

PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS [redacted]

INTRODUCTION

[redacted] has submitted a request for Scottish Government grant funding in respect of a proposed new development of [redacted] Dwellings at [redacted].

A Technical Appraisal has been requested in connection.

The Technical Review focuses on the Construction Works cost only and scrutinises the cost information contained in the current Housing Tender Return (HTR) form as presented on HARP, along with supporting information and further documentation requested in substantiation.

TECHNICAL REVIEW**The Site**

The site is reported to be greenfield and the area recorded on the HTR is 1.78 hectares. The site is gently sloping with steeper slopes in the North and North East to North West. Although currently used for [redacted] and [redacted], the land was historically used for [redaction] and made ground is known to exist due to infilling. Re-contouring of the site and remedial groundworks to correct made ground and also contamination, will be required to accommodate the new development.

The Proposed Development

The proposed development of [redacted] units, comprises the construction of [redacted] semi-detached two storey units; [redacted] detached two storey units and [redacted] semi-detached single storey units.

Procurement

The Tender, dated 18th April 2023, was negotiated with a single Contractor on a Design and Build basis.

The Form of Contract is the SBCC Design and Build Contract for use in Scotland (DB/Scot), 2016 Edition, as amended by Amendment 1 – Contract Third Party Rights (February, 2018)

Appraisal

A Technical Review of the Project addressed the following main elements:-

A) - Construction Works Cost

The Works Cost was recorded on the HTR as at 26th May 2023 as **£9,944,126.00** and equates to:-

- **£[redacted]** average cost per dwelling (**[redacted] Nr**)
- **£[redacted]** average cost per bed space (**persons**) (**[redacted] Nr**)
- **£2,394.21** average cost per m2 (**based on total GIFA of 4,153.40 m2**)

It was reported that a value engineering exercise had been undertaken on the original Tender submission (20th February 2023) saving £615,829 00 and resulting in the Tender figure above.

PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS [redacted]

B) – Housing Tender Return (HTR) Form

- 1) HTR - Indices Update

The submitted HTR Indicated an Ad hoc figure of **36.91%**, and a Design Excess of **41.38%**.

The indices applied on the HTR were correct at the time of application.

- 2) HTR - Review of Content

Utility charges of £243,648.00 (exc. Preliminaries) are entered in error on the Ad-Hocs worksheet under External Works. Omission of same reduces Ad-hocs to 31.58% and increases Design Excess to 47.09%.

Fire suppression is included as an Additional Quality Benchmark item but was not identified as an additional cost or Ad-hoc on the HTR. This has however been included within Additional Quality Benchmark calculations at D) below.

The GIC Output worksheet of the HTR indicates significantly elevated costs for Substructure and External Works, with Superstructure also higher when compared with indicative costs for the works.

The Ad hocs, as presented on the HTR, for the purpose of this appraisal, remain unchanged.

C) - Dwelling Areas/Housing Mix

An exercise was carried out to compare designed areas with comparative NIC HfVN Part 1 “benchmark” areas. The Housing Mix and the comparative areas are shown in the table below:-

Housing Mix					Proposed Dwelling Designed Areas		NIC HfVN Part 1 - Benchmark” areas		
Nr	House Type	Tenancy	Storeys	Persons per dwelling Nr (Total Nr)	GIFA m2	Total Proposed GIFA m2	Minimum Benchmark GIFA m2	Total NIC Minimum Benchmark GIFA m2	Difference (Proposed to Benchmark)
[redacted]	Detached	Mainstream	2	[redacted]	[redacted]	1,060.80	[redacted]	918.00	[redacted]
[redacted]	Semi detached	Ambulant Disabled	1	[redacted]	[redacted]	998.40	[redacted]	858.00	[redacted]
[redacted]	Semi detached	Mainstream	2	[redacted]	[redacted]	180.00	[redacted]	153.00	[redacted]
[redacted]	Semi detached	Mainstream	2	[redacted]	[redacted]	414.40	[redacted]	346.00	[redacted]
[redacted]	Detached	Mainstream	2	[redacted]	[redacted]	915.30	[redacted]	778.50	[redacted]

PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS [redacted]

[redacted]									
[redacted]	Detached	Mainstream	2	[redacted]	[redacted]	584.50	[redacted]	485.00	[redacted]
[redacted]				[redacted]		4,153.40		3,538.50	[redacted]
TOTAL = DIFFERENCE ABOVE MINIMUM BENCHMARK AREAS									614.90 m2

- *The additional (net) area of 614.90 m2 is 17.38% above Benchmark areas per guidance, and notionally equates to £1,472,199.73 of the overall Works Cost (costed at the total Works cost rate £2,394.21/m2) NB Includes Preliminaries allowance.*
- *[redacted] out of [redacted] Dwellings are of Detached design. (NB In the absence of Detached design areas in the Guidance, areas representing the closest match to persons and Number of storeys have been used for comparison purposes.)*

D) - Additional Quality Benchmark Allowances

The standard HTR form, does not facilitate adjustment to the Basic Indicative Cost to include allowances in respect of Additional Quality Benchmarks. *Whilst it is understood that Additional Quality Benchmark allowances have recently been updated (June 2023), those in place since October 2021 have been included as current at the time of the grant application*. The differences between Additional Quality Benchmark allowances and actual Works Costs are calculated below with sums totalled to give the **overall net additional cost** over Benchmark allowances:-

ADDITIONAL QUALITY MEASURE	ACTUAL COST (NB Excluding Preliminaries) C)	*QUALITY BENCHMARK ALLOWANCE*	ADJUSTED ALLOWANCE (D)	DIFFERENCE (C) – (D)
Delivering Homes to full Bronze level plus aspect 2 of Silver level	£57,596.00	[redacted] @ £2,000 = £[redacted]	£[redacted]	-£[redacted]
Digital enabling	£12,672.00	[redacted] @ £300 = £[redacted]	£[redacted]	£[redacted]
Electric vehicle charging points (infrastructure)	£3,192.00	[redacted] @ £500 = £[redacted]	£[redacted]	-£[redacted]
Fire suppression Installations	£235,708.00	[redacted] @ £3,000 = £[redacted]	£[redacted]	£[redacted]
Zero direct emissions heating systems	£343,400.00	[redacted] @ £4,000 = £[redacted]	£[redacted]	£[redacted]

PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS [redacted]

TOTAL	£652,568.00	£[redacted]	£[redacted]	£[redacted]
ADDITIONAL QUALITY MEASURES - TOTAL NET DIFFERENCE (C) - (D)				£[redacted]

E) - Calculation of Notional Maximum Acceptable Gross Indicative Cost (GIC) per Guidance

More Homes Division Guidance states that the allowable Ad-hocs figure is limited to 25% and the Design Excess figure is limited to 15%. An exercise was carried out to establish the maximum allowable indicative cost based on these allowances. The resultant Cost Model for the Project is calculated as follows:-

(A) Tendered Construction Works Costs			(A)	£9,944,126.00
Ad Hoc Items from HTR	£1,889,655.33	(36.91%)		
Design Excess from HTR	£2,910,601.34	(41.38%)		
(B) Maximum Gross Indicative Construction Cost				
Basic Indicative cost	£5,119,232.80			
Ad Hoc Items (maximum 25% of BIC)	<u>£1,279,808.20</u>	25.00%		
Updated GIC	<u>£6,399,041.00</u>			
Design Excess (15% maximum on updated GIC)	<u>£959,856.15</u>	15.00%		
(B) Maximum Gross Indicative Construction Cost (Revised)				
	£7,358,897.15		(B)	£7,358,897.15

F) - Excess Cost

The difference between the actual Works Cost and the Cost Model is (A) – (B)	£2,585,228.85
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TECHNICAL SUMMARY

Construction Works Cost

The overall Works Cost, of **£9,944,126.00** , is not deemed excessive, given the current pricing climate and also considering the Specification includes the following:-

- 1) The Additional Quality items included as table D)
- 2) The following design “enhancements” which are indicated on the drawings but individual costs were not identified on the HTR:-
 - Facing brick features in two colours
 - Aesthetic features (rendered external wall insulated panels) at certain windows
 - Timber double glazed windows
 - Steel pergolas, posts and canopies (NB It was further reported that these have been already been Value engineered out in favour of timber canopies)
 - Photovoltaic panels (NB Actual cost was requested)
- 3) Ad hocs as listed on the HTR.
- 4) [redacted] out of [redacted] Dwellings are designed as Detached.

PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS [redacted]

- 5) [redacted] out of [redacted] Dwellings are designed as single storey Semi -detached.

HTR

It is recommended that the error concerning inclusion of Utility charges as an Ad-hoc referred to above is corrected and re-uploaded to HARP. The resultant percentages will reduce Ad hocs to **31.58%** and increase Design Excess to **47.09%**. The actual Works cost remains unaffected.

Dwelling Areas/Housing Mix

The combined dwelling areas are **17.38% above** benchmark areas for Affordable Housing.

The additional (net) area of **614.90 m2** above Benchmark areas per guidance, notionally equates to **£1,472,199.73** of the overall Works Cost (costed at the total Works Cost rate/m2 (inc Prelims)).

The additional area accounts notionally for approximately **56.95%** of the excess cost calculated at E) above.

The indicative area “Benchmark” table within guidance for Affordable Housing does not include two storey detached housing nor does it differentiate between detached, semi-detached or terraced for single storey housing. The areas used for comparison purposes are those considered nearest to the Project Design for the number of persons and the storey height.

59% of the Dwellings proposed are of Detached two storey design with a further 27.27% designed as Semi-detached single storey.

- **Because of the high percentage of detached two storey dwellings and also single storey Semi-detached dwellings, the Design proposal overall is not considered to be the most economical build solution for Affordable Housing.**

Additional Quality Benchmark Allowances

The actual costs of Additional Quality Items are listed in table D) and compared with allowances current at the time of the appraisal. The additional cost equates to **£278,836.02 (ex Preliminaries)**.

Notional Maximum Acceptable Gross Indicative Cost

Following Scottish Government Guidance, the Cost Model, representing the maximum Construction Cost eligible for consideration for Scottish Grant funding for the Project (which includes maximum 25% Ad-Hocs and 15% Design Excess) is calculated under Heading E) and outturns at **£7,358,897.15**.

Analysis Of Excess Cost

The Cost Model is **£2,585,228.25** below the actual Works Cost. There are a number of typically common features contributing to the excess cost which are generally acceptable and already covered by the maximum allowable Ad-hoc and Design Excess percentages. There are also further Project specific costs which are appraised as “inflating” the cost of the Works beyond maximum guidance. These have been abstracted and are categorised under specific headings in the table below. An allowance for Preliminaries @ 11.98% is applied at the end of the table.

ANALYSIS OF MAIN COSTS OVER MAXIMUM GROSS INDICATIVE COST	TENDER VALUE EXC PRELIMS
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PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS [redacted]

1. UNAVOIDABLE ADDITIONAL COSTS	
Substructure Additional work including additional mesh reinforcement and material off site	£88,247.00
External Works - Remedial works to made ground / re-contouring / material off site	£151,067.00
External Works - Capping layer to landscaped areas	£39,404.00
2. PLANNING CONDITIONS	
External Works - Accoustic fencing and enhanced landscaping	£177,227.00
- External Works - Bus stop and Toucan crossing	£51,299.00
3. DESIRABLE ITEMS	
Excess Dwelling areas (Cost as calculated under Heading C) £1,472,199.73 (inc Prelims)	(Ex Prelims) £1,314,698.81
Superstructure - Photovoltaic panels	£113,809.52
External Works - Adopted cycle route	£46,923.00
External Works - Recessed entrances to Plots	£41,261.00
4. DIFFERENCE IN ADDITIONAL QUALITY BENCHMARKS	
- Extra over costs of Quality Benchmark Items as calculated at Heading D)	£278,836.92
SUB TOTAL	£2,302,773.25
Allowance for Preliminaries on above @11.98%	£275,872.24
Balance (including Preliminaries)	£6,583.36
TOTAL EXCESS OF MAIN COSTS OVER MAXIMUM GROSS INDICATIVE COST	£2,585,228.25

CONCLUSION

- The value engineered revised Tender has been reviewed by an external Employer's Agent who has confirmed, within the Tender Report for the Project, that taking into account the design, housing mix, site constraints and planning conditions, the Tender submitted when compared with current negotiated and competitive tender levels represents, overall, value for money.

