

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 1</u>				
	<u>ALTERATIONS</u>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill				
	NOTE: Tenderers are advised to study the Lab Specialist and Architectural specification pricing this bill				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>View site</u>				
	Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained				
	<u>Explosives</u>				
	No explosives whatsoever may be used in demolitions				
	<u>Generally</u>				
	The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to tenants in the building and to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent				
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 1 Alterations CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				

Doors, fanlights, windows, fittings, frames, linings, etc which are to be re-used shall be thoroughly overhauled before re-fixing including taking off, easing and rehanging, cramping up, re-wedging as required and making good cramps, dowels, etc, and oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately

Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary

The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc)

Unless otherwise stated, the whole of the old materials arising from the alterations shall become the property of the contractor and shall be carted away from the site immediately it becomes available and credit shall be allowed for it

In pricing, credits for old materials shall be offset against the charge so as to result in a net figure in the amount column

Prices for the demolition of any structure shall include for its demolition complete with all surface finishes such as plaster, screeds, etc all attached items of joinery such as skirtings, etc and all reinforcement, conduit, pipes, lintels, etc built into that portion of the structure

Carried to Collection

Section 5.3: Main Contract

Bill No. 1

Alterations

CSIR Future PHARMA Facility, Pretoria

21511-20-01-0- Main Contractor's BOQ Rev 0

R

The whole of the demolitions shall be carried out with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their occupants. The site, structures and materials shall be kept well watered during the operations to prevent dust and all temporary tarpaulins, dust and weatherproof screens, barriers and temporary plumbing that may be necessary during the progress of the demolitions, shall be erected and maintained, all to the satisfaction of the architect and the municipal authorities, and removed when directed

No claims for extras whatsoever will be entertained and no extension of time will be allowed should the contractor be prohibited by order of the police, the courts or other public bodies from using mechanical equipment, compressors, pneumatic drills or other noisy means of executing the demolitions

Provide, erect and remove when directed all incidental shoring, needling, strutting, etc that may be necessary while carrying out any portion of the works to ensure stability of the premises with suitable and substantial timber and other materials. Prices for all items of demolition to form openings shall include for the provision of such support

The contractor shall comply with all regulations and by-laws in force in connection with the use of electrical, mechanical and other equipment

Allow for watering the works with a jet or spray sufficiently to prevent any nuisance from dust during the alterations or demolitions

Carried to Collection

Section 5.3: Main Contract
Bill No. 1
Alterations
CSIR Future PHARMA Facility, Pretoria
21511-20-01-0- Main Contractor's BOQ Rev 0

R

At the commencement of the demolition work the contractor shall give notice to the employer to whose premises any services such as water, telephone, electric power, etc are carried via or supported by the buildings to be demolished and shall ensure that such services are maintained without interruption

The contractor shall remove from the site all drains, pipes, conduits, wire and other obstructions which are encountered in demolishing.

He shall plug and seal all water pipes, drains, pipes or other conduits remaining below ground level and ensure that no electric cables or wires remaining underground are alive.

The contractor shall consult the architect before cutting off the water, fire service and sewerage systems

In taking down and removing existing work the utmost care shall be observed to avoid any structural or other damage to the remaining portions of the building. The contractor shall cover up and protect from injury all work not removed and shall make good at his own expense any damage that may occur

Provide and erect all casings and protection for and cover up all existing fittings, doors, windows, joinery work, walls, floors, etc. not disturbed during the alterations and clear away and make good at completion

The contractor shall collect and cart away all material and debris resulting from the demolitions. At completion of the demolition work the contractor shall leave the site in a thoroughly safe and sanitary condition to the complete satisfaction of the architect and the municipal authorities.

Carried to Collection

Section 5.3: Main Contract

Bill No. 1

Alterations

CSIR Future PHARMA Facility, Pretoria

21511-20-01-0- Main Contractor's BOQ Rev 0

R

<u>TEMPORARY FLOOR, ETC</u>					
<u>Temporary floor, etc including removal</u>					
A	Existing steel floor to be cladded complete with approved plywood before specified floor finish can be installed, including corners, ends, etc. Refer to architect's drawing number 2022_CSIR_A.03.1.2	m2	151		
<u>REMOVAL OF EXISTING WORK</u>					
<u>Breaking down and removing brickwork etc</u>					
B	Half Brick wall	m2	14		
C	One Brick wall	m2	25		
D	280mm Hollow walls of two half brick skins	m2	9		
<u>Breaking up and removing reinforced concrete, including cutting off and removing reinforcement</u>					
E	150mm Thick surface beds, etc	m2	29		
F	Cut 150mm surface bed to break out	m	59		
G	Beams	m3	1		
H	Cut 230mm thick up stand beam to break out	m	5		
<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>					
J	Lay-in Ceilings including removing all associated cornice, grid, etc.	m2	395		
K	Cold room ceilings including removing all associated cornice, grid, etc.	m2	15		
L	Drywall partitions 2500mm high, including skirtings, glazed borrowed lights, etc	m	13		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 1 Alterations CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

A	Cold Room panelling 2500mm high, including skirtings, glazed borrowed lights, etc	m	14		
	<u>Hacking up/off and removing tile floor and wall finishes including removing mortar bed or backing and preparing concrete or brick surfaces for new screed, plaster or tile finishes</u>				
B	Tiles fixed to floors	m2	46		
C	Tiles to treads and risers of stairs	m2	2		
	<u>Taking up / off and set aside for re-use external work</u>				
D	Lift up and set aside paving for re-use (Re-fixing in similar new position elsewhere measured)	m2	36		
	<u>Taking out and removing doors, windows, etc including thresholds, sills, etc from partitioning and building opening (elsewhere measured)</u>				
E	Glazed aluminium window not exceeding 2.5m2	No	3		
F	Glazed aluminium window exceeding 2.5m2 not exceeding 5m2	No	1		
	<u>Taking out and removing doors, windows, etc including thresholds, sills, etc from partitioning and prepare opening for new door, window, etc</u>				
G	Aluminium door and frame exceeding 2.5m2 and not exceeding 5m2	No	5		
	<u>Taking out and removing doors, windows, etc, including thresholds, sills, etc (building up openings and making good finishes elsewhere)</u>				
H	Cold room door and frame not exceeding 2.5m2	No	1		
J	Timber door and steel frame not exceeding 2.5m2	No	5		
K	Glazed aluminium window not exceeding 2.5m2	No	4		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 1 Alterations CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

A	Glazed aluminium window exceeding 5m ² and not exceeding 7.5m ²	No	3		
	<u>Taking out and removing roller shutter door including thresholds, sills, etc (building up openings elsewhere)</u>				
B	Roller shutter door 3 000 x 4 500mm high	No	1		
	<u>Carefully taking out and store sanitary fittings, etc including disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere)</u>				
C	Emergency Eye Drench Shower	No	1		
	<u>Take up and remove wood block floor coverings, vinyl floor coverings, carpeting, etc and prepare screeds for new floor finishes</u>				
D	Carpeted floor covering including removing all associated adhesives, skirtings, coves, etc	m ²	54		
E	Vinyl fixed to floors including removing all associated adhesives, skirtings, coves, etc	m ²	603		
F	Polyscreed including making floors good to receive new floor finish	m ²	15		
	<u>Carefully taking off extractors / ducts</u>				
G	Carefully remove extractors / ducts from existing windows	No	5		
	<u>Taking out/off and removing sundry metalwork</u>				
H	Steel balustrades from concrete stairs, including making good floor finish	m	20		
	<u>Carefully taking off aluminium louvre and handover to th Client</u>				
J	Carefully take off and remove aluminium louvre with overall size 3 000 x 1 800mm high	No	1		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 1 Alterations CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

OPENINGS THROUGH EXISTING WALLS

Breaking out for and forming plain openings through brick walls including pre-stressed concrete lintels, making good plaster on both sides and into reveals and with unreinforced concrete thresholds with steel trowelled finish (making good paintwork elsewhere)

A	Opening 200mm diameter in half brick wall	No	2
B	Opening 250 x 200mm high in half brick wall	No	4
C	Opening 250 x 300mm high in half brick wall	No	3
D	Opening 450mm diameter in one brick wall	No	2
E	Opening 560mm diameter in one brick wall	No	2
F	Opening 630mm diameter in one brick wall	No	1
G	Opening 250 x 250mm high in one brick wall	No	1
H	Opening 300 x 300mm high in one brick wall	No	1
J	Opening 50mm diameter in cavity brick wall	No	11
K	Opening 115mm diameter in cavity brick wall	No	1
L	Opening 150mm diameter in cavity brick wall	No	1
M	Opening 190mm diameter in cavity brick wall	No	1
N	Opening 450mm diameter in cavity brick wall	No	2
P	Opening 500mm diameter in cavity brick wall	No	1
Q	Opening 560mm diameter in cavity brick wall	No	2
R	Opening 630mm diameter in cavity brick wall	No	1
S	Opening 250 x 200mm high in cavity brick wall	No	5

Carried to Collection

R

Section 5.3: Main Contract
 Bill No. 1
 Alterations
 CSIR Future PHARMA Facility, Pretoria
 21511-20-01-0- Main Contractor's BOQ Rev 0

A	Opening 300 x 500mm high in cavity brick wall	No	1		
B	Opening 400 x 300mm high in cavity brick wall	No	1		
C	Opening 400 x 450mm high in cavity brick wall	No	1		
D	Opening 600 x 300mm high in cavity brick wall	No	3		
E	Opening 600 x 500mm high in cavity brick wall	No	2		
	<u>Breaking out for and forming openings through brick walls for new doors and frames, including pre-stressed concrete lintels, making good cement plaster on both sides and into reveals and with 20 MPa concrete thresholds with steel trowelled finish (new doors and frames and making good paintwork elsewhere)</u>				
F	Opening 900 x 1 600mm high in one brick wall	No	1		
G	Opening 900 x 2 100mm high in cavity brick wall	No	2		
H	Opening 1 600 x 2 100mm high in one brick wall	No	1		
J	Opening 1 840 x 2 800mm high in one brick wall	No	1		
	<u>Breaking out for and forming openings through brick walls for new windows, including pre-stressed concrete lintels, making good cement plaster on both sides and into reveals and with sloping fibre-cement sills on outside and flat fibre-cement sills on inside (new windows and making good paintwork elsewhere)</u>				
K	Opening 1 200 x 1 000mm high in cavity brick wall	No	4		
	<u>BUILDING UP OPENINGS</u>				
	<u>Brickwork in NFP bricks in class II mortar in building up openings</u>				
L	230mm One brick walls of two half brick skins including wire ties	m2	5		
M	280mm Hollow walls of two half brick skins including wire ties	m2	57		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 1 Alterations CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

