

project check lists major building works

use in conjunction with the
current major building works
master specifications

INTRODUCTION

It is difficult during a visit to a construction site to memorise all of the details that need to be checked and while the obvious ones stand out, many other items that should be checked are forgotten. Supervisors may get distracted or over extended due to time constraints and overlook items that may have more serious consequences later in the project.

These Check Lists provide a guide to the inspections that are required on site for a particular project. They can be referred back to the specification if the full text of the particular item is required. The Check Lists will remind you of some potential problems in materials, workmanship, and coordination between trades.

Project specific checks may be added to the Check Lists for individual projects and the experience of Supervisors can be shared by the addition of particular checks on items or operations that are generally of concern on site.

Provide one copy of the Check Lists book to the Supervisor and one copy to the Contractor for the particular project.

HOW TO USE THESE CHECK LISTS

Take photocopies of the relevant Check List sections before going on site and study these.

Mark any items in the Check List that are of particular concern.

At the project site, check off the work against the Check Lists and make notes of any action required in the space provided.

When the work is completed and the final check has been made sign off and date in the box provided. There is also space to provide comments.

Keep a record of all of the completed Check Lists for future reference if required. These could prove to be valuable if disputes arise on the project.

There is no better way to document actual site conditions or details than by photographs, so don't forget to take a camera on site and take images to go with particular items in the Check Lists.

HOLD POINTS AND WITNESS POINTS SCHEDULES

Read these Check Lists in conjunction with the schedules of Hold Points and Witness points. Hold Points and Witness Points are scheduled in the RFT/RFQ and are accessible via:

<https://transport.nt.gov.au/industry/technical-standards-guidelines-and-specifications/technical-specifications/buildings>

FURTHER DEVELOPMENT

If you have any suggestions to improve on these Check Lists or the system in general please contact

Specification Services.
3rd Floor Highway House, Palmerston.
[Email: Specification.Services@nt.gov.au](mailto:Specification.Services@nt.gov.au)

Comments from in-house staff, consultants or contractors are most welcome.

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3.10 - PCL - SS Major Bldg Works	2020.03	April 2020	13/08/2020

Project Title	
RFT Number	

PROJECT CHECKLISTS MAJOR BUILDING WORKS

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DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – GENERAL REQUIREMENTS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - initial & date
INSPECTION	
Notice given before covering up works	
SAMPLES	
Received and approved	
TESTING	
NATA endorsed testing authority	
CONTRACTORS SUBMISSIONS	
Amended drawings proposed procedure received	
Manufacturer's warranties received in the name of the Principal	
Approval of authorities received whose requirements apply the works	
CEMP received	
PCP received	
ITPs received	
VOLATILE SUBSTANCES MANAGEMENT	
Details provided of the volatile substances to be brought into the worksite received	
CAMP SITE/COMPOUND/WORKSHOP	
Permission from the owner or lessee of the land received	
SAFETY	
Work Health and Safety Management Plan received	
Safety officer details provided	
Safety equipment, clothing, devices and first aid kits available on site	
PROJECT NOTICE BOARDS - SUPPLY, ERECT AND MAINTAIN PROJECT NOTICE BOARDS	
Project notice board installed if required	
CONSTRUCTION INDUSTRY WHITE CARD	
All workers on site qualified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – DEMOLITION

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
MATERIALS AND COMPONENTS	
Hazardous materials identified	
Salvaged materials recovered without damage	
Re-used materials stored as specified	
Material removed from site covered during transport	
DEMOLITION	
Temporary supports provided as specified	
Weather protection provided as specified	
Dust protection provided as specified	
Any damage made good	
Security provisions provided as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – GROUNDWORKS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.15	Density tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
TREES TO BE RETAINED	
Trees marked as specified	
Tree protection zone and tree protection measures as specified	
Temporary protective enclosures as specified	
EXISTING SURFACES	
locations of existing underground services marked	
ENVIRONMENTAL PROTECTION	
Erosion control plan in place	
Groundworks free of water	
SITE CLEARING	
Site clearing limited to required area	
Cleared material removed from site	
Stumps grubbed out as specified	
Topsoil removed as specified	
Re-useable top soil stock piled in approved location	
EXCAVATION	
Correct levels	
Footing sizes and depths as specified	
Bearing capacity confirmed	

<<MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020>>
GROUNDWORKS

ITEM	Checked - Initial & Date
Supports as specified	
GRADING	
External areas graded to fall away from buildings	
Subfloor area ground surface graded to fall away from buildings without ponding	
SURFACE PREPARATION	
Ground surface prepared before placing fill material	
Benching as specified	
Surface finished to required, levels, grade and shape as specified	
FILL	
Correct type used	
Certification received for Imported fill	
PLACING FILL	
Layers and density as specified	
Correct moisture content	
REQUIRED DENSITY	
Required density is as specified	
PROOF ROLLING	
Roller type and size as specified	
No visible deformation or springing	
DENSITY TESTS	
NATA registered testing laboratory	
Testing frequency is as specified	
Compaction test results received	
SANDLAYER	
Materials as specified	
PILING	
Bored piers as specified	
Screw in foundations proprietary system to AS 2159	
SERVICE TRENCHES	
Trench widths and depths as specified	
Backfill material as specified	
Existing services re-instated as specified	

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CHECK LIST – TERMITE CONTROL

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
TESTS	
Certificate of chemical soil barrier type testing received	
NON CHEMICAL BARRIER	
Cap and strip shield material and components as specified	
Stainless steel mesh barriers location and installation as specified	
CHEMICAL SOIL BARRIER	
Collars to all penetrations	
Low pressure reticulation system installed to the perimeter strip and on both sides of, and close to, construction joints	
Hand spray application as specified	
Chemical properties as specified	
RETICULATION SYSTEM	
Material and components as specified	
Approved installer used	
Reticulation plan provided	
PROTECTION	
System protected from other works in progress	
GUARANTEE	
System guarantee provided as specified	
COMPLETION	
Certificates issued for each stage of treatment	
Certificate of completion issued	
Durable notice permanently fixed in a prominent location	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – CONCRETE

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.4	Compressive strength tests Slump tests Other specified tests if required	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
PROCESS TESTING	
Compressive strength test results received	
Strength assessment agreement	
NATA registered testing authority	
Sampling frequencies as specified	
CONTRACTOR'S SUBMISSIONS	
Saw joint methods received	
TERMITE BARRIER	
Barriers installed as specified	
VAPOUR BARRIER	
Sand bedding in place	
Installation as specified	
Joints lapped at 200mm and sealed with waterproof adhesive tape	
FORMWORK	
Installed as specified	
Correct surface finish	
Formwork removed, including concealed locations as specified	

ITEM	Checked - Initial & Date
REINFORCEMENT	
Reinforcement, including tie wires, support chairs, spacers etc. as specified	
Dowels as specified	
PRESTRESSED TENDONS	
As specified if required	
EMBEDDED ITEMS	
Correctly positioned as specified	
Corrosion protection provided as specified	
CONCRETE	
Ready mixed concrete as specified	
Placing as specified	
Evaporation control measures provided as specified	
Concrete compacted as specified	
Curing method is as specified	
ADDITION OF ADMIXTURES	
As specified	
PRECAST UNITS	
Manufactured as specified	
Installed accurately	
WATERPROOF MEMBRANES	
Correct type used	
Substrate accepted	
Installed membrane protected as specified	
CEMENTITIOUS TOPPINGS	
Hardened surfaces prepared as specified	
Correct thickness	
Finish is as specified	
Curing method as specified	
Cured surface free off cracks and other discontinuities	
JOINTS	
Construction joints installed where specified	
Movement joints installed where specified	

ITEM	Checked - Initial & Date
FINISHES TO UNFORMED SURFACES	
Surface tolerance to specified class	
Finishing method as specified	
INTEGRAL FINISHES	
Finish type as specified	
REINFORCED CONCRETE PAVEMENTS	
Subgrade prepared	
Expansion joints installed where specified	
Contraction joints installed where specified	
Finish type as specified	
GROUT	
Grout beneath footings as specified	
Grout for blockwork cores as specified	
MISCELLANEOUS ITEMS	
Clothes hoist footing installed as specified	
Splash pads Installed as specified	
Mowing strips installed as specified	
Gas cylinder pad installed as specified	

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CHECK LIST – STRUCTURAL STEEL

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR'S SUBMISSIONS	
Shop drawings submitted	
Steel compliance documentation received	
MATERIALS AND COMPONENTS	
Steel components free of rust and free from damage	
Steel grades as specified	
CONSTRUCTION GENERALLY	
Steel clearly Identified as specified	
Foundation bolts installed as specified	
Temporary connections as specified	
WELDING	
Weld procedure specification approval	
Weld category as specified	
Weld type as specified	
Welders and welding supervisors qualifications received	
Preparation as specified	
BOLTING	
Nuts and bolts as specified	
Anchor bolts provided with 2 nuts and 2 oversize washers and sufficient thread for levelling	
Documentary evidence provided for masonry anchors	
Lock nuts provided for bolts in moving parts	
PROTECTIVE COATING	
Inspector name and qualifications provided	
Steel surfaces prepared as specified	
Protective coat provided to steel before delivery to site	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – LIGHT STEEL FRAMING