The appraisal concurs generally with the Tender Report, with the exception that the Design proposal overall is not considered to be the most economical build solution for Affordable Housing.

- The maximum construction cost, eligible for consideration for Scottish Grant funding for the Project and which fundamentally represents value for money, is calculated at £7,358,897.15.
- The table entitled “Analysis Of Main Costs Over Maximum Gross Indicative Cost” identifies costs which are deemed to be in excess of the maximum construction cost eligible for consideration for Scottish Grant funding for the Project. The categorisation of the items is to assist the grant provider in determining if there are exceptional circumstances for higher grant provision.
- Judgements on the eligibility and the overall proportion of grant applicable, remain decisions for the Area Team.

PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS [redacted]

Note:

The cost of the additional area over benchmark is calculated as a notional maximum figure and is based on the inclusion of all building elements, some of which may not necessarily form part of the overall calculation and, if omitted, would therefore return a lower value. This cost may also overlap with other “excess costs” identified in the appraisal. The accurate calculation of both is out with the scope of this appraisal. The main aim of the appraisal is to identify items which generally contribute to the excess cost.

Issued 11/07/23 2023 by [redacted]

Local Government and Housing Directorate | Scottish Government | More Homes Division

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

PREAMBLE

Introduction

[redacted] has submitted a request for Scottish Government grant funding in respect of a proposed new development of [redacted] Dwellings at [redacted].

A Technical Appraisal has been requested in connection.

The Technical Review focuses on the Construction Works cost only and scrutinises the cost information contained in the current Housing Tender Return (HTR) form as presented on HARP, along with supporting information and further documentation requested in substantiation.

The Site

The site is brownfield and 0.41 hectares in area.

The Proposed Development

The proposed development of [redacted] Nr new Dwellings, in [redacted] Blocks, comprises [redacted] Nr terraces each of [redacted] Nr units; [redacted] Nr terraces of [redacted] Nr units and 1 Block of [redacted] Nr single storey semi-detached units.

Procurement

The project was competitively tendered using Bills of Quantities.

Construction Cost

The Construction Works Cost, as recorded on the Housing Tender Return Form (HTR) presented on HARP, was **£3,829,424.86** and equated to: -

- [redacted] average per dwelling ([redacted] Nr)
- [redacted] average per bed space ([redacted] Nr)
- **£2,132.32** average per m2 (based on a GIFA of **1,795.90 m2**)

The Construction Works Cost was further revised to **exclude** Contingencies and a new HTR was submitted together with a revised Tender Report. The revised figures for the purpose of this Report are as follow:-

- **£3,736,024.24** - Construction Works Cost
- **£[redacted]** - Average per dwelling ([redacted] Nr)
- **£[redacted]** - Average per bed space ([redacted] Nr)
- **£2,080.31** - Average per m2 (based on a GIFA of **1,795.90 m2**)

TECHNICAL REVIEW

A Technical Review of the Project information focused on the following headings: -

1) - HTR Adjustments / Revised Gross Indicative Costs

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

The original HTR submitted indicated an Ad hoc figure of **23.07%**, with a Design Excess of **44.82%**.

The revised HTR indicated figures of 15.06% and 50.39% respectively

The Location and SSHTPI indices were updated to reflect the most recently published indices (March 2023).

The Gross Internal Floor Areas and Housing Mix were queried and subsequently corrected.

➤ **Following all above adjustments to the HTR, the respective figures altered marginally to 15.70% and 51.11%.**

➤ **The Ad-hocs figure is, therefore, well within guidance of 25% maximum limit but the Design Excess remains high at 51.11% when compared with guidance of 15% maximum limit.**

2) - Dwelling Areas

An exercise was carried out to compare designed areas with comparative NIC HfVN Part 1 “benchmark” areas. The Housing Mix and the comparative areas are shown in the table below: -

Housing Mix						Proposed Dwelling Designed Areas		NIC HfVN Part 1 - “Benchmark” areas		Difference
Nr	Tenancy Type	House Type	Storeys	Apartments (Total Nr)	Persons per dwelling (Total Nr)	GIFA m2 per unit (from HTR)	Total Proposed GIFA m2	GIFA m2	Total NIC GIFA m2	Proposed minus Benchmark
[redacted]	Mainstream	End Terrace	2	[redacted]	[redacted]	[redacted]	797.40	[redacted]	688.50	108.90
[redacted]	Mainstream	Mid Terrace	3	[redacted]	[redacted]	[redacted]	716.80	[redacted]	632.00	84.80
[redacted]	Wheelchair	Semi - detached	1	[redacted]	[redacted]	[redacted]	93.50	[redacted]	85.50	8.00
[redacted]	Mainstream	End Terrace	2	[redacted]	[redacted]	[redacted]	110.70	[redacted]	97.00	13.70
[redacted]	Ambulant disabled	Semi - detached	1	[redacted]	[redacted]	[redacted]	77.50	[redacted]	71.50	6.00
[redacted]				[redacted]	[redacted]		1,795.90		1,574.50	221.40

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

As demonstrated above, the total area proposed is **221.40 m² (14.06%) greater** than guidance for basic dwelling area requirements as NIC HfVN Part 1. – Using the project rate (revised to **£2,080.31/m²**) this would equate to an additional cost of **£460,580.63**.

3) – Review of Construction Works Costs**HTR information: -**

Referring to the GIC Output worksheet of the HTR, the Works Costs, compared to the Gross Indicative Cost, indicated elevated design costs relating, to **all** elements.

The original Works Cost worksheet of the HTR included negative costs set against basic Roads, Footpaths and Parking costs. This was queried and was subsequently adjusted in the revised HTR.

Within the Ad-hocs worksheet of the HTR, auto sum formulae had been entered in the worksheet cells of the Roads, Parking and Footpaths element, which totalled (and also duplicated) the costs of the other adjacent columns. This was queried and subsequently corrected in the revised HTR.

No items were included under the Additional Works section of the HTR.

A number of Planning Conditions were listed on a Planning Condition Tracker, which was provided as a supporting document. Allowance for the cost of only two of the Planning Conditions were included as Ad-Hocs. The author queried if compliance with the remaining Planning Conditions would have an additional financial implication which is currently not identified within Ad-Hocs. It was confirmed that no additional costs were associated with the remaining Planning Conditions.

Tender Report / Cost Analysis: -

The Tender Report was revised to include Contingencies at 2.5% (in lieu of originally 5%) as a result of a review of Client Contingency by [redacted]. This reduced the final overall Tender figure. The Tender Report advises that the reduction will require to be agreed with the Contractor.

The HTR was revised to exclude all Contingencies.

A detailed list of defined Provisional Sums was provided, totalling £411,750. The individual costs are included within the relevant elements of the Works Cost section of the HTR.

Provisional sums for repair work to boundary walls and repairs to roads and footpaths are included in the HTR as Ad-Hocs.

A Provisional Sum of £100,000 (plus Preliminaries) is included on the HTR for Fire Suppression equating to a total of £109,370.00. It was noted that the figure differs from the value included within the “Benchmark Calculator, Cost Monitoring and Fair Work First” document of £100,637.15. The Provisional Sum has been used for the purposes of this report.

It is likely that there will be expenditure against each of the Provisional Sums stated.

Preliminaries allowance was originally included as a proportion of the Works cost at 12.10%. The original Tender Report and the revised Tender Report both state that Preliminaries are included at 8.19%. The discrepancy was rectified on the revised HTR which now includes Preliminaries at 9.37%. The Preliminaries element is considered competitive for a project of this type.

Additional Quality Measures

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

The difference between Works Costs and the additional quality benchmark allowances is calculated below.

Additional Quality Measure	Actual Works Cost (NB Excluding Preliminaries) (C)	Quality Benchmark Allowance	Adjusted 3P. Allowance (D)	Difference (C) – (D) (NB Excluding Preliminaries)
Delivering Homes to full Bronze level plus aspect 2 of Silver level	£55,000.00	[redacted] @ £2,000 = £[redacted]	[redacted]	[redacted]
Digital enabling	£7,703.20	[redacted] @ £300 = £[redacted]	[redacted]	[redacted]
Sprinkler Installations	£100,000.00	[redacted] @£3,000 = £[redacted]	[redacted]	[redacted]
TOTAL	£162,703.20	[redacted]	[redacted]	[redacted]
Additional Quality Measures - Total Difference (C) - (D) (Net Cost of Additional Quality Measures)				£[redacted]

- *The Gross Indicative Cost (GIC) figure, within the current HTR, does not incorporate allowances in respect of additional quality benchmarks. The allowance has been calculated above at £[redacted] following 3P adjustment.*
- *The difference between the actual Works Costs and the Additional Quality Benchmark allowances amounts to an additional £[redacted] (excluding Preliminaries).*

4) – Cost Model - Calculation of notional maximum acceptable Gross Indicative Cost (GIC) eligible for grant per Guidance

More Homes Division Guidance states that the allowable Ad-hocs figure is limited to 25% and the allowable Design Excess figure is limited to 15%. Using the maximum Guidance allowances, the Indicative Cost model for the Project is calculated as follows: -

(A) Tendered Construction Cost	£3,736,024.24	(A)	£3,736,024.24
Revised Ad Hoc Total	£335,571.66	15.70%	
Revised Design Excess	£1,263,660.54	51.11%	
(B) Maximum Gross Indicative Cost calculation			
Adjusted Basic Indicative Cost (BIC)	£2,136,792.04		
Notionally adjusted Ad Hoc Items (maximum 25% of revised BIC)	£534,198.01	25.00%	
Sub total	£2,670,990.05		
Notionally adjusted Design Excess (15% maximum)	£400,648.51	15.00%	
(B) Maximum Gross Indicative Construction Cost	£	(B)	£3,071,638.56 Dt

The difference (A) – (B) is equal to **£664,385.68**.

5) - Excess Costs

The value included within the Ad-hocs section of the HTR is below the 25% allowance per maximum guidance levels and would cover items such as demolition, groundworks, foundations and gas membrane.

The difference of **£664,385.68** equating to the maximum gross indicative cost eligible for grant consideration per guidance, and the Tender is mainly attributable to the items below: -

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

INDICATIVE ANALYSIS OF EXCESS COSTS	Works Cost (excluding Prelims)	Works Cost (including Prelims) @9.37%
1. - Unavoidable Costs		
- Diversion of existing services	£110,000.00	£120,307.00
- Repair work to existing boundary walls	£10,000.00	£10,937.00
2. – Additional Quality Benchmark Measures		
- Difference between actual Works Cost and Benchmark allowances (from Table at Heading 3)	£66,076.04	£72,267.36
3. – Additional Area		
- Notional cost of Additional area above guidance	£421,121.54	£460,580.63
Sub Total	£607,197.58	£664,091.99
- Minor items to balance		293.69
INDICATIVE ACTUAL DESIGN EXCESS (INCLUDING PRELIMINARIES)		£664,385.68

As can be seen the predominant factor is the excess additional area above guidance.

The remainder of the additional cost is mainly attributable to unavoidable costs including diversion of existing services and repair works to existing boundary walls.

TECHNICAL SUMMARY

In response to queries and following adjustments to the HTR above, the Ad-hocs are now **15.70 %** with a Design Excess of **51.11 %**.