<u>Sundries</u>					
A	Cutting toothings and bonding new brickwork to existing	m2	8		
<u>REMEDIAL WORK TO EXISTING WINDOWS</u>					
<u>Service and permanently seal existing windows</u>					
B	Making good and servicing window with overall size not exceeding 2.5m ² with panes including fixing broken glazing and members, raking out existing sealant, prepare surface for new sealant and permanently sealing window with approved silicon sealant	No	7		
C	Making good and servicing window with overall size exceeding 2.5m ² and not exceeding 5m ² with panes including fixing broken glazing and members, raking out existing sealant, prepare surface for new sealant and permanently sealing window with approved silicon sealant	No	6		
<u>PREPARATORY WORK TO EXISTING SURFACES</u>					
<u>Preparing existing internal walls to be re-painted by removing existing wall-mounted equipment, fittings and cladding where applicable and strip off existing paint to base coat where paint is peeling and cracked</u>					
D	Preparing existing walls to be re-painted	m2	1,013		
<u>MAKING GOOD OF FINISHES ETC</u>					
<u>Making good internal cement screeds</u>					
E	Screeds where 110mm brick walls removed	m	7		
F	Screeds where 230mm brick walls removed	m	11		
<u>Making good cement plaster</u>					
G	Walls where 110mm brick walls removed	m	8		
H	Walls where 230mm brick walls removed	m	21		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 1 Alterations CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

A	<p><u>Making good vinyl floors, platform finish, etc</u></p> <p>Making good and prepare existing floor to receive new floor finish</p>	m2	151	R
<p style="text-align: right;">Carried to Collection</p> <p>Section 5.3: Main Contract Bill No. 1 Alterations CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0</p>				

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Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 2</u>				
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Cost of tests</u>				
	The costs of making, storing and testing of concrete test cubes as required under Clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect (Test cubes are measured separately)				
	<u>Formwork</u>				
	Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself				
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 2 Concrete, Formwork and Reinforcement CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				

Formwork to soffits of solid slabs, etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described Formwork has been measured to the sides of all reinforced concrete in foundations and will be remeasured according to actual usage. However, formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

REINFORCED CONCRETE

30MPa/19mm concrete

A Isolated Beams

m3

1

TEST BLOCKS

Test blocks

B Making and testing set of three 150 x 150 x 150mm concrete strength test cubes

No

1

FORMWORK

ROUGH FORMWORK (DEGREE OF ACCURACY II)

Rough formwork to sides

C Isolated Beams

m2

6

Rough formwork to soffits

D Isolated beams propped up exceeding 1.5m and not exceeding 3.5m high

m2

1

Carried to Collection

R

Section 5.3: Main Contract
 Bill No. 2
 Concrete, Formwork and Reinforcement
 CSIR Future PHARMA Facility, Pretoria
 21511-20-01-0- Main Contractor's BOQ Rev 0

<u>REINFORCEMENT</u>					
<u>Mild steel reinforcement to structural concrete work</u>					
A	Various diameter mild steel bars	t	0.03		
<u>High tensile steel reinforcement to structural concrete work</u>					
B	Various diameter high tensile steel bars	t	0.46		
<u>High tensile steel dowel bars</u>					
C	20mm Diameter dowel bar 150mm long with both end embedded 75mm deep in existing concrete columns and fixed to new concrete beam as per engineers detail	No	4		
Carried to Collection					
Section 5.3: Main Contract					
Bill No. 2					
Concrete, Formwork and Reinforcement					
CSIR Future PHARMA Facility, Pretoria					
21511-20-01-0- Main Contractor's BOQ Rev 0					

R

Bill No. 2

Concrete, Formwork and Reinforcement

COLLECTION

Total Brought Forward from Page No.

**Page
No**

13

14

15

Amount

Carried to Summary

R

Section 5.3: Main Contract

Bill No. 2

Concrete, Formwork and Reinforcement

CSIR Future PHARMA Facility, Pretoria

21511-20-01-0- Main Contractor's BOQ Rev 0

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 3</u>				
	<u>MASONRY</u>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>BRICKWORK</u>				
	<u>Sizes in descriptions</u>				
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick				
	<u>Hollow walls, etc</u>				
	Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole				
	Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproof coating				
	<u>Face bricks</u>				
	Bricks shall be ordered timeously to obtain uniformity in size and colour				
	<u>Pointing</u>				
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 3 Masonry CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				

Samples

Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of six units. Samples of building units to be used in walls described as "load bearing" shall consist of thirty units from every thirty thousand units delivered to site

SUPERSTRUCTURE BRICKWORK

Brickwork of NFP bricks in class II mortar

A	110mm Half Brick wall	m2	157
B	230mm One brick walls	m2	8
C	280mm Cavity brick walls	m2	28

FACE BRICKWORK

Face bricks pointed with recessed horizontal and vertical joints

D	Extra over brickwork for face brickwork in superstructure	m2	43
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BRICKWORK SUNDRIES

E	Closing 50mm cavity of hollow walls vertically with brickwork half brick wide	m	29
F	Closing 50mm cavity of hollow walls horizontally with two courses of brickwork	m	11
G	Plaster coping	m	46

Carried to Collection

R

Section 5.3: Main Contract
 Bill No. 3
 Masonry
 CSIR Future PHARMA Facility, Pretoria
 21511-20-01-0- Main Contractor's BOQ Rev 0

Section 5.3 : MC Bills Of Quantities
Page 19 of 100

Bill No. 3

Masonry

COLLECTION

Total Brought Forward from Page No.

**Page
No**

Amount

17

18

19

Carried to Summary

R

Section 5.3: Main Contract

Bill No. 3

Masonry

CSIR Future PHARMA Facility, Pretoria

21511-20-01-0- Main Contractor's BOQ Rev 0

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 4</u>				
	<u>WATERPROOFING</u>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Waterproofing</u>				
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets, etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs				
	<u>DAMPPROOFING OF WALLS AND FLOORS</u>				
	<u>One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>				
A	Under surface beds	m2	98		
	<u>One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course</u>				
B	In walls	m2	20		
	<u>Prepare and apply three coats dura flex or similar approved waterproofing system with 100mm wide end laps including sealing laps at corners with 100mm double sided tape as per manufacturers specifications</u>				
C	Dress waterproofing into waste outlet including additional membrane and waterproofing	No	7		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 4 Waterproofing CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				

JOINT SEALANTS, ETC

Approved silicone pointing

A Between aluminium windows, shopfronts, doors etc and walls

m 23

B Between timber doors etc and walls

m 10

"Sikaflex pro 2HP" two-part polyurethane joint sealing compound including backing cord, bond breaker, etc

C 3 x 6mm In saw cut joints in floors

m 29

Carried to Collection

R

Section 5.3: Main Contract

Bill No. 4

Waterproofing

CSIR Future PHARMA Facility, Pretoria

21511-20-01-0- Main Contractor's BOQ Rev 0

Section 5.3 : MC Bills Of Quantities
Page 23 of 100



Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 5</u>				
	<u>ROOF COVERINGS, ETC</u>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Guarantees</u>				
	The contractor will be required to provide a written guarantee for the roof covering as follows:				
	- Galvanised roof covering material - five years				
	- Chromadek roof covering material - ten years				
	- Workmanship - ten years				
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>				
	<u>Sheeting shall be Aluminium Zinc coated IBR with approval from architect prior to installation and a standard backing coat, in strict accordance with the manufacturers instructions. Fixed to steel complete in its entirety by a approved contractor in strict accordance with manufacturer's specifications, refer to drawing number 21_028-LTS-DR-ZZ-LS-L00-190001-T-A, 21_028-LTS-DR-ZZ-LS-L00-190002-T-A</u>				
A	Roof coverings with pitch not exceeding 25 degrees	m2	8		
	<u>IBR roll-formed in continuous lengths to match existing , fixed to steel complete with and including all fixings, etc. All in accordance with the manufacturer's specifications, refer to drawing number 21_028-LTS-DR-ZZ-LS-L00-190001-T-A, 21_028-LTS-DR-ZZ-LS-L00-190002-T-A</u>				
B	Barge flashing 660mm girth	m	16		
C	Apex flashings 462mm girth	m	8		
	Carried to Summary			R	
	Section 5.3: Main Contract Bill No. 5 Roof Covering CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				

Section 5.3 : MC Bills Of Quantities
Page 25 of 100

The following joinery fittings have been measured as complete units i.e. the components of the units have not been separately measured. The descriptions, therefore, of such units shall be deemed to include all components, assembling, housing, notching, gluing, blocking, planting on and screwing with countersunk screws, edge strips, skirtings, trims, framework, decorative plastics finish, glass, ironmongery, metalwork, paint or varnish finishes, etc

Prices are to include for all ironmongery, finishes, etc unless otherwise described

Prices are to include for the making of holes, etc to accommodate lighting, conduits, pipes, fittings, etc

Prices are to include for approved silicon sealant at all junctions of work tops, sides, panels, etc. with walls

Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete

STRUCTURAL TIMBERWORK, ETC

South African Pine

A	38 x 38mm Ceiling joists in lengths exceeding 2,4m and not exceeding 3,9m	m	55
B	38 x 38mm Ceiling joists in lengths exceeding 3,9m and not exceeding 6,6m	m	232
C	50 x 75mm Ceiling joists in lengths exceeding 3,9m and not exceeding 6,6m	m	83
D	38 x 114mm Bolted beams in single lengths exceeding 3,9m and not exceeding 6,6m	m	150
E	50 x 225mm Bolted rafters in single lengths exceeding 3,9m and not exceeding 6,6m	m	62

Carried to Collection

R

Section 5.3: Main Contract
 Bill No. 6
 Carpentry and Joinery
 CSIR Future PHARMA Facility, Pretoria
 21511-20-01-0- Main Contractor's BOQ Rev 0

<u>Sundries</u>					
A	Multi purpose joist hangers bolted to brick walls / concrete / partition wall including bolts, refer to architect's drawing 2022_CSIR_A.03.3.1	No	86		
<u>EAVES, VERGES, ETC</u>					
<u>Wrought meranti</u>					
B	12 x 220mm fascia boards fastened to ends of trusses/wall complete with H-section cover strips at joints	m	7		
<u>FIRE DOORS</u>					
<u>Purpose made Class A fire door with "Plascon Velvago" finishes both sides with horizontal grooves to match "Lotus Amoretti Milano SUP Horizontal MDF doors", with and including rebated steel frame, ironmongery suitable for brick walls, as per the architect's door schedules and lab internal architecture schedules</u>					
C	60min Fire Rated door type D_TD121b size 900 x 2100mm high hung to and including single rebate steel door frame, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.21 and 21_028-LTS-DR-ZZ-LS-L00-170002-L-A	No	2		
D	60min Fire Rated door type D_TD183b size 1 500 x 2100mm high hung to and including single rebate steel door frame, additional studding, cut-out for viewing panel, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.9 and 2022_CSIR_A.10.21 and 21_028-LTS-DR-ZZ-LS-L00-170002-L-A	No	3		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