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
MATERIALS AND COMPONENTS	
Materials and components rust free and damage free	
CONSTRUCTION	
Frames fitted firmly as specified	
Correct fasteners used	
Welds clean and primed	
Prefabricated frames undamaged	
Frame cavities clean upon completion	
Lagging installed as specified	
Temporary earthing provided	
FRAMES	
Stud spacing, nogging and bracing is as specified	
Damp proof course provided as specified	
Lintels installed where specified	
Bracing provided as specified	
Splice plates installed	
Additional supports provided for fixing hardware and accessories	
Service holes pre-cut and flared or site-cut with plastic bushes/grommets	
Flashing provided to external openings	
ROOF TRUSSES	
Shop drawings and certification received	
Support for water container provided	
Trusses marked correctly	
Fixing correct, including ties and wind bracing	
Trusses installed as specified	

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CHECK LIST – MASONRY

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
SAMPLES	
Samples received	
MATERIALS AND COMPONENTS	
Correct masonry units are used	
Correct steel components used and galvanised	
Mortar materials checked <ul style="list-style-type: none">• Sand• Cement• Additives• Coloured mortar• Damp proof course	
Correct mortar mix used as specified	
CONSTRUCTION GENERALLY	
Masonry cleaned as work proceeds	
Masonry protected from wind and rain	
Correct falls to sills and thresholds as specified	
Capstones and weatherings as specified	
Correct joints and cutting used	
Coursing correct	
Bond type correct	
Holes provided for services where required	
Chases cut not hammered	
FACEWORK	
Correct wall face side used	
Perpends aligned and filled	
Joints as specified	
Face units even in colour	

ITEM	Checked - Initial & Date
DAMP PROOF COURSES	
Correct materials used as specified	
Locations correct as per drawings	
Laps installed correctly and sealed	
CAVITY WALLS	
Cavity widths correct as specified	
No bridging of cavities	
Cavities filled as specified	
Cavity flashings installed as specified	
Weep holes provided and clear	
WALL TILES	
Wall ties, type, spacing and installation as specified	
Flexible wall ties used at control joints	
MOVEMENT JOINTS	
Joint material as specified	
Backing rod inserted	
Correct sealant used	
Width correct	
Slip joint material correct as specified	
REINFORCED MASONRY	
Reinforcement installed as specified	
Clean out blocks installed as specified	
Cleaning out of core holes completed	
Bond beams as specified	
Lintel blocks as specified	
Grout has completely filled cores	
Grout filling of blockwork minimum 3 days after construction	
Maximum height of pour 3 metres	
All cores filled below ground level	
STEEL LINTELS	
Correct corrosion protection used	
Correct size lintels used as specified	
Clearance at heads of frames is as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – WOODWORK

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
GENERAL	
Handling and storage as specified	
Protective coating to drilled holes	
Cut members sealed	
Protective coating to notches	
CONTRACTOR'S SUBMISSIONS	
Roof truss certification received	
Roof truss moisture content records received	
TIMBER	
Certification provided	
Timber identification as specified	
Radiata pine preservative treatment as specified	
Pressure treatment of structural timbers as specified	
Moisture content as specified	
Timber grade as specified	
Strip flooring and decking timber type and grade is as specified	
Finished sizes as specified	
SHEET PRODUCTS	
Structural plywood type and grade is as specified	
Hardboard bracing type and thickness is as specified	
Fibre cement flooring type and category is as specified	
FASTENERS AND ADHESIVES	
Fasteners correct type and galvanized where specified	
Adhesives as specified	
Nailing strips as specified	
Post bases as specified	

ITEM	Checked - Initial & Date
FLOORS	
Termite shields installed	
Structural sheet flooring <ul style="list-style-type: none"> • Level • Junctions have a smooth and level finish 	
Fibre cement flooring <ul style="list-style-type: none"> • Sheet ends joined correctly • Expansion joints installed as specified 	
Timber decking <ul style="list-style-type: none"> • Decking securely nailed to bearers • Nails galvanised as specified • Joints are flush and directly over floor joists 	
WALL FRAMING	
Frame sizes and grades are as specified	
Noggins spaced correctly	
Additional supports provided for fixing hardware and accessories	
Vermin barrier provided	
Damp proof courses installed as specified	
Flashing provided to external openings	
ROOF AND CEILING FRAMING	
Beam framing as specified	
Support for water container provided	
ROOF TRUSSES	
Approved manufacturer used	
Shop drawings and certification provided	
Trusses permanently marked with the following: <ul style="list-style-type: none"> • Manufacturer • Location • Support points • Special loading requirements 	
Fabrication: <ul style="list-style-type: none"> • Camber provided • Connector plates in place and free from knots • No gaps greater than 2 mm 	
Installation: <ul style="list-style-type: none"> • Support trusses correctly positioned • Ties and wind bracing provided • Ceiling batten type is as specified • Battens fixed as specified 	
GLUED-LAMINATED MEMBERS	
End joints installed as specified	
Camber installed as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – ROOFING

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
APPROVED FIXERS	
Fixers approved by the roofing manufacturers	
SHEET METAL ROOFING - STORAGE AND HANDLING	
Storage and handling as specified	
PROTECTION	
Roof free from swarf	
All damage repaired	
THERMAL MOVEMENT	
Expansion breaks provided to manufacturer's recommendation	
METAL SEPERATION	
Incompatible metals separated	
ROOF STRUCTURE ALIGNMENT	
Alignment correct	
Battens placed correctly	
Roof plane is correct	
MATERIALS AND COMPONENTS	
Material and components rust and damage free	
Roof insulation spacer system fixed to manufacturer's recommendation	
Prepainted steel sheet identified with manufacturer marking	
Fasteners as specified	
Thermal break provided	
Safety mesh in place	
Installation clean and free of swarf	
METAL FASCIA AND BARGE	
Material type and size as specified	

ROOFING

ITEM	Checked - Initial & Date
Rafter ends fixed correctly	
Corner trims, end trims and cappings installed	
METAL ROOFING	
Pitch as specified	
Sheets fixed as specified	
Accessories fixed as specified	
Ridges and Eaves installed as specified	
Ridge and barge capping fixed and cut to roof profile	
ROOF PLUMBING	
Material finishes checked: <ul style="list-style-type: none"> • Flashings • Cappings • Gutters • Rainwater heads • Outlets • Downpipes 	
Jointing sheet metal rainwater goods as specified	
Flashing and cappings: <ul style="list-style-type: none"> • Roof junction checked • Upstands • Abutments • Projections through roof 	
Gutters generally <ul style="list-style-type: none"> • Turned down into outlets • Overflows provided • Minimum falls checked • Joints in gutters as specified 	
Valley gutters as specified	
Eaves gutters as specified	
Box gutters as specified	
Metal downpipes <ul style="list-style-type: none"> • Connected to gutter outlets • Fixings correctly positioned 	
ROOF VENTILATORS	
Proprietary roof ventilator system as specified	
ROOF PLANT ACCESS	
Proprietary roof walkway system including fixings as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – CLADDING

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
SHEET METAL CLADDING - STORAGE AND HANDLING	
Storage and handling as specified	
PROTECTION	
Cladding free from swarf	
All damage repaired	
THERMAL MOVEMENT	
Expansion breaks provided to manufacturer's recommendation	
METAL SEPERATION	
Incompatible metals separated	
MATERIAL AND COMPONENTS	
Sheet metal free of rust and free of damage	
Plywood as specified	
Hardboard as specified	
Fibre cement classification as specified	
Fasteners as specified	
Thermal break provided	
CONSTRUCTION GENERALLY	
To NT Deemed to Comply Manual	
Substrates or framing aligned correctly	
Trims and accessories installed	
FIBRE CEMENT CLADDING	
Plank cladding <ul style="list-style-type: none"> • Correct plank size • Joints and edges finished as specified • Corner pieces checked 	
Sheet cladding <ul style="list-style-type: none"> • Correct size and type • Joints and edges finished as specified 	

ITEM	Checked - Initial & Date
Eaves lining <ul style="list-style-type: none">• Lining secured to bearers• Joints installed as specified	
COMPRESSED SHEET CLADDING	
Joint sizes correct	
Neoprene gaskets installed	
Fixings as specified	
METAL CLADDING	
Correct size and type	
Fixed as specified	
Penetrations sealed as specified	
ALUMINIUM COMPOSITE PANELS	
Aluminium composite panels are fire retardant	
Aluminium composite panels to be classified EW to AS 5113	
Building-to-building fire spread (BB) testing and classification to AS 5113	
Material Group number 1	
Fire engineer report provided as specified	
Supplied material documentary evidence provided as specified	
METAL BONDED POLYSTYRENE PANELS	
Core material as specified	
Material Group number 1	
Installation in accordance with the manufacturer's manuals	
FRL as specified	

