

Guidance

Overview: Public Works Contract Price Variation Mechanisms Feb 2024

Contents

Section 1 – Introduction	Page 3
Section 2 – Overview of the New Mechanism	Page 5
Section 3 – Key Elements that require consideration by the consultant and contractor	Page 7
Section 4 – Resources	Page 8
*Section 5 – Specific Examples of Completed Appendices and Workbooks	Page 9
*Section 6 – Summary Breakdown of Mechanical and Electrical Elements	Page 26

*Important Note: The examples are specific to actual projects within these types and do not apply to all projects within these categories. The purpose of the examples is to illustrate and help guide consultants in the exercise of proportioning materials and their individual weightings based on the particular project design and other relevant considerations and should not be used as a standard or ranges for future projects.

Section 1 - Introduction

The new clauses and mechanisms for Price Variation with the Public Works Contracts apply to

tenders and contracts received on or after 27 July 2023 (27th July being the date 10 days after

the date of publication of the amendments, disregarding the day of publication).

The new mechanism removes the Fixed Price Period for materials and fuel with the contractual

right to recover inflationary costs from the Designated Date throughout the duration of the

contract. The calculation of inflationary costs will be done using indexed formulas reliant on the

Wholesale Price Indices (WPI) from the Central Statistics Office (CSO) Table 3. The new

mechanism also introduces a Permitted Increase Threshold above which the contractor is

entitled to recover costs.

For the new mechanisms to work the consultants are required to complete a number of

documents during the pre-tender stage setting out the proportions of materials, fuel, labour, plant

and non-adjustable overheads for the specific project. They will also be required to select the

Permitted Increase Threshold which should be appropriate to the nature of the project or left at

the default of 5%

There is also a requirement for them to breakdown and insert the weightings of individual

material categories contained within the material proportion into appendices 4 and 5 of the FTS

and also in the new OGP developed workbooks.

Further details on the new mechanisms are outlined below. The CIF has also provided specific

worked examples of completed appendices and workbooks for the following project types:

Healthcare Facility

Housing

Commercial: Office

Industrial: Warehouse

Education Facility

Page 3 of 26

Important Note:

The examples are specific to actual projects within these types and do not apply to all projects within these categories. The purpose of the examples is to illustrate and help guide consultants in the exercise of proportioning materials and their individual weightings based on the particular project design and other relevant considerations and should not be used as a standard or ranges for future projects.

Section 2 - Overview of the New Mechanism

This is a contractual entitlement and is not provided at the discretion of the ER/Employer. The recovery of costs under the new mechanism is not a "claim" but an automatic entitlement which forms part of the payment schedule. Some of the important parts of the mechanism that consultant should be aware of are:

- Contractors will be entitled to material/fuel cost increases above the threshold for the entirety of the project.
- 2. Most of the work will be completed by the consultant at design and tender stage:
 - a. They will be responsible for completing the FTS, appendices 4 and 5 and inserting the WPI from the CSO Table 3
 - b. The consultants will also be responsible for setting up the workbook that calculates the costs related to inflation that the contractor is entitled to.
- 3. The OGP have developed standardised excel workbooks made up of 5 inter-related parts.
 - a. **Summary Tab –** this will collate all the calculations and provide monetary value.
 - b. Appendices 4 and 5 Tab This is where the proportions of materials, fuel and labour will be entered by the consultant. The weights for specific categories/sub-categories of materials, fuel and labour will be entered also by the consultant.
 - c. **Permitted Increase Threshold** (PIT) The employer will also select the appropriate PIT for the Project, but the default is 5%.
 - d. **Indices** this is where the consultant will copy the CSO WPI from Table 3 directly into the workbook cells.
 - e. **Materials** The main entries here are the payment claim value for each month and the effective value of materials. The effective value is an amount less the exempted amounts set out in the contract.
 - f. **Fuel** no further entries are required in this sheet. The Consumer Price Index (CPI) is used for electricity.
- 4. The material categories reflect all material categories and sub-categories in the CSO WPI Table 3 Applies to CW-F1 to 5.
- 5. CW-F6 will use 11 categories only, however the option is to use all if there is no BoQ.
- 6. Recovery of inflation costs will be one month in arrears due to the publications of indices.
- 7. The relevant dates are:
 - a. Designated Dates (2 week before tender submission main base indices date)
 - b. Recovery Date (comes into play if the contractor has delayed the commencement)
 - c. Adjustment date (month of payment claim)

These should be entered by the consultant into the workbooks.

