GOVERNMENT OF THE VIRGIN ISLANDS
Premier's Office

VIRGIN ISLANDS RECOVERY AND DEVELOPMENT AGENCY

# A. Jeffrey Caines Sports Arena

## Evaluating Value for Money

Project Number: EDU.01.25.151

## Executive Summary

The A. Jeffrey Caines Sports Arena project has been assessed using the RDA's Value for Money (VfM) Framework, which analyses projects' achievement of Economy, Efficiency, Effectiveness and Equity (4Es). Based on assessment using this Framework, the project received an overall VfM Score of **65 out of 100**.

Specifically, the respective scores for each aspect of VfM assessed are as follows:

| VfM Area | Score | Main Reasons |
|---|---|---|
| Economy | 0/10 | The final spend for this project was well over the original budget, given that the scope of the project was expanded to include not only the main building, but also the outside court, bathrooms, and parking lot including required drainage installation. |
| Efficiency | 20/40 | While the overall cost per square foot of the sporting facilities was largely in line with the international benchmark compared, the time taken to complete works was well over both the planned schedule and the benchmark time used due to scope expansion by the client, following Statement of Requirement (SoR) and contract signing. |
| Effectiveness | 40/45 | The project was able to achieve its targeted outputs – courts rehabilitated; and outcome – local and regional sporting events held in Virgin Gorda. The partial score was for the Quality aspect of effectiveness, due to some end-user complaints about leaks in the main building's roof and cracking in the parking lot pavement following project completion. |
| Equity | 5/5 | The project achieved a full score for Equity given that it has improved access to sporting facilities for the people of Virgin Gorda following passage of 2017's hurricanes, and Virgin Gorda can be viewed as an underserved community in the Territory. |
| **TOTAL** | **65/100** | |

Based on the VfM assessment conducted, the following lessons were also identified:

1) Ensuring contractors' financial viability to advance required work ahead of (re)payment by the RDA. Where contractors cannot meet these contractual requirements, this can negatively affect the pace of delivery with implications for results based on time and costs;
2) Improving stakeholder consultation throughout the project cycle, especially for the duration of the delivery/construction phase which can assist in remedying issues as these arise; and
3) Improved consistency in communication with wider community as projects develop such that community expectations can be managed; and the community is well-apprised of reasons for and impacts of delays.

Going forward, it will be important to ensure that the required project scope is clearly articulated in the beginning of the project through a signed Statement of Requirement (SoR) which is then later adhered to. Where requirements are not adequately accounted for, this negatively affects costs, time and results, as scope changes have implications for these elements. Clarity on project scope is therefore important for all stakeholders involved throughout the project cycle, including the client and the contractor, in order to ensure that expected results are achievable at outset, and are ultimately achieved by project completion.

# A. Jeffrey Caines Sports Arena (VG Sports Complex)

*Value for Money (VfM) Assessment Report*

## 1) INTRODUCTION

One of the core roles of the Recovery and Development Agency (RDA) is ensuring Value for Money (VfM) in the delivery of programmes and projects aimed toward recovery and development of the Virgin Islands. Section 5(2)(c) and (d) of the Virgin Islands Recovery and Development Regulations outline the value for money mandate of the RDA, specifying that:

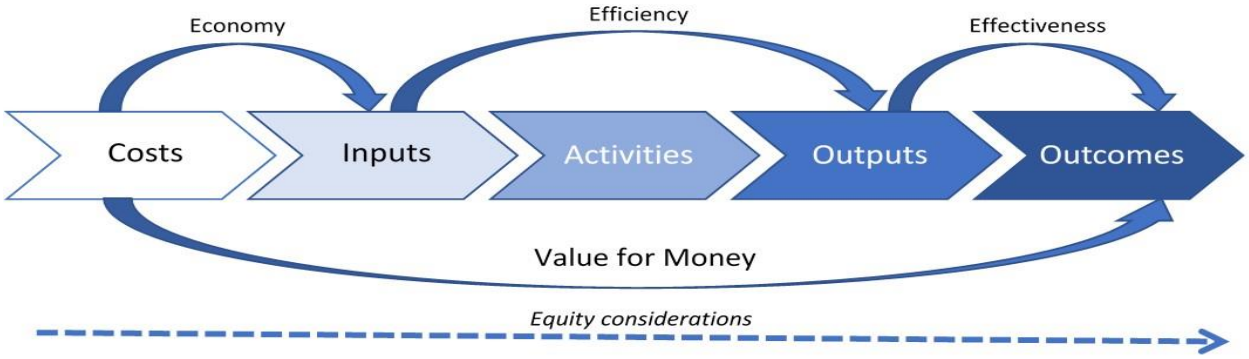
> The Agency shall be responsible for implementing the Government's Recovery and Development Plan in partnership with the Ministries and in so doing shall:
>
> (c) deliver the intended benefits; [and]
>
> (d) ensure that each project represents value for money.