INSULATION, SARKING, AND PLIABLE MEMBRANES

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – INSULATION, SARKING, AND PLIABLE MEMBRANES

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
MATERIAL AND COMPONENTS	
Bulk thermal insulation as specified	
Sarking-type material including vapour barriers as specified	
Fasteners galvanized steel	
Safety mesh installed	
VAPOUR BARRIER INSTALLATION	
Membrane heavy duty and VCM Class 1	
Membrane water barrier classification	
Requirements as specified	
Moisture proofing at laps, edges, and penetrations	
Installation as specified: <ul style="list-style-type: none"> • Masonry walls • Frame construction • Where roof beams pass through the vapour barrier • Large penetrations such as ducts or flues • Where box gutters are incorporated into the roof design 	
INSULATION INSTALLATION	
Boxing provided for loose fill	
Bats fitted as specified	
Sarking installed to required standard	
Reflective foil installed as specified	
Wall sarking installed as specified	
Roof sarking installed as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – WINDOWS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR'S SUBMISSIONS	
Shop drawings and certification received	
Names and contact details of proposed manufacturers and installers received	
Operation and maintenance manual received	
Warranties received for supplied product and installation	
DESIGN	
All windows conform to specified standards	
FRAME SECTIONS	
Frame sections as specified	
Sills, sub-sills, heads, and sub-heads installed	
MATERIALS AND COMPONENTS	
Materials and components comply with specified standards	
Glass free from defects	
Report received for ceramic-coated spandrel glass	
Report received for opacified glass	
Flashings as specified	
Fasteners as specified	
Metal finishes as specified	
CONSTRUCTION GENERALLY	
Joints fitted tightly	
Jointing materials as specified	
Elastomeric sealants as specified	
Moving parts operate freely without sticking	
Flashing and weatherings <ul style="list-style-type: none"> • Correct type • Flashing installed correct 	

ITEM	Checked - Initial & Date
Sills, sub-sills, heads, and sub-heads fitted to manufacturer's recommendations	
Installation <ul style="list-style-type: none"> • Windows are installed plumb and level • Correctly fixed to building structure • Are not carrying any building loads • Allow for thermal movement 	
Fixing as specified	
Internal metal trims are as specified	
LOUVRE WINDOW ASSEMBLIES	
Adjustable louvres <ul style="list-style-type: none"> • Fixed to sub frame as per manufacturer's recommendations • Stiles and mullions secured to building structure • Operating handle and latching device operational 	
Metal louvres <ul style="list-style-type: none"> • Material as specified • Sub frame secured 	
Louvre arrangement as specified	
INFILL PANELS	
Material as specified	
Fixings as specified	
INSECT SCREENS	
Aluminium framed screens <ul style="list-style-type: none"> • Fixed as specified • Finish matches window frames • Mesh is taught and without distortion 	
Fixed screens <ul style="list-style-type: none"> • Fitted with clipping device for removal • Finish matches window frames 	
Sliding screens <ul style="list-style-type: none"> • Fixed as specified • Finish matches window frames 	
Hinged screens hardware and hinged at the top as specified	
SECURITY WINDOW GRILLES	
Type and finish as specified	
DEBRIS SCREEN	
Type and finish is as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – GLAZING

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Certification received	
Samples received	
Shop drawings received	
Warranties received	
MATERIALS AND COMPONENTS	
Glass type and thickness as specified	
Safety glass certified and marked	
Insulating glass units as specified	
Heat soaking glass marked	
Glazing materials as specified	
Mirrors as specified	
Noise reducing glazed assemblies marked	
GLAZING	
Installation: <ul style="list-style-type: none"> • Each piece permanently fixed • Building movements are not transferred to the glass • External work airtight/watertight • Certification received as specified • Glazing data received as specified 	
Frameless installations: <ul style="list-style-type: none"> • Joints installed correctly • Panels spaced correctly • Finish is clean and free of defects 	
Preglazing is as specified	
Mirrors fixed as specified	
GLAZED SHOWER SCREENS	
Shower screen system as specified	
Water shedding as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – DOORS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Type test results fire and smoke doorsets	
MATERIALS AND COMPONENTS	
Doorsets and doors as specified	
Flashings and weatherings <ul style="list-style-type: none"> • Corrosion resistant • Installation to prevent water from penetrating the building 	
Jointing and pointing material non-staining and compatible	
CONSTRUCTION GENERALLY	
Doorframes engraved with identifier	
Joints accurate and tight	
Operate freely and smoothly	
Installation <ul style="list-style-type: none"> • Plumb, level, straight and within tolerance • Adequately fixed • Do not carry any building loads 	
Hinged doorsets in two leaves as specified	
Window and door assemblies as specified	
Seals as specified	
Trim as specified	
Door furniture height correct	
TIMBER DOOR FRAMES	
Material and grade as specified	
Installation <ul style="list-style-type: none"> • Plumb, level, straight and within tolerance • Adequately fixed • Do not carry any building loads 	
Heads of fasteners as specified	
Fixing to metal frames as specified	
Thresholds to external doors fitted	

ITEM	Checked - Initial & Date
Weather seals to external doors fitted	
TIMBER DOORS	
Installation as specified	
Thickness 38 mm minimum	
Flush doors: <ul style="list-style-type: none"> • Edge strips as specified • Cut-outs 120 mm minimum from door edges • Primed before painting • Painting as specified • Manufacturer branding visible on exposed top or bottom rail edge 	
Special facings as specified	
Door types as specified	
SLIDING DOOR FRAMES	
Accessories as specified	
STEEL DOOR FRAMES	
Sections as specified	
Continuous weld across mitred flanges grinded smooth and cold galvanized	
Shop primed	
Hardware as specified	
Installation as specified	
HINGED SECURITY DOORSETS	
Materials and components as specified	
Installation as specified	
ALUMINIUM DOORSETS	
Materials and components as specified	
Installation as specified	
FIRE RESISTANT DOORSETS	
Materials and components as specified	
Construction and installation as specified	
OVERHEAD DOORS	
Roller shutters as specified	
Sectional overhead doors as specified	
Tilting overhead doors as specified	
Motorized operation as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – HARDWARE

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Manufacturer's published product data received	
MATERIALS AND COMPONENTS	
Materials and components comply with specification	
INSTALLATION	
Fixings <ul style="list-style-type: none"> • Correct type • Non-corrosive • Back support provided where required 	
Door hardware <ul style="list-style-type: none"> • Correct type • Correct mounting height 	
Door stops are positioned correctly	
HINGES	
Correct number of hinges as specified	
Correct type	
KEYING	
Correct key type	
Correctly identified	
Group key provided	
Grandmaster key provided	
LOCKS AND LATCHES	
Strike plate same as lock	
Locking mechanism works	
Mortar guards provided	
DOOR CONTROLLERS	
Fire door and smoke door closers operating correctly	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – SUSPENDED CEILINGS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Fire hazard properties received	
Warranties received	
PERFORMANCE CRITERIA	
System tested as specified	
MATERIALS AND COMPONENTS	
Material and components comply with specification	
Spare tiles provided	
PROTOTYPE	
Sample installation provided	
CONSTRUCTION GENERALLY	
Grid set-out is as specified	
Service penetrations through solid tiles only	
Cut tile edges are as specified	
System stable, free of looseness and/or rattling components	
Support members: <ul style="list-style-type: none"> • Installation as specified • Corrosion protection • Height adjustment • Purlin clips not used 	
Bracing provided as specified	
No fasteners visible in the finished ceiling	
Bulkheads braced	
Panels painted before installation	
Panels installed accurately as specified	
Control joints installed where specified	
Accessories and trim provided	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – PARTITIONS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Warranties submitted for materials and components, and installation	
MATERIALS AND COMPONENTS	
Coated steel as specified	
Aluminium as specified	
Fasteners as specified	
CONSTRUCTION GENERALLY	
Base prepared receive the partitions	
Set-out as per drawings	
Partitions installed plumb and level with correct alignment	
PRODUCTS	
Marked as specified	
Compressed fibre cement panels as specified	
Sheet faced reconstituted wood-based panels and doors as specified	
High pressure decorative laminate (HPDL) and panels and doors as specified	
Division, front and nib panels material thickness correct	
Door material thickness and size correct	
Accessories as specified	
EXECUTION	
Cubicle system installation to manufacturer's recommendations	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – LINING

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Fire hazard properties received	
Warranties submitted for materials and installation	
MATERIALS AND COMPONENTS	
Plywood and blockboard as specified	
Plasterboard as specified	
Fiberock fixing and installation to manufacturer's recommendations	
Fibre cement Type B, Category 2	
Tongue and groove boards Responsible Wood or FSC certified	
Coated steel as specified	
Fasteners as specified	
Adhesives and sealants as specified	
CONSTRUCTION GERERALLY	
Area enclosed and weather tight	
Substrates and/or framing aligned correctly	
Battens installed as specified	
Ceiling lining installed as specified	
Accessories and trim provided	
Adhesives fit for purpose and do not cause discolouration	
Fire-resisting and acoustic installations as specified	
Fiberock used for high impact areas	
PLASTERBOARD LINING	
Supports installed as specified	
Installation as specified	
Joints installed as specified	

LINING

ITEM	Checked - Initial & Date
FIBRE CEMENT LINING	
Supports installed as specified	
Installation as specified	
Joints installed as specified	
TONGUE AND GROOVE LINING	
Installation as specified	
Boards correctly fixed	
Joints installed as specified	
ACOUSTIC AND DECORATIVE FABRIC LINING	
Fire performance Group number 1	
NRC 0.40 minimum	
Aluminium wallboard capping used mechanically fixed to substrate at 400 mm centres	
Substrate preparation: <ul style="list-style-type: none"> • Cleaned • Voids and/or cracks filled • Joints taped • Level 3 finish • Porous substrates sealed • Gloss and semi-gloss finishes sanded 	
Installation <ul style="list-style-type: none"> • Manufacturer accredited installers • Fixing and installation to manufacturer's recommendations 	
Pile direction consistent	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – RENDERING AND PLASTERING