A	60min Fire Rated door type D_TD183b size 1 500 x 2 100mm high hung to and including single rebate steel door frame, additional studding, cut-out for viewing panel, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.26 and 21_028-LTS-DR-ZZ-LS-L00-170002-L-A	No	1	
B	60min Fire Rated door type D_TD193b size 1 800 x 2 132mm high hung to and including single rebate steel door frame, additional studding, cut-out for viewing panel, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.19 and 21_028-LTS-DR-ZZ-LS-L00-170002-L-A	No	1	
<u>SKIRTINGS, CORNICES, ETC</u>				
<u>Wrought meranti</u>				
C	22 x 90mm Skirting with a rounded top edge plugged to wall including an 6 x 6mm notch	m	98	
<u>JOINERY FITTINGS</u>				
<u>All joinery complete as per lab specialist's drawing: "21_028-LTS-DR-ZZ-LS-L00-170001-L-A" and "21_028-LTS-DR-ZZ-LS-L00-170002-L-A" and Architects Joinery Drawings: "2022_CSIR_A.08.1"</u>				
<u>Custom built Kitchenettes, vanities, Counters, etc</u>				
D	Kitchenette with overall unit size 2 970 x 600 x 900mm high, formed of 16mm PG Bison accent doors, 16mm Melamine Shelves, 30mm Granite Counter Top, handles, drawers etc, complete in its entirety as per drawings: "2022_CSIR_A.08.1" (sink, tiles and partition wall measured elsewhere)	No	1	
Carried to Collection				R
Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				

A	Wall mounted kitchen cabinet with overall unit size 1 200 x 300 x 750mm high, formed of 16mm PG Bison accent doors, 16mm Melamine Shelves, handles etc, complete in its entirety as per drawings: "2022_CSIR_A.08.1"	No	1		
B	Wall mounted kitchen cabinet with overall unit size 1 000 x 300 x 750mm high, formed of 16mm PG Bison accent doors, 16mm Melamine Shelves, handles etc, complete in its entirety as per drawings: "2022_CSIR_A.08.1"	No	1		
C	Stainless steel table with lockable casters overall size 1200 x 800mm complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
D	Display cabinet with overall unit size 3 018 x 500 x 2 355mm high, formed of 16mm PG Bison Accent doors, 16mm PG Bison Accent Melawood Open Shelves, 22mm PG Bison Accent Range Melawood Counter Top, 8mm Tempered Glass Frameless triple sliding cabinet doors, flat aluminium bar handles, Wall mount heavy duty shelf support etc, complete in its entirety as per drawings : "2022_CSIR_A.08.2"	No	1		
	<u>2mm Stainless steel step over bench with storage below</u>				
E	Step over bench 1 914 x 450mm high bolted to floor complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
Carried to Collection					R
Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

<u>16mm Melamine Laboratory Under Bench Cabinets</u> (Colour: "White")					
A	Type C_CF221f Custom built vacuum pump cabinet 468 x 500 x 848mm high under bench cabinet consisting of no doors and airvents on side of cabinet complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	4		
B	Type C_CF221m Waste cupboard 468 x 500 x 848mm high under bench cabinet complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	4		
C	Type C_CF222d Fixed cabinet 968 x 500 x 848mm high under bench cabinet consisting of non-lockable double drawers and double doors complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	5		
D	Type C_CM121d Mobile cabinet 450 x 500 x 698mm high under bench cabinet consisting of non-lockable single drawers and doors complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
E	Type C_CM122b Mobile cabinet 968 x 500 x 698mm high under bench cabinet consisting of non-lockable single drawers complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
F	Type C_CM122d Mobile cabinet 968 x 500 x 698mm high under bench cabinet consisting of non-lockable double drawers and doors complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	6		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

A	Type C_CM212d Mobile cabinet 968 x 360 x 848mm high under bench cabinet consisting of non-lockable drawers and doors complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
B	Type C_CM212f Mobile cabinet 968 x 360 x 848mm high under bench cabinet consisting of non-lockable doors complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
C	Type C_CM221 Mobile cabinet 468 x 500 x 848mm high under bench cabinet consisting of non-lockable single drawers complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	5		
D	Type C_CM221d Mobile cabinet 450 x 500 x 848mm high under bench cabinet consisting of non-lockable drawers and doors complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	6		
E	Type C_CM222b Mobile cabinet 968 x 500 x 848mm high under bench cabinet consisting of non-lockable full drawers complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	8		
F	Type C_CM222d Mobile cabinet 968 x 500 x 848mm high under bench cabinet consisting of non-lockable drawers and doors complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	10		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

A	Type C_CM222f Cabinet 968 x 500 x 848mm high under bench cabinet consisting of non-lockable doors complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	15		
B	Type C_CS222h Fixed sink cabinet 968 x 500 x 848mm high under bench cabinet consisting of non-lockable doors with fixed panels complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	3		
	<u>16mm Melamine Floor Standing Filing Cabinets (Colour: "White")</u>				
C	Wall Mounted Cabinet 1 000 x 290 x 1 225mm high filling cabinet consisting of double doors	No	3		
D	Floor standing storage cabinet with full glass inserts on doors 1695 x 600 x 750mm high	No	6		
E	Floor standing storage cabinet with full glass inserts on doors 1200 x 300 x 750mm high	No	1		
F	Floor standing storage cabinet with full glass inserts on doors 1480 x 600 x 2100mm high	No	2		
	<u>"Granite" solid core worktops to be fitted on epoxy powder coated steel bench frames (bench frames elsewhere measured)</u>				
G	Bench top (Type F_BT3c) 600 x 20mm thick	m	2		
	<u>"Trespa/Durcon Steel/Silver Grey" solid core worktops to be fitted on epoxy powder coated steel bench frames (bench frames elsewhere measured)</u>				
H	Bench top (Type F_BT1a) 600 x 20mm thick	m	8		
J	Bench top (Type F_BT3a) 800 x 20mm thick	m	97		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

	<u>32mm epoxy coated square tubing frame (Type FF132a), 800 x 750mm high</u>				
A	Bench frame consisting of 1 x left upright, 1 x right upright, 5 No. of centre uprights (750mm high), 6 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
B	Bench frame consisting of 1 x left upright, 1 x right upright, 6 No. of centre uprights (750mm high), 6 No. of 970mm connectors (3 pieces), 1 No. of 370mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
	<u>32mm epoxy coated square tubing frame (Type FF232a), 800 x 900mm high</u>				
C	Bench frame consisting of 1 x left upright, 1 x right upright, 1 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
D	Bench frame consisting of 1 x left upright, 1 x right upright, 1 No. of centre uprights (900mm high), 1 No. of 970mm connectors (3 pieces) and 1 No. of 190mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
E	Bench frame consisting of 1 x left upright, 1 x right upright, 1 No. of centre uprights (900mm high), 1 No. of 970mm connectors (3 pieces) and 1 No. of 470mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	4		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

A	Bench frame consisting of 1 x left upright, 1 x right upright, 1 No. of centre uprights (900mm high), 1 No. of 970mm connectors (3 pieces) and 1 No. of 580mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	2		
B	Bench frame consisting of 1 x left upright, 1 x right upright, 2 No. of centre uprights (900mm high), 2 No. of 970mm connectors (3 pieces) and 1 No. of 160mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
C	Bench frame consisting of 1 x left upright, 1 x right upright, 2 No. of centre uprights (900mm high), 2 No. of 970mm connectors (3 pieces) and 1 No. of 400mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
D	Bench frame consisting of 1 x left upright, 1 x right upright, 2 No. of centre uprights (900mm high), 2 No. of 970mm connectors (3 pieces) and 1 No. of 750mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
E	Bench frame consisting of 1 x left upright, 1 x right upright, 3 No. of centre uprights (900mm high), 3 No. of 970mm connectors (3 pieces) and 1 No. of 685mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	2		
F	Bench frame consisting of 1 x left upright, 1 x right upright, 3 No. of centre uprights (900mm high), 4 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	5		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

A	Bench frame consisting of 1 x left upright, 1 x right upright, 4 No. of centre uprights (900mm high), 4 No. of 970mm connectors (3 pieces) and 1 No. of 360mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	2		
B	Bench frame consisting of 1 x left upright, 1 x right upright, 5 No. of centre uprights (900mm high), 6 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
C	Bench frame consisting of 1 x left upright, 1 x right upright, 7 No. of centre uprights (900mm high), 7 No. of 970mm connectors (3 pieces) and 1 No. of 720mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
D	Bench frame consisting of 1 x left upright, 1 x right upright, 7 No. of centre uprights (900mm high), 8 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document <u>50mm epoxy powder coated square tubing modular frame (Type FB212c), 600 x 900mm high</u>	No	1		
E	Bench frame type C_FB212c consisting of 1 x left upright, 1 x right upright, 1 No. of 900mm connectors (4 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	2		
Carried to Collection					R
Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					



A	<u>32mm epoxy coated square tubing modular frame (Type FW211a), 600 x 900mm high</u>				
	Bench frame type C_FW211a consisting of 1 x left upright, 1 x right upright, 1 No. of 1 140mm connectors (4 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	4		
	<u>32mm epoxy coated square tubing modular frame (Type FW232a), 800 x 900mm high</u>				
	Bench frame type C_FW232a consisting of 1 x left upright, 1 x right upright, 1 No. of 1 140mm connectors (4 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	6		
C	<u>Stainless Steel wall mounted coat hanging hooks</u>				
	Coat hook with overall size 500 x 130mm High (5 Hooks), Type F_CH001, complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	3		
D	Coat hook with overall size 1 000 x 130mm High (10 Hooks), Type F_CH002, complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	3		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

<u>SHELVING</u>					
<u>2mm Brushed stainless steel Grade 316 with perforated shelves</u>					
A	Type C_SF344d Brushed stainless steel floor standing shelving unit 4 174mm length x 450mm depth x 1 500mm high with 4 tiers fixed complete including all fixings, etc as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
<u>2mm Bright white powder coated mild steel shelves</u>					
B	Type C_SW324d Powder coated steel wall band shelving unit 900mm length x 350mm depth x 1 500mm high with 4 tiers fixed complete including all fixings, etc as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	6		
<u>16mm Melamine shelves with edging to timber edges</u>					
C	Type C_SW324b Melamine wall band shelving unit 900mm length x 350mm depth x 1 500mm high with 4 tiers fixed complete including all fixings, etc as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	10		
<u>STORAGE CABINETS</u>					
<u>1mm Cold-rolled steel treated with phosphate Shelving with a baked powder epoxy coating (Colour: "Slate Grey" smooth finish)</u>					
D	Melamine floor standing locker cabinet unit 2 100mm high with 3 tiers, complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	9		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					



PEGBOARDS

Polypropylene Pegboard

- A 1000 x 1000mm high epoxy resin pegboard, Type F_PB010 complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document

No

2

Carried to Collection

R

Section 5.3: Main Contract
Bill No. 6
Carpentry and Joinery
CSIR Future PHARMA Facility, Pretoria
21511-20-01-0- Main Contractor's BOQ Rev 0

Bill No. 6

Carpentry and Joinery

COLLECTION

Total Brought Forward from Page No.