To this end, the RDA has developed a Value for Money Framework and Methodology, which uses specific criteria to assess projects' Value for Money and assigns an overall VfM score for each project.

The VfM score is made up of eight indicators (listed in Table 1) within the four outlined areas of Value for Money, namely Economy, Efficiency, Effectiveness and Equity.

*Table 1: Value for Money Areas within the 4Es*

| VALUE FOR MONEY AREA | |
|---|---|
| **Economy** | Economy |
| **Efficiency** | Output Cost, Output Time, Schedule |
| **Effectiveness** | Output Effectiveness, Outcome Effectiveness, Quality |
| **Equity** | Equity |



The A. Jeffrey Caines Sports Arena project began in March 2019, aimed at rehabilitating the Sports Arena following significant damage from 2017's storms. The project involved reconstruction of the roof, resurfacing of the indoor basketball court as well as the outdoor, multipurpose court, rehabilitation of the bathroom facilities and parking lot. This particular project within the Phase One Programme was able to deliver on its outputs, providing improved access to recreational facilities for residents of Virgin Gorda, and enabling hosting of local and regional sporting events on the island. This project took place over a period of 822 days using $1.3 million.

The following sections of this report assess the overall Value for Money of the A. Jeffrey Caines Sports Arena project, using the methodology outlined in the RDA's VfM Framework Guidelines for Economy, Efficiency, Effectiveness and Equity.

## 2) Overview of Overall VfM Score (65 out of max 100 points)

The main challenge to a more successful overall VfM score for this project was the failure of the project to be within its estimated budget and schedule as well as the time benchmark used, which negatively affected the Economy, Time Efficiency and Schedule scores. The project was able to achieve its targeted outputs and contribute to a broader, inclusive outcome within the cost benchmark used, but faced challenges with Quality following the defects and liabilities period, resulting in a partial score for Quality, and full scores for Cost Efficiency, Output and Outcome Effectiveness, and Equity.

| A. Jeffrey Caines Sports Arena – VfM Scoring | | | |
|---|---|---|---|
| **Economy** | Economy | 0/10 | 0/10 |
| **Efficiency** | Cost Efficiency | 20/20 | 20/40 |
| | Time Efficiency | 0/10 | |
| | Schedule | 0/10 | |
| **Effectiveness** | Output Effectiveness | 20/20 | 40/45 |
| | Outcome Effectiveness | 15/15 | |
| | Quality | 5/10 | |
| **Equity** | Equity Goals | 5/5 | 5/5 |
| **Overall VfM Score** | | | **65/100** |
| **Total Adjusted VfM Score** | | | **65/100** |

The overall VfM score was 65 out of 100. This indicates some scope for improving overall Value for Money of this project, specifically as it related especially to time and quality. Spending above the budget with delays in project completion and quality challenges affected the Economy, Time Efficiency and Schedule, and Quality scores.

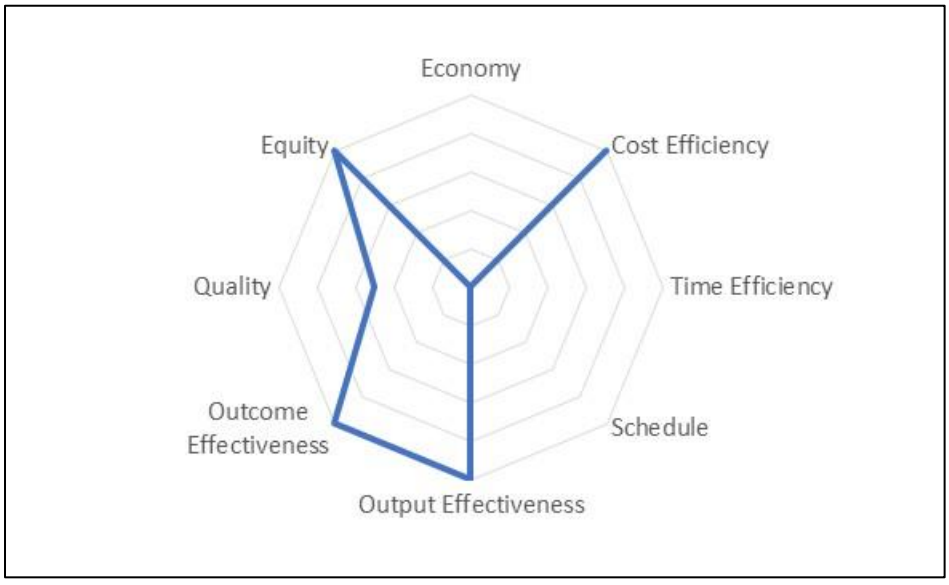
Following discussions on the importance of improving timing of RDA-implemented projects, given that efficiency is a core argument for the continued existence of the RDA in facilitating public sector recovery and development, a decision has been made to present an enhanced scoring framework for Value for Money in the RDA context, which further highlights timing. As such, the Table below presents a more time-focused assessment of VfM for the A. Jeffrey Caines Sports Arena project.