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Plaster system samples received	
MATERIALS AND COMPONENTS	
Accessories as specified	
Plaster materials as specified	
Lime putty mix mixed 24 hours before use	
Gauged mixes as specified	
SUBSTRATE	
All defects repaired	
Substrate clean and dust free	
Embedded items treated as specified	
Chases covered with metal lath as specified	
Dense concrete background treated as specified	
Dash coat installed as specified	
PLASTERING	
Number of coats and thickness is as specified	
Hidden surfaces finished as specified	
Incidental work as specified	
Joins concealed in finish	
Tolerances are as specified	
Surface finish as specified	
Curing as specified	
Two coat set plaster <ul style="list-style-type: none"> • Undercoat applied • Setting coat applied 	
White set plaster as specified	
External rendering mix and application is as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – METALWORK

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Operation and maintenance manuals received	
Manufacturer's data received	
Shop drawings received	
Names and contact details of proposed suppliers and installers received	
Proposed welding procedures received	
MATERIALS AND COMPONENTS	
Steel as specified	
Steel for powder coating and electroplating as specified	
Coated steel as specified	
Stainless steel as specified	
Aluminium and aluminium alloys as specified	
Fasteners as specified	
CONSTRUCTION GENERALLY	
Correct fasteners used	
Edges and surfaces clean neat and free from burs	
Joints fitted accurately	
Neat bends	
Colour matches for sheets, extrusions and fasteners	
Welding and brazing as specified	
FINISHES	
Visible joints finishing as specified	
Preparation for coating as specified	
Preparation for thermoset powder coating as specified	
Hot-dip Galvanizing as specified	

ITEM	Checked - Initial & Date
Electroplating as specified	
Anodizing as specified	
Thermoset powder coating as specified	

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – FIXED FURNITURE AND JOINERY

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Product warranty received and installation warranty received	
Operations and maintenance manual received	
Shop drawings received	
Names and contact details of proposed suppliers and installers received	
MATERIALS AND COMPONENTS	
Joinery timber as specified	
Plywood as specified <ul style="list-style-type: none"> • Visible surface with clear finish veneer quality A • Other visible surfaces veneer quality B 	
Wet processed fibreboard (including hardboard) as specified	
Particleboard as specified	
Dry-processed fibreboard (including medium density fibreboard) as specified	
Decorative overlaid wood panels as specified	
High pressure decorative laminate (HPDL) sheets as specified	
Timber veneer as specified <ul style="list-style-type: none"> • Visible surface with clear finish veneer quality A • Other visible surfaces veneer quality B 	
CONSTRUCTION GENERALLY	
Components built square and installed plumb	
Joins over supports	
Accessories and trim provided	
Correct fasteners and adhesives used	
Finishes: <ul style="list-style-type: none"> • Scribed to structure • All exposed edges edged to match sheet faces 	
CUPBOARD, SHELF AND DRAWER UNITS	
Plinths installed as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
FIXED FURNITURE AND JOINERY

ITEM	Checked - Initial & Date
Carcass installed as specified	
Drawer fronts and doors installed as specified	
BENCHTOPS	
Laminate benchtops: <ul style="list-style-type: none">• Material as specified• Thickness as specified• Underside sealed• Scribed to walls• Joint sealant to match finish	
Splashback: <ul style="list-style-type: none">• Material as specified• Thickness as specified	
VANITY UNIT	
Correct material	
Installation as specified	
WARDROBES	
Correct material	
Installation as specified	
LINEN AND BROOM CUPBOARD	
Correct material	
Installation as specified	
SHELVES	
Correct material	
Installation as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – TILING

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Waterproofing membrane report received	
Samples received	
MATERIALS AND COMPONENTS	
Ceramic tiles as specified	
Tactile ground surface indicators as specified	
Exposed edges: <ul style="list-style-type: none">• Mitred• Metal trim provided	
Coves, nosings and skirtings match tiles	
Accessories provided	
Metal trims provided, finish as specified	
Spare tiles provided	
Adhesives as specified	
Mortar and bedding mortar as specified	
Water clean and free from any deleterious matter	
Grout as specified	
SUBSTRATE	
Curing as specified	
Moisture content provided	
Substrate clean and free of deleterious material	
WATERPROOFING WET AREAS	
Shower tray installed as specified	
Membrane installed as specified	
Membrane fully cured before tiling	
Falls as specified	
Water stops provided at door thresholds	

TILING

ITEM	Checked - Initial & Date
Bond breaker material and installation as specified	
Sealants waterproof, flexible, mould-resistant and compatible with host materials	
TILING	
Tiles cut neatly to fit around fixtures and fittings	
Setting out tiles as specified	
Joint alignment is as specified	
Correct falls and levels as specified	
Bedding as specified	
Bath ventilated with at least 2 vermin proof ventilating tiles	
JOINTS AND ACCESSORIES	
Control of movement as specified	
Movement joints provided	
Grouting applied as specified	
Sealant applied as specified	
Floor finish dividers provided	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – RESILIENT FINISHES

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Fire hazard properties received	
Manufacturer's data received	
Warranties received	
MATERIALS AND COMPONENTS	
Materials identification as specified	
Edges of sheets and tiles square, clean and undamaged	
Underlay as specified	
Cork as specified	
Linoleum as specified	
Cork linoleum as specified	
Rubber as specified	
PVC as specified	
Slip resistance as specified	
Static control as specified	
Vinyl bench topping as specified	
Spare materials provided	
Adhesives as specified	
SUBSTRATE	
Substrate clean and free of deleterious material	
Moisture content test results provided	
RESILIENT FINISHES INSTALLATION/LAYING	
Sheet set-out correct	
Tile set-out correct	
Joints tightly fit showing no visible defects	
Junctions:	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020>>
RESILIENT FINISHES

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> • Scribed neatly up to returns, edges, fixtures and fittings • Finish flush with adjoining surfaces 	
Levels correct	
CORK TILES	
Correct adhesive used	
Surface level and free of abnormalities	
RUBBER TILES	
Correct adhesive used	
Stretcher bond laying	
Joints aligned with no visible defects	
Finished work cleaned and free of foreign matter	
VINYL SHEETING	
All joins welded as specified	
Finishing to manufacturer's recommendations	
STAIRS	
Tiles accurately scribed, and fitted as specified	
Anti-slip nosings installed	
JOINTS AND ACCESSORIES	
Junctions finished flush with adjoining surfaces	
Doorway junctions installed as specified	
Edge strips provided as specified	
Movement joints installed as specified	
Vinyl skirting installed as specified	
Aluminium skirting as specified	
Rubber coved skirtings and margins as specified	
Cover skirtings as specified	
COMPLETION	
Traffic kept off installation	
Installation buffed and polished	
Cleaning static control flooring as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – CARPETS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Fire hazard properties received	
Manufacturer's data received	
Samples received	
Warranties received	
Shop drawings received	
MATERIALS AND COMPONENTS	
Materials stored in a clean, dry, ventilated area	
Materials identification as specified	
Batching consistent	
Anti-microbial treatment provided	
Insect resistance provided	
Underlay type provided as specified	
Carpet tiles as specified	
Sustainable carpet tile backing as specified	
Door mats provided	
Spare materials provided	
Low VOC adhesives compatible with floor covering material used	
Hot-melt adhesive tape as specified	
Preformed gripper strip installed as specified	
Edge strip installed as specified	
SUBSTRATE	
Substrate preparation: <ul style="list-style-type: none"> • Stripped and clean • Repairs done • Fixtures and fittings removed prior to completion • Strip flooring lightly sanded 	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020>>
CARPETS

ITEM	Checked - Initial & Date
Moisture content test results provided	
LAYING CARPET	
Setting out as specified	
Seams flat and close fitting	
Fixing as specified	
LAYING CARPET TILES	
Setting out as specified	
Chequerboard laying pattern	
PENRTRATIONS	
Cross-cut and fit snugly	
CLEARANCE	
Doors trimmed to clear finished carpet by 3 mm	
CLEANING AND PROTECTION	
Finished product clean and undamaged	
Protection from wheeled traffic as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – PAINTING

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Name and contact details of proposed specialist applicators provided	
Warranties received	
Samples received	
SAMPLES	
Samples submitted for approval	
MATERIALS AND COMPONENTS	
Low VOC paints used	
Trade names of the paint types referred to by generic type and APAS specification received	
Paints delivered to site in the manufacturer's labelled containers	
Invoices receipts or delivery dockets received	
Putty as specified	
PAINTING	
ITPs provided	
Substrate preparation as specified	
Mould remediation as specified	
Application: <ul style="list-style-type: none"> • Manufacturers product datasheets and application specifications available • Safety Data Sheets available 	
Fixtures removed prior to painting	
"Wet paint" signs provided	
Paint application is uniform in colour <ul style="list-style-type: none"> • Gloss • Thickness and texture • Free of runs, sags and other discontinuities 	
Protection as specified	
Warning notices in place to areas of wet paint	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – MISCELLANEOUS FIXTURES

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
FIRE FIGHTING	
Fire extinguishers and signs in place as specified	
Fire blankets and signs in place as specified	
WHITEBOARDS	
Size and type correct	
Installed as specified	
ELECTRONIC INTERACTIVE WHITEBOARD SYSTEMS (IWBS)	
Size and type correct	
Installed as specified	
Projector type mounted as specified	
PINBOARDS	
Size and type correct	
Installed as specified	
CHALKBOARDS	
Size and type correct	
Installed as specified	
PROJECTION SCREENS	
Size and type correct	
Installed as specified	
CLOTHES HOISTS	
Size and type correct	
Installed as specified	
LETTER BOXES	
Size and type correct as per drawings	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – SANITARY SERVICES