- 8. The threshold is determined by the following factors (guidance will be provided:
 - a. Size and complexity of project
 - b. Duration
 - c. Types of materials and their price volatility
 - d. Quantity of material
- 9. The Form of Tender and Schedule will set out the weightings, proportions of material/fuel/labour and the threshold.
- 10. The OGP have developed a detailed illustrated guidance document to accompany the new mechanisms, which is available on the OGPs website under Cost Planning Control under Pillar Three.

Section 3 - Key Elements that require consideration by the consultant and contractor:

- Ensure all parties to the contract are aware that they are tendering under the correct contract (see above). If not, where appropriate, it is recommended to inform the Contracting Authority that the new forms of contract should be used. This should be done during the tender process on eTenders.
- If the Permitted Increase Threshold is set at a level e.g. 10% and where it is considered
 that the contract is of sufficient complexity and duration as to require a lower threshold,
 this should be raised with the Contracting Authority by the consultant pre-tender or by the
 contractor during the tender stage on eTenders.
- If the proportions and weightings set out in Appendix 4 and 5 of the FTS are incomplete or are considered not to accurately reflect what would be considered proper settings for a particular type of project, again these this should be raised with the Contracting Authority by the consultant pre-tender or by the contractor during the tender stage on eTenders.
- The consultants and contractor should ensure that labour proportions and weightings are included to ensure that they get their entitlement when the fixed price period ends for labour costs.
- The consultants must fully complete all categories/sub-categories/sub-subcategories of materials/fuel/labour – this is to ensure that more volatile materials are captured in the overall calculation of costs increases under a material category.
- The ER, consultants and contractors should ensure that they engage as early as practicable after contract award with the ER to agree on the definition of excluded amounts set out in clause 15.7.
- All parties should be aware that the new mechanism also allows the Contracting Authority to recover costs on a material or fuel decrease if they decrease by more than 10%

Section 4 Resources:

An extensive set of resources is available at the following links:

- The joint OGP, CIF and SCSI Webinar on the new Price Variation Mechanism located on the CIF's Contracting Resource Hub here: <u>Learning & Development Resources</u> -<u>Construction Industry Federation (cif.ie)</u>
- 2. The OGP's website located here: https://constructionprocurement.gov.ie/standard-forms-for-cost-planning-cost-control/
- 3. The OGP guide on how to use the Price Variation Workbooks PV.1.0 V1.0, also located at the link above.

Section 5 - Specific Examples of Completed Appendices and Workbooks

This section provides detailed specific examples of completed appendices 4 and 5 along with the associated sections of the workbooks related to materials and fuel, again, for specific projects. These are specific examples of projects constructed in the following categories:

- 1. A Healthcare Facility
- 2. Housing Projects:
 - a. ICF
 - b. Timber Frame
 - c. Block
- 3. Commercial Office
- 4. Industrial Warehouse
- 5. Education Facility

Important Note: The examples are specific to actual projects within these types and do not apply to all projects within these categories. The purpose of the examples is to illustrate and help guide consultants in the exercise of proportioning materials and their individual weightings based on the particular project design and other relevant considerations and should not be used as a standard or ranges for future projects.

5.1 - How the examples work

For each construction category there is a specific project. Each project is provided with a narrative outlining specific details related to its location, value, construction type and anything specific about the design which may have an impact on the materials used to construct it.

A worked example is then provided illustrating how Appendix 4, 5 Part 1 and 5 part 2 is completed. Finally illustrated examples are providing show how the materials and fuel tabs in the excel workbooks developed by the OGP are completed.

5.2 - Notes on completing the Appendices and Workbooks

5.2.1 Appendix 4

This appendix requires the consultant to insert the proportions within the project for materials, fuel, labour, plant and non-adjustable overheads. The consultant will also be required to select the Permitted Increase Threshold (PIT) based on the complexity, duration, supply chain volatility and value of the contract.