| A. Jeffrey Caines Sports Arena – Time Focused VfM Scoring | | | |
|---|---|---|---|
| **Economy** | Economy | 0/10 | 0/10 |
| **Efficiency** | Cost Efficiency | 20/20 | 20/50 |
| | Time Efficiency | 0/15 | |
| | Schedule | 0/15 | |
| **Effectiveness** | Output Effectiveness | 20/20 | 30/35 |
| | Outcome Effectiveness | 5/5 | |
| | Quality | 5/10 | |
| **Equity** | Equity Goals | 5/5 | 5/5 |
| **Overall Time Focused VfM Score** | | | **55/100** |
| **Total Adjusted Time Focused VfM Score** | | | **55/100** |

A focus on the time element results in an Overall Adjusted VfM Score of 55 out of 100 for this project activity. Going forward, the time focused VfM Score will be provided alongside the original VfM Scoring framework in all future VfM Reports, to further put into focus the importance of efficiency gains in RDA-implemented projects.

As part of an effort to continuously improve, the RDA has implemented cost containment strategies through more detailed planning efforts and improved time management to help propel efficiency gains and more adequately capture user requirements. This has included enhanced community engagement from the early stages of project planning throughout the project cycle.

**Figure 1: Overall Value for Money Scoring – Radar Chart**




The overall Value for Money Scoring Chart (Figure 1) demonstrates the excellent scores received for Cost Efficiency, Output and Outcome Effectiveness, and Equity; while assessment of Quality yielded partial scores and assessment of Economy, Time Efficiency and Schedule resulted in no points being assigned for these aspects of Value for Money.

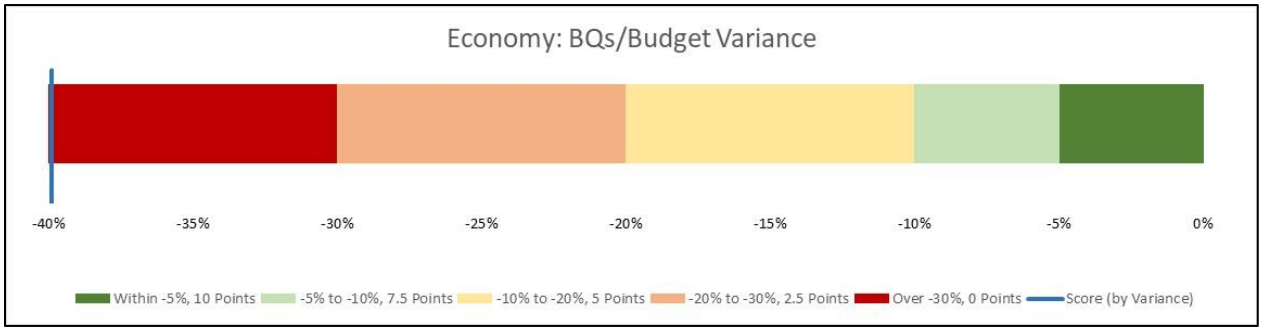
## 3) ECONOMY (0 out of max 10 points)

The economy of the A. Jeffrey Caines Sports Arena project has been assessed based on the original budget for the project. The project formed part of the Phase One Programme and was budgeted at $700,000. Within the Phase One Programme, this project was initially intended to simply entail reconstruction of the main court building. An increased scope entailed refurbishment of the outside court, bathrooms and parking.

The total spend for this project as at end of January 2023 is $1.3 million which is well above the original budget for this project in the Phase One Programme. As such, this project was not assigned any points in assessment of its Economy (Table 2).

*Table 2: Assessment of Economy*

| ECONOMY ASSESSMENT: 0/10 POINTS | |
|---|---|
| Original Budget | $700,000 |
| Actual Spend | $1,288.983.10 |
| Variance ($) | $588,983.10 |
| Variance (%) | -84.14% |
| **ECONOMY SCORE** | **0** |




## 4) ON BENCHMARKS USED

In calculating VfM Scores for both Cost and Time Efficiency, consideration has been given to performance against relevant benchmarks established for the production of specific outputs. Giving a background of the benchmarks used, and why, provides the necessary context for comparisons made.