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.3.2	Hydrostatic tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
TESTS	
Hydrostatic test results received	
CONTRACTOR SUBMISSIONS	
Work-as-executed drawings submitted	
CONNECTION	
Local authorities draining plans obtained	
Existing connection made good	
PIPEWORK MATERIALS	
Exposed pipework, including fittings and supports finishes as specified	
SANITARY DRAINS	
Inspection chambers installed as specified	
Levels as specified	
Completed pipelines flushed with water and clean	
SEWERAGE TREATMENT	
Septic tank type as specified	
On-site wastewater management system as specified	
SANITARY PLUMBING	
Pipe supports materials as specified	
Building penetrations as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – STORMWATER

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.3.2	Hydrostatic tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
TESTS	
Hydrostatic test results received	
CONTRACTOR SUBMISSIONS	
Work-as-executed drawings submitted	
CONNECTION	
Local authorities draining plans obtained	
Existing drain excavation made good	
FILL MATERIAL	
Standard fill as specified	
Select fill as specified	
TRENCHES	
Cover to pipes as specified	
STORMWATER DRAINS	
Levels and gradients are as specified	
Spigot ends in direction of flow	
Bedding material as specified	
Trench backfill as specified	
Inspection openings provided where specified	
Anchor blocks installed where specified	

ITEM	Checked - Initial & Date
Downpipe connections where specified	
Finished work is flushed and clean	
LINED SURFACE DRAINS	
Half round pipe drains installed as specified	
Grated trenches installed as specified	
TABLE DRAINS	
Correct size as specified	
Graded to prevent ponding of water	
Discharge into culverts, offlet drains or watercourses	
SUBSOIL DRAINS	
Pipe depths are as specified	
Filter material as specified	
Geotextile fabric as specified	
Trench widths minimum 300 mm	
Subsoil drainpipe 100 mm diameter Class SN8	
Laying and backfilling as specified	
Filter sock installed as specified	
End walls installed as specified	
STORMWATER AND INLET PITS	
Reinforced concrete pits installed as specified	
Metal covers and grates installed	
Cover levels as specified	
Finish smooth, seamless, equal to steel trowelled render or concrete cast in steel forms	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – WATER

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.3.2	Hydrostatic tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
TESTS	
Hydrostatic test results received	
CONTRACTORS SUBMISSIONS	
Work-as-executed drawings submitted	
CONNECTION	
Local authorities arrangement	
Existing connection excavation made good	
PIPEWORK MATERIALS	
Polyethylene (PE) Piping as specified	
Copper pipe as specified	
Galvanized steel pipe as specified	
Piping to corrosive water areas as specified	
Finishes as specified	
PIPEWORK INSTALLATION	
Piping installed in straight lines and uniform grades	
Piping free from vibration and water hammer	
Concealment as specified	
Approval required for building penetrations	
Pipe supports installed as specified	

ITEM	Checked - Initial & Date
Pipework cleaned on completion	
Insulation as specified	
ACCESSORIES	
Products listed in the WaterMark Product Database	
Water efficiency labelling scheme (WELS)	
Accessories schedule as specified	
Cover plates installed as specified	
COLD WATER SYSTEM	
Correct material	
HEATED WATER SYSTEM	
Correct material	
Tap positions are correct	
UNITARY HEATING SYSTEMS	
Correct location	
Type as specified	
SOLAR WATER HEATING SYSTEM	
Proprietary item as specified	
Installed as specified	
EVACUATED TUBE WATER HEATING SYSTEM	
Proprietary item as specified	
HEAT PUMP HOT WATER HEATING SYSTEM	
Proprietary item as specified	
GAS FIRED HOT WATER STORAGE SYSTEM	
Proprietary item as specified	
WATER FILTER	
Proprietary item as specified	
FIRE HOSE REELS	
Authorised product from the ActivFire Register	
Installed as specified	
Commissioning as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – LP GAS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.3.1	Pressure tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
TESTS	
Pressure test results received	
CONTRACTORS SUBMISSIONS	
Notification sent to NT WorkSafe	
Work-as-executed drawings submitted	
Certificates of compliance submitted	
Operating instructions submitted	
PIPING MATERIALS	
Piping labelled	
Exposed pipework finished as specified	
Valves finish match connected pipework	
INSTALLATION	
Piping installed in straight lines and uniform grades	
Piping concealed as specified	
Buried pipes clearly identified	
Quality of bedding and backfill as specified	
Corrosion protection as specified	
Approval required for building penetrations	
Pipe supports installed as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
LP GAS

ITEM	Checked - Initial & Date
VALVES AND FITTINGS	
Pressure regulator installed	
Excess flow valve installed	
Emergency shut off valve installed	
Flashback arrestor installed	
Manual isolating and control valves installed	
Under pressure shut-off as specified	
Isolation solenoid as specified	
ACCESSORIES	
Cover plates provided as specified	
LPG GAS STORAGE INSTALLATION	
Tank installation as specified	
Cylinder installation as specified	
Dome installation as specified	
COMPLETION	
Installation tested and approved	
COMPLIANCE PLATE	
Compliance plate provided as specified	
Certificate of approval received	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – GENERAL ELECTRICAL

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.13.1	Testing	
#.13.2	Integrated system testing	
#.13.3	Completion tests	
#.13.9	Services review and tests	

COMPLIANCE CHECKS – REFER SPECIFICATION`

ITEM	Checked - initial & date
QUALITY	
Superintendent written approval: <ul style="list-style-type: none"> • Manufacture of switchboards • Confirmation of orders for luminaires 	
CONTRACTOR'S SUBMISSIONS	
Shop drawings submitted	
As-constructed drawings submitted	
Power and Water Corporation approval main switchboard	
Product data submitted: <ul style="list-style-type: none"> • Luminaires • Accessories • Cable supports • Cable pits • System components 	
Quality assurance system documentation submitted	
List of all plant and equipment installed submitted	
AUTHORITIES AND UTILITIES	
Correspondence and notes of meetings submitted	
Approval of the authorities and utilities submitted	
EXISTING SYSTEMS	
Surveyed and identified on drawings	
MATERIALS, EQUIPMENT AND COMPONENTS	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
GENERAL ELECTRICAL

ITEM	Checked - initial & date
Equipment and components new, of good quality and fit for purpose	
Software ownership and access: <ul style="list-style-type: none"> • Ownership transferred to the Principal • Unrestricted rights to modify or replace • Password access • Software upgrades to the end of the Defects Liability Period 	
Equipment selection: <ul style="list-style-type: none"> • Established manufacturers used • Same manufacturer or source throughout project • Safety as specified 	
Manufacturers' or suppliers' recommendations <ul style="list-style-type: none"> • Transport, deliver, store, handle, protect, finish, adjust and prepare to manufacturer's recommendations • Recommendations and instructions submitted • Product modifications as specified • Product certification as specified 	
Manufacturers' name plates provided as specified	
Supplied materials or products in original containers or packages	
Prohibited materials as specified	
INSTALLATION	
Equipment and services installed parallel or perpendicular to building elements	
Clearance as specified	
Movement and expansion as specified	
Protection as specified	
Access as specified	
Plant shutdowns co-ordinated with Superintendent and Principal	
Services connections as specified	
Building penetrations as specified	
Fixing: <ul style="list-style-type: none"> • Details of types of fixings, locations, and loads submitted for approval • No piercing of water proof roofs, floors, walls, or vapour barriers • Fasteners as specified • Corrosion protection as specified 	
IDENTIFICATION	
Label, marker or identifier submitted	
Labelling as specified	
Wiring and terminal strips as specified	
Equipment identified by name and identification number	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
GENERAL ELECTRICAL

ITEM	Checked - initial & date
Minor equipment identified to the relevant distribution board	
Labels as specified	
OPERATION AND MAINTENANCE MANUALS	
Operation and maintenance manuals submitted	
Warnings and calculations included	
Format hard copy as specified	
Format soft copy as specified	
Contents as specified	
Operating instructions and schematic diagrams mounted alongside equipment	
TRAINING	
Comprehensive training course provided to Principal's staff	
Certificates of training issued to trainees	
Technical assistance provided to Principal's staff during the warranty period	
SPARE PARTS SCHEDULE	
Spare parts schedule submitted with manufacturer's current price	
TESTING AND COMMISSIONING	
Type tests NATA accredited	
Testing and commissioning program submitted	
Integrated system testing as specified	
Completion tests as specified	
Thermographic scan as specified	
Copies of all test reports submitted	
Failed tests as specified	
Load of the installation balanced at each switchboard	
Services review and tests	
Principal's staff informed in the recommended methods for operating and maintaining the system	
MAINTENANCE AND DEFECTS LIABILITY	
Maintenance records submitted	
Service visits recorded and submitted	
Proposal for on-going maintenance submitted	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – WIRING AND ACCESSORIES

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.16.1	Movement detector sensitivity tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR'S SUBMISSIONS	
Shop drawings submitted	
Cable sizing calculations submitted	
Protection grading study submitted	
WIRING SYSTEM INSTALLATION	
Installation methods as specified	
Single core cables secured on cable ladder/tray in trefoil arrangement	
Extra-low voltage circuits tied together at regular intervals	
Multicore cables and trefoil groups identified at each end using stamped non-ferrous tags clipped around each cable or trefoil group	
Origin of all wiring identified	
POWER CABLES	
Selection as specified	
Unsheathed installation as specified	
Fire-rated (other than MIMS) – Installation as specified	
Support of fire resisting cables: <ul style="list-style-type: none"> • To AS/NZS 3013 • Test certificate issued by NATA registered laboratory • Stainless steel cable ties provided • Fire rated connections provided for cable tray fixing 	
TERMINATIONS	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
WIRING AND ACCESSORIES