**Page
No**

Amount

25

26

27

28

29

30

31

32

33

34

35

36

37

38

Carried to Summary

R

Section 5.3: Main Contract

Bill No. 6

Carpentry and Joinery

CSIR Future PHARMA Facility, Pretoria

21511-20-01-0- Main Contractor's BOQ Rev 0

Section 5.3 : MC Bills Of Quantities
Page 40 of 100

Top hung windows

Subcontractor are to allow for heavy duty friction hinges to all top hung windows in their pricing. Friction hinges must be able to be tightened/adjusted.

Protection

Contractor is to ensure that allowances are made for sufficient protection against damage, etc as required and in which case tenders are to allow for protective tape on frames and glazing according the relevant item in this document.

Finishes

Final product shall be free from all sharp edges

Ironmongery

All ironmongery to be supplied by the Contractor unless otherwise specified. Contractors are to provide samples for approval by the Architect of these ironmongery on submission of their tenders. All ironmongery shall be approved by the Architect prior to installation

Sub Contractor to supply all relevant shopfronts with catches, handles, hinges etc. to match shop fronts and doors, all to the Architects approval

All sliding gear to sliding doors to be supplied by the contractor unless otherwise specified. Contractors are to provide samples for approval by the Architect of these sliding gear on submission of their tenders. All sliding gear shall be approved by the Architect prior to installation

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Section 5.3: Main Contract
Bill No. 7
Ceilings, partitions, etc
CSIR Future PHARMA Facility, Pretoria
21511-20-01-0- Main Contractor's BOQ Rev 0

R

Joints and Sealants

All joints in frames shall be made by mechanical means

An approved silicone sealant is to be provided for both sides of all internal and external shop fronts between the aluminium frames and brick wall or concrete column and between the aluminium frame and plaster finish

Powdercoating

Aluminium surfaces to receive 50-80µm Matt Charcoal powder coating to be applied by a certified markholder of SANS 1578 and SANS 1796

SUSPENDED CEILING

"OWAcoustic Constellation Premium Biologically" ceiling panels, size 600 x 600 x 15mm thick, laid on fire rated OWAconstruct® S3 exposed demountable Butt-cut T24 suspension system, comprising galvanised main tees and cross tees with main tees suspended by means of galvanised hangers at centres not exceeding 600mm with ceiling perimeter finished all installed to manufacturers instructions, refer to architect's drawing no: 2022_CSIR_A.03.3.1 and specification document

A	Ceilings suspended not exceeding 1m below timber structure	m2	82
B	Extra over ceiling for 200 x 200mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	2
C	Extra over ceiling for 250 x 250mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	1
D	Extra over ceiling for 600 x 350mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	1

Carried to Collection

R

Section 5.3: Main Contract
 Bill No. 7
 Ceilings, partitions, etc
 CSIR Future PHARMA Facility, Pretoria
 21511-20-01-0- Main Contractor's BOQ Rev 0



12.5mm Gyproc Gyprex Vinyl Faced Gypsum ceiling panels, face-covered with white embossed vinyl, size 600 x 600mm, laid on Donn QRC exposed demountable butt-cut T37 suspension system, including galvanised main tees, cross tees, etc. with main tees suspended by means of galvanised hangers at centres not exceeding 1200mm, and all installed to manufacturer's instructions, refer to drawing no: 21 028-LTS-DR-ZZ-LS-L00-110101-L-A and Laboratory Internal Architectural Specification Document

A	Ceilings suspended not exceeding 1m below concrete soffits	m2	353
B	Ceilings suspended not exceeding 1m below steel platform	m2	64
C	Ceilings suspended not exceeding 1m below timber structure	m2	57
D	Extra over ceiling for 200 x 200mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	5
E	Extra over ceiling for 250 x 250mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	2
F	Extra over ceiling for 300 x 300mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	2
G	Extra over ceiling for 400 x 400mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	2
H	Extra over ceiling for 600 x 300mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	3
J	Extra over ceiling for 315mm diameter opening for supply air grille, extractor grill, air conditioning unit, etc	No	13
K	Extra over ceiling for 450mm diameter opening for supply air grille, extractor grill, air conditioning unit, etc	No	4

Carried to Collection

R

Section 5.3: Main Contract
Bill No. 7
Ceilings, partitions, etc
CSIR Future PHARMA Facility, Pretoria
21511-20-01-0- Main Contractor's BOQ Rev 0



A	Extra over suspended ceilings for circular cutting	m	19		
	<u>Insulated EPS15 50mm core ceiling panels with and including ceiling suspension system, necessary hangers, grids, aluminium up-stand profiles or PVC U-channel profiles, etc. in strict accordance with manufacturer's and lab specialist's specifications. pre-coated Chromadek steel facing with polyester paint finish (Colour: Frost White), refer to drawing no: 21_028-LTS-DR-ZZ-LS-L00-110101-L-A and Laboratory Internal Architectural Specification Document</u>				
B	Clean room ceiling panels suspended not exceeding 1m below steel platform	m2	12		
C	Cold room ceiling panels suspended not exceeding 1m below concrete soffits	m2	9		
D	Clean room ceiling panels suspended not exceeding 1m below timber structure	m2	63		
E	Extra over ceiling for 200 x 250mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	6		
F	Extra over ceiling for 250 x 250mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	3		
G	Extra over ceiling for 300 x 200mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	1		
H	Extra over ceiling for 350 x 300mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	1		
J	Extra over ceiling for 400 x 250mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	1		
K	Extra over ceiling for 400 x 400mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	1		
L	Extra over ceiling for 450 x 250mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	1		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

A	Extra over ceiling for 600 x 600mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	8		
	<u>Cornices, perimeter trims, etc to suspended ceilings plugged and screwed at centres as per specification</u>				
B	"Donn SM25" or similar approved shadowline cornice moulding in vivid white plugged to wall	m	499		
C	20 x 20mm Aluminium trim cornice	m	88		
	<u>BULKHEADS</u>				
	<u>9.5mm "Gyproc Rhinoboard" bulkheads with Joints to be covered with Rhinotape fixed over joints, then apply "creststone" for final board finish skim plaster to a smooth polished surface to the thickness recommended by the manufacturer on a Donn T37K concealed tee suspension system including main and cross tees, necessary hangers, grids, etc, complete in its entirety as per drawings: "2022 CSIR A.03.3.1", "21 028-LTS-DR-ZZ-LS-L00-110101-L-A" and architect's specification document</u>				
D	Vertical bulkhead 250mm high, including closing up at the top	m	23		
E	Vertical bulkhead 285mm high, including closing up at the top	m	10		
F	Vertical bulkhead 300mm high, including closing up at the top	m	2		
G	Vertical bulkhead 460mm high, including closing up at the top	m	23		
H	Horizontal bulkhead 700mm wide	m	21		
J	Horizontal bulkhead 1270mm wide	m	6		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				

<u>PARTITIONS, ETC</u>					
	<u>"Gyproc Rhinoboard Soundbloc" drywall partition consisting of one layer of 15mm "Rhinoboard" either side of 63.5mm stud and track system at 220mm centres with tape and joint finish, wall surface to be finished with minimum 3mm thick RhinoLite multi-purpose all in accordance with the manufacturers recommendations, refer to architect's drawing no: 2022 CSIR A.03.3.1 and specification document</u>				
A	Partitioning 2 500mm high with bottom track plugged to floor and top track fixed complete	m	4		
B	Partitioning 2 800mm high with bottom track plugged to floor and top track fixed complete	m	56		
C	Partitioning 3 000mm high with bottom track plugged to floor and top track fixed complete	m	34		
D	Partitioning 3 060mm high with bottom track plugged to floor and top track fixed complete	m	7		
E	Extra over drywall partitions 2 500mm high for vertical abutment	No	1		
F	Extra over drywall partitions 2 500mm high for corner	No	1		
G	Extra over drywall partitions 2 800mm high for vertical abutment	No	7		
H	Extra over drywall partitions 2 800mm high for corner	No	4		
J	Extra over drywall partitions 2 800mm high for T-intersection	No	7		
K	Extra over drywall partitions 3 000mm high for vertical abutment	No	5		
L	Extra over drywall partitions 3 000mm high for corners	No	1		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

A	Extra over drywall partitions 3 000mm high for T-intersection	No	4		
B	Extra over drywall partitions 3 060mm high for Vertical Abutments	No	1		
	<u>Extra over drywall partition for opening, doors, windows, shopfront, etc</u>				
C	Extra over partition 3060mm high for shopfront type SF01 with size 6 192 x 2 400mm high including powder coated aluminium door frame, including ironmongery, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 2022_CSIR_A.03.1.2 and door schedule 2022_CSIR_A.10.13	No	1		
D	Extra over partition 3000mm high for shopfront type SF02 with size 3 492 x 2 100mm high including powder coated aluminium door frame, including ironmongery, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 2022_CSIR_A.03.1.2 and door schedule 2022_CSIR_A.10.14	No	1		
E	Extra over partition 3000mm high for shopfront type SF03 with size 2 100 x 2 100mm high including powder coated aluminium door frame, including ironmongery, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 2022_CSIR_A.03.1.2 and door schedule 2022_CSIR_A.10.15	No	2		
F	Extra over partition 3000mm high for shopfront type SF03 with size 2 100 x 2 100mm high including powder coated aluminium door frame, including ironmongery, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 2022_CSIR_A.03.1.2 and door schedule 2022_CSIR_A.10.16	No	1		
Carried to Collection					R
Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