In the case of the A. Jeffrey Caines Sports Arena project, the following benchmarks for cost and time have been used to assess cost and time efficiency:

| Type | Benchmark | Sources | Considerations |
|---|---|---|---|
| **Cost** | $250 per square foot rehabilitated | Cost per square foot for construction of sports facility: https://sportsfacilities.com/how-much-does-it-cost-to-build-a-sports-complex/ | The cost quoted is for construction of an indoor sports facility in the United States; Higher end of range ($150-$250) used since project also involved rehabilitation of outdoor court. |

| | | | |
|---|---|---|---|
| **Time** | 16.29 square feet rehabilitated per day | Time to construct full-sized basketball court facility:<br>(Time benchmark calculated as 5,980 square feet divided by planned 367 days = 16.29 square feet constructed/rehabilitated per day) | |

***Cost Benchmark***

The cost benchmark has been determined based on the quoted cost for construction of a sports facility, from www.sportsfacilities.com namely $250 per square foot. It should be noted that this benchmark has been sourced from the US market. Additionally, the A. Jeffrey Caines Sports Arena project also involved rehabilitation of the outdoor court at the facility alongside bathroom rehabilitation, and car park and drainage installation. Costs in the Virgin Islands are likely to be somewhat higher due to shipping, overhead and other considerations. That said, the cost of constructing the A. Jeffrey Caines Sports Arena, as demonstrated in the Cost Efficiency section, was less than the calculated benchmark used, and the project thus received full points in assessment of Cost Efficiency.

***Time Benchmark***

The time benchmark used was determined based on the planned number of project days and the number of square feet rehabilitated. This calculation has been routinely used where an external benchmark is not readily available. Based on this calculation, the average time taken to construct a sports arena has been determined to be an average of 16.29 square feet rehabilitated per day.

## 5) EFFICIENCY (25 out of max 40 points)

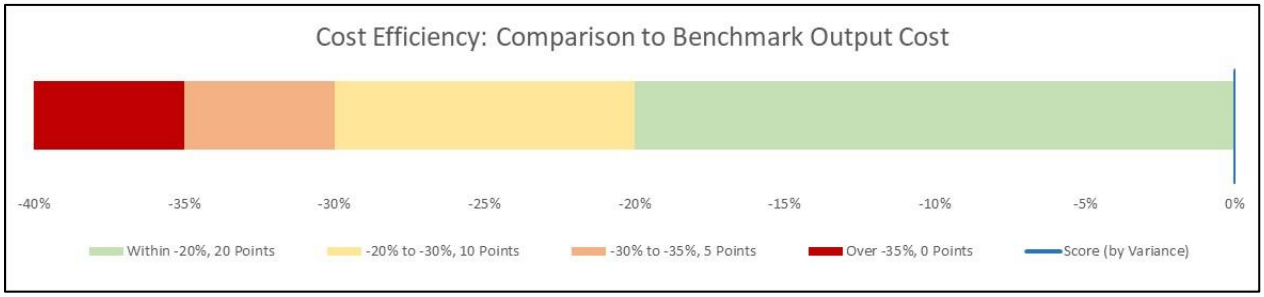
The efficiency of an intervention considers Output Cost (Cost Efficiency), Output Time (Time Efficiency) and Schedule.

*Cost Efficiency*

In terms of output cost, the project involved rehabilitation of 5,980 square feet of the main court building of the A. Jeffrey Caines Sports Arena using $1.3 million. This translates to an average of $216 per square foot rehabilitated and reconstructed. Based on research conducted, a benchmark cost for reconstruction of $250 per square foot has been used.[1] In this way, the cost of each output for this project was significantly higher than the benchmark cost, therefore no points have been assigned for cost efficiency (Table 3).

*Table 3: Cost Efficiency Assessment*

| COST EFFICIENCY ASSESSMENT: 20/20 POINTS | |
|---|---|
| Output Unit Cost | $215 per square foot |
| Benchmark Output Unit Cost | $250 per square foot |
| Variance ($) | $34.45 |
| Variance (%) | 14% |
| **COST EFFICIENCY SCORE** | **20** |




*Time Efficiency*

Having started on 19 March 2019, the project was initially slated to be completed by the 20 March 2020, that is within 367 days. The main building component of the project was completed on 18 June 2021, with a total recorded number of project days therefore at 822. Given the direct impact of the COVID-19 pandemic, with the Territory on total lockdown for 28 days between April and May 2020, the total number of project days has been adjusted to 794 to account for this lockdown period in assessment of time efficiency and schedule. In terms of assessment of time efficiency, the calculated adjusted output unit time was an average of 7.5 square feet rehabilitated per day, whereas the benchmark output unit time was calculated as an average of 16.3 square feet per day. This resulted in no points being assigned for Time Efficiency, as the actual outputs - square feet rehabilitated - produced within the timeframe (7.5 square feet rehabilitated per day) was well under the benchmark output unit time of 16.3 square feet rehabilitated per day (Table 4).