Appendix 4 is built into the excel workbooks and once completed will automatically complete the relevant fields in the other tabs within the workbook. The consultant can then copy the figures into the section of the Form of Tender and Schedule with contains the Appendix 4.

When completing this appendix the consultant should consider the following:

- 1. Ensure that all fields are given a value, so the total value adds up to "100%".
- 2. The consultant should take care to select the most appropriate PIT that fairly reflects the contractual risk for both the client and contractor to achieve the optimal transfer of inflation risk and for the contract to remain commercially viable.

5.2.2 Appendix 5 Parts 1 and 2

Appendix 5 Part 1 requires the consultant to insert the material weightings for all material categories contained within the overall proportion of materials inserted in appendix 4. It also facilitates the insertion of individual weightings for material sub-categories to allow the capture of inflationary increases associated with more volatile materials that make up the main categories.

Appendix 5 Part 2 requires the consultant to enter weightings for Fuel Oil, Diesel and Electricity.

Again, both parts of Appendix 5 are built into the excel workbooks and once completed will automatically complete the relevant fields in the other tabs within the workbook. The consultant can then copy the figures into the section of the Form of Tender and Schedule with contains the Appendix 4.

When completing appendix 5 Parts 1 and 2, the consultant should consider the following:

- 1. Ensure that all fields (Material and Fuel) are given a value, so the total value adds up to "100%".
- 2. If sub-categories are used, then all sub-category fields must be completed in full. None can be left out. This is to ensure that the correct weighting is summated for inclusion in the workbook for the main material based on its sub-categories and will then capture any volatility in material components.

5.3 Healthcare Facility

Location: Regional Project - Based in Midlands

Approx. Value: €21M

Project Overview: New 50 Bed Community Nursing Unit including all siteworks.

Project Description

The project is located in the Midlands on an existing HSE campus and the works involve the construction of a new 50 bed Community Nursing Unit including all associated sitework and 250m2 refurbishment in existing buildings. Overall floor area of 4200m2. Works include

demolition of existing structures and diversion of existing site services.

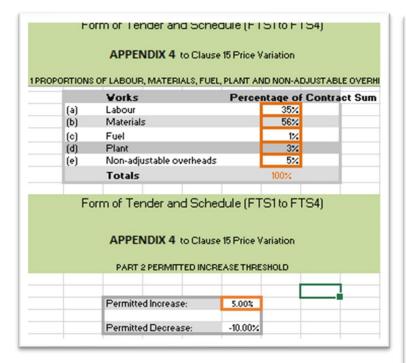
The structure is a 2 storey in-situ concrete frame sitting on piled foundations with a mix of RC and masonry rising walls. The façade consists of largely punch windows with elements of curtain walling and an insulated render system throughout. The internal fit-out is typical HSE community nursing specification with individual rooms coupled with own en-suites and large circulation

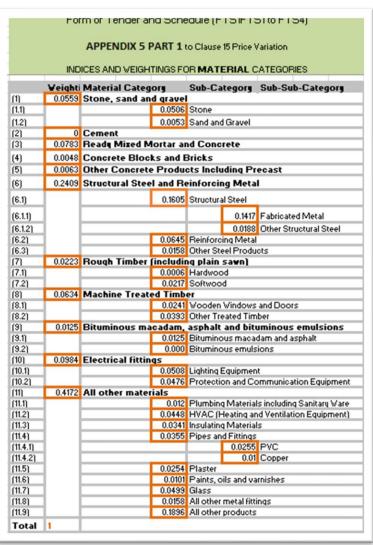
areas, general communal facilities, nursing stations, canteen facilities and the like.