A	Extra over partition 3000mm high for door type D_AD121c with size 900 x 2 100mm high including powder coated aluminium door frame, including ironmongery set 1, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 2022_CSIR_A.03.1.2 and door schedule 2022_CSIR_A.10.11	No	1		
B	Extra over partition 2800mm high for door type D_AD141c with size 1 100 x 2 100mm high including powder coated aluminium door frame, including ironmongery set 1, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A and door schedule 2022_CSIR_A.10.22	No	1		
C	Extra over partition 3000mm high for door type D_AD121c with size 900 x 2 100mm high including powder coated aluminium door frame, including ironmongery set 1, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A and door schedule 2022_CSIR_A.10.5	No	2		
D	Extra over partition 2500mm high for door type D_AD193c with size 1 800 x 2 100mm high including powder coated aluminium door frame, including ironmongery set 1, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A and door schedule 2022_CSIR_A.10.7	No	1		
E	Extra over partition 2800mm high for door type D_AD193c with size 1 800 x 2 100mm high including powder coated aluminium door frame, including ironmongery set 1, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A and door schedule 2022_CSIR_A.10.7	No	1		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

A	Extra over partition 2800mm high for door type D_AD173c with size 1 400 x 2 100mm high including powder coated aluminium door frame, including ironmongery set 1, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.20	No	3		
B	Extra over partition 2800mm high for window type W_AF131a with size 1 200 x 900mm, complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and window schedule 2022_CSIR_A.10.31	No	1		
C	Extra over partition 2800mm high for window type W_AF151a with size 1 800 x 900mm, complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and window schedule 2022_CSIR_A.10.31	No	2		
D	Extra over partition 2800mm high for Aluminium glazed window wall type IS_T01a 900mm high including frame, ironmongery, etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and window schedule 2022_CSIR_A.10.29 <u>"Lafarge" gypsum drywall partition type LPF64-60/3 consisting of one layer of 12.5mm "Fire Check Board" either side of 64mm stud and track system at 600mm centres with tape and joint finish</u>	m	8		
E	60min Fire Rated Drywall 3 000mm high with bottom track plugged to floor and top track fixed to ceiling	m	5		
F	60min Fire Rated Drywall 4 500mm high with bottom track plugged to floor and top track fixed to ceiling	m	10		
G	Extra over fire rated drywall partitions 3 000mm high for vertical abutments	No	2		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

A	Extra over fire rated drywall partitions 4 500mm high for vertical abutments	No	2		
	<u>Extra over 60min fire rated drywall for opening, doors, windows, shopfront, etc</u>				
B	Extra over fire rated drywall partition for 60min Fire Rated door type D_TD183b size 1 500 x 2 100mm high hung to and including single rebate steel door frame, ironmongery, additional studding, cut-out for viewing panel, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 2022_CSIR_A.03.1.2 and door schedule 2022_CSIR_A.10.12	No	1		
	<u>CLEAN ROOM PANELS</u>				
	<u>Insulated EPS15 clean room panels consisting of 150mm thick expanded polystyrene 15 +-3kg/m3 core panel, 0.5mm thick pre-coated with Chromadek steel facing with polyester paint (Colour: Frost white - 30% gloss) fixed in accordance with manufacturer's and lab specialist's specifications</u>				
C	Clean room panels 2 600mm high	m	23		
D	Clean room panels 2 800mm high	m	25		
E	Extra over clean room panels 2 600mm high for corners	No	1		
F	Extra over clean room panels 2 600mm high for vertical abutments	No	1		
G	Extra over clean room panels 2 600mm high for T-intersections	No	1		
H	Extra over clean room panels 2 800mm high for corners	No	1		
J	Extra over clean room panels 2 800mm high for vertical abutments	No	3		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

A	Extra over clean room panels 2 800mm high for T-intersections	No	6	R
	<u>Extra over for 150mm Thick Chromadek cleanroom doors with viewing panels of 6mm laminated safety glass and airtight rubber seals as per LTS drawings 20_048-LTS-DR-ZZ-LS-L02-170003 Rev 0</u>			
B	Extra over clean room panels for window type W_AF151a with size 1 800 x 900mm, complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A and window schedule 2022_CSIR_A.10.33	No	2	
C	Extra over clean room panels for custom made cold room door type D_CD121c size 900 x 2 100mm high including ironmongery set 1, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.24	No	1	
D	Extra over clean room panels for custom made aluminium door type D_AD141b size 1 100 x 2 100mm high including ironmongery set 2, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A and door schedule 2022_CSIR_A.10.4	No	6	
E	Extra over clean room panels for custom made aluminium laboratory door type D_AD193b size 1 800 x 2 100mm high including ironmongery set 2, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A and door schedule 2022_CSIR_A.10.6	No	2	
Carried to Collection				
Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				

Bill No. 7

Ceilings, partitions, etc

COLLECTION

Total Brought Forward from Page No.

**Page
No**

Amount

40

41

42

43

44

45

46

47

48

49

50

51

Carried to Summary

R

Section 5.3: Main Contract

Bill No. 7

Ceilings, partitions, etc

CSIR Future PHARMA Facility, Pretoria

21511-20-01-0- Main Contractor's BOQ Rev 0

Section 5.3 : MC Bills Of Quantities
Page 53 of 100

<u>VINYL, ETC</u>					
<u>"GERFLOR Mipolam Non-directional PUR " 2mm flexible flooring, on screed floors with approved adhesive all in accordance with the manufacturer's instructions, as per the architects drawing 2022 CSIR A.03.1.3 and 2022 CSIR A.03.1.2 and specification document</u>					
A	On floors and landings	m2	380		
B	Turn-up 150mm high with capping strip including 20mm cove fillet complete as per architects drawing	m	274		
<u>EPOXY</u>					
<u>Flowcrete Flowfresh SL (2mm) or similar approved, as per the architects drawing 2022 CSIR A.03.1.3 and 2022 CSIR A.03.1.2, specification document and laboratory internal architectural specification document</u>					
C	2.5mm epoxy floor covering	m2	297		
<u>Derakane -Signia Epoxy Vinyl Ester Resin (411-45) (6.5mm) or similar approved, as per the architects drawing 2022 CSIR A.03.1.3 and 2022 CSIR A.03.1.2, specification document and laboratory internal architectural specification document</u>					
D	6.5mm epoxy floor covering	m2	18		
E	Turn-up 150mm high with capping strip including 20mm cove fillet complete as per architects drawing	m	249		
<u>POLISH, SEALER, ETC</u>					
F	Strip and apply one coat approved wax polish on vinyl flooring	m2	421		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 8 Floor coverings, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

CORNER PROTECTORS, DIVIDING STRIPS, ETC

"Kirk Marketing" or similar approved installed as per manufactures recommendations

A 46 x 11mm Anodised aluminium (code: ACGSE100) dividing strip

m

8

Carried to Collection

R

Section 5.3: Main Contract
Bill No. 8
Floor coverings, etc
CSIR Future PHARMA Facility, Pretoria
21511-20-01-0- Main Contractor's BOQ Rev 0

Section 5.3 : MC Bills Of Quantities
Page 56 of 100

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 9</u>				
	<u>STRUCTURAL STEELWORK</u>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Descriptions</u>				
	Descriptions of bolts shall be deemed to include nuts and washers				
	Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete				
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete				
	Where anchor bolts are described as embedded in sides or soffits of concrete it shall be deemed to include holes through formwork				
	<u>Structural Steelwork</u>				
	All structural steelwork shall be fabricated and erected in accordance with the latest edition of SABS 1200H				
	All dimensions shall be checked on site before shop drawings commence. Any discrepancies shall be brought to the attention of the engineer				
	A complete set of shop drawings shall be submitted to the engineer for approval before fabrication commences. The contractor shall allow one week for checking and approval by the engineer, and shall also allow for any possible changes to shop drawings				
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 9 Structural Steelwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				

The contractor shall design all welds and, where necessary, gussets of sufficient strength, shall be approved to obtain the required weld strength

Setting out points (S.O.P's) at member centroids shall conform to those shown on general arrangement drawings. No eccentricities, except those shown on the engineer's drawings, shall be allowed

All structural steelwork shall be grade 350WA

A certificate from the steel manufacturer in which the grade of the structural steel is verified shall be handed to the engineer for approval

All bolts and lugs shall be grade 8.8 unless otherwise noted and shall be deemed to be included

All welds to be 6mm fillet welds

The proposed method and sequence of erection of the structure shall be submitted to the engineer for written approval. Such submission is to take place at time of shop drawing submittal. The contractor shall indicate the proposed method of propping to ensure stability of the structure during erection. Such stability during erection remains the contractor's responsibility. Where temporary bracing and propping is necessary, the contractor shall be responsible for the design, erection, maintenance and removal (where necessary) of such supports. Proposal of such bracing or propping shall be submitted to the engineer at an early stage for written approval

Structural steel to be engineered to be smooth i.e. no welding spatter, sharp edges, slag etc. should be present prior to the application of the final painting coat

Carried to Collection

Section 5.3: Main Contract
Bill No. 9
Structural Steelwork
CSIR Future PHARMA Facility, Pretoria
21511-20-01-0- Main Contractor's BOQ Rev 0

R

<u>Galvanizing Specification</u>					
All galvanised work to be 85 micron, in strict accordance with the S.A. Galvanising Association Specifications					
<u>GALVANISED STEEL PURLINS, GIRTS, BRACING, ETC</u>					
<u>Welded roof rafter of angle rafters, tie beams, rails, struts, braces, cleats, etc and flat bearer, gusset and connection plates, bolted to brick walls</u>					
A	140 x 73mm x 12.9kg/m IPE rafter	t	0.12		
<u>Purlins and girts, bolted to brick walls</u>					
B	125 x 50 x 20 x 2.0mm Thick cold-formed lipped channel roof purlins	t	0.08		
<u>Bolts, etc to trusses</u>					
C	High tensile bolts	t	0.08		
D	M20 x 500mm Diameter chemical anchor and bolt	No	7		
<u>GALVANISED STEEL STAIRS, BALUSTRADING, HANDRAILS, FLOORING, ETC</u>					
<u>Welded columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete</u>					
E	152 x 152mm x 23.4kg/m I-section columns	t	0.75		
<u>Welded beams in single lengths with flat bearer and connection plates, bracing, anti-sag rails, angled bearers, flat connection plates, gusset plates, compound rails formed of flats and angles welded and bolted, etc bolted to steel</u>					
F	50 x 50 x 5mm x 3.77kg/m Angle	t	0.05		
G	70 x 70 x 6mm x 6.38kg/m Angle	t	0.03		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 9 Structural Steelwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					



