

ADDENDUM A

Kuruman Taxi & Bus Interchange Facility

GENERIC SPECIFICATION FOR MATERIALS AND FINISHES:

General preambles:

1. TRADE NAMES: All materials, fittings and finishes specified may be replaced by equal and approved alternatives.

2. Samples - With reference to all items and colour schemes: Samples of all items are to be presented for approval prior to any bulk orders. Please take note that most items will have at least six week delivery period, these approvals will only take place at dates of site meetings, the samples need to be approved well in advance to avoid any delays with lead time on orders. All samples must remain in the sample room for the duration of the contract.

3. Mock up rooms – all wall and floor finishes must be prepared in advance as part of a mock up room/rooms and at least a 100 square meter of vinyl flooring will serve as a sample floor.

4. Samples - All samples submitted for approval, must be accompanied with the relevant Architects specifications for approval. (extract from specifications)

Note: TRADE NAMES: All materials, fitting and finishes specified may be replaced by equal and approved alternatives

A01. Tar Surfacing:

As per Engineers Specification

A01.1 Paving (bricks):

Corobrik® 38MPa Paver PA clay paving bricks - colours to Architect's approval, size 220 x 108,5 x 50mm thick, manufactured in accordance with SANS 1575:2007, laid in Herringbone Bond pattern with a minimum longitudinal fall of 1% on a transverse fall of at least 2% on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D Degree Of Accuracy I. Paving to be inspected and re-sanded after three months. Paving to be inspected and re-sanded after three months.

A01.2 Reinforced Concrete Table Slab:

Off-shutter R.C reinforced concrete table slab according to Structural Engineers detail design, with specialist designed shuttering as by PERI (011- 3101010) – Patterns and shutter type to Architects sample approval.

A02. Face brick Walls :

Face brick walls to dimensions as on plan - colour, bond and type to Architect's approval, bedded and jointed in Class II mortar, pointed with 10mm square recessed joints in both directions, manufactured in accordance with SANS277:2007.

A03.Off-shutter concrete :

Off-shutter R.C column and beams according to Structural Engineers detail design, with specialist designed shuttering as by PERI (011- 3101010) – Patterns and shutter type to Architects sample approval.

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A04.Floor Screed:

2.1 Cement Floor Screed

- Composition: Cement-based screed with aggregate and admixtures to enhance workability and strength.
- Thickness: Maximum 50mm, suitable for achieving level tolerance and surface finish.
- Strength Class: Minimum C25/30, or as specified by the structural engineer.
- Reinforcement: Steel mesh (A142 or A193) embedded within the screed layer to prevent cracking and enhance load distribution.
- Surface Finish: Power floated or trowelled smooth, ready for final floor finishes.

2.2 EPI Sheets (Expanded Polypropylene Inserts)

- Thickness: Custom-cut 150mm void former sheets.
- Density: High-strength lightweight material, compliant with void fill requirements.
- Compression Strength: Able to withstand structural loads without deformation.
- Fire Resistance: Low-flame spread rating, compliant with local regulations.

A05.Floor Tiles:

Specification for 600x600 Full-Bodied Porcelain Tiles

1. General Requirements

- Tiles must comply with ISO 13006 standards for porcelain tiles.
- Must be full-bodied porcelain, ensuring durability and resistance to wear.
- Minimum thickness: 9 mm.
- Water absorption rate: $\leq 0.5\%$.
- Must be resistant to thermal shock, frost, and surface abrasion.

2. Installation Guidelines

- Substrate preparation must follow SANS 10145 standards for ceramic tile installation.
- Screeds must be level and cured before tile application.
- Adhesive must comply with SANS 52004 for cement-based adhesives.
- Joints must allow for thermal expansion and movement.

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- Grouting must be non-shrink and water-resistant, conforming to SANS 10124.