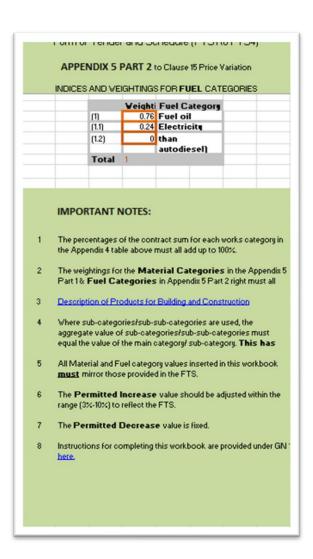
The new stand-alone CNU building ties into the existing buildings on site and the project includes the upgrade of rooms within the existing building at the interface areas. The related demolition and refurbishment works are relatively modest at circa 1.5% of the total contract sum.

The project includes a large amount of site development works within the existing campus including the construction of additional parking, circulation roads and other ancillary external spaces.

Completed Appendices 4 and 5 Parts 1 and 2 – Healthcare Facility







Completed Appendix 4

Completed Appendix 5 Part 1

Completed Appendix 5 Part 2

5.4 Housing

The three types of housing construction that covered under this heading are:

- ICF
- Timber Frame
- Blockwork

5.4.1 Type of construction: ICF Housing

Location: Croom area near Limerick City Approx

Approx. Value: €16M

Project Description

The project is located in Croom near Limerick and consists of 56 residential housing units single, semidetached, and terraced with associated ancillary site development works, roads, boundary treatments and site services, hard and soft landscaping etc.

The houses have a Core insulated foundation with an ICF superstructure which is plastered directly on to the insulation externally and has a plasterboard and skim internal finish with metal floor joists with an OSB finish at first floor level and a standard timber Truss roof and concrete roof tile. PVC windows and doors. The development has a standard M&E fitout with air to water heat pumps.

Completed Appendices 4 and 5 Parts 1 and 2 – ICF Housing

RTIONS	OF LABOUR, MATERIALS, FL	JEL, PLANT AND	NON-ADJUSTAE
	Works	Percentage o	f Contract Sum
(a)	Labour	rereemoge	37%
(b)	Materials		55%
(c)	Fuel		1%
(d)	Plant		2%
(e)	Non-adjustable overhead	s	5%
	Totals	1	00%
	Form of Tender and Sch	adula (ETS1 to	ETSA)
	Form of Tender and Sch	nedule (FTS1 to	FTS4)
			*
	Form of Tender and Sch		*
	APPENDIX 4 to Class	use 15 Price Varia	tion
		use 15 Price Varia	tion
	APPENDIX 4 to Class	use 15 Price Varia	tion
	APPENDIX 4 to Class	use 15 Price Varia	tion

		APPENDIX 5	PART 1	to Clause	15 Price \	/ariation	
	IND	ICES AND VEIGH	TINGS FO	RMATI	ERIAL C	ATEGORIES	
	Voighti	Material Categ	ore	Sub-Ca	tegors	Sub-Sub-Categor	
1)		Stone, sand an			reguis	oub-oub-category	
1.1)	0.00	otome, suma un		Stone			
1.2)				Sand and	Gravel		
2)	0.024	Cement	0.00	Cana and			
3)	0.072	Ready Mixed M	lortar ar	nd Conc	rete		
4)							
5)		Concrete Blocks and Bricks Other Concrete Products Including Precast					
	-						
6)	0.188	Structural Stee	el and Re	Pinforcii	ig Meta	1	
6.1)			0.136	Structura	al Steel		
6.1.1)	_				0	Fabricated Metal	
6.1.2)				_		Other Structural Steel	
6.2)			0.020	Paintara			
6.3]				28 Reinforcing Metal 24 Other Steel Products			
7)	0	Rough Timber				0(3	
7.1)		riouqii riiiiber	0 Hardwood				
7.2)			0 Softwood				
8)	0.003	Machine Treat			-		
8.1)			0.002	Wooden	Windows	and Doors	
8.2)			0.001 Other Treated Timber				
9)	0.018	Bituminous ma	cadam,	asphalt	and bite	uminous emulsions	
9.1)						dam and asphalt	
9.21				Bitumino	us emuls	ions	
10)	0.104	Electrical fittin	The same of the sa				
10.1)				Lighting E			
10.2)				Protection and Communication Equipment			
11)	0.493	All other mater	THE R. P. LEWIS CO., LANSING, MICH.				
11.1)						s including Sanitary Ware	
11.2)				100 mm 100 mm 120 mm		nd Ventilation Equipment)	
11.3)				Insulatino Pipes an			
11.4.1)			0.09	ripes an		PVC	
11.4.2)						Copper	
11.5)			0	Plaster		Соррег	
11.6)			The second name of the second	Paints, o	ils and ua	rnishes	
11.7)				Glass	dila va	opening over stylle.	
11.8)	1			All other	metal fitti	ings	
11.9)	1			All other			