As calculated under Heading 2), the area of the proposed units are in excess of the “Benchmark areas” indicated in guidance note “HIGN 2008/06 - HfVN Part 1” - Dwelling Areas”. This is the considered to be **the main factor** for cost being in excess of that indicated for typical Affordable Housing,

The remaining items reasoned to be contributing to the additional cost are included in the analysis table above under Heading 5).

The Cost Model (for construction works only), has been calculated **without** the addition of site/project specific items and includes 25% Ad hocs and 15% Design Excess only calculated in accordance with Guidance as Heading 2) above. On this basis, [redacted] dwellings of typical Affordable Housing Specification (and the maximum cost eligible for consideration for Scottish Grant funding), would therefore be **£3,071,638.56**.

Judgements on the eligibility and the overall proportion of grant applicable, remain decisions for the Area Team.

Note (Referenced above):-

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

The cost of the additional area over benchmark is calculated as a notional maximum figure and is based on the inclusion of all building elements, some of which may not necessarily form part of the overall calculation and, if omitted, would therefore return a lower value. This cost may also overlap with other “excess costs” identified in the relevant table. The accurate calculation of both is out with the scope of this appraisal. The main aim of the table is to identify the constituent items which contribute to the excess cost.

Issued 21st June 2023 by [redacted]

[Local Government and Housing Directorate](#) | [Scottish Government](#) | [More Homes Division](#)

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] UNITS [redacted]

PREAMBLE

Introduction

A new development, of [redacted] Dwellings at [redacted] is proposed for [redacted] of the Units by [redacted].

The Local Authority area is [redacted].

The [redacted] cost appraisal suggests that there is a deficit between the cost of development and the [redacted]. A request for [redacted] grant funding has therefore been lodged via the Scottish Government [redacted].

A Technical Appraisal, has been requested to establish if the construction costs are acceptable and if the cost of Construction Works represents value for money.

The Technical Review focuses on the construction cost information contained in the Housing Tender Return (HTR) form, and supporting information presented on HARP, along with further documentation received.

The Site

The site is greenfield and approximately 1.01 hectares in area.

The Proposed Development

The proposed development, comprises the construction of [redacted] new dwellings for private sale.

Procurement

The costs are provided by the [redacted].

Construction Cost

The Construction Works Cost, as presented on HARP, is **£3,657,193.48** which equates to:-

- **£[redacted]** average per dwelling ([redacted] Nr)
- **£[redacted]** average per bed space ([redacted] Nr)
- **£2,210.59** average per m2 (based on a GIFA of **1,654.40 m2**)

TECHNICAL REVIEW

A Technical Review of the Project information focused on the following four main headings:-

1) - HTR Adjustments / Revised Gross Indicative Costs

The Location and SSHTPI indices were found to be included correctly on the HTR.

The HTR, as submitted, indicated an Ad hoc figure of 24.31%, with a Design Excess of 7.80%.

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] UNITS [redacted]

Amendments were required to rectify incorrect entries on the HTR, which resulted in an increase on both indices to **27.26%** and **9.19%** respectively

- **The HTR Ad-hoc percentage is marginally above the maximum guidance of 25%, whilst the Design Excess is below maximum guidance of 15%.**

2) - Dwelling Areas

An exercise was carried out to compare designed areas with comparative NIC HfVN Part 1 “benchmark” areas for Affordable Housing. The Housing Mix and the comparative areas are shown in the table below:-

Housing Mix						Proposed Dwelling Designed Areas		NIC HfVN Part 1 - “Benchmark” areas		Difference
Nr	Type	House Type	Storeys	Nr Apartments (Total Nr)	Persons per dwelling (Total Nr)	GIFA m2 per unit	Total Proposed GIFA m2	Minimum Benchmark GIFA m2	Total NIC Minimum Benchmark GIFA m2	(C) (D)
[redacted]	Mainstream	Semi-detached	2	[redacted]	[redacted]	[redacted]	1,654.40	[redacted]	1,384.00	
[redacted]				[redacted]	[redacted]	(C)	1,654.40	(D)	1,384.00	[redacted]

As demonstrated above, the proposed gross internal floor areas of the new dwellings were found to be greater than NIC HfVN Part 1 basic dwelling area requirements for Affordable Housing.

- **The overall additional (net) area of 270.40 m2 is 19.54% above NIC Guidance “Benchmark” dwelling areas, and equates, notionally, to £597,743.54 (ie calculated at the project rate of £2,210.59/m2). (Refer also, to Note A on last Page below)**

3) – Review of Information Received

Site Investigation Report:-

The Site Investigation Report dated 20th December 2020 identified the following:-

- A disused railway cutting traverses the site. The base level of the former cutting varies by up to three metres below the existing surrounding ground level.
 - The ground generally comprises topsoil 300 to 400 thick on medium dense granular soil.
 - Mesh reinforcement is recommended for inclusion in concrete strip foundations.
 - There were no other site contamination, ground water, radon gas or mining issues.
- **The railway cutting across the site will require remediation infilling works to restore levels conducive to the new construction. The thick topsoil layer will also require to be replaced with imported materials to suit new levels and the construction. Both affect the foundation design. It is therefore reasonable to expect the costs of Substructure, External Works, Roads, Parking and Footpaths to be elevated.**

Construction Works Cost Analysis:-

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] UNITS [redacted]

A summary cost analysis was received prior to presentation of the HTR.

No Contingencies allowance was identified within the cost analysis.

No Provisional Sums were identified within the cost analysis.

The Preliminaries value was 9.50%, which is lower than typically expected for a Project of this nature.

There were no significant cost deviations indicated in the cost percentages, when compared with typical construction analysis.

Site Layout; Internal Plans and Elevations:-

From a review of the Drawings, and subsequent communication with the applicant, the design proposals include a standard Specification for timber framed construction augmented by the following main items:-

- ✚ Trench fill foundations incorporating mesh reinforcement
- ✚ Environmental capping layer to landscape areas.
- ✚ Diversion of existing sewer and reconnection at corner of site
- ✚ Air source heat pumps
- ✚ Downstairs toilet/shower area
- ✚ Insulation exceeding building regulations requirement.
- ✚ Enhanced room areas to suit end user appeal (and therefore [redacted])
- ✚ Facing brick external walls / wall features (required by Planning)
- ✚ Slate effect roofing tiles (required by Planning)
- ✚ Additional requirements to naturalise the existing railway cutting through the site and also beyond the area of building works, to include provision of drainage and maintain a route for walkers (required by Planning).
- ✚ Scottish water/ SEPA requirements to include attenuation tank and fin drainage.

Although the development costs included meeting silver standard, installation of air source heat pumps and digital enabling, it was noted that automatic fire suppression and electric vehicle charging point were excluded.

HTR information:-

The GIC Output Worksheet of the HTR, indicated elevated costs, for elements of Substructure, External Works and also Roads, Parking and Footpaths.

Conversely, the actual Works Cost of the Superstructure element was found to be **less** than the Gross Indicative Cost.

The Ad-Hoc items appear to be satisfactory in the amounts as stated.

4) – Cost Model for Affordable Housing

An exercise was carried out to compare the actual development costs with the maximum cost eligible for grant funding for Affordable Housing. This includes allowable Ad-hocs of 25% and an allowable Design Excess of 15%. On this basis the Indicative Cost model for the Project is calculated as follows:-

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] UNITS [redacted]

(A) Tendered Construction Cost	£3,657,193.48	(A)	£3,657,193.48
Current Ad Hoc Total	£706,649.36	27.26%	
Current Design Excess	£307,912.46,	9.19%	
(B) Maximum Gross Indicative Cost calculation			
Adjusted Basic Indicative Cost (as revised BIC)	£2,592,618.16		
Notionally adjusted Ad Hoc Items (maximum 25% of revised BIC)	£648,154.54	25.00%	
Sub total	£3,240,772.70		
Notionally adjusted Design Excess (15% maximum)	£486,115.90	15.00%	
(B) Maximum Gross Indicative Construction Cost (Affordable Housing)	£3,726,888.60	(B)	£3,726,888.60 Dt
Difference (A) – (B)			- £69,695.12

➤ *The net difference in cost indicates that the actual construction cost of the [redacted] Nr new dwellings for [redacted] is £69,695.12 less than the notional maximum cost eligible for grant for building [redacted] Nr Affordable Housing units.*

TECHNICAL SUMMARY

- The notional Cost Model, calculated under Heading 4) above, indicates that [redacted] dwellings of Affordable Housing standard specification should cost a maximum of **£3,726,888.60** to build.
- The Actual Project cost of **£3,657,193.48**, which includes additional essential and enhancement items identified under heading 3) above, is less than this figure by **£69,695.12**.
- Taking into account, not only the additional essential and enhancement works identified above, but also the current global circumstances which have resulted in significant rises in the costs of both labour and materials, the construction cost is considered to be acceptable, competitive in price and to represent good value for money.
- Whilst construction costs have become significantly elevated due to Covid and the Ukrainian conflict, it is suggested that existing average [redacted] are not affected in the same manner as these are not affected by recent / current costs of materials and labour. Instead, [redacted] are influenced by demand in the particular area. This is potentially the main reason for the deficit between average [redacted] when compared with new build construction costs, as the costs do not increase concurrently.

Judgements on the eligibility and the overall proportion of grant applicable, remain decisions for the Area Team.

Note (Referenced above):-

A) The cost of the additional area over HfVN “benchmark” areas (as included in Guidance Note HIGN 2008/06 - New Indicative Cost tables) is calculated as a notional maximum figure and is based on the inclusion of all building elements, some of which may not necessarily form part of the overall calculation and, if omitted, would therefore return a lower value. This cost may also overlap with other “excess costs” if identified elsewhere. The accurate calculation of both is out with the scope of this appraisal. The main aim of the table is to identify the constituent items which may contribute to the excess cost.

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] UNITS [redacted]

Issued 24th April 2023 by [redacted]

[Local Government and Housing Directorate](#) | [Scottish Government](#) | [More Homes Division](#)

HARP REF: [redacted] – PROPOSED DEVELOPMENT – [redacted] DWELLINGS, [redacted]

PREAMBLE

Introduction

[redacted] has submitted a request for Scottish Government grant funding in respect of a proposed new development of [redacted] Dwellings at [redacted]

A Technical Appraisal has been requested in connection.

The Technical Review focuses on the Construction Works cost only and scrutinises the cost information contained in the current Housing Tender Return (HTR) form as presented on HARP, along with supporting information and further documentation requested in substantiation.

The Site

The site is described as greenfield on HARP (Tender Normative Standards). However the Geo-environmental Investigation requested includes that *“the site is reported to have been used as part of the previous phases of house building”*

The site is reported to be **3.16 hectares** in area.

The Proposed Development

The Housing Mix for the proposed development of [redacted] Nr new dwellings is detailed later in this report

Procurement

The project was competitively tendered using traditional Bills of Quantities.

The form of contract is the Standard Building Contract with Quantities for use in Scotland (SBC/Q/Scot), 2016 edition.

It was noted that the lowest Tender expires 11th July 2023

Construction Cost

The Construction Works Cost, as recorded on the original Housing Tender Return Form (HTR) presented on HARP, was £16,489,291.10 and equated to: -

- [redacted] average per dwelling [redacted](Nr)
- [redacted] average per bed space [redacted](Nr)
- £2,689.49* average per m2 (based on a GIFA of 6,131 m2)

**NB The price/m2 of £2,462.49 indicated in Appendix C of the Tender Report is incorrect.*

The gross internal floor area (GIFA) on the HTR was amended to **6,220 05 m2** to include applicable common areas.