3. Performance & Safety Standards

- Slip resistance must meet SANS 51107 standards for flooring applications.
- Tiles must be fire-resistant and comply with SANS 10400-T regulations.
- Must be resistant to chemical staining and meet ISO 10545-13.

A06.Floor Carpet Tiles:

Specification for 600x600 Carpet Tiles (Commercial Use)

1. General Requirements

- Must comply with SANS 10400 building regulations.
- Must meet ISO 2424 standards for textile floor coverings.
- Minimum thickness: 6-10 mm, ensuring durability for high-traffic areas.
- Must be low VOC and comply with SANS 10103 for indoor air quality.
- Fire resistance must meet SANS 10400-T standards for commercial spaces.

2. Installation Guidelines

- Substrate preparation must follow SANS 10145 standards.
- Adhesive must comply with SANS 52004 for carpet tile adhesives.
- Tiles must be installed with pressure-sensitive adhesive for easy replacement.
- Joints must allow for thermal expansion and movement.
- Must be installed in accordance with local supplier recommendations for durability.

3. Performance & Safety Standards

- Slip resistance must meet SANS 51107 standards for commercial flooring.
- Must be resistant to moisture and mold, complying with ISO 10965.
- Acoustic properties must meet SANS 10103 for noise reduction in office spaces.
- Must be stain-resistant and easy to maintain for high-traffic areas.

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A07. Windows & Doors :

1. Materials

- Aluminium frames: Powder-coated for corrosion resistance and aesthetic appeal.
- Glass: Safety glass (laminated or toughened) as per SANS 10400-N.
- Sealants: Weatherproof and UV-resistant.

2. Design

- Fixed panes: Securely mounted to withstand wind loads and prevent water ingress.
- Openable panels: Hinged or sliding mechanisms designed for smooth operation and durability.
- Dimensions: As per SANS 10400-C for structural design.

3. Installation

- Frames must be securely anchored to the building structure.
- Glazing must be marked and installed to prevent accidental collisions.
- Ensure compliance with energy efficiency standards (SANS 10400-XA).

5. Safety

- Safety glazing in areas prone to human impact.
- Compliance with fire safety regulations (SANS 10400-T)

A08.Rain water downpipe :

Standard 1100mmø HDPE material rainwater downpipes built in concrete column according to Structural Engineers detail design

A09. Grano Floor :

± 30mm Thick Untinted cement screed with or without falls on concrete surface bed as by Engineer, finished with a power float finish. The Surface should be free of oil, grease and other contaminants and loose dust and acid etching. Oil and grease must be completely removed with Pro-Struct Degreaser Type 106 or 109 and allowed to dry thoroughly. Apply three or more coats of Pro-Struct (011-254 5500) Floor Hardener Type 541

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to ensure a universal substrate, allowing a maximum of three hours between coats - installed by an approved applicator, strictly to manufacturers specifications.
Pre-approve sample.

NOTE :

a) Where floor covering change from one floor finish to another, the finishes should be divided with a 25mm x 3mm brass dividing strip cast into screed at position as indicated on detail drawing (flush with floor finish).

b) Skirting to be 100mm high coved grano skirting

A010. Wood float floor :

± 30mm Thick Untinted cement screed with or without falls on concrete surface bed as by Engineer, finished with a wood float finish.

NOTE :a) Skirting to be 100mm high coved grano skirting

A11. Walls (Internal) :

Plascon Wall & All to interior new cement plaster.

Surface to be dry, sound and clean and cured for a minimum of 14 days. Prime with one coat Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats Wall & All (WAA 1) with 2 hours drying time between coats, for a maintenance cycle of 7 years. Colour as per approved sample.

A12. Suspended ceilings (1200 X 600 GYPREX) :

BPB Gypsum DonnCeill White vinyl finished gypsum ceiling tiles size 1200 x 600mm x 12,5mm thick, laminated to 55mm thick glasswool insulation, laid on and including SQ/T38 White powder coated main tees, cross tees, hold-down clips, wedges, etc., all suspended with galvanized hangers at hanger centers not exceeding 1200mm. All strictly in accordance with the manufacturer's specifications and recommendations. Colour white.