Form of Tender and Schedule (FTS1 to FTS4) APPENDIX 5 PART 2 to Clause 15 Price Variation INDICES AND VEIGHTINGS FOR FUEL CATEGORIES **Veighti Fuel Category** 0.1 Fuel oil (1.1) 0.3 Electricity (1.2)0.6 than autodiesel) Total **IMPORTANT NOTES:** The percentages of the contract sum for each works category in the Appendix 4 table above must all add up to 100%. 2 The weightings for the Material Categories in the Appendix 5 Part 1& Fuel Categories in Appendix 5 Part 2 right must all Description of Products for Building and Construction Where sub-categories/sub-sub-categories are used, the aggregate value of sub-categories/sub-sub-categories must equal the value of the main category/ sub-category. This has All Material and Fuel category values inserted in this workbook must mirror those provided in the FTS. The Permitted Increase value should be adjusted within the range (3%-10%) to reflect the FTS. The Permitted Decrease value is fixed. Instructions for completing this workbook are provided under GN1 here.

Completed Appendix 4

Completed Appendix 5 Part 1

Completed Appendix 5 Part 2

5.4.2 Type of Construction: Timber Frame Housing

Location: Tower area near Cork City

Approx Value: €30M

Project Description

The project is located in Tower near Cork City and consists of 100 residential housing units single, semidetached, and terraced with associated ancillary site development works, roads, boundary treatments and site services, hard and soft landscaping etc. This was a very steep site

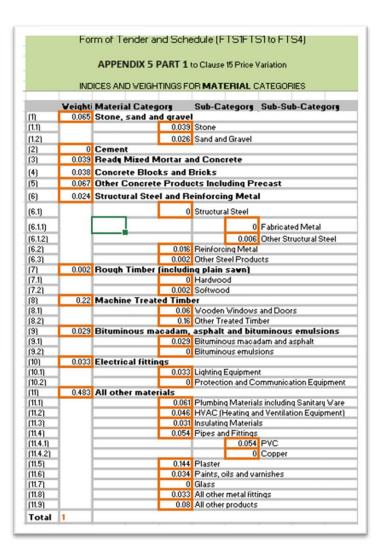
and had a lot of precast retaining walls.

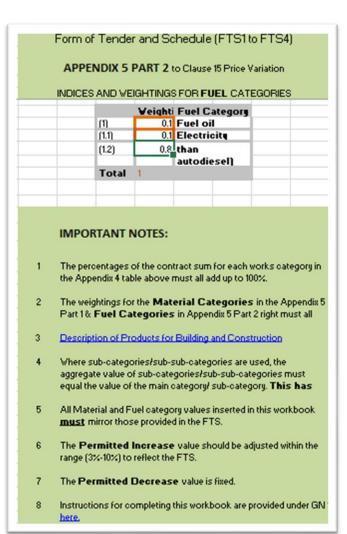
The houses have a raft foundation with a Timber Frame superstructure which is finished externally with block and plaster and has a plasterboard and skim internal finish with timber floor joists with an OSB finish at first floor level and a standard timber Truss roof and concrete roof tile. PVC windows and doors. The development has a standard M&E fitout with air to water heat pumps.