[1] Cost per square foot for construction of sports facility: https://sportsfacilities.com/how-much-does-it-cost-to-build-a-sports-complex/

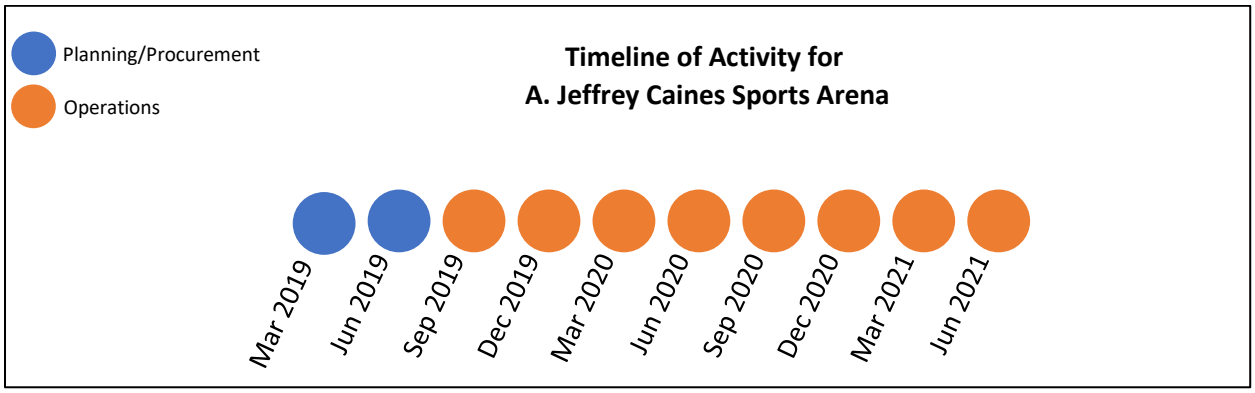
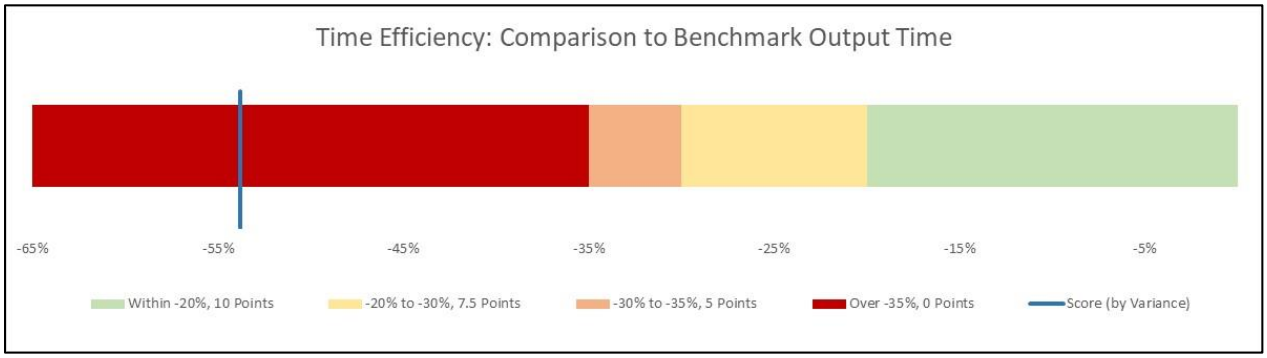



*Table 4: Time Efficiency Assessment*

| TIME EFFICIENCY ASSESSMENT: 0/10 POINTS | |
|---|---|
| Output Unit Time | Avg. 7.5 square feet deep cleaned per day |
| Benchmark Output Unit Time | Avg. 16.3 square feet deep cleaned per day |
| Variance (days) | (8.76) |
| Variance (%) | (53.8%) |
| **TIME EFFICIENCY SCORE** | **0** |

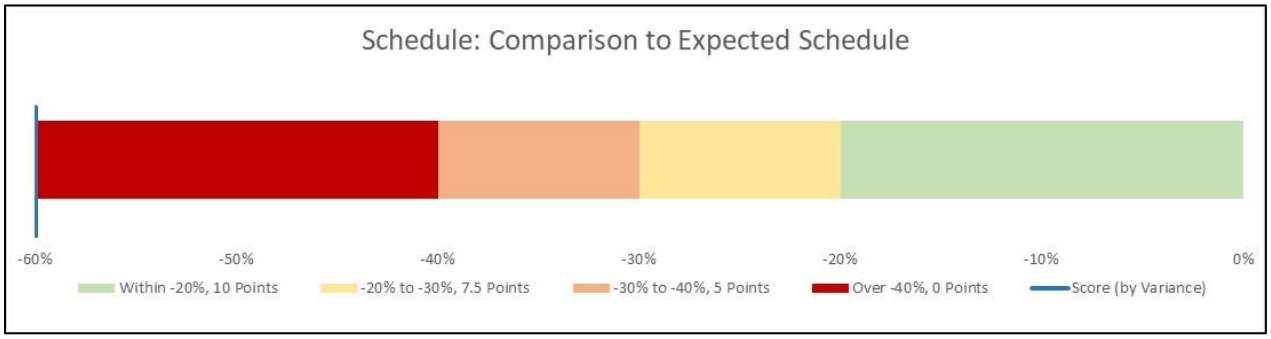



*Schedule*

In terms of schedule performance, given that there were 367 planned project days compared to a total number of actual project days at 822 days, and adjusted actual project days of 794 days, this variance of days meant that the project was 124% over its scheduled timeline, with 0 points thus awarded for the Schedule assessment (Table 5).