Cornice : BPB gypsum 47 x 35mm SM25 plugged recessed shadowline cornice. Installed strictly to manufacturer's specifications against wall or plastered ceiling bulkheads to detail elsewhere.

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A13. Plastered ceilings and bulkheads :

GYPROC RhinoCeil Prestige J flush jointed ceiling 9,5mm thick Taper-edge Rhinoboard fixed print side up and screwed to Donn T37K galvanised steel capped tee flush plastered ceiling suspension system with drywall screws spaced at 150mm centres, including galvanised main tees at 1200mm centres and cross tees at 500mm centres, all suspended with 25 x 25mm galvanised angles at not exceeding 1200mm centres, all fixed to trusses at centres. Joints to be taped and finished as per manufacturers instructions complete with SABISA certificate. Prepare surfaces and remove all loose material. Apply one coat PLASCON Wall & All Pure Acrylic paint, thinned 20% and one coat PLASCON Wall & All Pure Acrylic paint to new plaster board ceilings to cover surface sufficiently. Colours to Architect's approval. Also refer to Ceiling Plan.

Cornice: GYPROC 45 x 35mm flush plaster trim (9,5mm thick) plugged. (Code 1972).

A14. Fibre Cement board ceilings :

Everite Nutec 4mm thick plain ceiling boards, manufactured in accordance with SANS 9001:2000 carrying SANS 803:2005 mark, screw fixed to battens at 150mm centres and according to manufacturer's specifications, minimum of 12mm from edge of board. All joints to be covered using H-profile steel jointing strips, all in accordance with the manufacturer's recommendations. Also refer to Ceiling Plan.

A15. Wall Tiles :

"Johnson" or similar Gloss White glazed ceramic wall tiles, size 200 x 200mm, fixed to wood floated Class II mortar plaster backing with approved tile adhesive mixed with bonding liquid in lieu of water, with 3mm joints continuous in both directions grouted with tile grout (elsewhere specified) with minimum 5mm expansion joints at perimeter, all structural expansion and construction joints and maximum 5m centers internally and at 3m centers externally, in both directions. Tile walls to door height, except in Lab where 3x rows of tiles to be installed wherever worktop meets with wall

B01. Brickwork bund walls :

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Plascon Glatex 8 to exterior new mild steel.

Surface to be clean and dry. Remove surface contaminants using Metalcare Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3 of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat Glatex 8 Metal Primer (PL 3) with an overcoating time of 8 hours and finish with two coats Glatex 8 (PL) with 16 hours drying time between coats, for a maintenance cycle of 10 years.

B02. Steel roof structure

Plascon Glatex 8 to exterior new mild steel.

Surface to be clean and dry. Remove surface contaminants using Metalcare Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3 of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat Glatex 8 Metal Primer (PL 3) with an overcoating time of 8 hours and finish with two coats Glatex 8 (PL) with 16 hours drying time between coats, for a maintenance cycle of 10 years.

B03. Roof steel beam

Factory painted Standard Mild Steel frame with sizes as per the Structural engineer's specifications

B04. Steel Roof structure Finish

Fireproofing paint agent as per the Fire engineer's specifications

B05. Aluminum Cladding System (Towers)

System: Aluminum Composite Building Cladding – Flush Jointed
Substructure: Structural Steel Frame

Note: TRADE NAMES: All materials, fitting and finishes specified may be replaced by equal and approved alternatives

1. General Requirements

- The aluminum composite cladding system shall comply with South African National Building Regulations (NBR) and SANS 10400 standards.
- Fire performance must meet SANS 10177 for fire testing of materials.
- Wind load resistance and structural integrity must align with SANS 517 for cladding systems.
- All materials and workmanship shall adhere to South African Bureau of Standards (SABS) guidelines.