Page **16** of **26**

Completed Appendices 4 and 5 Parts 1 and 2 – Timber Frame Housing

RTION	OF LABOUR, MATERIALS, FU	EL, PLANT AND	NON-ADJL	STABLEC
		_		
	Vorks	Percen	tage of C	ontract
(a)	Labour Materials		39% 53%	_
(b)			The second named in column 2 is not a column 2 in colu	
(c)	Fuel		1%	_
(d)	Plant		2%	_
(e)	Non-adjustable overhead	IS L	5%	
	Totals		100%	
	orm of Tender and Sch			
	APPENDIX 4 to Clau			





Completed Appendix 4

Completed Appendix 5 Part 1

Completed Appendix 5 Part 2

5.4.3 Type of Construction—Block Housing

Location: Cork City

Approx. Value: €28M

Project Description

The project is located in Cork City and consists of 118 residential housing units single,

semidetached, and terraced with associated ancillary site development works, roads, boundary

treatments and site services, hard and soft landscaping etc.

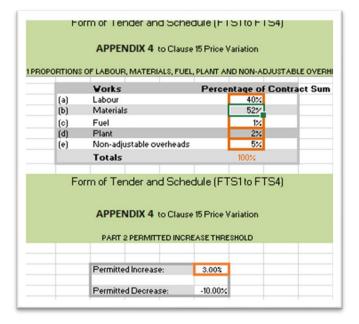
The houses have standard foundations with a block superstructure which is plastered externally

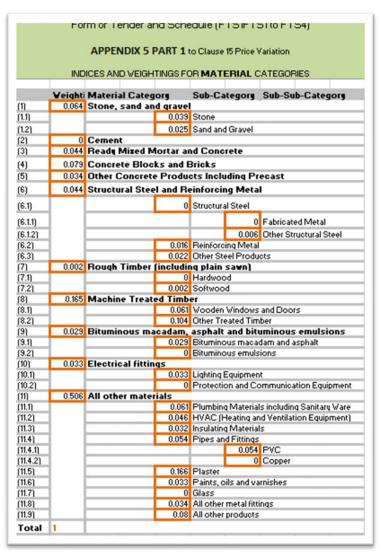
and has a plaster and skim internal finish with timber floor joists with an OSB finish at first floor

level and a standard timber Truss roof and concrete roof tile. PVC windows and doors. The

development has a standard M&E fitout with air to water heat pumps.

Completed Appendices 4 and 5 Parts 1 and 2 - Block Housing





Form of Tender and Schedule (FTS1 to FTS4) APPENDIX 5 PART 2 to Clause 15 Price Variation INDICES AND WEIGHTINGS FOR FUEL CATEGORIES Weighti Fuel Categore 0.1 Fuel oil 0.6 Electricite (1.1) (1.2)0.3 than autodiesel) Total IMPORTANT NOTES: The percentages of the contract sum for each works category in the Appendix 4 table above must all add up to 100%. The weightings for the Material Categories in the Appendix 5 Part 1& Fuel Categories in Appendix 5 Part 2 right must all Description of Products for Building and Construction Where sub-categories/sub-sub-categories are used, the aggregate value of sub-categories/sub-sub-categories must equal the value of the main category/ sub-category. This has All Material and Fuel category values inserted in this workbook must mirror those provided in the FTS. The Permitted Increase value should be adjusted within the range (3%-10%) to reflect the FTS. The Permitted Decrease value is fixed. Instructions for completing this workbook are provided under GN:

Completed Appendix 4

Completed Appendix 5 Part 1

Completed Appendix 5 Part 2

5.6 Commercial: Office

Location: Dublin area (outside city centre),

Value: €74M,

Project Overview: Shell and Core and CAT A fit-out included, further tenant fit-out excluded