HARP REF: [redacted] – PROPOSED DEVELOPMENT – [redacted] DWELLINGS, [redacted]

It was identified that Contingencies and Dayworks allowances were included within the Preliminaries value of the Works costs. These costs were subsequently omitted and the figures altered accordingly. The HTR was revised resulting in the following figures, which have been used in this appraisal:-

- **£15,921,040.83** Revised Works Cost
- **[redacted]** Revised average per Dwelling [redacted] (Nr)
- **[redacted]** Revised average per Bed Space [redacted] (Nr)
- **£2,559.65** Revised average per m2 (based on **6,220 m2** GIFA)

TECHNICAL REVIEW

A Technical Review of the Project information focused on the following headings: -

1) - HTR Adjustments / Revised Gross Indicative Costs

The HTR, as submitted, indicated an Ad hoc figure of 15.46%, with a Design Excess of 49.92%.

The Location and SSHTPI indices applied, represent published indices (March 2023) at the time of the grant application.

Discrepancies in the Gross Internal Floor Areas were queried and subsequently corrected to include common areas, and also to align with the gross internal floor area in the Tender Report.

Contingencies and Dayworks, as stated above, were deducted from the original Works Cost.

Provisional sums were reallocated across the Works Cost Input worksheet of the HTR.

As a direct result of the above, the Preliminaries were adjusted on the Works Cost Input worksheet of the HTR and reduced from 19.61% to **11.01%**.

Certain entries on the HfVN PART 1 were found to be incorrect and were adjusted.

The Site Details Input sheet contained the following entries:-

Nr of persons	[redacted]
5	[redacted]
6	[redacted]
7	[redacted]

The Project however includes 2 Nr 8 person wheelchair units. The current HTR does not facilitate indicative costings for 8 person units. An exercise was carried to correct the entries on a notional HTR and the indicative costs adjusted accordingly as follows (changes highlighted red).

5	[redacted]
6	[redacted]
7	[redacted]

HARP REF: [redacted] – PROPOSED DEVELOPMENT – [redacted] DWELLINGS, [redacted]

8 [redacted]

- *Following all of the above adjustments, including notional 8 person figures, the revised Ad-hocs outturns at 14.79% and is within guidance of 25% maximum limit.*
- *The revised Design Excess, out turning at 46.36 % remains high, when compared with guidance of 15% maximum limit.*

2) - Dwelling Areas

An exercise was carried out to compare designed areas with comparative NIC HfVN Part 1 “benchmark” areas. The Housing Mix and the comparative areas are shown in the table below: -

Housing Mix						Proposed Dwelling Designed Areas		NIC HfVN Part 1 - “Benchmark” areas		Difference
Nr	Tenancy Type	House Type	Storeys	Apartments (Total Nr)	Persons per dwelling (Total Nr)	GIFA m2 per unit (from HTR)	Total Proposed GIFA m2	[redacted]	Total NIC GIFA m2	Proposed minus Benchmark
[redacted]	Ambulant Disabled	Cottage Flat	2	[redacted]	[redacted]	[redacted]	245.00	[redacted]	237.50	7.50
[redacted]	Mainstream	Cottage Flat	2	[redacted]	[redacted]	[redacted]	290.00	[redacted]	237.50	52.50
[redacted]	Wheelchair	Detached	1	[redacted]	[redacted]	[redacted]	58.00	[redacted]	58.50	-0.50
[redacted]	Wheelchair	Semi-detached	1	[redacted]	[redacted]	[redacted]	116.00	[redacted]	117.00	-1.00
[redacted]	Wheelchair	Detached	1	[redacted]	[redacted]	[redacted]	168.00	[redacted]	171.00	-3.00
[redacted]	Mainstream	End Terrace	2	[redacted]	[redacted]	[redacted]	344.00	[redacted]	306.00	38.00
[redacted]	Mainstream	Mid Terrace	2	[redacted]	[redacted]	[redacted]	430.00	[redacted]	395.00	35.00
[redacted]	Wheelchair	Semi-detached	1	[redacted]	[redacted]	[redacted]	206.00	[redacted]	196.00	10.00

HARP REF: [redacted] – PROPOSED DEVELOPMENT – [redacted] DWELLINGS, [redacted]

[redacted]	Wheelchair	End Terrace	2	[redacted]	[redacted]	[redacted]	218.00	[redacted]	230.00	-12.00
[redacted]	Mainstream	End Terrace	2	[redacted]	[redacted]	[redacted]	1,836.00	[redacted]	1,746.00	90.00
[redacted]	Mainstream	Mid Terrace	2	[redacted]	[redacted]	[redacted]	1,326.00	[redacted]	1261.00	65.00
[redacted]	Wheelchair	Semi-detached	2	[redacted]	[redacted]	[redacted]	258.00	[redacted]	*273.00	** -15.00
[redacted]	Ambulant Disabled	Flat	3	[Redacted]	[redacted]	[redacted]	220.60	[redacted]	190.00	30.60
[redacted]	Mainstream	Flat	3	[redacted]	[redacted]	[redacted]	441.20	[redacted]	380.00	61.20
[redacted]				[redacted]	[redacted]		6,156.80		5,798.50	358.30
	Common areas					Redacted]	63.25	Allocation	63.25	0.00
							6,220.05		5861.75	358.30

As demonstrated above, the total area proposed (**excluding** common areas) is **358.30 m2 (6.18%)** overall **greater** than guidance, for basic dwelling area requirements, as NIC HfVN Part 1.

Using the project rate (**£2,559.65/m2**) the additional notional cost would equate to **£917,122.60**. (Refer also to Note (1) at end)

Certain dwelling types are marginally below guidance areas for Affordable Housing. The net areas are shown as negative figures and highlighted red in the above table.

**The NIC HfVN Part 1 base table of dwelling areas does not include areas for 8 person dwellings. The largest area for a two storey 7 person wheelchair house of 136.50 m2 has therefore been used for comparison purposes.

It is noteworthy that the actual design area for the proposed 8 person house, is **less** than the largest “benchmark” area for a two storey 7 person wheelchair dwelling.

3) – Review of Construction Works Costs

HTR information: -

HARP REF: [redacted] – PROPOSED DEVELOPMENT – [redacted] DWELLINGS, [redacted]

Referring to the GIC Output worksheet of the HTR, the Works Costs, compared to the Gross Indicative Cost, indicated significantly elevated design costs relating particularly to Substructure and Roads Parking and Footpaths elements. The External Works element is also elevated.

The combined Tender cost of External Works and Roads Parking and Footpaths accounts for 35.43% of the Works Tender price including associated Preliminaries and Provisional Sums. This is 5.43% higher than the average price results of circa 30% for similar development (obtained from the Building Cost Information Service) and represents **£864,600.84** additional cost.

Tender Report / Cost Analysis: -

The HTR was revised to exclude all Contingencies and Dayworks.

A detailed list of defined Provisional Sums was provided within the Tender Report, totalling **£118,200.00**. The individual costs are included within the relevant elements of the Works Cost section of the HTR.

It is likely that there will be expenditure against each of the Provisional Sums.

It was noted that the Tender figure included **£285,505.00** for PV panels including Preliminaries allocation.

Additional Quality Measures

The difference between Works Costs and the additional quality benchmark allowances is calculated below.

Additional Quality Measure	Actual Works Cost (NB Excluding Preliminaries) (C)	Quality Benchmark Allowance	Adjusted 3P. Allowance (D) 111.6	Difference (C) – (D) (NB Excluding Preliminaries)
Digital enabling	£61,150.00	[redacted] @ £351 = [redacted]	[redacted]	[redacted]
Fire suppression	£619,740.00	[redacted] @£3,507 = [redacted]	[redacted]	[redacted]
TOTAL	£680,890.00	[redacted]	£252,360.22	£428,529.78
Additional Quality Measures - Total Difference (C) - (D)				
= Net Cost of Additional Quality Measures				[redacted]

- *The Gross Indicative Cost (GIC) figure, within the current HTR, does not incorporate allowances in respect of additional quality benchmarks.*
- *The difference between the actual Works Costs and the Additional Quality Benchmark allowances amounts to an additional [redacted] (excluding Preliminaries allocation) following 3P adjustment.*

4) – Cost Model - Calculation of notional maximum acceptable Gross Indicative Cost (GIC) eligible for grant per Guidance

More Homes Division Guidance states that the allowable Ad-hocs figure is limited to 25% and the allowable Design Excess figure is limited to 15%. Using the maximum Guidance allowances, the Indicative Cost model for the Project is calculated as follows: -

(A) Tendered Construction Cost	£15,921,040.83	(A)	£15,921,040.83
Ad Hoc Total	£1,293,736.79	14.79%	
Design Excess	£5,042,951.31	46.36%	
(B) Maximum Gross Indicative Cost calculation			
Adjusted Basic Indicative Cost (BIC)	£8,746,161.29		

HARP REF: [redacted] – PROPOSED DEVELOPMENT – [redacted] DWELLINGS, [redacted]

Notionally adjusted Ad Hoc Items (maximum 25% of revised BIC)	£2,186,540.32	25.00%	
Sub total	£10,932,701.61		
Notionally adjusted Design Excess (15% maximum)	£1,639,905.24	15.00%	
(B) Maximum Gross Indicative Construction Cost	£	(B)	£12,572,606.86 Dt

The difference (A) – (B) is equal to **£3,348,433.97**.

5) – Review of Design

Substructure

Abnormal substructure is included in the form of deeper mass fill foundations.

The design includes larger floor areas in some units as previously mentioned, therefore substructure costs are proportionately higher.

Superstructure

PV panels are indicated on the drawings and are included on the HTR Additional Items Input worksheet.

Secured by Design Items have been included on the HTR Additional Items Input worksheet.

The design includes for 2 Nr 8 person wheelchair units. The current HTR however does not currently facilitate indicative costings for same. The cost gap between indicative and actual cost, therefore, is greater than it would otherwise be. However the net additional value has been calculated out to only approximately £4K. The relatively small difference is due to the discrepancies in the original method of entering the units on the Site Details Input worksheet of the HTR as mentioned above at 1)

The design includes larger floor areas calculated overall, as previously mentioned, therefore the superstructure cost is proportionately higher.

The Specification, otherwise, for the superstructure materials is fairly standard with nothing extraordinary in building construction which would generate abnormal costings.

External Works , Roads Parking and Footpaths

It was noted that a capping layer to roads and footpaths has been included as an Ad hoc on the HTR and is considered essential for the ground conditions.

With reference to the Site Plan provided, of particular significance is the unusually high proportion of vehicular traffic areas compared to actual housing spaces. The reason for this is, that as well as construction of “estate” roads for the new development, a wider main access road with pavements is also included and forms a new link road between two existing previously unconnected residential areas, as well as providing access to the new dwellings. This is understood to be a Planning condition and is considered to be the reason for the exceptionally higher (than indicative) Roads Parking and Footpaths costs on the HTR.

TECHNICAL SUMMARY

HARP REF: [redacted] – PROPOSED DEVELOPMENT – [redacted] DWELLINGS, [redacted]

The Cost Model (for Construction Works only), has been calculated **without** the addition of site/project specific items and without benchmark allowances, and includes 25% Ad hocs and 15% Design Excess calculated in accordance with Guidance as Heading 2) above. On this basis, [redacted] dwellings of typical Affordable Housing Specification (and the maximum cost eligible for consideration for Scottish Grant funding), would therefore be **£12,572,606.86**.

The difference between the Indicative Maximum Cost eligible for Grant and the Works Cost is considered to be attributable to the following (NB All figures include an allocation of 11.01 Preliminaries):-

Additional floor areas	£917,122.60
Cost of additional road area	£864,600.84
Provisional sums	£131,202.00
Actual extra over costs of additional quality benchmark allowances	£475,668.06
Photovoltaic panels	£285,505.40
Secured by Design	£552,868.94
Although not specifically identifiable from the HTR the remainder of the cost difference is deemed to be attributable to the cost of the increased network of utility services, drainage and external lighting necessary to suit the extensive road network for the development	<u>£121,466.13</u>
TOTAL	<u>£3,348,433.97</u>

Judgements on the eligibility and the overall proportion of grant applicable, remain decisions for the Area Team.