*Table 5: Schedule Assessment*

| SCHEDULE ASSESSMENT: 0/10 POINTS | |
|---|---|
| Planned Project Days | 367 days |
| Actual Project Days | 822 days |
| *Adjusted Actual Project Days* | *794 days* |
| Variance (days) | (455 days) |
| *Adjusted Variance (days)* | *(427 days)* |
| Variance (%) | (124%) |
| *Adjusted Variance (%)* | *(116.3%)* |
| **SCHEDULE SCORE** | **0** |



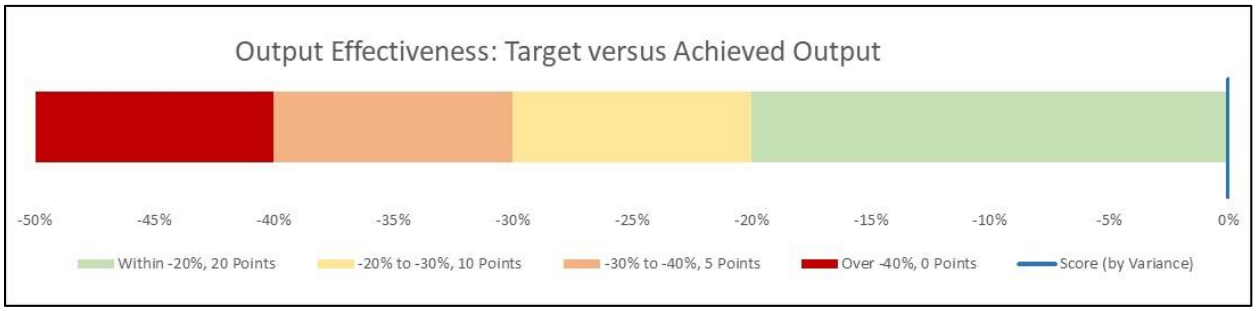

## 6) EFFECTIVENESS (40 out of max 45 points)

*Output Effectiveness*

Output effectiveness is a measure which compares targeted output indicators to achieved output indicators. In the case of the A. Jeffrey Caines Sports Arena, the total square footage targeted for rehabilitation was 5,980. The project was able to rehabilitate the targeted square footage, and hence a full 20 points has been assigned for Output Effectiveness (Table 6).

*Table 6: Target versus Achieved Output*

| OUTPUT EFFECTIVENESS ASSESSMENT: 20/20 | |
|---|---|
| Targeted Outputs Rehabilitated | 5,980 square feet |
| Achieved Outputs Rehabilitated | 5,980 square feet |
| Variance | (0) |
| Variance (%) | (0%) |
| **OUTPUT EFFECTIVENESS SCORE** | **20** |




*Outcome Effectiveness*

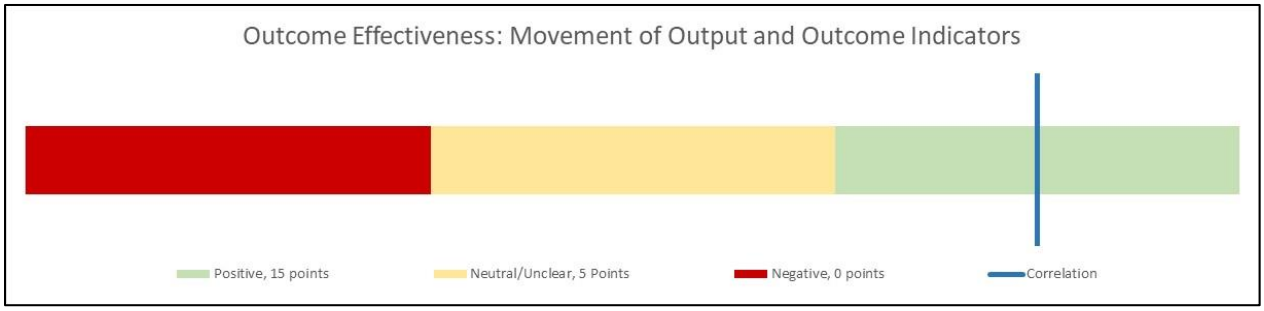
In terms of outcome effectiveness, the change relationship between the observed output and outcome has been used as a simple measure of outcome effectiveness. Using this methodology, the directional change in output is compared to the directional change in outcome. In the case of the A. Jeffrey Caines Sports Arena, both the output: square feet of main court building rehabilitated; as well as the outcome: hosting local and regional sporting events in Virgin Gorda; moved positively due to the execution of this project, i.e. as more square feet of the building were rehabilitated, more sporting events could be held at the refurbished facility on Virgin Gorda. Specifically, several events have since been hosted at the

rehabilitated Sports Arena on Virgin Gorda, following completion of rehabilitation of the main court, outside court, car park and bathrooms.