2. Materials

2.1 Aluminum Composite Panels (ACP)

- Composition: Two aluminum sheets bonded to a non-combustible or fire-retardant core.
- Panel Thickness: 4mm–6mm, depending on structural requirements.
- Surface Finish: PVDF or FEVE coatings for UV protection and weather resistance.
- Color & Texture: As per approved architect's samples.

2.2 Structural Steel Substructure

- Frame Material: Galvanized steel or stainless steel, conforming to SANS 1431 for structural steel.
- Coating: Corrosion-resistant coating or powder-coating for durability.
- Load Capacity: Designed to withstand wind pressure, dead load, and dynamic movement per SANS 2001-CS1.

3. Installation Requirements

3.1 Fixing System

- ACP panels shall be secured using concealed fasteners and bracket systems approved by the engineer.
- Brackets and rails must be designed to provide stability while allowing thermal expansion.

3.2 Jointing & Sealing

- Joints shall be flush and precision-fitted, with a maximum gap tolerance of 1–2mm.
- Sealants: Non-staining, UV-resistant silicon or polyurethane sealants, compatible with ACP material.
- Expansion joints to be integrated where necessary to accommodate thermal movement.

3.3 Waterproofing & Drainage

- Integrated drainage system with concealed weep holes to prevent water penetration.

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- Vapor barriers or breathable membranes behind ACP panels for moisture control.

4. Performance Criteria

- Fire Rating: Compliance with SANS 10177 for fire-retardant standards.
- Wind Load Resistance: Panels and fixings shall withstand design wind pressures per SANS 517.
- Thermal Performance: Insulation layers may be incorporated to meet SANS 204 for energy efficiency.
- Acoustic Properties: Optional soundproofing treatments for enhanced noise reduction.

5. Maintenance & Warranty

- Manufacturer to provide minimum 10-year warranty for coating integrity.
- Periodic inspection schedule to ensure continued performance.
- Replaceable panel design for ease of maintenance and future updates.

B06. Roof Covering :

1. General Requirements

- The roof covering shall consist of Chromadek-finished metal roof sheeting with an IBR profile, installed using a clip-lock system.
- All materials and installation methods shall comply with SANS 10400 (South African National Building Regulations) and SANS 10137 (Roofing Code of Practice).

2. Material Specifications

- Roof Sheetting: Chromadek-coated steel sheets, minimum 0.50mm thickness, conforming to SANS 936.
- Profile: IBR (Inverted Box Rib) profile with a cover width of 686mm.
- Finish: Factory-applied Chromadek coating, available in various colors.
- Fixing System: Clip-lock concealed fixing system, ensuring no exposed fasteners for enhanced durability and waterproofing.

3. Installation Requirements

- Roof Pitch: Minimum 5° for spans under 15.8m, and 7.5° for longer spans.
- Fixing Method: Sheets shall be secured using clip-lock fasteners

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- Purlins: Galvanized steel or timber purlins spaced according to structural requirements.
- End Laps: Minimum 150mm for pitches over 15°, and 250mm for lower pitches.
- Side Laps: One corrugation overlap, ensuring proper water drainage.

4. Waterproofing & Drainage

- Sealing: End laps on roofs with pitches below 7.5° shall be sealed with bitumen sealing strips to ensure water tightness.
- Gutters & Downpipes: Installed per SANS 10400-R, ensuring adequate rainwater drainage.

5. Durability & Maintenance

- Corrosion Resistance: Chromadek coating provides UV protection and heat-reflective properties.
- Maintenance: Periodic inspection for debris accumulation and coating integrity.

B07. Façade Architectural façade screening

1. General Requirements

- Compliance: All works must adhere to the National Building Regulations and Building Standards Act 103 of 1977.
- Material Standards: Perforated Aluminum expanded metal must comply with SANS 10400 and relevant South African Bureau of Standards (SABS) specifications.