Note (1) (Referenced above):-

The cost of the additional area over benchmark is calculated as a notional maximum figure and is based on the inclusion of all building elements, some of which may not necessarily form part of the overall calculation and, if omitted, would therefore return a lower value. This cost may also overlap with other “excess costs” identified in the appraisal. The accurate calculation of both is out with the scope of this appraisal. The main aim of the appraisal is to identify items which generally contribute to the excess cost.

Issued 6th July 2023 by [redacted]

[Local Government and Housing Directorate](#) | [Scottish Government](#) | [More Homes Division](#)

PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

INTRODUCTION

[redacted] has submitted a request for Scottish Government grant funding in respect of a proposed new development of [redacted] Dwellings on the site of the [redacted]. A Technical Appraisal has been requested in connection.

The Technical Review focuses on the Construction Works cost only and scrutinises the cost information contained in the current Housing Tender Return (HTR) form as presented on HARP, along with supporting information and further documentation requested in substantiation.

TECHNICAL REVIEW**The Site**

The development is proposed on the site of a former [redacted], and is therefore brownfield. The area recorded on the HTR is 0.74 hectares.

A Remediation Strategy, Implementation and Verification Plan (November 2021 Rev A), received as a supporting document, indicates that re-remedial groundworks are required to correct existing made ground and also contamination issues found on the site. Specialist concrete foundation design is required to accommodate the new development as well as bespoke barrier pipework.

The Proposed Development

The development comprises the construction of [redacted] new build units, with a mix of housing tabled below.

Procurement

In response to a request for a Tender Report, it was reported that the site is a variation to an existing [redacted] contract for works carried out at [redacted] and [redacted].

The date for receipt of Tender was included on the HTR as 22nd May 2023.

Appraisal

A Technical Review of the Project addressed the following:-

A) - Construction Works Cost

The Works Cost was recorded on the HTR (5th July 2023) as **£5,424,709.00** and equated to:-

- **£[redacted]** average cost per dwelling (**[redacted] Nr**)
- **£[redacted]** average cost per bed space (**persons**) (**[redacted] Nr**)
- **£2,531.48** average cost per m2 (**based on total GIFA of 2,142.90 m2**)

The Preliminaries percentage, as included on the HTR, was considered high at 15.09% (£711,321.00). Analysis of the Preliminaries was provided in the sum of only £549,000.00 and included the following items

Preliminaries analysis

Typical Preliminary items total	£519,000.00
6.5.1 Insurances	£5,000.00
Contract Guarantee Bond	£10,000.00
Billing Fees	£15,000.00
TOTAL AS ANALYSIS PROVIDED	£549,000.00

PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

The further apparent discrepancy of £162,321.00, **not** shown on the Preliminaries analysis, was queried. From a project analysis sheet, supplied as a supporting document, it was deduced that the following items had also been added into the Preliminaries costs to produce the total as indicated on the HTR of £711,321.00.

Preliminaries discrepancy

Inflation to site start date @ 1.72%	£87,022.00
Contractor’s Profit @ 1.50%	£75,891.00
Dt balance (added to Works Cost)	(£592.00)

TOTAL £711,321.00

The last three items of the Preliminaries analysis (on Page 1) above totalling **£30,000.00** are not considered part of the Works Costs.

B) – Housing Tender Return (HTR) Form

- 1) HTR - Indices Update

The original submitted HTR Indicated an Ad hoc figure of 26.72%, and a Design Excess of 51.61%.

Following amendment of the HfVN1 worksheet, the respective percentages altered to 26.47% and 50.52%

The indices applied on the HTR were correct at the time of application. (NB Refer also to Note 2 at end).

- 2) HTR - Review of Content

The GIC Output worksheet of the HTR indicates significantly elevated costs for External Works, in particular, when compared with indicative costs for the works. Superstructure and Roads Parking and Footpath cost elements are also elevated.

- 3) Ad-hocs revision

As indicated in the Remediation Strategy Report, extensive remediation works are required which would account for the significantly higher cost of External Works. However the actual costs had not been entered on the HTR as Ad-hocs. This was queried and a further revised HTR received as a result which included the following Ad-hoc costs

Removal of obstructions etc.	£9,193.00
Excavate and remove contaminated topsoil	£69,936.00
Disposal of surplus topsoil	£16,997.50
Bio barrier to landscaped areas	£6,894.80
Capping layer to roads, footpaths and paving	£28,710.60
Subsoil environmental capping layer	£29,503.90

Site preparation to the Gap site increased from £60,897 to £119,871 to include for topsoil, surface finishes and landscape maintenance to this area.

The above resulted in further (final) revision to the HTR increasing the Ad hoc percentage to 35.51% and reducing the Design Excess to 40.63%.

C) - Dwelling Areas/Housing Mix

An exercise was carried out to compare designed areas with comparative NIC HfVN Part 1 “benchmark” areas. The Housing Mix and the comparative areas are shown in the table below:-

PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

Housing Mix					Proposed Dwelling Designed Areas		NIC HfVN Part 1 - Benchmark" areas		
Nr	House Type	Tenancy	Storeys	Persons per dwelling Nr (Total Nr)	GIFA m2	Total Proposed GIFA m2	Minimum Benchmark GIFA m2	Total NIC Minimum Benchmark GIFA m2	Difference (Proposed to Benchmark)
[redacted]	Semi detached	Ambulant - disabled	1	[redacted]	[redacted]	251.60	[redacted]	244.00	[redacted]
[redacted]	End terrace	Mainstream	2	[redacted]	[redacted]	382.40	[redacted]	346.00	[redacted]
[redacted]	Mid terrace	Mainstream	2	[redacted]	[redacted]	191.20	[redacted]	179.00	[redacted]
[redacted]	End terrace	Mainstream	2	[redacted]	[redacted]	337.60	[redacted]	306.00	[redacted]
[redacted]	Mid terrace	Mainstream	2	[redacted]	[redacted]	337.60	[redacted]	316.00	[redacted]
[redacted]	Flat	Ambulant - disabled	2	[redacted]	[redacted]	512.80	[redacted]	480.00	[redacted]
[redacted]				[redacted]		2,013.20		1,871.00	[redacted]
Common areas						129.70	Say	129.70	[redacted]
TOTAL						2,142.90		2,000.70	[redacted]
TOTAL = DIFFERENCE ABOVE MINIMUM BENCHMARK AREAS									142.20 m2

- *The additional (net) area of 142.20 m2 is 7.60% above Benchmark areas per guidance, and notionally equates to £359,976.46 of the overall Works Cost (costed at the total Works cost rate £2,531.48 /m2)*

NB Includes Communal areas and Preliminaries allowance.

D) - Additional Quality Benchmark Allowances

The standard HTR form, does not facilitate adjustment to the Basic Indicative Cost to include allowances in respect of Additional Quality Benchmarks. Additional Quality Benchmark allowances have recently been updated (June 2023). When these are applied the differences between the Additional Quality Benchmark allowances and actual Works Costs are calculated below with sums totalled to give the **overall net additional cost** over Benchmark allowances:-

PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

ADDITIONAL QUALITY MEASURE	ACTUAL COST (NB Excluding Preliminaries) C)	*QUALITY BENCHMARK ALLOWANCE*	ADJUSTED ALLOWANCE (D)	DIFFERENCE (C) – (D)
Delivering Homes to full Bronze level plus aspect 2 of Silver level	£113,989.11	[redacted] @ £2,338.00 = £[redacted]	£[redacted]	£[redacted]
Digital enabling	£14,453.10	[redacted] @ £351.00 = £[redacted]	£[redacted]	£[redacted]
Electric vehicle charging points (infrastructure) <i>(Provisional Costs not included currently in Works) (Allow as benchmark meantime)</i>	£9,990.51	[redacted] @ £585.00= £[redacted]	£[redacted]	£[redacted]
Fire suppression Installations (£83,840.10+ £ 75,701.49 from HTR) in lieu of £40,328.86)	(In lieu of total £124,168.96) £159,541.59	[redacted] @ £3,507.00 = £[redacted]	£[redacted]	(In lieu of total £[redacted] £[redacted])
Zero direct emissions heating (£106,421.95+£47,298.65)	£153,720.60	[redacted] @ £4,676.00 = £[redacted]	£[redacted]	£38,373.35
TOTAL	£416,322.28	£[redacted]	£[redacted]	£138,142.02 £[redacted]
ADDITIONAL QUALITY MEASURES - TOTAL NET DIFFERENCE (C) - (D)				£[redacted]

E) - Calculation of Notional Maximum Acceptable Gross Indicative Cost (GIC) per Guidance

More Homes Division Guidance states that the allowable Ad-hocs figure is limited to 25% and the Design Excess figure is limited to 15%. An exercise was carried out to establish the maximum allowable indicative cost based on these allowances. The resultant Cost Model for the Project is calculated as follows:-

(A) Tendered Construction Works Costs			(A)	£5,424,709.32
Ad Hoc Items from HTR (final revision)	£995,536.05	(35.51%)		
Design Excess from HTR (final revision)	£1,567,297.79	(40.63%)		
(B) Maximum Gross Indicative Construction Cost				
Basic Indicative cost	£2,803,311.17			
Ad Hoc Items (maximum 25% of BIC)	£700,827.79	25.00%		
Updated GIC	£3,504,138.96			
Design Excess (15% maximum on updated GIC)	£525,620.84	15.00%		
(B) Maximum Gross Indicative Construction Cost (Revised)				£4,029,759.80

F) - Excess Cost

The difference between the actual Works Cost and the Cost Model is (A) – (B)	£1,394,949.52
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TECHNICAL SUMMARY

Construction Works Cost

The overall Works Cost, of **£5,424,709.32**, when expressed as a cost per unit, is not deemed excessive in the current pricing climate and considering the design includes for larger units.

PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

The price per £/m² reflects the higher Preliminaries cost and the extent of remedial groundworks required to prepare the site and of course the larger built area along with the desirable items included.

HTR

The HTR Preliminaries value of the Works Cost requires to be amended by the value of the non-works items totalling £30,000.00, as referred to above, which will reduce the Works Cost figure to **£5,394,709.32**.

Dwelling Areas/Housing Mix

The combined dwelling areas are **7.60% above** benchmark areas for Affordable Housing.

The additional (net) area of **142.20 m²** above Benchmark areas per guidance, notionally equates to **£359,976.46** of the overall Works Cost (costed at the total Works Cost rate/m² (inc Prelims)).

The extra area accounts, notionally, for **25.81%** of the excess cost calculated at E) / F) above.

Additional Quality Benchmark Allowances

The actual costs of Additional Quality Items are listed in table D) and compared with allowances current at the time of the appraisal. The total actual cost equates to **£173,514.65** (exclusive of Preliminaries) above Benchmark allowances.

Notional Maximum Acceptable Gross Indicative Cost

Following Scottish Government Guidance, the Cost Model, representing the maximum Construction Cost eligible for consideration for Scottish Grant funding for the Project (which includes maximum 25% Ad-Hocs and 15% Design Excess) is calculated under Heading E) and outturns at **£4,029,759.80**.

Analysis Of Excess Cost

The cost of External Works when combined with Roads, Parking and Footpaths totals 31% of the Works Cost. For a standard Project with no unusual features, this would be deemed high particularly taking into consideration the Housing Mix. However, given the content of the Site Investigation Report and the associated remedial ground works required, this level is not unreasonable. The Ad-hoc costs for the remedial works were not originally identified within the HTR but have now been identified and included on a revised HTR which effectively reduced the original Design excess for the External Works from 193.46 % to 97.09% on the GIC Input sheet of the HTR.

Preliminaries equating to 15.09% were originally included and considered higher than average (generally considered to be circa 12%) . From further information provided, it was established that the Preliminaries included a number of non-works items which should be excluded from the Works Cost. When these are deducted the Preliminaries would reduce to 14.46%. A sum of £87,022 had also been included for inflation to site start date and an element of Profit of £75,891.00 was also included within the Preliminaries. These figures were not shown on the Preliminaries analysis originally provided as previously referred to above.