ITEM	Checked - Initial & Date
Copper conductors as specified	
Within assemblies and equipment as specified	
WIRING ENCLOSURES AND CABLE SUPPORT	
Conduits steel or PVC, as specified	
Minimum size 20 mm	
Rigid conduits as specified	
Flexible conduits as specified	
Mild steel wiring enclosures galvanized	
Set-out as specified	
Inspection fittings provided in accessible locations	
Draw cords provided	
Draw-in boxes as specified	
Bends and elbows as specified	
Conduit saddles and brackets as specified	
Concealed conduits as specified	
Conduits in concrete slabs as specified	
Conduits and fittings chased in as specified	
Prohibited floor slabs and face brickwork as specified	
Hollow block floors as specified	
Columns as specified	
METALLIC CONDUITS AND FITTINGS	
Type as specified	
Corrosion protection as specified	
Galvanised water pipe medium or heavy, to AS 1074	
Expansion joints as specified	
Conductivity maintained between the two ends of rigid metallic conduit	
Free movement for expansion and contraction	
Sets and bends as specified	
NON-METALLIC CONDUITS AND FITTINGS	
Conduits in roof spaces as specified	
Conduits in slabs as specified	
Flexible conduit as specified	

WIRING AND ACCESSORIES

ITEM	Checked - Initial & Date
Sets and bends as specified	
Associated fittings as specified	
Inspection type fittings provided in accessible locations and where exposed to view	
Cemented or snap on joints provided	
Expansion joints as specified	
DUCTED WIRING ENCLOSURES	
Ducting as specified	
Construction as specified	
Installation as specified	
CABLE SUPPORTS	
Complete cable support system provided consisting of baskets, trays or ladders, and including brackets, fixings and accessories	
Single manufacturer used for baskets, trays, ladders and accessories	
Cable baskets: <ul style="list-style-type: none"> • Interior material as specified • Exterior material hot-dip galvanised steel or stainless steel • Cuts made good by galvanizing • All accessories, supports, joints, bends, tees and radii selected from the same manufacturer's product range 	
Cable trays: <ul style="list-style-type: none"> • Interior material as specified • Exterior material hot-dip galvanised steel • Cuts made good by galvanizing • Minimum steel thickness as specified • Folded edge greater 19 mm deep and radiused • Admiralty pattern, reverse stamping • Fish plates or splines for tees, crosses and joints 	
Cable ladders: <ul style="list-style-type: none"> • Manufacture as specified • Material galvanised steel • Rung spacing 300 mm maximum • Cables less than 13 mm diameter run in cable trays or ducts • Structural sections as specified 	
Single spine cable baskets, trays or ladders: <ul style="list-style-type: none"> • Maximum width 400 mm each side • central supports 	
Fixing to building structure as specified	
Access: <ul style="list-style-type: none"> • 150 mm free space above • 600 mm free space on one side of trays 	
Slats or rails provided suitable for fixing cable ties, strapping or saddles	
Bend radius as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
WIRING AND ACCESSORIES

ITEM	Checked - Initial & Date
Cable protection as specified	
Steel straps on MIMS cables provided	
Minimum clearances: <ul style="list-style-type: none"> • Hot water pipes 200 mm • Boilers or furnaces 500 mm 	
Penetrations as specified	
Expansion joints as specified	
BUSDUCTS	
Systems as specified	
Selection as specified	
Plug-in boxes (indoor systems only) as specified	
Installation as specified	
UNDERGROUND CABLES	
To cited standards and Power and Water Corporation requirements	
Trenches as specified	
Conduit/Cable installation as specified	
Routes accurately recorded on as-constructed drawings	
Location marking as specified	
Cable marker tape and protective cover strips installed as specified	
CABLE PITS	
Proprietary cable pits as specified	
Pit covers as specified	
Drainage provided from the bottom as specified	
COLUMNS	
Design, manufacture, and testing by approved manufacturer	
Construction as specified	
ACCESSORIES	
General: <ul style="list-style-type: none"> • Selection compatible with the final interior design • Orientation compatible with the final interior design • Position as specified • Acoustic separation as specified • Proprietary labels provided • Construction as specified • Location as specified • Plant rooms as specified 	
Lighting and socket outlet switches:	

WIRING AND ACCESSORIES

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> • Rocker type designed for inductive and fluorescent lighting loads • Multi switch/function ganged under one cover plate • Installation on the latch side of doors and door swings • Multiphase as specified • Pull switches as specified • Minimum rating 15 A (Inductive), 230 VAC • Indicators visible with switches "on" • 150 mm clearance or physical barrier between LV and ELV terminations • Mounting heights as specified • Multigang as specified 	
<p>Switched socket outlets:</p> <ul style="list-style-type: none"> • Same manufacture as the switches used • Power outlets combination rocker switch/socket type flush wall mounted • Socket mounted with the earth pins in the 6 o'clock position • Double outlets under one flush plate • Plugs provided with outlets of greater rating than 10 A 250 V • Pendant outlets as specified 	
<p>Phase outlets:</p> <ul style="list-style-type: none"> • Minimum rating: 20 A, 500 V a.c. • Pin arrangement as specified • Matching plug top for each outlet • Surface mounted integral switched socket outlet with flap lid on the outlet • High impact plastic • IP56 rating 	
<p>Clock outlets:</p> <ul style="list-style-type: none"> • 4 round pin outlet • Matching plug for each outlet 	
<p>Lighting outlets:</p> <ul style="list-style-type: none"> • 3 flat pin with looping terminal. 	
<p>Installation:</p> <ul style="list-style-type: none"> • Flush mounted accessories except in plant rooms • Surface mounting on proprietary mounting blocks • No installations across junctions of wall finishes • Isolating switches and outlets labelled to identify circuit origin and designation 	
<p>Appliances:</p> <ul style="list-style-type: none"> • Internally wired and complete with control switches, controllers or connecting links • Isolating switch adjacent to each directly connected appliance • Separate neutral and earth for 3 phase equipment • Flexible conduit for equipment within 60 mm of a wall • Equipment greater than 600 mm from a wall - concealed conduit, in-floor ducting cast into the slab or in a service pole 	
<p>Ceiling fan sweeps:</p> <ul style="list-style-type: none"> • Minimum height from blades to finished floor level 2200 mm • Minimum 1200 mm from blade tip to wall cupboards or shelves that require access by ladder or steps • Speed Regulators 	

WIRING AND ACCESSORIES

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> - Inductive - surface mounted with adequate clearance for ventilation - Capacitive and Electronic - Flush mounted • Hangsure mounting arrangements for ceiling sweep fans on inclined/sloping/raked ceilings 	
Ceiling mounted appliances: <ul style="list-style-type: none"> • Support brackets fixed through ceiling to the building structure • Bracing to prevent lateral movement and to resist the imposed horizontal seismic force 	
Tee-offs: <ul style="list-style-type: none"> • Proprietary tee-off boxes for the connection of submains from rising mains complete with links, fuses or circuit breakers • Enclosures as specified • To nearest power earth • Stud mounted covers complete with stainless steel handles • Traffolyte labels to systematically and uniquely identify each tee-off box • Front access 	
MOVEMENT DETECTOR SWITCHING	
Dual technology movement detectors with sensors	
Utilisation as specified	
Installation as specified	
Location to suit the particular requirements for switching	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – GENERATORS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.6.1	Pre commissioning tests	
#.6.2	Temporary test loads	
#.6.3	On-site commissioning	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR'S SUBMISSIONS	
Operation and maintenance manuals submitted	
Products and materials technical data submitted	
Shop drawings submitted	
As-constructed drawings submitted	
PRODUCTS	
General: <ul style="list-style-type: none"> • Multiple generating sets – same make and type • Mounting as specified • Vibration suppression and seismic restraints as specified • Coupling as specified 	
Alternators: <ul style="list-style-type: none"> • Anti-condensation heaters as specified • Winding thermistors as specified • Terminal boxes as specified 	
Engines: <ul style="list-style-type: none"> • Governing as specified 	
Diesel fuel storage as specified	
Controls: <ul style="list-style-type: none"> • Manual sequence control as specified • Automatic start control as specified • Remote start and stop provided • Automatic engine shutdown as specified • Engine shutdown as specified • Emergency and fault shutdown as specified • Automatic synchronising as specified 	