The change relationship between output and outcome has thus been deemed a positive correlation, and the maximum score of 15 points has been assigned (Table 7).

*Table 7: Relationship between Outputs and Outcomes*

| OUTCOME EFFECTIVENESS ASSESSMENT: 15/15 | |
|---|---|
| Output Change: square feet of main court building rehabilitated | +5,980 |
| Outcome Change: local and regional sporting events held on Virgin Gorda | + |
| Assessment of Change Relationship | Positive correlation |
| **OUTCOME EFFECTIVENESS SCORE** | **15** |




*Quality*

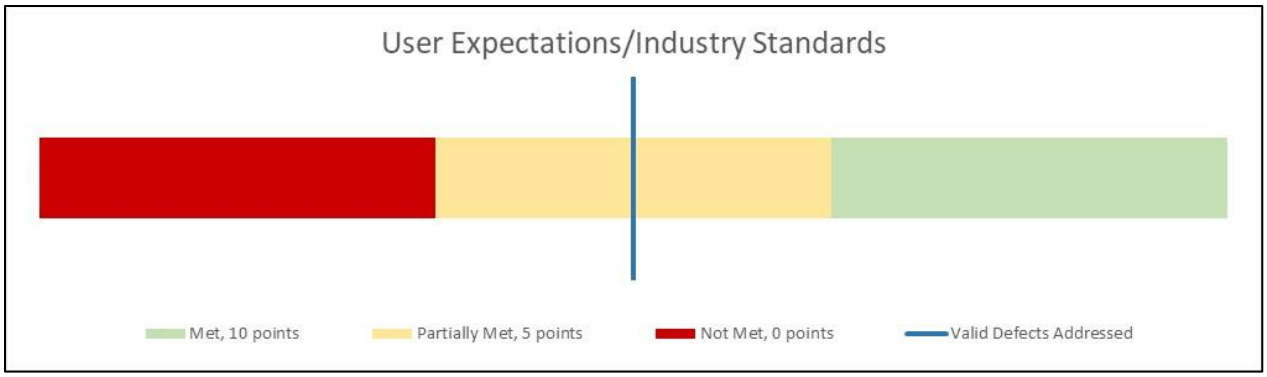
In terms of Quality, the extent to which the project met user expectations has been used as the basis on which to assess the quality of the A. Jeffrey Caines Sports Arena project. The following comments were received from end-users of the Sports Arena:

> *"We have noticed that water pools up in an area close to the restrooms. No easement for the run-off. Grass already growing through pavement break-way areas".*
>
> *"Increased the curb appeal".*
>
> *"The roof currently leaks (happened after the defects liability period) on the internal court".*
>
> *"Courts resurfaced, activities increased in the area as well as increased revenue for vendors".*

These comments reflect mixed feedback on the quality of the work done at the Sports Arena. While respondents observed that the project met some objectives in terms of resurfacing the courts and improving the aesthetics of the facility, defects in terms of leaks and water pooling have also been observed. As such, a partial score has been assigned in assessment of Quality for the A. Jeffrey Caines Sports Arena in Virgin Gorda.

*Table 8: Quality Assessment*

| QUALITY ASSESSMENT: 5/10 | |
|---|---|
| Beneficiary Satisfaction Score | 7 out of 10 |
| Quality Assessment (User Expectations) | Partially Met |
| **QUALITY SCORE** | **5** |




*Equity*

The Equity assessment of the A. Jeffrey Caines Sports Arena project recognises that the Virgin Gorda community is one of the sister island communities in the Virgin Islands which has sometimes been viewed as underserved by public facilities and services.

Appropriate recreational facilities for the community and in which local and regional sporting events could be held were crucial to ensuring equitable access to recreational facilities for Virgin Gorda residents. Rehabilitation of the main building, outside court, bathroom facilities and car park have been aimed at restoring access to appropriate recreational facilities on Virgin Gorda for that community. As such, this project has been deemed to have a positive impact on equity goals in the Territory, specifically as it relates to geographical equity.

*Table 9: Equity Assessment*

| EQUITY ASSESSMENT: 5/5 | |
|---|---|
| Improved access to recreational facilities for Virgin Gorda community | + |
| Equity Assessment (Equity goals) | Positive Impact |
| **EQUITY SCORE** | **5** |