Based on the HTR submitted the Cost Model is **£1,394,949.52** below the actual Works Cost. There are a number of typically common features contributing to the excess cost which are generally acceptable and already covered by the maximum allowable Ad-hoc and Design Excess percentages. There are also further Project specific costs which are appraised as “inflating” the cost of the Works beyond maximum guidance. These costs have been abstracted from the HTR and associated information provided. The costs are categorised under specific headings in the table below.

To account for the deduction of the Non Work items of £30,000 included in HTR Preliminaries identified at A) above the HTR Preliminaries allowance of 15.09% has been reduced to 14.46% and applied to the following table.

PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

ANALYSIS OF MAIN COSTS OVER MAXIMUM GROSS INDICATIVE COST	TENDER VALUE EXC PRELIMS
1. UNAVOIDABLE ADDITIONAL COSTS	
Substructure balance of abnormal costs	£55,882.29
External Works – Removing obstructions	£9,193.00
External Works - General remedial works	£123,332.00
External Works - 1800 high boundary fence and gates	£25,705.00
External Works- Site preparation to gap site	£119,871.00
Roads Parking and Footpaths – Capping layer to roads, footpaths and paving	£28,711.00
Roads Parking and footpaths – Work to existing roads and footpaths	£17,690.00
2. DESIRABLE ITEMS	
Excess Dwelling areas (Cost as calculated under Heading C) £359,976.46 (inc Prelims)	(Ex Prelims) £312,778.00
Superstructure - Lift	£22,250.00
Superstructure - Photovoltaic panels	£25,180.00
3. DIFFERENCE IN ADDITIONAL QUALITY BENCHMARKS	
Extra over costs of Quality Benchmark Items as calculated at Heading D)	£173,514.65
4. OTHER ABNORMALS INFLUENCING HIGHER COST (INCLUDED WITHIN MAIN WORKS COSTS	
Risk	£50,594.00
Additional overheads (NB 4.5% for OH and P already included in Works Cost analysis provided as support document)	£151,783.00
SUB TOTAL (MAIN WORKS COSTS)	£1,116,483.94
ADD PRELIMINARIES REVISED @14.46%	£161,443.58
Sub Total	£1,277,927.52
5. OTHER ABNORMALS INFLUENCING HIGHER COST (INCLUDED WITHIN PRELIMINARIES)	
Inflation to site start	£87,022.000
6. NON WORKS COSTS (INCLUDED IN PRELIMINARIES)	
6.5.1 Insurances	£5,000.00
Contract Guarantee Bond	£10,000.00
Billing Fees	£15,000.00
TOTAL EXCESS OF MAIN COSTS OVER MAXIMUM GROSS INDICATIVE COST	£1,394,949.52

CONCLUSION

- A Tender Report for the Project was not available. The development is reported to be a variation to an existing [redacted] contract for works carried out at [redacted] and [redacted]. The basis of the form of contract used was not established.
- The maximum construction cost, eligible for consideration for Scottish Grant funding for the Project and which fundamentally represents value for money, is calculated at £4,029,759.80. This figure does not include allowance for additional quality benchmarks, however the actual costs for the relevant items have been obtained from the applicant’s agents and have been compared with Benchmark allowances in the table under Heading D) above.
- The actual Works cost on the HTR is £1,394,949.52 higher than the indicative cost per the Cost Model for [redacted] “Affordable” units.
- The table entitled “Analysis of Main Costs Over Maximum Gross Indicative Cost” identifies costs which are deemed to be in excess of the maximum construction cost eligible for consideration for Scottish Grant funding

PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

for the Project. The categorisation of the items is to assist the grant provider in determining if there are exceptional circumstances for higher grant provision.

- Judgements on the eligibility and the overall proportion of grant applicable, remain decisions for the Area Team.

Notes:-

1) The cost of the additional area over benchmark is calculated as a notional maximum figure and is based on the inclusion of all building elements, some of which may not necessarily form part of the overall calculation and, if omitted, would therefore return a lower value. This cost may also overlap with other “excess costs” identified in the appraisal. The accurate calculation of both is out with the scope of this appraisal. The main aim of the appraisal is to identify items which generally contribute to the excess cost.

2) If the “final” copy of the HTR were to be updated by the most recently published July 2023 indices, the shortfall between actual **Works Cost** and **Maximum Gross Indicative Cost** would **increase** by **£133,325.00 (ie to £1,528,275.00)**. The most recent location factor increases from [redacted] to [redacted], increasing the indicative cost. The SSHTPI indice reduces from 387 to 367, reducing the indicative cost. Combined overall, the maximum Gross Indicative Cost for the Project (calculated in the table above) reduces from **£4,029,759.80** to **£3,896,435.00** thus creating a **greater** shortfall, or gap, between the actual Works Costs and the Indicative costs for the Project.

Issued 25/08/2023 by [redacted]

[Local Government and Housing Directorate](#) | [Scottish Government](#) | [More Homes Division](#)

[redacted] - PROPOSED NEW DEVELOPMENT [redacted] DWELLINGS, [redacted]

INTRODUCTION

[redacted] has submitted a request for Scottish Government grant funding in respect of a proposed new development of [redacted] Dwellings at [redacted].

A Technical Appraisal has been requested in connection.

The Technical Review focuses on the Construction Works cost only and scrutinises the cost information contained in the current Housing Tender Return (HTR) form as presented on HARP, along with supporting information and further documentation requested in substantiation.

TECHNICAL REVIEW

The Site

The site generally is reported to comprise agricultural land used for grazing cattle. The site generally slopes from high in the North East to low in the South West.

The area recorded on the HTR is 0.50 hectares.

The Proposed Development

The proposed development comprises the construction of [redacted] Nr Blocks of [redacted] Nr two storey cottage flats; [redacted] Nr Blocks of [redacted] Nr semi-detached two storey dwellings; [redacted] Nr detached dwelling.

Procurement

A single Contractor was invited to submit a Tender on a Design and Build basis.

The Tender is dated 10th May 2023.

The Form of Contract is the SBCC DB/Scot (2016 Edition) Design and Build Contract for use in Scotland.

Appraisal

A Technical Review of the Project addressed the following main elements:-

A) - Construction Works Cost

The Works Cost was recorded as £2,687,661.68 on the HTR as at 10th May 2023 as and equates to:-

- **£[redacted]** average cost per dwelling (**[redacted] Nr**)
- **£[redacted]** average cost per bed space (**persons**) (**[redacted] Nr**)
- **£2,546.05** average cost per m2 (**based on total GIFA of 1,055.62 m2**)

There is no mention in the Tender Report of any value engineering having been applied.

A copy of a Tender cost analysis was received

The average cost per m2 was considered to be high

Preliminaries were included of 16.63%, which is considered to be high when compared with similar Projects. An average of 12% is typical.

[redacted] - PROPOSED NEW DEVELOPMENT [redacted] DWELLINGS, [redacted]

Further discussion with the applicant’s agents revealed that £114,00.00 of the Preliminaries total of £383,192.00 (16.63%) (as included on the HTR) had been included by the Contractor in respect of a 10 year £3M PI insurance policy. The figure was subsequently deducted to give a revised Works Cost total of **£2,573,662.00**. The Preliminaries also reduced to **11.68%** on the HTR Works Cost worksheet amounting to £269,192.00

The updated figures are as follow

- **£[redacted]** average cost per dwelling (**[redacted]** Nr)
- **£[redacted]** average cost per bed space (**persons**) (**[redacted]** Nr)
- **£2,438.06** average cost per m2 (**based on total GIFA of 1,055.62 m2**)

B) – Housing Tender Return (HTR) Form

- 1) HTR - Indices Update

The original submitted HTR Indicated an Ad hoc figure of **22.44%**, and a Design Excess of **49.02%**.

As a result of a number of incorrect entries found on the HTR (including above Preliminaries revision), the HTR was subsequently re-submitted as “Housing Tender Return - April 2023 Final Version”

The Ad hoc figure increased to **25.30%** and the Design Excess reduced to **40.40%**.

On the Tender Details sheet the SSHTPI indice of 387 and the location indice of 0.90 were correct at the time of application.

- 2) HTR - Review of Content

The GIC Output worksheet of the HTR indicates significantly elevated costs for Roads, Parking and Footpaths, with Substructure Superstructure and External works also higher when compared with indicative costs for the works.

C) - Dwelling Areas/Housing Mix

An exercise was carried out to compare designed areas with comparative NIC HfVN Part 1 “benchmark” areas. The Housing Mix and the comparative areas are shown in the table below:-

Housing Mix					Proposed Dwelling Designed Areas		NIC HfVN Part 1 - Benchmark” areas		
Nr	House Type	Tenancy	Storeys	Persons per dwelling Nr (Total Nr)	GIFA m2	Total Proposed GIFA m2	Minimum Benchmark GIFA m2	Total NIC Minimum Benchmark GIFA m2	Difference (Proposed to Benchmark)
[redacted]	Cottage Flats*	Mainstream	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	Cottage Flats	Mainstream	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted] - PROPOSED NEW DEVELOPMENT [redacted] DWELLINGS, [redacted]

[redacted]	Semi-detached	Mainstream	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	Detached	Mainstream	2	7 (7)	115.54	115.54	114.50	114.50	1.04
[redacted]				(59)		1,055.62		1,048.50	7.12
TOTAL = DIFFERENCE ABOVE MINIMUM BENCHMARK AREAS									7.12 m2

- The additional (net) area of 7.12 m2 is less than 1% overall and is not therefore considered a factor relating to excess cost on the Project.
- It is noteworthy that 4 Nr Cottage Flats* are **below** Benchmark areas per guidance.
- 1 Dwelling is of detached design. (NB In the absence of Detached design areas in the Guidance, areas representing the closest match to persons and Number of storeys have been used for comparison purposes.)

D) - Additional Quality Benchmark Allowances

The standard HTR form, does not facilitate adjustment to the Basic Indicative Cost to include allowances in respect of Additional Quality Benchmarks. The additional Quality Benchmark allowances have recently been updated (June 2023) and have been applied accordingly. The differences between Additional Quality Benchmark allowances and actual Works Costs are calculated below with sums totalled to give the **overall net additional cost** over Benchmark allowances:-

ADDITIONAL QUALITY MEASURE	ACTUAL COST (NB Excluding Preliminaries) C)	*QUALITY BENCHMARK ALLOWANCE*	ADJUSTED ALLOWANCE (D) (4.54=112.3)	DIFFERENCE (C) – (D)
Delivering Homes to full Bronze level plus aspect 2 of Silver level	£45,500.00	[redacted] @ £2,338.00 = £[redacted]	£[redacted]	[redacted]
Digital enabling	£11,456.00	[redacted] @ £351.00 = £[redacted]	£[redacted]	[redacted]
Electric vehicle charging points (infrastructure)	£2,600.00	[redacted] @ £585.00 = £[redacted]	£[redacted]	[redacted]
Fire suppression Installations	£63,750.00	[redacted] @ £3,507.00 = £[redacted]	£[redacted]	[redacted]
TOTAL	£123,306.00	£[redacted]	£[redacted]	[redacted]
ADDITIONAL QUALITY MEASURES - TOTAL NET DIFFERENCE (C) - (D)				[redacted]

E) - Calculation of Notional Maximum Acceptable Gross Indicative Cost (GIC) per Guidance

[redacted] - PROPOSED NEW DEVELOPMENT [redacted] DWELLINGS, [redacted]

More Homes Division Guidance states that the allowable Ad-hocs figure is limited to 25% and the Design Excess figure is limited to 15%. An exercise was carried out to establish the maximum allowable indicative cost based on these allowances. The resultant Cost Model for the Project is calculated as follows:-

(A) Tendered Construction Works Costs		(A)	£2,573,662.00
Ad Hoc Items from HTR	£338,904.72	(25.30%)	
Design Excess from HTR	£740,622.41	(40.40%)	
(B) Maximum Gross Indicative Construction Cost			
Basic Indicative cost (BIC)	£1,339,323.38		
Ad Hoc Items (maximum 25% of BIC)	<u>£334,830.85</u>	25.00%	
	Updated GIC		£1,674,154.23
Design Excess (15% maximum on updated GIC)	<u>£251,123.13</u>	15.00%	
(B) Maximum Gross Indicative Construction Cost			
		(B)	£1,925,277.36

F) - Excess Cost

The difference between the actual Works Cost and the Cost Model is (A) – (B)	£648,384.64
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TECHNICAL SUMMARY

Construction Works Cost

The (revised) Works Cost, of **£2,573,662.00**, is **£648,384.64** above the gross indicative cost for the Project

This equates to the average cost of a unit being **£[redacted]** above average **indicative costs** for Affordable Housing Units

Dwelling Areas/Housing Mix

The area of the dwellings is not considered a factor relating to excess cost on the Project.