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> Emergency stop push-buttons as specified 	
Remote monitoring <ul style="list-style-type: none"> Common alarm connected into a remote monitoring system BMS interface 	
Control panels: <ul style="list-style-type: none"> Control panels, switchgear and controlgear assemblies as specified Engine local control board as specified 	
Batteries and chargers: <ul style="list-style-type: none"> Starting batteries as specified Starting batteries chargers as specified Control and alarm batteries as specified Chargers - control and alarm batteries as specified 	
Starting: <ul style="list-style-type: none"> Starter motors, batteries and chargers, and associated control equipment provided to automatically start each engine Wiring as specified Starting interlock as specified 	
Acoustic enclosures: <ul style="list-style-type: none"> Weatherproof acoustic enclosures provided Sound pressure level limit as specified Size as specified Door material to match enclosure and fitted with stays Ventilation as specified 	
Marking: <ul style="list-style-type: none"> Rating plates as specified Thermistor detector identification and warning plates as specified Auxiliary wiring as specified Engine direction of rotation as specified Charger enclosure markings as specified 	
EXECUTION	
General: <ul style="list-style-type: none"> Reinforced concrete plinths for floor mounted equipment 6 resilient mounting blocks minimum between the frame and the plinth Removable drip trays as specified 	
Permanent test load as specified	
Engine cooling: <ul style="list-style-type: none"> System consisting of radiators, fans and pumps provided Cooling air ductwork as specified 	
Engine air intake: <ul style="list-style-type: none"> Filters as specified Ductwork as specified Fans as specified 	
Exhaust system: <ul style="list-style-type: none"> Allowable noise level as specified Noise-attenuation silencer grade as specified Exhaust piping as specified weatherproof flashing, sleeves and acoustic seals provided 	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – LIQUID FUELS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.13.1	Piping site tests	
#.13.2	Tank site tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
STORAGE TANKS	
Construction: <ul style="list-style-type: none"> • Tank material as specified • Bunding provided • Underground tanks as specified 	
Fittings as specified	
Voltage-free contacts as specified	
Level sensor as specified	
Above ground tank support as specified	
SERVICE TANKS/DAY TANKS	
Construction: <ul style="list-style-type: none"> • Open - welded construction, reinforced around the top edge complete with lid fabricated from metallic-coated steel 0.8 mm thick with rolled edge • Closed - welded construction complete with bolted inspection cover 	
Welded tank stand at least 900 mm high, fabricated from mild steel angle	
Collection tray fabricated from metallic-coated steel sheet 0.8 mm thick, with a 50 mm upturn and rolled edge	
Tank connections as specified	
Controls as specified	
Auxiliary contacts and communications as specified	
TANK FINISHES	

ITEM	Checked - Initial & Date
External as specified	
Internal debris removed and clean	
FUEL PUMPS	
Type as specified	
Automatic built-in overpressure bypass with adjustable spring relief	
Motor and pump mounted on a common base plate	
Material as specified	
50 mm deep galvanized steel drip tray under each pump	
Fill point as specified	
UNDERGROUND TANK INSTALLATION	
Excavation and backfilling: <ul style="list-style-type: none"> • Excavations free of surface water • backfilling with sand as specified 	
ABOVE GROUND TANK INSTALLATION	
Installation to manufacturer's recommendations	
Installed on structurally adequate concrete base	
Bunding as specified	
Access provided in 2 locations for safe and easy inspection and maintenance	
Tank earthed	
TRENCH COVERS	
6 mm thick mild steel checker plate, cut to fit floor trench rebates and galvanized	
CATHODIC PROTECTION	
System as specified	
CONTENTS INDICATORS	
Dipsticks as specified	
Remote-reading contents gauge as specified	
PIPING AND ACCESSORIES	
Pipes inside tank heavy steel	
Above ground filling and service piping as specified	
Joints for steel piping as specified	
Piping flushed with fuel when the system is complete	
Underground piping as specified	
Gradients as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – PHOTOVOLTAIC

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.12	Completion tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR'S SUBMISSIONS	
Rebate application submitted	
Shop drawings submitted	
Section 40 Structural Certificate and Permit to Build submitted	
Technical data submitted	
Test reports submitted	
PHOTOVOLTAIC MODULE	
Panels and inverters Clean Energy Council approved	
Array as specified	
Cells as specified	
REGULATOR	
Charge cycle control function: <ul style="list-style-type: none"> • Low battery voltage disconnect • Pulse width modulation • ≥ 3 step series regulation 	
Display as specified	
Visible and audible low and high battery voltage alarms	
Transient protection	
BATTERY SYSTEM	
Performance as specified	

ITEM	Checked - Initial & Date
Blocking diodes	
Service life \geq 10 years	
INVERTER	
Performance as specified	
Display: <ul style="list-style-type: none"> • Output power • Grid stability 	
Synchronisation as specified	
CONTROL SYSTEM	
Photovoltaic system control panels, switchgear and controlgear assemblies	
PV switch disconnectors as specified	
PHOTOVOLTAIC METERING	
Photovoltaic metering equipment as specified	
REMOTE MONITORING	
Common alarm to be connected into a remote monitoring system	
BMS connection to monitor system output and to monitor system alarms	
INSTALLATION	
Photovoltaic array as specified	
Regulator location as specified	
Battery system location, enclosure and support as specified	
Inverter location as specified	
Low voltage connection as specified	
Earthing provided	
Support as specified	
COMPLETION	
Completion tests as specified	
Operation and maintenance manuals submitted	
Work-as-executed drawings submitted	
Warranties submitted	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – UNINTERRUPTED POWER SUPPLY

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.9.2	Test loads	
#.9.3	Functional unit tests	
#.9.4	On-site tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR’S SUBMISSIONS	
Calculated input power factor and harmonic content submitted	
Operation and maintenance manuals submitted	
Shop drawings submitted	
Test results submitted	
SYSTEM	
Performance as specified	
Protection as specified	
RECTIFIER	
Performance meets system requirements	
BATTERY CHARGER	
Performance meets system requirements	
BATTERY	
Performance as specified	
Sealed lead acid, recombination type	
Service life \geq 10 years	
INVERTER	
Performance meets system requirements	
Testing as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – SWITCHBOARDS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.4.1	Type tests	
#.4.2	Production tests	
#.4.3	Site tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR'S SUBMISSIONS	
Type test certificates submitted	
Calculations verifying design characteristics submitted	
Design calculations of non-type-tested and non-proprietary busbar assemblies submitted	
Type test data submitted	
Product data submitted as specified	
Shop drawings submitted	
Protection grading study submitted	
Power and Water Corporation approval	
TESTING	
Type tests as specified	
Production tests as specified	
Site tests as specified	
CUSTOM-BUILT SWITCHBOARDS	
Approved manufacturers details provided	
Construction as specified	
Degrees of protection: <ul style="list-style-type: none"> • Indoor minimum IP42 • Outdoor minimum IP56W 	
Fault levels as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
SWITCHBOARDS

ITEM	Checked - Initial & Date
Separation as specified	
Spare facilities: <ul style="list-style-type: none"> • Main switchboard 20% • Sub-switchboards 25% • Distribution boards 25% only on number of poles 	
Expansion provided as detailed on the drawings	
Mounting level and plum and as specified	
Connection: <ul style="list-style-type: none"> • Indoor cable entries top and bottom, to suit location • Outdoor cable entries bottom only 	
Layout as specified	
Enclosures and panels: <ul style="list-style-type: none"> • 1.6 mm zinc-coated sheet steel • Outdoor assemblies 1.6 mm zinc-coated sheet steel with coating class Z450 or stainless steel 	
Arc chutes and ventilating outlet emissions direct upwards and away from operator and away from adjacent compartments	
Ventilation as specified	
Equipment mounting panels metal minimum 3 mm thick or non-metallic board with heavy metal angle supports or plates bolted or welded to enclosure sides	
Equipment fixing as specified	
Hardware as specified	
Earth continuity as specified	
Lifting provisions as specified	
Concealed fixings or brackets to supporting structure	
Wall-mounting angle trims of the same material and finish as the enclosure provided	
Floor mounting as specified	
Finishes as specified	
Cable entries as specified	
Gland plates: <ul style="list-style-type: none"> • Removable fitted with gaskets to maintain the degree of protection • Material as specified 	
Doors: <ul style="list-style-type: none"> • Width 900 mm • 120°swing • Stays provided • Construction as specified • Hanging as specified • Hardware as specified • Lockable-keys provided • Door mounted equipment protected 	

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> • Provision for wiring diagrams and circuit schedules • Earthing as specified 	
Covers: <ul style="list-style-type: none"> • 900 mm wide and 1.2 m² surface area maximum • Fixing as specified • Corrosion-resistant "D" type handles provided • Neoprene type gaskets installed within retaining channels • Covers shall be held in place with chrome plated acorn nuts 	
Escutcheon plates as specified	
Transient protection as specified	
PROPRIETARY SWITCHBOARDS	
As for CUSTOM-BUILT SWITCHBOARDS checklist	
ARRANGEMENTS FOR DISTRIBUTION BOARDS	
Layout as specified	
Wiring connections and components fully accessible	
Future expansion provided as shown on the drawings	
Busbar sizes: <ul style="list-style-type: none"> • Rating as shown on the drawings • Maximum temperature rise 50°C when carrying rated current on 40°C ambient 	
Isolating switch as specified	
Neutral links provided and numbered	
Earthing as specified	
Wiring as specified	
ARRANGEMENTS FOR CIRCUIT BREAKER TEE OFF UNITS	
Front part removable	
Installation as specified	
Gland plates as specified	
Circuit breakers or fuse links provided	
ARRANGEMENTS FOR MARSHALLING CUBICLES	
Layout as specified	
Terminals as specified	
CONDUCTORS FOR SWITCHBOARDS	
Busbars hard-drawn high-conductivity electrolytic tough pitched copper alloy bars, designation 110	
Phase sequence as specified	
Colour coding as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
SWITCHBOARDS