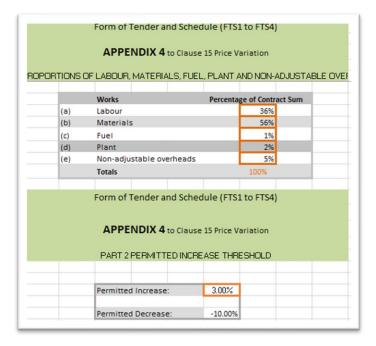
Project

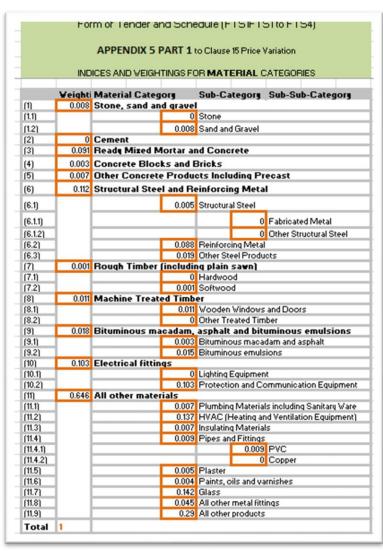
The project is in south county Dublin and consisted of the construction of an office block and associated double basement consisting of nine floors of office space from lower ground floor upwards with carparking and plant rooms on the level below. The approximate floor area of the office space is 19,465 m2.

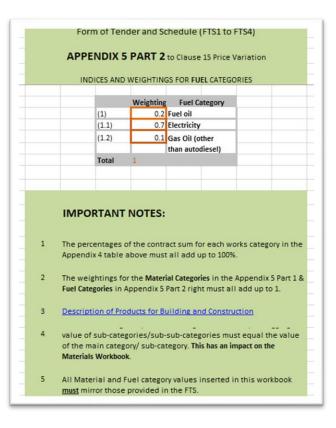
The structure of the project is reinforced concrete and the façade is primarily glazed (curtain walling, unitised glazing and a spider glass enclosure to feature lifts) with some stone cladding. The roof is covered with a 3 ply bituminous covering with the addition of hard and soft landscaping and sedum roofing.

The development also included hard and soft landscaping and all ancillary works including lighting, site excavation and development works.

Completed Appendices 4 and 5 Parts 1 and 2 - Commercial







Completed Appendix 4

Completed Appendix 5 Part 1

Completed Appendix 5 Part 2

5.7 Industrial: Warehouse

Location: Dublin area (outside city centre),

Value: €33M

Project Description

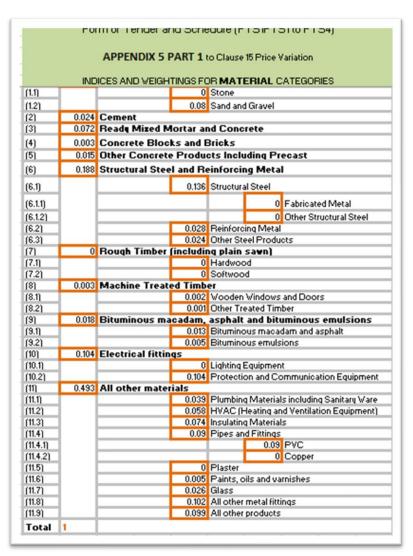
The Project is located in West Dublin and consists of the construction of a logistics warehouse with ancillary office accommodation (total c. 25,268m2) to an overall height of 14.86 metres. The warehouse element of the development is principally single storey including an ancillary mezzanine level (554 m2).

The ancillary offices, comprising c. 1,737 m2, are provided over three storeys and include toilets, changing rooms, showers, cafeteria, gym, plant areas and circulation spaces. The development also included: 179 no. surface car parking spaces; hard and soft landscaping; sprinkler storage tanks and pump house; an electrical substation (c. 54 sqm); and all ancillary works including boundary treatments, street lighting, site excavation and development works above and below ground.

The frame is structural steelwork and the façade consists primarily of insulated cladding panel with some glazed elements. The pitched roof is covered with insulated roofing panels with rooflights. 19 dock levellers/scissor lifts were installed.

Completed Appendices 4 and 5 Parts 1 and 2 – Industrial Warehouse

	APPENDIX 4 to Clau	use 15 Price Variation	
RTIONS	OF LABOUR, MATERIALS, FU	JEL, PLANT AND NON-ADJUST	ABL
	Works	Percentage of Contract Sum	
(a)	Labour	37%	
(b)	Materials	55%	
(c)	Fuel	1%	
(d)	Plant	2%	
(e)	Non-adjustable overhead	s 5%	
	Totals	100%	
	Form of Tender and Sch	ledule (FIST to FIS4)	
	APPENDIX 4 to Clau		