It was noted that 4 Nr Cottage Flats* are **below** Benchmark areas per guidance

Additional Quality Benchmark Allowances

The actual costs of Additional Quality Items are tabled under D) above and compared with allowances current at the time of the appraisal. The additional cost equates to **£[redacted] (ex Preliminaries)**.

Notional Maximum Acceptable Gross Indicative Cost

Following Scottish Government Guidance, the Cost Model, representing the maximum Construction Cost eligible for consideration for Scottish Grant funding for the Project (which includes maximum 25% Ad-Hocs and 15% Design Excess) is calculated under Heading E) and outturns at **£1,925,277.36**.

Analysis Of Excess Cost

The Cost Model is **£648,384.64** below the actual Works Cost. There are a number of typically common features contributing to the excess cost which are generally acceptable and already covered by the maximum allowable Ad-hoc and Design Excess percentages. There are also further Project specific costs which are appraised as “inflating” the cost of the Works beyond maximum guidance. These have been abstracted and are categorised under specific headings in the table below. An allowance for Preliminaries at the revised rate of 11.68% is added towards the end of the table.

[redacted] - PROPOSED NEW DEVELOPMENT [redacted] DWELLINGS, [redacted]

ANALYSIS OF MAIN COSTS OVER MAXIMUM GROSS INDICATIVE COST	TENDER VALUE EXC PRELIMS
UNAVOIDABLE ADDITIONAL COSTS	
External Works - Removal of surplus subsoil from site	£33,800.00
External Works - Removal of abnormal depth of topsoil 450 av depth	£33,500.00
External Works - Boundary retaining walls	£36,500.00
External Works - Storm and associated drainage to SUDS	£23,000.00
OFF SITE COSTS (SHARE OF SITE WIDE COSTS FOR FUTURE DEVELOPMENT)	
External Works - Storm and associated drainage to SUDS (Site wide shared costs)	£24,600.00
External Works (including Bus shelters and play area contribution) – (Site wide shared costs)	£13,350.00
Roads, Parking and Footpaths – (Site wide shared costs)	£34,500.00
DESIRABLE ITEMS	
Superstructure - Photovoltaic panels	£35,000.00
Superstructure - Triple glazed windows	£56,501.00
Superstructure - Plywood to walls	£1,752.00
Superstructure - Increased SAP rating	£24,309.00
External Works - Clothes drying (High specification)	£12,665.00
External works - Grit bins, street signage, benches etc	£14,090.00
ADDITIONAL QUALITY ITEMS	
Extra over costs of Quality Benchmark Items as calculated at Heading D)	£44,803.23
OTHER	
Balance (Miscellaneous)	£656.42
SUB TOTAL	£389,026.65
Allowance for Preliminaries on above @11.68%	£45,438.31
Balance (including Preliminaries)	£434,464.96
Shortfall (unaccounted from HTR)	£213,919.68
TOTAL EXCESS OF MAIN COSTS OVER MAXIMUM GROSS INDICATIVE COST	£648,384.64

CONCLUSION

- The Tender has been reviewed by Construction Cost Consultants [redacted]. The costs are reported therein to have been benchmarked favourably against other similar Projects and the cost is described as:-
 - fair and reasonable,
 - reflects current market conditions for this design, specification and housing mix
 - compares favourably to recent competitively tendered and negotiated projects
 - provides value for money.
- Notwithstanding, the above, the actual Works cost is £648,384.64 higher than the indicative cost per the Cost Model for [redacted] “Affordable” units.

[redacted] - PROPOSED NEW DEVELOPMENT [redacted] DWELLINGS, [redacted]

- **The maximum construction cost, eligible for consideration for Scottish Grant funding for the Project and which fundamentally represents value for money, is calculated at £1,925,277.36. This figure does not include any allowance for additional quality benchmarks., however the actual costs for the relevant items have been obtained from the applicant's agents and have been compared with Benchmark allowances in the table under Heading D) above.**
- **The table entitled "Analysis Of Main Costs Over Maximum Gross Indicative Cost" above identifies costs which are deemed to be in excess of the maximum construction cost eligible for consideration for Scottish Grant funding for the Project. The categorisation of the items is to assist the grant provider in determining if there are exceptional circumstances for higher grant provision.**
- **It should be noted, however, that from the information provided, only a total of £434,464.96 has been identified as mainly contributing to costs being higher than the indicative Cost Model.**
- **The remainder of the excess cost was not established from a review of the HTR and other information provided. There are however, two potential factors for consideration which could be generating the comparative higher costs:-**
 - 1) **The Site wide costs have been proportioned to the entire [redacted] unit site and are, as a result generating higher than indicative costs.**
 - 2) **The SSHTPI Location factor, as applicable for the area, is currently 0.90. It is interesting to note that the gross indicative cost would be £213,920.00 higher if it were to be applied at base level (i.e 1.00). The general BCIS location factor for [redacted] is [redacted]. If this were to be applied this would add £128,351.79 to the gross indicative cost. Application of the SSHTPI location factor is potentially causing the Gross Indicative Cost on the HTR to outturn significantly lower thus creating an apparent greater gap in the figures. Variation to the location indices, which is based on the number of projects analysed, can affect the indicative cost as demonstrated.**
- **Judgements on the eligibility and the overall proportion of grant applicable, remain decisions for the Area Team**

[redacted] - PROPOSED NEW DEVELOPMENT [redacted] DWELLINGS, [redacted]

Issued 21/08/2023 by [redacted]

Local Government and Housing Directorate | Scottish Government | More Homes Division

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

PREAMBLE

Introduction

[redacted] has submitted a request for Scottish Government grant funding in respect of a proposed new development of [redacted] Dwellings – [redacted] at the [redacted] in [redacted].

A Technical Appraisal has been requested in connection.

The Technical Review focuses on the Construction Works cost only and scrutinises the cost information contained in the current Housing Tender Return (HTR) form as presented on HARP, along with supporting information and further documentation requested in substantiation.

The Site

The site is brownfield and 0.28 hectares in area.

The Proposed Development

The proposed development of [redacted] Nr new flats includes the construction of [redacted] block comprising [redacted] Nr mainstream and [redacted] Nr ambulant disabled flats and one [redacted] block of [redacted] Nr mainstream flats.

Procurement

The contract is negotiated Design and Build.

Construction Cost

The Construction Works Cost, as recorded on the Housing Tender Return Form (HTR) presented on HARP, is **£5,893,424.76** and equates to: -

- **£[redacted]** average per dwelling ([redacted] **26 Nr**)
- **£[redacted]** average per bed space ([redacted] **92 Nr**)
- **£2,578.04** average per m2 (based on a GIFA of **2,286.01 m2**)

Inflation contingency is excluded from the above values.

TECHNICAL REVIEW

A Technical Review of the Project information focused on the following five main headings: -

1) - HTR Adjustments / Revised Gross Indicative Costs

The HTR submitted indicated an Ad hoc figure of **23.13%**, with a Design Excess of **19.39%**.

The Location and SSHTPI indices were updated to reflect the most recent published indices (March 2023).

The HfVN Pt 1 Input worksheet of the HTR was found to be incorrectly completed, predominantly because allowances had not been incorporated for Ambulant Disabled.

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

The “HfVN Pt 1 Input” worksheet of the HTR included [redacted] Nr canopies at Block Entrances for [redacted] Nr [redacted] and [redacted] Nr [redacted] general needs. The drawings however did not show any projecting canopies. Further discussion revealed that only 2 Nr recessed type canopies were relevant for the two Blocks. The HTR was adjusted accordingly.

The “HfVN Pt 2 Input” worksheet of the HTR included costs for common works for the two blocks.

➤ **Following adjustments to the HTR, the respective figures increased marginally to 23.23% and 19.63%.**

2) - Dwelling Areas

An exercise was carried out to compare designed areas with comparative NIC HfVN Part 1 “benchmark” areas. The Housing Mix and the comparative areas are shown in the table below: -

Housing Mix						Proposed Dwelling Designed Areas		NIC HfVN Part 1 - “Benchmark” areas		Difference
Nr	Type	House Type	Storeys	Nr Apartments (Total Nr)	Persons per dwelling (Total Nr)	GIFA m2 per unit (from HTR)	Total Proposed GIFA m2	GIFA m2	Total NIC GIFA m2	(Proposed minus Benchmark)
[redacted]	Ambulant Disabled	Flat	[redacted]	[redacted]	[redacted]	[redacted]	310.80	[redacted]	285.00	[redacted]
[redacted]	Mainstream	Flat	[redacted]	[redacted]	[redacted]	[redacted]	429.60	[redacted]	441.00	[redacted]
[redacted]	Mainstream	Flat	[redacted]	[redacted]	[redacted]	[redacted]	422.40	[redacted]	441.00	[redacted]
[redacted]	Mainstream	Flat	[redacted]	[redacted]	[redacted]	[redacted]	288.40	[redacted]	294.00	[redacted]
[redacted]	Mainstream	Flat	[redacted]	[redacted]	[redacted]	[redacted]	287.20	[redacted]	294.00	[redacted]

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

[redacted]				[redacted]	[redacted]	1,738.40		1,755.00	[redacted]
Common areas						547.61			
Total GIFA Proposed						2,286.01			

As demonstrated above: -

- [redacted] Nr Ambulant Disabled two apartment two person units are **25.80 m2** total **greater** than NIC HfVN Part 1 basic dwelling area requirements.
- [redacted] Nr Mainstream units were found to be **below** same by a total of **42.40 m2**.
- The Project includes **547.61 m2** of common areas. It was established that **96 m2** of this area was included for cycle and bin storage located within Block C, which is a further [redacted] Block to be constructed during another Phase of the Works. A proportion of the cost has however been included within Phase 2 construction costs

NB – It is understood that the Project has to comply with [redacted]. The [redacted] includes **net** minimum areas, which for a two person house is [redacted] and for a four person house is [redacted]. The **gross** internal floor areas (GIFA as abstracted from the HTR) for 6 Nr ambulant disabled two person units are **above** minimum [redacted] **net** areas by average 3.30 m2 per unit. The GIFA for [redacted] Nr four person units however **falls short** of the net area by average 7.62 m2 per unit. The differences would be even greater if the actual net internal areas were used instead for comparison.

➤ **The Proposal does not therefore meet the [redacted] for this element**

3) – Review of Construction Works Costs

HTR information: -

Referring to the GIC Output Worksheet of the HTR, the Works Costs, compared to the Gross Indicative Cost, indicated elevated design costs relating, in particular, to Elements of Superstructure and External Works.

Referring to the Additional Works section of the HTR, the total of £1,869,542.92 (excluding Preliminaries) is considered proportionately high when compared with the Basic Indicative Cost of the Works. The reasons for this is analysed later.