2. Material Properties

- Composition: Aluminum alloy suitable for architectural applications, ensuring durability and corrosion resistance.
- Thickness: Minimum thickness of 1.5mm for structural and visual integrity.
- Perforation Pattern: Uniform pattern with specified open area percentage to achieve both functional and aesthetic objectives.
- Finish: Powder-coated or anodized finish to enhance durability while contributing to the visual appeal of the façade.

3. Intended Use

- Façade Screening: The perforated Aluminum expanded metal is designated primarily for external façade screening. It is chosen for its aesthetic value, providing a modern, dynamic appearance to the building envelope. The material also supports passive cooling through improved ventilation and shading.

4. Installation Guidelines

Note: TRADE NAMES: All materials, fitting and finishes specified may be replaced by equal and approved alternatives

- Design Intent: The panels must be installed to maintain the architect's vision for a striking and contemporary building façade.
- Structural Support: Aluminum panels must be mounted on a robust substructure, capable of withstanding wind and external loads.
- Fasteners: Use corrosion-resistant fasteners to ensure longevity and maintain the aesthetic quality.
- Alignment: Ensure precise alignment of panels to preserve visual consistency and fulfil the architectural design intent.

5. Environmental Considerations

- Sustainability: Aluminum is recyclable and environmentally friendly; ensure proper waste management practices during construction.
- Passive Design Features: The perforated panels enhance natural ventilation and reduce solar heat gain, contributing to the building's energy efficiency.

6. Maintenance

- Cleaning: Clean regularly with non-abrasive materials to preserve the façade's appearance and prevent dirt accumulation.
- Inspection: Periodically inspect the panels for any signs of wear or damage, particularly at fixings and joints.

7. Documentation

- Detailed architectural drawings and material specifications, including perforation patterns, must be provided to ensure the design intent is achieved.
- Compliance certificates for materials must accompany tender submissions.

B08. Roof insulation :

Super Sisalation® 400 double-sided reflective foil laminate incorporating layers of kraft paper and reinforcing scrim laminated together with low density polyethylene (217gsm), laid taut over steel purlins at centers as by manufacturer and fixed concurrent with roof covering including galvanized steel straining wires. All in accordance with manufacturer's and/or supplier's specifications and recommendations.

Note: TRADE NAMES: All materials, fitting and finishes specified may be replaced by equal and approved alternatives

GENERAL FINISHES SCHEDULE:

1. Market Stalls:

- **Floor Finish:** Polished concrete
- **Wall Finish:** Painted plaster
- **Ceiling Finish:** Suspended acoustic tiles
- **Fixtures:** Standard market stall fixtures

2. Existing Ablution Facilities (Renovated):

- **Floor Finish:** Non-slip ceramic tiles
- **Wall Finish:** Ceramic tiles up to 2m, painted plaster above
- **Ceiling Finish:** Moisture-resistant gypsum board
- **Fixtures:** New sanitary fixtures and fittings

3. New Bus Ticket House with Ablution Facilities:

- **Floor Finish:** Non-slip ceramic tiles
- **Wall Finish:** Painted plaster
- **Ceiling Finish:** Suspended acoustic tiles
- **Fixtures:** Ticket counters, new sanitary fixtures and fittings

First Floor:

1. Reception Area:

- **Floor Finish:** Polished concrete or carpet tiles
- **Wall Finish:** Painted plaster
- **Ceiling Finish:** Suspended acoustic tiles
- **Fixtures:** Reception desk, seating area

2. Offices:

- **Floor Finish:** Carpet tiles
- **Wall Finish:** Painted plaster
- **Ceiling Finish:** Suspended acoustic tiles
- **Fixtures:** Office furniture

3. Boardroom Area:

- **Floor Finish:** Carpet tiles
- **Wall Finish:** Painted plaster

Note: TRADE NAMES: All materials, fitting and finishes specified may be replaced by equal and approved alternatives