Form of Tender and Schedule (FTS1 to FTS4) APPENDIX 5 PART 2 to Clause 15 Price Variation INDICES AND VEIGHTINGS FOR FUEL CATEGORIES **Veighti Fuel Category** 0.3 Fuel oil 0.6 Electricite (1.1) (1.2)0.1 than autodiesel) Total IMPORTANT NOTES: 1 The percentages of the contract sum for each works category in the Appendix 4 table above must all add up to 100%. 2 The weightings for the Material Categories in the Appendix 5 Part 1& Fuel Categories in Appendix 5 Part 2 right must all Description of Products for Building and Construction Where sub-categories/sub-sub-categories are used, the aggregate value of sub-categories/sub-sub-categories must egual the value of the main category/ sub-category. This has 5 All Material and Fuel category values inserted in this workbook must mirror those provided in the FTS. 6 The Permitted Increase value should be adjusted within the range (3%-10%) to reflect the FTS. The Permitted Decrease value is fixed. Instructions for completing this workbook are provided under GN

Completed Appendix 4

Completed Appendix 5 Part 1

Completed Appendix 5 Part 2

5.7 Education Facility

Location: South Side of Dublin

Approx. Value: €74M

Project Overview: New Learning Facility

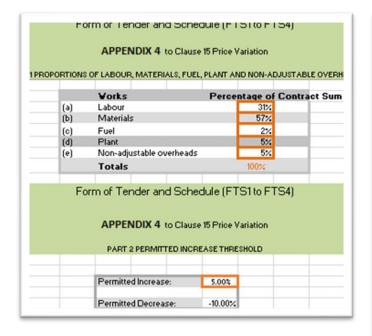
Project Description

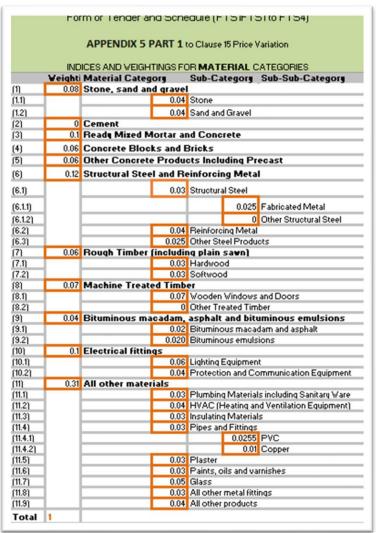
The project is located South Dublin on a brown field site. The overall floor area of the project is 11,580/m2 over for floors. The building ranges from 5.4metres to an overall height of 19m. It's a mixture of lecture theatre classrooms and workspace facilities.

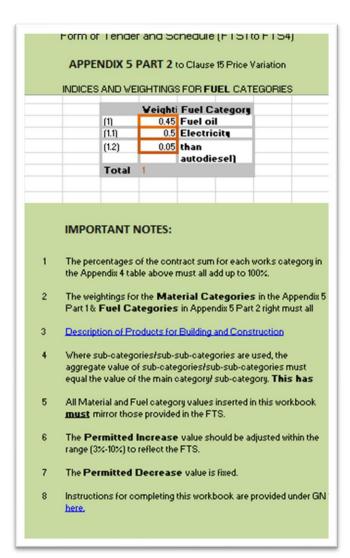
The façade is mix of glazing and stone cladding with Rheinzinc clad canopies. The roof is green sedum roof system with rooflights and paved areas.

The project includes a large amount of site development works within the existing campus including the construction of additional parking, circulation roads and other ancillary external spaces.

Completed Appendices 4 and 5 Parts 1 and 2 - Education Facility







Section 6 – Summary Breakdown of Mechanical and Electrical Elements

This section outlines the breakdown of electrical and mechanical materials proportions for each of the project categories above.

SCSI-CIF PVC Guidance Document

	Healthcare	Residential	Industrial	Educational	Commercial
Electrical					
Labour	33%	38%	29%	32%	35%
Material	55%	53%	56%	58%	55%
Prelims	12%	9%	15%	10%	10%
Plumbing (Mechanical)					
Labour	28%	35%	29%	24%	28%
Material	60%	56%	58%	65%	62%
Prelims	12%	9%	13%	11%	10%