free-standing residential building.
- **Townhouse:** a type of medium-density housing (mostly in towns/cities), usually but not necessarily terraced (row housing) or semi-detached. A modern townhouse is often one with a small footprint on multiple floors, and includes duplexes.
- **Apartment building:** is a building that accommodates multiple dwellings above and beside each other, sharing common entrances.
- **Live/work:** a property that combines residential living space with commercial or manufacturing space, typically for a small business or home office.
- **Accessory unit:** is a suite that functions as an independent dwelling and is in a secondary building sharing a lot/site with the primary building e.g. a 'granny flat' or separate home office on the property.

A Simpson Diversity Index Calculator is provided in the online Socio-Economic Category Excel spreadsheet tool (see <http://www.gbcsa.org.za/rating-tools/green-star-sa-rating-system/>), which provides a framework for this calculation. The project can input the number of dwellings for each category of housing, and the spreadsheet will complete the Simpson Diversity Index scoring and indicate if the point would be achieved or not.

Part 2 - Staff accommodation

An example of 10% additional units for staff accommodation.

If a notional development provides 100 new accommodation units to the market, it would provide at least 10 additional accommodation units for lower-income staff and facilities management staff, making a total of 110 units.

Ownership and operational options for affordable low-income accommodation

There are a few different ways in which the staff accommodation units would be owned and managed/ operated. They could remain under the ownership of the developer, or be set up as "common area" in terms of sectional title. Or alternatively they could be privately owned by some of the owners of other larger / more expensive units in the development, typically as accommodation for their domestic-related staff.

The 'intended beneficiaries' for the staff accommodation includes "lower-income staff" which refers to a broad range of operational staff who might work in the building (or even nearby), for example domestic workers, cleaners, landscaping, security or maintenance staff, who typically earn under R10,000 a month. It can also include building caretakers/ janitors or facilities management or maintenance staff who are involved in the on-going maintenance of the building. The intention is to provide accommodation particularly for those who have to travel far from home to work each day, or who have to be at the building outside/ beyond traditional business hours.

In order for it to remain affordable for lower-income workers, the idea is for it to be provided at no cost, or to only have a nominal rental cost, and no levy (or fully subsidised levy) for the occupants.

All Options in Part 1 and Part 2

Monitoring income levels of residents and use of the space

A suggestion to developers (not part of credit compliance) is that they could request purchasers or tenants to show proof of income, as an indicator for checking that people from the intended income-bracket become the residents or owners, fulfilling the objective of this credit. It is also suggested (not required) that developers specify and monitor the use of the accommodation which is intended for lower-income groups e.g. the staff accommodation space should not be used as a home gym, or art studio or private study or office space.

BACKGROUND

The rationale and importance of Mixed-income Housing

According to the State of the Cities Report (2006) very poor households in South Africa's major cities spend up to 58% of their income on housing and transport and poor households spend 23% of their income on transport alone. Providing affordable housing to low and moderate income families closer to their places of work will ensure that they have more disposable income which they can use to pay for goods and services to improve their quality of life, and which in turn will stimulate local economic development (Brunick, 2004).

This is considered to be an important principle to promote in projects, as it has significant socio-economic impact over the life of a building. It is an important way that individual projects can contribute to improving the nature of our cities which tend to be exclusionary for a large proportion of their citizens. It helps unlock spatial concentrations of wealth and poverty which are ultimately unhealthy for society and unsustainable (Aubach 2005).

The Joseph Rowntree Foundation (2005) argues that mixed-income developments "should proceed from areas of market strength, nearby employment, amenities and infrastructure". If mixed-income developments are not well-situated in close proximity to these opportunity factors, the positive benefits for lower income families may not be realised or maximised.

The South African context

A Framework for an Inclusionary Housing Policy (IHP) was released by South Africa's national Department of Housing (now called Human Settlements) in 2007, after a consultation process with developers and stakeholders (SERI/ Tissington 2011). It advocates that a proportion (up to 30%) of new residential units developed are targeted for 'gap housing' (for those who earn too little to qualify for free RDP homes but not enough to qualify for a bond) and/or 'social housing'.

While this has not become legislation, and is not mandatory, some Metros, municipalities and provinces have adopted inclusionary housing policies and there are government housing projects around the country where this is being stipulated in some form.

This principle may be included in forthcoming residential developments where public-private partnerships are involved e.g. on state owned land, or where there could be state incentives, particularly where increased densities (including high-rise applications e.g. inner city regeneration) and mixed-income housing are desirable, such as along public transport routes.

It is estimated there are between 600 000 and 800 000 homes needed for this 'affordable housing' market, and it is apparently showing 'attractive growth' compared with other property market segments (Wessels 2010)¹⁵. In a recent presidential announcement, R83.5 billion in housing subsidies are being made available to enable low-to-mid income earners to take a step onto the housing ladder. (Commercial Property News, eProp on 30th July 2013).

The state's 'Finance Linked Individual Subsidy Programme (which provides a once-off subsidy for those who are able to access mortgage loan finance to acquire a residential property or to construct a house) recently increased the qualifying household income range to be from R3,501 up to R15,000 per month. (See Dept. of Human Settlements 'Adjustments to the FLISP Programme' 2012.) Accordingly, the range of income which will qualify for the 'affordable'/'gap' housing included this credit is also set at R3,501 to R15,000. As and when these income category amounts are updated by government (as gazetted and reflected on the Department of Human Settlements website), then they shall apply for this credit and it will be updated accordingly over time.

A range of options are provided in this credit, which can apply to a broad variety of projects which involve both private and public sector developers.

Simpson Diversity Index

The Simpson Diversity Index is a measure of diversity which was developed in 1949. It was devised to quantify the biodiversity of habitats / ecosystems, and it is used to characterize species diversity in a community. It is also now increasingly used by urban planners as well, and has been adapted for housing diversity applications, notably in the United States of America.

For example, the index takes into account different types of housing in a neighbourhood/ community and the total number of dwellings, and creates a score, from zero to one, representing the diversity of that housing. The communities closer to zero are the most diverse (Babin 2011). It calculates the probability that any two randomly chosen dwellings will be in different categories (Aurbach, 2005).

¹⁵ The 'gap'/'affordable' housing market opportunity is also outlined in the Centre for Affordable Housing Finance's 2012 presentation on this topic. See Reference section below.

The Simpson Diversity Index is used to measure diversity of housing accommodation in the Leadership in Energy and Environmental Design (LEED) for Neighbourhood Development tool which is part of the green building certification system developed by the U.S. Green Building Council (USGBC).

This very useful and relatively simple diversity measure is most useful for neighbourhood/precinct scale, but it is now also being adapted for individual developments in the Green Star SA 'Multi-Unit Residential Tool' (which can include multiple buildings), and particularly for mixed-income housing applications.

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APPENDIX A – SUMMARY OF CREDITS

CATEGORY	TITLE	CREDIT NO.	POINTS AVAILABLE
Socio-Economic Category (SEC) PILOT			
	Employment Creation	SEC - 1	2
	Economic Opportunity	SEC - 2	4
	Skills Development & Training	SEC - 3	3
	Community Benefit	SEC - 4	2
	Empowerment	SEC - 5	1
	Safety & Health	SEC - 6	1
	Mixed-Income Housing <i>*only for MUR tool</i>	SEC - 7	2
		TOTAL	13 – for most tools
		TOTAL	15 – for MUR tool