- **Ceiling Finish:** Suspended acoustic tiles
- **Fixtures:** Boardroom table and chairs, AV equipment

4. Stores:

- **Floor Finish:** Polished concrete
- **Wall Finish:** Painted plaster
- **Ceiling Finish:** Suspended acoustic tiles
- **Fixtures:** Storage shelving

5. Male/Female Ablution Facilities:

- **Floor Finish:** Non-slip ceramic tiles
- **Wall Finish:** Ceramic tiles up to 2m, painted plaster above
- **Ceiling Finish:** Moisture-resistant gypsum board
- **Fixtures:** New sanitary fixtures and fittings

6. Lift Shaft:

- **Floor Finish:** Polished concrete
- **Wall Finish:** Painted plaster
- **Ceiling Finish:** Painted plaster
- **Fixtures:** Lift installation

7. Fire Escape Stair:

- **Floor Finish:** Non-slip concrete
- **Wall Finish:** Painted plaster
- **Ceiling Finish:** Painted plaster
- **Fixtures:** Handrails, emergency lighting

General Roofing Finishes:

1. **Roof Type:** Flat roof
 - **Roof Finish:** Waterproof membrane
 - **Insulation:** Rigid foam insulation
 - **Drainage:** Roof drains and gutters

Ceiling Finishes Schedule:

1. **Market Stalls:**
 - **Ceiling Finish:** Suspended acoustic tiles

Note: TRADE NAMES: All materials, fitting and finishes specified may be replaced by equal and approved alternatives

2. Existing Ablution Facilities (Renovated):

- **Ceiling Finish:** Moisture-resistant gypsum board

3. New Bus Ticket House with Ablution Facilities:

- **Ceiling Finish:** Suspended acoustic tiles

4. Reception Area:

- **Ceiling Finish:** Suspended acoustic tiles

5. Offices:

- **Ceiling Finish:** Suspended acoustic tiles

6. Boardroom Area:

- **Ceiling Finish:** Suspended acoustic tiles

7. Stores:

- **Ceiling Finish:** Suspended acoustic tiles

8. Male/Female Ablution Facilities:

- **Ceiling Finish:** Moisture-resistant gypsum board

9. Lift Shaft:

- **Ceiling Finish:** Painted plaster

10. Fire Escape Stair:

- **Ceiling Finish:** Painted plaster

Sanitary Ware Schedule:

1. Ground Floor Ablution Areas:

- **Toilets:** Wall-mounted ceramic toilets
- **Sinks:** Wall-mounted ceramic sinks
- **Urinals:** Wall-mounted ceramic urinals (male facilities)
- **Accessories:** Soap dispensers, hand dryers, toilet paper holders

2. First Floor Ablution Areas:

- **Toilets:** Wall-mounted ceramic toilets
- **Sinks:** Wall-mounted ceramic sinks

Note: TRADE NAMES: All materials, fitting and finishes specified may be replaced by equal and approved alternatives

- **Urinals:** Wall-mounted ceramic urinals (male facilities)
- **Accessories:** Soap dispensers, hand dryers, toilet paper holders

General Ironmongery Schedule:

1. Doors:

- **Hinges:** Stainless steel hinges
- **Locks:** Mortise locks with lever handles
- **Door Closers:** Hydraulic door closers

2. Windows:

- **Handles:** Aluminum window handles
- **Locks:** Window locks

3. Miscellaneous:

- **Handrails:** Stainless steel handrails
- **Signage:** Aluminum signage for directions and room identification

Structural Steel Towers Structure:

1. Building Structure:

- **Material:** Structural steel
- **Finish:** Painted with anti-corrosion coating

Aluminum Cladding Curtain Wall System:

1. Curtain Wall System:

- **Material:** Aluminum cladding
- **Finish:** Powder-coated or anodized finish
- **Glazing:** Double-glazed units

Installation: As per selected specialist details