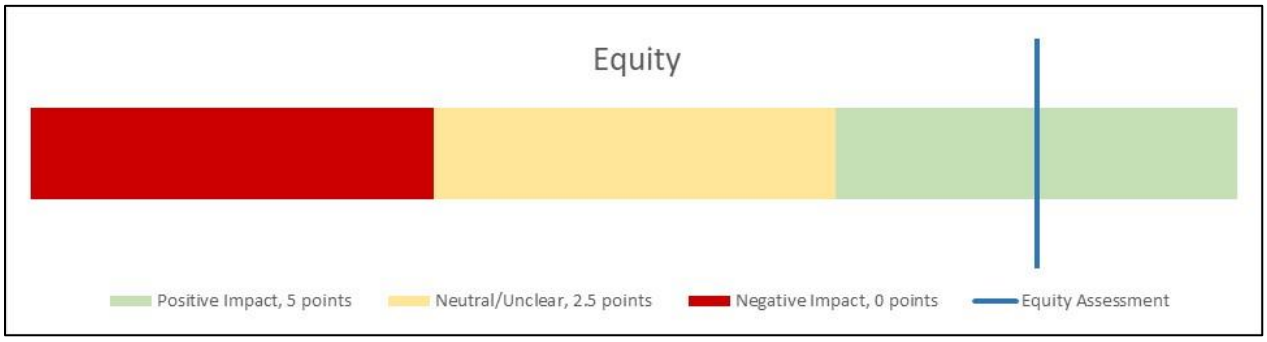
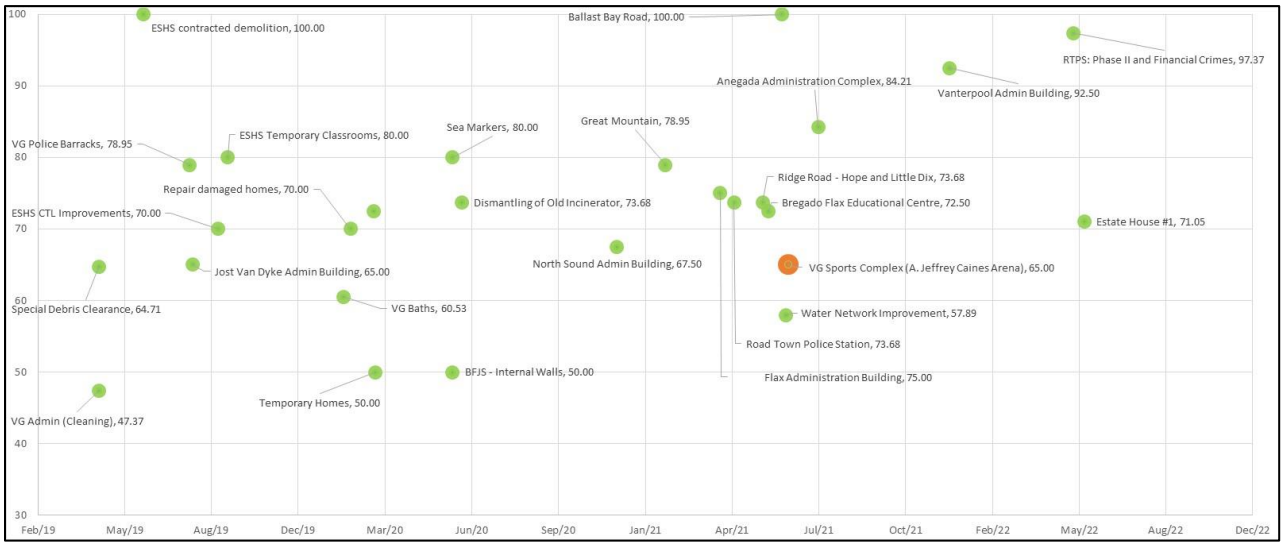


**Figure 2: VfM Score Comparison with Other Completed Projects**




Lessons identified coming out of the A. Jeffrey Caines Sports Arena project include:

1) Ensuring contractors' financial viability to advance required work ahead of (re)payment by the RDA. Where contractors cannot meet these contractual requirements, this can negatively affect the pace of delivery with implications for results based on time and costs;
2) Improving stakeholder consultation throughout the project cycle, especially for the duration of the delivery/construction phase which can assist in remedying issues as these arise; and
3) Improved consistency in communication with wider community as projects develop such that community expectations can be managed; and the community is well-apprised of reasons for and impacts of delays.

## 7) Conclusions

This report has been prepared using the RDA's Value for Money Framework in assigning a VfM Score to the A. Jeffrey Caines Sports Arena project based on Economy, Efficiency, Effectiveness and Equity. The importance of keeping accurate, up-to-date, readily-accessible information on project budgets, schedules, spending and results has once again been underlined in the process of conducting this VfM assessment. The Monitoring and Evaluation Team continues to play an important role in reviewing the quality of this information, and collating data for calculation of projects' VfM scores.

Achieving 65 points out of 100, the A. Jeffrey Caines Sports Arena project's VfM could have been enhanced through improved cost containment and time management, as well as improved quality in the output, given the reported defects noted. That said, the project was able to achieve its targeted outputs within the cost benchmark, contribute to a broader outcome, and deliver equity results, demonstrating perfect scores in Cost Efficiency as well as Output and Outcome Effectiveness, and Equity.