The Additional Works section included values of additional quality items (specifically for home working and zero emission heating systems) but excluded actual costs in connection with other quality measures such as balconies and digital enabling. (See “Additional Quality Measures” table below).

The Ad-Hoc section of the HTR includes items which appear to be satisfactory in the amounts stated.

Site Layout; Internal Plans and Elevations: -

It is understood from the information received, that a [redacted] part of the site. The design of the structural frame of the building is therefore fortified as a result.

Drawing Nr. [redacted] – Block and Unit Summary, shows cycle and bin storage integral to Block C. Block C however, is located within a different Phase of the Works. It was subsequently established that the HTR

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

includes costs for these areas which are proportionate to the gross internal floor area for the entire site, although construction will actually be within a different Phase of the works.

From a review of the Internal Plans and Elevations, it was noted that in addition to the items identified and costed in the HTR, the design is also augmented by the following: -

- Triple glazing.
- Automatic window ventilation.
- Internal balustrades to automatic opening windows.
- Internal storage space occupied by Mechanical and Electrical Equipment.
- Facing brick feature panels (In addition to facing brick external walls generally.)

➤ ***Due to Additional Works items identified within the HTR and the enhancements contained in the Plans and Design Specification as listed above (not all of which are separately costed within the HTR), it is reasonable to expect the cost of Superstructure and External works to be elevated.***

Tender Report / Cost Analysis: -

Contingencies were confirmed as being excluded from the Works Cost on the HTR.

There are no allowances indicated for Provisional Sums within the Cost Analysis.

Preliminaries allowance of 17.14% is noticeably higher than typically encountered for a Project of this value. However, with the [redacted], and within the vicinity of, the construction works, it is recognised that additional supervision, surveys, monitoring, restrictions on working times and working methods will be implemented in connection. Restrictions will also apply which are resultant of the city centre location and the adjacent occupied buildings close by. Preliminaries are therefore considered to be justifiable at this level.

Additional Quality Measures

Having queried the “Additional Quality Benchmark” items as originally presented in document entitled “Benchmark Calculator and Fair Work First”, additional information was received which allowed the following amendments to be made in order to calculate the difference between actual Works Costs and the additional quality benchmark allowances.

Additional Quality Measure	Actual Works Cost (NB Excluding Preliminaries) (C)	Quality Benchmark Allowance	Adjusted 3P. Allowance (26/92=3.54 = factor 104.5) (D)	Difference (C) – (D) (NB Excluding Preliminaries)
Delivering Homes to full Bronze level plus aspect 2 of Silver level	£276,967.17	[redacted] @ £2,000 = £[redacted]	£[redacted]	£[redacted]
Provision of balconies	£168,257.87	[redacted] @ £4,000 = £[redacted]	£[redacted]	£[redacted]
Provision for home working or study	£30,558.73	[redacted] @ £3,500 = £[redacted]	£[redacted]	£[redacted]
Digital enabling (advised as £5,200) but £6,852.61 on HTR)	£6,852.61	[redacted] @ £300 = £[redacted]	£[redacted]	-£[redacted]

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

Zero direct emissions heating systems (£568,494.76+£23,793.78)	£592,288.54	[redacted]@£4,000 = £[redacted]	£[redacted]	£[redacted]
TOTAL	£1,074,924.92	£[redacted]	£[redacted]	
Additional Quality Measures - Total Difference (C) - (D) (Net Additional Cost of Quality Measures)				£817,700.04

- *It was noted that space for home working was included in the supporting documentation as an “Additional Quality Benchmark”. Since the gross internal floor areas of [redacted] Nr units are below the minimum General Needs Basic Requirements for compliance with HfVN Part 1 in accordance with the Base Table contained in HIGN 2008/06”, the validity was questioned. As a result, [redacted] Nr houses were omitted from the “Additional Quality Benchmark Allowance” calculation above.*
- *A balcony for each of the upper floor flats is shown on the drawings. However, it was noted that a benchmark allowance in respect of this is not shown on the supporting documentation as an “Additional Quality Benchmark”. Allowance is however included above.*
- *The actual cost of the Additional Quality Measures as included in the Tender price amounts to £1,074,924.92 (excluding Preliminaries).*
- *The net excess cost of the items would be £817,700.04 following revision of Benchmark allowances.*
- *The Gross Indicative Cost (GIC) figure, within the current HTR, does not incorporate allowances in respect of additional quality benchmarks. The allowance has been calculated above at £257,224.88.*

4) – Cost Model - Calculation of notional maximum acceptable Gross Indicative Cost (GIC) eligible for grant per Guidance

More Homes Division Guidance states that the allowable Ad-hocs figure is limited to 25% and the allowable Design Excess figure is limited to 15%. Using the maximum Guidance allowances, the Indicative Cost model for the Project is calculated as follows: -

(A) Tendered Construction Cost	£5,893,424.74	(A)	£5,893,424.74
Revised Ad Hoc Total	£542,708.60	23.23%	
Revised Design Excess	£966,902.97	19.63%	
(B) Maximum Gross Indicative Cost calculation			
Adjusted Basic Indicative Cost (BIC)	£2,336,158.08		
Notionally adjusted Ad Hoc Items (maximum 25% of revised BIC)	£584,039.52	25.00%	
Sub total	£2,920,197.59		
Notionally adjusted Design Excess (15% maximum)	£438,029.64	15.00%	
(B) Maximum Gross Indicative Construction Cost		(B)	£3,504,237.11 Dt

The difference (A) – (B) is equal to £2,389,187.63 (excluding “Additional Quality Benchmark” allowances)

5) - Excess Costs

The value included within the Ad-hocs section of the HTR is below the 25% allowance per maximum guidance levels and would cover items such as groundworks (piled foundations), service diversions, secured by design works, utility connections and cycle racks. The following items therefore constitute the remaining additional works costs included within the HTR, which is mainly comprised of unavoidable costs,

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted] additional quality items, design enhancement together with proportionate costs of off-site works attributable to the entire site.

The excess difference above of **£2,389,187.63** between the Tender and the notional maximum acceptable indicative cost per guidance eligible for grant consideration is mainly attributable to the items below: -

INDICATIVE ANALYSIS OF EXCESS COSTS	Works Cost (excluding Prelims)	Works Cost including Prelims @17.14%
1. - Unavoidable Costs		
Planning – Facing brick /facing brick feature panels	£83,636.95	
Work in connection with existing [redacted]	£56,103.00	
2. – Unavoidable Work In Common Areas		
Facility for future pumped water	£15,909.46	
Formation of ducts and plant areas	£30,867.42	
3. – Additional Quality Benchmark Measures		
Total actual cost (NB Difference between actual cost and benchmark allowances (from Table at Heading 3) above) is £817,700.04)	£1,074,924.92	
4. – Additional Area		
Included within last Item 3(as Home Working [redacted] Nr units)	£0.00	
5. – Enhanced Specification [redacted]		
Communal recreation areas	£155,325.77	
Photovoltaic roof panels	£53,415.20	
Enhanced insulation (walls, between floors and substructure)	£180,147.00	
Waste water heat recovery	£22,842.03	
Mechanical Ventilation with Heat Recovery	£2,108.49	
6 – Communal Work Allowance (Proportionate for Entire Site)		
Cycle and Bin Storage Areas (NB Contained in Block C)	£147,715.54	
Sub Total		£1,822,995.78
Less miscellaneous minor items to balance		-£2,983.19
		£1,820,012.59
Preliminaries on all above @ 17.14%		£311,950.16
INDICATIVE ACTUAL DESIGN EXCESS (INCLUDING PRELIMINARIES)		£2,131,962.75

The figure above of £2,131,962.75 equates to the excess cost of £2,389,187.63 less the indicative allowance for Additional Quality Benchmarks of £257,224.88.

The following information, taken from supporting documentation provided, identifies items which, whilst separate costs are not identified within the HTR, are likely to also impact the cost of the Project.

- 1) Surface water drainage attenuation and sustainable urban drainage systems (SUDS) with discharge to sewer approximately 320 m from the site (as required by Scottish Water). (This will also necessitate careful working around existing underground mains services).
- 2) Higher finished floor levels to mitigate risk from flooding.
- 3) Made ground to be removed beneath the building footprint and replaced with engineering fill.

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

- 4) Gas protection measures in substructure.
- 5) Diversion of existing services to north of the site.
- 6) Construction site constraints including site access for material laydown, temporary site accommodation, and management of construction traffic on nearby roads.
- 7) Triple glazing.
- 8) Automatic ventilation to windows.

Sustainability features included in the Project costs (which may also have been categorised above) were identified generally as follow: -

- 1) Minimum Silver Standard 1 and 2
- 2) Ground source heat pumps and associated works
- 3) Photovoltaic solar panels
- 4) Enhanced insulation to floors, walls and substructure
- 5) Waste water heat recovery
- 6) Mechanical ventilation with heat recovery.
- 7) Triple glazing
- 8) Sustainable urban drainage system (SUDS)

Items attracting “additional quality benchmark allowances” are included within the table under Heading 3 for comparison.

TECHNICAL SUMMARY

1. Following adjustments to the HTR above, the Ad-hocs are now **23.23%** with a Design Excess of **19.63%**.
2. As calculated under Heading 2), the area of [redacted] of the proposed units are **less** than the “Benchmark areas” indicated in guidance note “HIGN 2008/06 - HfVN Part 1” - Dwelling Areas”. The GIFA for [redacted] Nr four person units also falls short of the [redacted] **net** area by an average 7.62 m² per unit. The difference would be even greater if the **actual** net internal areas were used instead of GIFA for comparison. [redacted] Nr four person units therefore do not meet the “[redacted]” space requirement.
- 3) The Benchmark allowances within the supporting document “Benchmark Calculator and Fair Work First”, were reviewed and amended as suggested in the table above under Heading 3). It is recommended that the entries on HARP are re-established correctly with the applicant, based on the above.
- 4) The principal (priced) items which are considered to be contributing to the additional cost in excess of that indicated for typical Affordable Housing, are categorised in the analysis table under Heading 5).
- 5) Following review of the Specification, Plans and other supporting documentation, further items were identified separately, where costs were not stated, but which impact the Project cost. (See also Heading 5).
- 6) It was established that the common gross internal floor area stated on the HTR included an area in respect of cycle and bin storage, the proposed location of which, is within a further [redacted] Block (Block C) in another Phase of the Works. A proportion of the cost has been included within Phase 2 works costs. This should be noted in the consideration of other grant applications/approvals for other Phases, to ensure there is no duplication.
- 7) The Project includes higher than typical Affordable Housing Sustainability standards which are likely to be conducive to the requirements of the [redacted]. The exception to this, however, would be space for

HARP REF: [redacted] – PROPOSED NEW DEVELOPMENT – [redacted] DWELLINGS, [redacted]

home working which, due to the limitation of the designed building footprint (which is set due to previous approved proposals), would not be fully supported.

8) Considering the challenges and logistics, combined with additional quality measures, higher sustainability measures, enhancements and proportionate allowances for work required for the entire site as found to be included within the Project, the Project cost is both reasonable and realistic and does not appear inflated particularly in the current construction pricing market. However, referring to points 2) and 7) of the Technical Summary, the areas are unlikely to meet the minimum space requirements of the [redacted].

9) The Cost Model (for construction works only), has been calculated **without** the addition of site/project specific items and includes 25% Ad hocs and 15% Design Excess only calculated in accordance with Guidance as Heading 4) above. On this basis, [redacted] dwellings of typical Affordable Housing Specification (and the maximum cost eligible for consideration for Scottish Grant funding), would therefore be **£3,540,237.11**.

This figure disregards Benchmark allowances and the eligibility of any items covered by [redacted] as analysed above. Judgements on the eligibility and the overall proportion of grant applicable, remain decisions for the Area Team.

Issued 15th May 2023 by [redacted]

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