A	200 x 75 x 20 x 2.5mm thick cold-formed lipped channel bearers	t	0.35		
B	200 x 75 x 20 x 2.5mm thick cold-formed lipped channel stringers	t	0.22		
C	RS 40 x 4.5mm Rectagrid landing to stairs	m2	32		
D	RS 40 x 4.5mm Rectagrid threads to stairs	m2	19		
E	Non-slip perforated nosing to RS 40 x 4.5mm steel rectagrid stair thread	m	68		
	<u>Galvanised steel balustrade 1,000mm high with 38 x 38 x 3mm steel square hollow section handrail, solid cast pin with 16dia base, 19mm internal rails as equal spacing, 38 x 38 x 3mm steel square hollow section posts at equal spacing, 100mm diameter x 5mm cup flange base plate bolted to steel with and including chemical anchor bolts including all bends, ends, knees, paint, etc., all in accordance with the Architect' drawings 2022 CSIR A.08.3</u>				
F	To raking stairs	m	26		
G	To staircase landings	m	32		
	<u>Bolts, etc</u>				
H	High tensile bolts	t	0.24		
	<u>FASTENERS, PLATES, ETC</u>				
J	6mm thick plate with size 200mm x 200mm	No	11		
	<u>COLUMN AND BEAM CONNECTIONS</u>				
	<u>Bolts, end plates, top plates, etc</u>				
K	30mm Diameter M16 anchor bolt 200mm long embedded in concrete	No	44		
	Carried to Collection				
	Section 5.3: Main Contract				
	Bill No. 9				
	Structural Steelwork				
	CSIR Future PHARMA Facility, Pretoria				
	21511-20-01-0- Main Contractor's BOQ Rev 0				

TESTS

Weld testing

- A Provide the sum of R10,000.00 (Ten Thousand) for quality control inspection by an authorised independent inspection authority, to be used as directed by the Principal Agent and deducted in whole or in part if not required

Item

10,000.00

Carried to Collection

R

Section 5.3: Main Contract
Bill No. 9
Structural Steelwork
CSIR Future PHARMA Facility, Pretoria
21511-20-01-0- Main Contractor's BOQ Rev 0

Section 5.3 : MC Bills Of Quantities
Page 62 of 100

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 10</u>				
	<u>METALWORK</u>				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Warranties and Guarantees</u>				
	A Warranty is to be provided for the laminated safety glass which warrants the product against delaminating and colour degradation for a period of not less than 5 years				
	A Guarantee is to be provided for the powder coating which guarantees the product against peeling and discolouration of all powder coating for a period of not less than 15 years				
	A Certificate of compliance is to be provided that all anodizing supplied meet with SANS 999 in all aspects				
	<u>Top hung windows</u>				
	Subcontractor are to allow for heavy duty friction hinges to all top hung windows in their pricing. Friction hinges must be able to be tightened/adjusted.				
	<u>Protection</u>				
	Contractor is to ensure that allowances are made for sufficient protection against damage, etc as required and in which case tenders are to allow for protective tape on frames and glazing according the relevant item in this document.				
	<u>Finishes</u>				
	Final product shall be free from all sharp edges				
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 10 Metalwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				

Ironmongery

All ironmongery to be supplied by the Contractor unless otherwise specified. Contractors are to provide samples for approval by the Architect of these ironmongery on submission of their tenders. All ironmongery shall be approved by the Architect prior to installation

Sub Contractor to supply all relevant shopfronts with catches, handles, hinges etc. to match shop fronts and doors, all to the Architects approval

All sliding gear to sliding doors to be supplied by the contractor unless otherwise specified. Contractors are to provide samples for approval by the Architect of these sliding gear on submission of their tenders. All sliding gear shall be approved by the Architect prior to installation

Joints and Sealants

All joints in frames shall be made by mechanical means

An approved silicone sealant is to be provided for both sides of all internal and external shop fronts between the aluminium frames and brick wall or concrete column and between the aluminium frame and plaster finish

Powdercoating

Aluminium surfaces to receive 50-80µm Matt Charcoal powder coating to be applied by a certified markholder of SANS 1578 and SANS 1796

Carried to Collection

Section 5.3: Main Contract

Bill No. 10

Metalwork

CSIR Future PHARMA Facility, Pretoria

21511-20-01-0- Main Contractor's BOQ Rev 0

R

ALUMINIUM WINDOWS, DOORS & SHOPFRONTS

Powder coated aluminium door with single glazed Laminated safety glass, ironmongery, sealing and plugged to brickwork or concrete all in accordance with specifications and architect's drawings

A	Custom made aluminium door type D_AD121c size 900 x 2 100mm high hung to and including powder coated aluminium door frame, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.18 and 21_028-LTS-DR-ZZ-LS-L00-170002-L-A	No	1
B	Custom made aluminium door type D_AD141c size 1 100 x 2 100mm high hung to and including powder coated aluminium door frame, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A and door schedule 2022_CSIR_A.10.10 and 21_028-LTS-DR-ZZ-LS-L00-170002-L-A	No	1
C	Custom made aluminium door type D_AD141c size 1 100 x 2 100mm high hung to and including powder coated aluminium door frame, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.22 and 21_028-LTS-DR-ZZ-LS-L00-170002-L-A	No	1
D	Custom made aluminium door type D_AD183c size 1 500 x 2 100mm high hung to and including powder coated aluminium door frame, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A and door schedule 2022_CSIR_A.10.8 and 21_028-LTS-DR-ZZ-LS-L00-170002-L-A	No	1

Carried to Collection

R

Section 5.3: Main Contract
 Bill No. 10
 Metalwork
 CSIR Future PHARMA Facility, Pretoria
 21511-20-01-0- Main Contractor's BOQ Rev 0



A	<p>Custom made aluminium sliding door type D_AD104c size 2 000 x 2 100mm high hung to and including powder coated aluminium door frame, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.23 and 21_028-LTS-DR-ZZ-LS-L00-170002-L-A</p>	No	3	R
	<p><u>Purpose made powder coated aluminium window glazed with 6.8mm Laminated Annealed safety glass, including ironmongery, sealing and plugged to brickwork or concrete or partitions all in accordance with specifications and architect's drawings</u></p> <p><u>Aluminium window all complete as per Architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170002-L-A</u></p>			
B	<p>Custom made aluminium window type W_AF131a size 1 200 x 900mm high, complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and window schedule 2022_CSIR_A.10.31</p>	No	7	
C	<p>Custom made aluminium window type IS_T01a size 1 950 x 900mm high, complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and window schedule 2022_CSIR_A.10.30</p>	No	1	
	<p><u>STEEL ROLLER SHUTTERS, ETC</u></p> <p><u>Purpose made external "chain operated" powdercoated (colour: "TBC") (to approved sample) roller shutter door with heavy gauge slide guides to suit roller shutter door, fixed complete in its entirety to brickwork, concrete or steel frame, all in accordance with specifications and architect's drawings</u></p>			
D	<p>Chain operated roller shutter door Type D_RD195a size 1 800 x 2 100mm high, complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.25</p>	No	3	
	Carried to Collection			
	<p>Section 5.3: Main Contract Bill No. 10 Metalwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0</p>			

Section 5.3 : MC Bills Of Quantities
Page 67 of 100

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 11</u>				
	<u>PLASTERING</u>				
	Note: Tenderers are reminded that common labours such as slightly rounded angles, fair edge, drips and arises, etc. are deemed to be included in the description of the plaster. Special prescribed labours are measured in accordance with the Standard System				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Finish</u>				
	Internal plaster shall be finished with a steel trowel and external plaster with a wooden float				
	<u>SCREEDS</u>				
	<u>Screeds on concrete</u>				
A	30mm Thick on floors and landings	m2	98		
	<u>"FloorworX Pavelite" screed or similar approved</u>				
B	4mm Thick on floors and landings	m2	486		
	<u>INTERNAL PLASTER</u>				
	<u>Cement plaster on brickwork</u>				
C	On walls	m2	372		
D	On narrow widths	m2	18		
	<u>EXTERNAL PLASTER</u>				
	<u>Cement plaster on brickwork</u>				
E	On narrow widths	m2	5		
	Carried to Summary			R	
	Section 5.3: Main Contract Bill No. 11 Plastering CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				

Section 5.3 : MC Bills Of Quantities
Page 69 of 100

Movement joints

Tenders are to include in their price for soft joint and sealants in panels of 3 000 x 3 000mm maximum to floor tiling or in accordance with the manufacturer's requirements. Joints to be sealed with "Sikaflex Pro 2HP" after priming the joint with "Sika Primer". Where practical the bulk of the depth of the joint can be filled with 6mm diameter closed cell polyethylene chord.

Grouting joints

Joints to be 3 to 5mm maximum width

WALL TILING

Ceramic tiles fixed with "Gold Star 6" adhesive to walls flush pointed with "TAL Wall & Floor" grouting

A	On walls in splashbacks	m2	1
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SUNDRIES

"Kirk Marketing M-Trim" aluminium trims or similar approved

B	Straight edge trim brush finish (ASE100)	m	3
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Carried to Collection

R

Section 5.3: Main Contract
Bill No. 12
Tiling
CSIR Future PHARMA Facility, Pretoria
21511-20-01-0- Main Contractor's BOQ Rev 0

Section 5.3 : MC Bills Of Quantities
Page 71 of 100

Section 5.3 : MC Bills Of Quantities
Page 72 of 100

Reducing fittings

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

Wire gratings

Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings

Excavations

No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling "Soft rock" and "hard rock" shall be as defined in "Earthworks"

Carried to Collection

R

Section 5.3: Main Contract
Bill No. 13
Plumbing & Drainage
CSIR Future PHARMA Facility, Pretoria
21511-20-01-0- Main Contractor's BOQ Rev 0

Laying, backfilling, bedding, etc of pipes

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following:

SABS 1200 L : Medium-pressure pipelines

LD : Sewers

LE : Stormwater drainage

Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches)

Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes).

Unless otherwise described bedding of rigid pipes shall be class B bedding

Flush pans

Flush pans shall have straight or side outlets and "P" or "S" traps as necessary

Stainless steel basins, sinks, wash troughs, urinals, etc

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

Waste unions

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings

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Section 5.3: Main Contract

Bill No. 13

Plumbing & Drainage

CSIR Future PHARMA Facility, Pretoria

21511-20-01-0- Main Contractor's BOQ Rev 0

R

Sealing

Prices for sanitary fittings shall include for sealing against walls with silicone sealing compound. This shall apply to all sanitary fittings.

Valves, etc

Descriptions of valves etc shall be deemed to include flanged or screwed connections to piping, reducers, supports etc

Painting

The Principal Building Contractor will be responsible for painting all pipe work and painting of the pipe work must be included in the tendered rates for the hot and cold water supply

Pricing

The tenderer must price each item in this section individually and no changes made by the tenderer shall be recognised

Where inclusive items are measured and priced, the contractor must on request, supply full details of the components and prices making up the inclusive items. If the contractor does not supply such details and prices within fourteen days after having been requested to do so, the Quantity Surveyor will determine such at his own discretion

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Section 5.3: Main Contract
Bill No. 13
Plumbing & Drainage
CSIR Future PHARMA Facility, Pretoria
21511-20-01-0- Main Contractor's BOQ Rev 0

R

PREAMBLES

For Preambles see 'Standard Preambles to Trades'

In addition to the 'Standard Preambles to Trades' the following SABS codes are applicable:

PIPE THREADS	SABS 21
GALVANISING	SABS 763
WROUGHT STEEL SCREWED	
FLANGES BS 10/	SABS 1123
ERW PIPING	SABS 719
DENSOWRAP	SABS 1117
NON-RISING SPINDLE VALVES	SABS 665
WATER TANKS	SABS/CKS 114

NOTE:

Unless otherwise stated all excavation depths are related to finished levels

Note that all geysers are to be either hung from the roof structure or located on bearing walls, etc and that all hangers, etc must be included to the approval of the engineer. All such bearers, bolts, etc must be allowed for in this tender under the respective item by the tenderer and no claims in this regard will be entertained.

Descriptions of pipes in ground are deemed to include for excavation, bedding and backfilling as per the Engineer's details. The stated depths refer to the measurement from finished ground level to invert level of the pipes.

No distinction has been made between pipes been chased in, built in, or to be suspended from roof trusses, etc. The tenders must study the drawings and familiarise themselves with the extent of the works and do the necessary allowances in the tender as no claims in this regards will be entertained.

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Section 5.3: Main Contract
 Bill No. 13
 Plumbing & Drainage
 CSIR Future PHARMA Facility, Pretoria
 21511-20-01-0- Main Contractor's BOQ Rev 0

R

<u>RAINWATER DISPOSAL</u>			
<u>"Watertite" seamless aluminium Ogee gutters with powder coated finish</u>			
A	150 x 125mm OGEE profile seamless gutters	m	7
B	Extra over 150 x 125mm eaves gutter for stopped end	No	6
C	Extra over 150 x 125mm eaves gutter for outlet for 110mm square profile pipe	No	6
<u>Aluminium downpipes</u>			
D	180mm Downpipe fixed complete in its entirety	m	6
E	Extra over downpipe for shoe	No	3
F	Extra over downpipe for bend	No	3
G	Extra over downpipe for swan-neck	No	3
<u>SANITARY FITTINGS</u>			
<u>Hand wash basin</u>			
H	"Rossco" (ROS-SHSQ627) white ceramic wall hung handwash basin size 450 x 450mm with waste & taphole, no overflow, installed with bottle trap, including 2 x 1/4 turn isolation valve on hot and cold water supply line, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	7
<u>Stainless steel sinks</u>			
J	"Kwikot Arden Series" stainless steel single bowl sink (Type SSO-1200-SE) with 38mm waste, complete as per drawing : 2022_CSIR_A.03.1.2 and Architectural Specification Document	No	1
Carried to Collection			R
Section 5.3: Main Contract Bill No. 13 Plumbing & Drainage CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0			

<u>Ceramic sinks</u>					
A	"VAAL" Vitreous china rectangular laboratory drop-on sink (code: 236100) size 600 x 400 x 200mm without overflow and a centre end waste outlet, fixed underneath of countertop using two adjustable underslung brackets (code 8109Z0) including 38mm Acid resistant waste (code 8791Z0), complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	2		
<u>Epoxy Resin Laboratory Sink</u>					
B	"Simmons" Single bowl drop-on single drainer epoxy resin sink (code: SEL16-DO) size 600 x 450 x 300mm deep with and including waste, including 2 x 1/4 turn isolation valve on hot and cold water supply line, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	1		
<u>Double Bowl Stainless Steel Pot Sink</u>					
C	"Chilli-B" Double bowl pot sink (code: P2-1850-PB/2620482) grade 304 stainless steel 1,2mm thick with a 300mm high integral splash back and 50 x 10mm turn down with a beaded edge on the remaining sides, overall size 900 x 1850 x 650mm including 40mm waste outlet and stainless steel slatted under shelf and including 2 x 1/4 turn isolation valve per tap on hot and cold water supply line, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	1		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 13 Plumbing & Drainage CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

	<u>"Broen Lab" handheld wall mounted double eye/face shower with bowl</u>				
A	"Broen-Lab" handheld wall mounted double eye/face shower with bowl, bowl in brass and stainless steel 20mm female inlet at top of shower, eye wash bowl minimum working pressure 1.5 bar including a self draining shower head and bowl with integrated outlet including 1 x 1/4 turn isolation valve on cold water supply line, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	2		
	<u>"Spilldoctor" wall mounted eye/face shower with bowl</u>				
B	"Spilldoctor" wall mounted eye/face shower with bowl, bowl in stainless steel including two high-flow aerated water sprays at low pressure with automatic opening anti-dust cover, male inlet ISO 228 G1/2", eye wash bowl Minimum working pressure: 1.5 bar, 1 x 1/4 turn isolation valve on cold water supply line, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	3		
	<u>"Carlos Arboles" body and eye shower</u>				
C	"Carlos Arboles" eye/face shower station, eyewash assembly and bowl in ABS plastic, galvanised steel piping and brass fittings including two high-flow aerated water sprays at low pressure with automatic opening anti-dust cover, eye wash bowl Minimum working pressure: 1.5 bar, 1 x 1/4 turn isolation valve on cold water supply line, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	2		
Carried to Collection					R
Section 5.3: Main Contract Bill No. 13 Plumbing & Drainage CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

<u>Floor Drains and Traps</u>					
A	"ACO Floor Drain & trap" (code: 405143) 50mm diameter floor drain with a flow rate of 1.2 litres per second, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	7		
<u>BATHROOM FITTINGS</u>					
<u>"Chilli-B" or similar approved</u>					
B	"Chilli-B" Stainless steel wall mounted elbow action soap dispenser (code: CL0075), complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	7		
C	"Chilli-B" Satin grey plastic sanitary bin size 463 x 140 x 480mm high (code: FR-RODX605), complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	7		
D	"Chilli-B" Hand towel (code: F-STRX600), complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	7		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 13 Plumbing & Drainage CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

<u>WASTE UNIONS ETC</u>					
<u>"KWIKOT" or similar approved waste unions</u>					
A	40mm "Kwikot" (Code : SSKIT-OCTI-1) or similar approved single bowl waste outlet, backnut, plug, chain and stay, complete as per drawing : 2022_CSIR_A.03.1.2 and Architectural Specification Document	No	1		
<u>"Cobra" or similar approved waste unions</u>					
B	40mm "Cobra" (Code : 310-40) or similar approved Chromium-plated copper waste outlet, backnut, plug, chain and stay, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	11		
<u>TRAPS ETC</u>					
<u>Waste traps, etc, jointed to pipes as described including necessary adaptors, et</u>					
C	"Cobra" Bottle Trap (Code: 365/50P) (Type SF13) or similar approved including all spares tail pipe, cap nut, wall flange, etc, complete as per drawing : 2022_CSIR_A.03.1.2 and Architectural Specification Document	No	1		
D	"Broen-Lab" Black Polypropylene bottle trap (Code: 97B0040) or similar approved including all spares tail pipe, cap nut, wall flange, etc, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	11		
<u>TAPS, VALVES, ETC</u>					
E	15mm Angle valves on wall flanged with 350mm flexible hose connector	No	12		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 13 Plumbing & Drainage CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

	<u>"FRANKE" or similar approved</u>				
A	"Franke Projectline Swivel Chrome" sink mixer (code: 115.0193.184) ceramic disk cartridge with anti-scold, complete as per drawing : 2022_CSIR_A.03.1.2 and Architectural Specification Document	No	1		
	<u>"Cobra" or similar approved</u>				
B	"Cobra Cobra Ledim" Stop tap with sliding wall flange. 1/2BSP female iron connection ends (code: LO-228-15/N), , complete as per drawing : 2022_CSIR_A.03.1.2 and Architectural Specification Document	No	1		
C	"Cobra" wall mounted elbow action medical mixer (code: FEAWALEA-OGT0050 (6002194030348)), with progressive temperature control and integral inlet regulating valves, adjustable inlet connections with wall flanges, under slung aerated cast swivel outlet 1/2" BSP male iron connection ends, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	4		
	<u>"GROHE" or similar approved</u>				
D	"GROHE Euroeco Special" Single lever safety basin mixer (Code: 32 789 000) mounted onto basin, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	7		
Carried to Collection					R
Section 5.3: Main Contract Bill No. 13 Plumbing & Drainage CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

<p><u>"Carlos Arboles" or similar approved</u></p> <p>A "Carlos Arboles" Mixer with Wrist Action Levers (code: 6157), cold and hot water mixer including wrist action lever, bench mounted, 150mm centres, removable nozzle, swivel swanneck, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document</p>	No	2		
<p><u>ELECTRIC WATER HEATER</u></p>				
<p><u>"Zip HydroBoil" or similar approved Boiling water dispenser</u></p>				
<p>B "Zip HydroBoil" or similar approved Boiling water dispenser (HydroBoil) with 5L water capacity, size 318 x 150 x 460mm high, White Epoxy Powder Coated outer case (code: 2610008) plugged to wall over counter with and including sink drip tray, with and including two-way tap and twin-chamber technology, complete as per drawing : 2022_CSIR_A.03.1.2 and Architectural Specification Document</p>	No	1		
<p>Carried to Collection</p>				R
<p>Section 5.3: Main Contract Bill No. 13 Plumbing & Drainage CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0</p>				

Section 5.3 : MC Bills Of Quantities
Page 84 of 100

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 14</u> <u>PAINTWORK</u> NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill <u>SUPPLEMENTARY PREAMBLES</u> All colours to be selected by the architect Only approved brands of paint shall be permitted All painting measured generally will be in colours with a value of more than 7 on the Munsell system in accordance with the relevant SABS specification. Any painting in colours with a value of 7 or less on the Munsell system shall be given as paintwork in darker colours Previously painted surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint Shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth <u>PAINTWORK TO PREVIOUSLY PAINTED WORK</u> <u>ON FLOATED PLASTER, ETC</u> <u>Prepare, stop and apply one coat plaster primer (UC 56) and two coats "Plascon Wall & All" or similar, to be approved paint on surfaces in good condition, complete as per Architectural Specification Document</u>				
A	On internal walls	m2	1,013		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 14 Paintwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				

<u>ON PLASTERBOARD</u>					
<u>Prepare, stop and apply one coat plaster primer (UC 56) and two coats "Plascon Wall & All" or similar, to be approved paint on surfaces in good condition, complete as per Architectural Specification Document</u>					
A	On gypsum board partitioning	m2	333		
<u>ON METAL</u>					
<u>One coat Metal Primer (UC 501) and two coats 'Plascon Super Universal Enamel' or similar approved, in good condition all according to manufacturers specifications, complete as per Architectural Specification Document</u>					
B	On windows	m2	59		
C	On balustrades	m2	34		
<u>PAINTWORK ON NEW WORK</u>					
<u>ON FLOATED PLASTER</u>					
<u>Prepare and apply one coat plaster primer (UC 56) and two coats "Plascon Wall & All" or similar, to be approved paint on surfaces in good condition, complete as per Architectural Specification Document</u>					
D	On internal walls	m2	328		
E	On external walls	m2	5		
<u>ON PLASTERBOARD</u>					
<u>Prepare and apply one coat plaster primer (UC 56) and two coats "Plascon Wall & All" or similar, to be approved paint on surfaces in good condition, complete as per Architectural Specification Document</u>					
F	On gypsum board ceilings	m2	64		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 14 Paintwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

Section 5.3 : MC Bills Of Quantities
Page 87 of 100

Section 5.3 : MC Bills Of Quantities
Page 88 of 100

Section 5.3 : MC Bills Of Quantities
Page 89 of 100

SUPPLEMENTARY PREAMBLES

Cost of tests

The costs of making, storing and testing of concrete test cubes as required under Clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect (Test cubes are measured separately)

Formwork

Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself

Formwork to soffits of solid slabs, etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described formwork has been measured to the sides of all reinforced concrete in foundations and will be remeasured according to actual usage. However, formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

Carried to Collection

Section 5.3: Main Contract
Bill No. 15
External Work
CSIR Future PHARMA Facility, Pretoria
21511-20-01-0- Main Contractor's BOQ Rev 0

R

THE FOLLOWING TO BE EXECUTED IN AND AROUND EXISTING BUILDING

EXCAVATIONS, ETC

Excavation in earth not exceeding 2m deep

A	To reduce levels to final levels under floors, etc	m3	29
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B	Holes	m3	7
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Prescribed density tests on filling

C	"Modified AASHTO Density" test	No	6
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Extra over all excavations for carting away

D	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor	m3	7
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Risk of collapse of excavations

E	Sides of trench and hole excavations not exceeding 1.5m deep	m2	29
---	--	----	----

UNREINFORCED CONCRETE CAST AGAINST EXCAVATED

15MPa/19mm concrete

F	Surface blinding under footings and bases	m3	1
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REINFORCED CONCRETE

30MPa/19mm concrete

G	Concrete Plinths	m3	10
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H	Bases	m3	3
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Carried to Collection

R

Section 5.3: Main Contract
 Bill No. 15
 External Work
 CSIR Future PHARMA Facility, Pretoria
 21511-20-01-0- Main Contractor's BOQ Rev 0

<u>TEST BLOCKS</u>					
<u>Test blocks</u>					
A	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes	No	17		
<u>CONCRETE SUNDRIES</u>					
<u>Finishing top surfaces of concrete smooth with a power float</u>					
B	Surface beds, slabs, etc	m2	98		
<u>FORMWORK</u>					
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
<u>Rough formwork to sides</u>					
C	Bases	m2	13		
D	Edges of surface bed panels, ramps, etc not exceeding 300mm high or wide	m	82		
<u>MOVEMENT JOINTS, ETC</u>					
<u>Isolation joints with "Jointex" between vertical concrete surfaces</u>					
E	10mm Joints not exceeding 300mm high	m	22		
<u>Saw cut joints</u>					
F	3 x 50mm Saw cut joints in top of concrete	m	29		
<u>Fabric reinforcement</u>					
G	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	98		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 15 External Work CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					

<u>FILLING, ETC</u>					
<u>Earth filling supplied by the contractor under pavings, premix roads, etc</u>					
A	Over site of G5 material in natural gravel subbase in accordance with SABS 1200 DM compacted to 95% Mod AASHTO density	m3	15		
<u>Compaction of surfaces</u>					
B	Compaction of ground surface under pavings, etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	98		
<u>FENCING, ETC</u>					
<u>Galvanised security fence with bitumen dipped steel standards and bitumen-aluminium painted (two coats) steel pipe posts, stays, gates, etc including galvanised steel bolts, straining eye bolts, etc, site clearance and preparation of ground</u>					
C	Gate of 30mm diameter SHS framing, 1 250 x 2 100m high vertically with both stiles extended at top, the vertical section covered with GMS mesh insert, including hinges, heavy duty lockable barrel bolt and brass five-pin tumbler padlock, as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-190001-T-A and 21_028-LTS-DR-ZZ-LS-L00-190002-T-A and Laboratory Internal Architectural Specification Document	No	4		
D	50mm Diameter SHS post 2 100mm long, including fixing complete in its entirety to plinth, as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-190001-T-A and 21_028-LTS-DR-ZZ-LS-L00-190002-T-A and Laboratory Internal Architectural Specification Document	No	8		
Carried to Collection				R	
Section 5.3: Main Contract Bill No. 15 External Work CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					



SUB SOIL DRAINAGE

Waterproofed concrete and brick sump chamber including stepping irons, 600 x 900mm heavy duty cover and frame complete in its entirety

- A Excavate for and build sump chamber overall size 1 000 x 1 000 x 1 835mm, exceeding 1 000mm deep and not exceeding 2 000mm deep internally, including cast in-situ cover slab, brickwork, 150mm concrete base, building pipes through sides, etc

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Carried to Collection

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Section 5.3: Main Contract
Bill No. 15
External Work
CSIR Future PHARMA Facility, Pretoria
21511-20-01-0- Main Contractor's BOQ Rev 0

Section 5.3 : MC Bills Of Quantities
Page 95 of 100

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 16</u>				
	<u>BUDGETARY ALLOWANCES</u>				
	The following net sums are for work to be executed by the principal contractor and or specialists and or domestic sub-contractors and will be measured on completion and priced in terms of the contract as directed by the principal agent and deducted in whole or part if not required				
	<u>BOXING IN STEEL GANTRY BEAM</u>				
A	Allow the budgetary amount of R105,000.00 (One Hundred and Five Thousand Rand and Zero Cents) NET for boxing in the steel gantry beam on the first floor at the Biopharmaceutical Facility to be used as directed by the Principal Agent and deducted in whole or in part if not required		Item		105,000.00
	<u>BUILDERS WORK</u>				
B	Allow the budgetary amount of R50,000.00 (Fifty Thousand Rand and Zero Cents) NET for unforeseen builders work and alterations for the Small Molecule Facility to be used as directed by the Principal Agent and deducted in whole or in part if not required		Item		50,000.00
C	Allow the budgetary amount of R50,000.00 (Fifty Thousand Rand) NET for unforeseen builders work and alterations for the Biopharmaceutical to be used as directed by the Principal Agent and deducted in whole or in part if not required		Item		50,000.00
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 16 Budgetary Allowance CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				

FIRE PAINT TO EXPOSED STRUCTURAL STEEL

- A Allow the budgetary amount of R150,000.00 (One Hundred and Fifty Thousand Rand and Zero Cents) NET for painting exposed structural steel members with intumescent paint at the Biopharmaceutical Facility, to be used as directed by the Principal Agent and deducted in whole or in part if not required

Item 150,000.00

FIRE SEALANT

- B Allow the budgetary amount of R25,000.00 (Twenty Five Thousand Rand) NET for the fire sealant of existing laboratory facilities to be used as directed by the Principal Agent and deducted in whole or in part if not required

Item 25,000.00

MAKING NEAT

- C Allow the budgetary amount of R15,000.00 (Fifteen Thousand Rand) NET for making neat to the administrative areas to be used as directed by the Principal Agent and deducted in whole or in part if not required

Item 15,000.00

RE-LOCATE SOUND BARRIER

- D Allow the budgetary amount of R50,000.00 (Fifty Thousand Rand) NET for removing the sound barrier including structural steel work, concrete plinths, etc and installing paving with layerworks complete as directed by the Principal Agent and deducted in whole or in part if not required

Item 50,000.00

- E Allow the budgetary amount of R25,000.00 (Twenty Five Thousand Rand) NET for the lifting / craneage, moving & storing of big equipment during construction as directed by the Principal Agent and deducted in whole or in part if not required

Item 25,000.00

Carried to Collection

R

Section 5.3: Main Contract
 Bill No. 16
 Budgetary Allowance
 CSIR Future PHARMA Facility, Pretoria
 21511-20-01-0- Main Contractor's BOQ Rev 0

SEALING EXISTING WINDOWS

- A Allow the budgetary amount of R50,000.00 (Fifty Thousand Rand) NET for the sealing of existing windows and doors to laboratory areas to be used as directed by the Principal Agent and deducted in whole or in part if not required

Item 50,000.00

STEEL STEP

- B Allow the budgetary amount of R5,000.00 (Five Thousand Rand and Zero Cents) NET for a steel step on the first floor at the Biopharmaceutical Facility, to be used as directed by the Principal Agent and deducted in whole or in part if not required

Item 5,000.00

SUMP PUMP

- C Allow the budgetary amount of R10,000.00 (Ten Thousand Rand and Zero Cents) NET for Sump Pump, to be used as directed by the Principal Agent and deducted in whole or in part if not required

Item 10,000.00

Carried to Collection

R

Section 5.3: Main Contract
 Bill No. 16
 Budgetary Allowance
 CSIR Future PHARMA Facility, Pretoria
 21511-20-01-0- Main Contractor's BOQ Rev 0

Section 5.3 : MC Bills Of Quantities
Page 99 of 100

SECTION SUMMARY - Section 5.3: Main Contract		Page No	Amount
Bill No			
1	Alterations	12	
2	Concrete, Formwork and Reinforcement	16	
3	Masonry	20	
4	Waterproofing	23	
5	Roof Covering	24	
6	Carpentry and Joinery	39	
7	Ceilings, partitions, etc	52	
8	Floor coverings, etc	56	
9	Structural Steelwork	62	
10	Metalwork	67	
11	Plastering	68	
12	Tiling	71	
13	Plumbing & Drainage	84	
14	Paintwork	88	
15	External Work	95	
16	Budgetary Allowance	99	
Carried to Final Summary			R
Section 5.3: Main Contract CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0			