ITEM	Checked - Initial & Date
Busbar systems: <ul style="list-style-type: none"> Type as specified Busbar system inspection as specified 	
Current carrying capacity: <ul style="list-style-type: none"> Active conductors as specified Neutral conductors as specified Protective earth conductors as specified 	
Tee-off busbars current rating as specified	
Fault current limiters as specified	
Busbar links as specified	
MEN Links as specified	
Future extensions provided	
Jointing as specified	
Wiring as specified	
Terminations as specified	
SWITCHGEAR	
Moulded case and miniature circuit breakers as specified	
Switch-isolator and fuse-switch units as specified	
Fuses as specified	
Earth leakage devices as specified	
CONTROL GEAR FOR CUSTOM-BUILT SWITCHBOARDS	
Control and test switches: <ul style="list-style-type: none"> Push buttons as specified Rotary switches as specified Time switches as specified 	
Control relays as specified	
Contactors as specified	
Alternating current motor starters as specified	
Motor protection as specified	
ACCESSORIES	
Digital power analysers: <ul style="list-style-type: none"> Display parameters as specified Maximum demand as specified Programmable with passwords provided Log sags and swells as specified 	
Current transformers (metering): <ul style="list-style-type: none"> Test links provided as specified Test studs provided as specified Accuracy classification as specified Ratings as specified Type as specified 	

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> • Installation as specified 	
Instruments and meters: <ul style="list-style-type: none"> • Construction as specified • Meter scales as specified • Transducers as specified • Accuracy as specified • Accessories as specified • Mounting as specified • Protection devices as specified • Labels as specified • Ammeters as specified • Voltmeters as specified • Kilowatt hour meters as specified • Maximum demand indicators as specified • Accuracy class as specified • Wattmeters and varmeters as specified • Hours-run meters as specified • Watthour meters as specified • Frequency meters as specified • Synchrosopes as specified • Phase angle meters as specified 	
Indicator lights as specified	
Extra-low voltage transformers as specified	
Anti-condensation heaters as specified	
MARKING AND LABELLING	
Each label screw fixed or riveted adjacent to the relevant item of equipment	
Material two colour laminated plastic, or photo anodized rigid aluminium	
Labels on assembly interiors as specified	
Danger, warning and caution notices as specified	
Circuit schedule as specified	
Single-line diagrams provided as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – LUMINAIRES

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR'S SUBMISSIONS	
Operation and maintenance manuals submitted	
Technical data submitted	
Photometric test results submitted	
Samples submitted	
Shop drawings submitted	
PROPRIETARY LUMINAIRES	
Same type from the same brand and country of manufacture	
FLUORESCENT LAMPS	
Fluorescent lamp properties as specified	
FLUORESCENT LAMP BALLASTS	
Linear and circular lamp types	
CFL lamp types as specified	
Fluorescent lamp power factor correction as specified	
DISCHARGE LAMPS	
Discharge lamp ballasts as specified	
HID power factor correction as specified	
Capacitors as specified	
Integral fuses as specified	

ITEM	Checked - Initial & Date
LIGHT-EMITTING DIODES (LEDS) LUMINAIRES	
Light-emitting diode luminaires as specified	
Light-emitting diode lamp replacement modules as specified	
CONTROL GEAR ENCLOSURE	
Support enclosure as specified	
Mounting assemblies as specified	
Screw fixed	
WIRING	
External flexible cords as specified	
LIGHTING CONTROL	
Manual control of luminaires into groups, zones and to individual devices provided	
Digital control system as specified	
Remote monitoring: <ul style="list-style-type: none"> • Common alarm provided • BMS interface provided 	
ACCESSORIES	
Electrical accessories from the same manufacturer provided	
Lighting outlets pin arrangement as specified	
Lighting switches as specified as specified	
Key switches provided as specified	
Run on timer switches adjustable to 20 minutes provided as specified	
Dimmer switchers as specified	
Proximity switches as specified	
Daylight switches as specified	
Motion detector switches as specified	
Manual time delay switches as specified	
RE-USE OF LUMINAIRES	
Modifications and refurbishing as specified	
SUPPORTS	
Suspended luminaires	
Surface mounted luminaires: <ul style="list-style-type: none"> • Packing pieces and packing strips fitted • Fixing as specified 	
Recessed luminaires installed in trimmed openings in the suspended ceiling	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – COMMUNICATIONS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.13	Testing: <ul style="list-style-type: none"> • Copper • Optical fibre 	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR'S SUBMISSIONS	
Product certification and installation certification submitted	
Technical data submitted	
Samples submitted	
Shop drawings submitted	
SYSTEM DESCRIPTION	
Accommodation as specified	
System performance as specified	
BUILDING ENTRANCE FACILITIES	
Campus distributor as specified	
Network termination device as specified	
DISTRIBUTORS	
Building distributors and floor distributors for voice and data provided	
Cable termination racks, patch panels, equipment mounting racks for servers and routers complete with power outlets provided	
Equipment racks as specified	
Cross connect patch panels: <ul style="list-style-type: none"> • Terminated directly to the modular connector • Patch cord ends terminated with appropriate registered jacks • Vendor certification and 20 year warranty received 	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
COMMUNICATIONS

ITEM	Checked - Initial & Date
Optical fibre termination panels: <ul style="list-style-type: none"> • Rack mounted termination frames provided • Vendor certification and 20 year warranty received 	
Cross connect patch panels (Optical fibre cables) as specified	
Cable Management record book submitted as specified	
CABLES	
External cables to ACIF C524	
Horizontal cables as specified	
Optical fibre as specified	
Stranded UTP fly leads to 50% of the UTP outlets installed provided	
Pre-terminated patch cords for 100% of the total incoming and outgoing UTP and fibre ports provided	
SURGE PROTECTION DEVICES (SPD)	
SPD provided as specified	
TELECOMMUNICATIONS OUTLETS	
Outlets as specified	
Pinouts as specified	
EXECUTION	
Installation as specified	
Reinstatement as specified	
Redundant structured cabling system removed and site drawings updated	
Firestop: <ul style="list-style-type: none"> • Penetrations through fire rated building elements • Certification of firestop system submitted 	
Cable Installation as specified	
Cable separation as specified	
EARTHING SYSTEM	
Communications earth system as specified	
LABELS	
Cables labelled with the origin and destination of the cable	
Outlets labelled with the origin of the cross-connect, the workstation or outlet number and the port designation	
TESTING	
Test results received	
Copper as specified	
Optical fibre as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – MASTER ANTENNA

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

GIVE SUFFICIENT NOTICE SO THAT THE SUPERINTENDENT MAY WITNESS TESTING:

Spec. Ref.	Item	Checked – Initial and date
#.8.1	Commissioning	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR'S SUBMISSIONS	
Certification of installation submitted	
Documentation submitted	
Technical data submitted	
Product data submitted	
Record drawings submitted	
Correspondence with network operators submitted	
Samples submitted	
Shop drawings submitted	
SYSTEM DESCRIPTION	
System type as specified	
Performance: <ul style="list-style-type: none"> • Installed capacity to accommodate 30% additional outlets or no less than 2 additional connections 	
Signal source: <ul style="list-style-type: none"> • Free-to-air as specified • Network operator as specified • Local signal source as specified 	
Service entry facilities to suit signal sources, head end equipment and distribution systems provided	
Head end equipment provided to suit signal sources, distribution systems and documented performance	
Surge Protection Devices (SPD) as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
MASTER ANTENNA

ITEM	Checked - Initial & Date
Distribution system as specified	
Outlets: <ul style="list-style-type: none"> • Outlets and feeders from distribution tap(s) provided • Separate sockets for each source and service provided • Match electrical accessories 	
PRODUCTS	
Free-to-air antenna as specified	
Active equipment: <ul style="list-style-type: none"> • Masthead amplifier(s) as specified • Head end amplifier(s) as specified • Distribution amplifiers as specified 	
Passive equipment: <ul style="list-style-type: none"> • Splitters as specified • Couplers as specified • Taps as specified 	
Coaxial cable: <ul style="list-style-type: none"> • Types as specified • Connectors as specified 	
Outlets as specified	
External components degree of weather protection IPX4	
EXECUTION	
Free-to-air antennae as specified	
Proprietary purpose built distribution equipment enclosure provided	
Coaxial cable as specified	
OUTLETS	
Installation: <ul style="list-style-type: none"> • Flush mount • All outlets fully screened 	
Manufacturer pre-terminated 1500 mm fly leads to all outlets provided	
COMMISSIONING	
Testing as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – FIRE DETECTION

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

GIVE SUFFICIENT NOTICE SO THAT THE SUPERINTENDENT MAY WITNESS TESTING:

Spec. Ref.	Item	Checked – Initial and date
#.25.1	Commissioning tests	
#.25.2	Acceptance testing	
#.25.3	Hot smoke tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR'S SUBMISSIONS	
Installer's statement and certificates submitted	
System commissioning statement submitted	
Sound pressure level measurements submitted	
As-Installed drawings submitted	
FIRE INDICATOR PANEL (FIP)	
FIP listed on the ActivFire Register of Fire Protection Equipment	
Facilities as specified	
Mounting as specified	
Cabinet as specified	
Panel as specified	
Fire Brigade Equipment as specified	
FIRE MIMIC PANEL / SUB FIRE INDICATOR PANELS (SFIP)	
Location as shown on drawings	
Manufactured as specified	
OCCUPANCY WARNING SYSTEM	
Tone generators, amplifying equipment and accessories provided	
Equipment listed in the ActivFire Register of Fire Protection Equipment	
Loudspeakers mounted as specified	

ITEM	Checked - Initial & Date
BATTERIES AND BATTERY CHARGER	
Battery charger and stand-by batteries as specified	
DETECTORS	
General: <ul style="list-style-type: none"> • Do not obstruct filters access panels and the like • Readily accessible • Access panels provided 150 mm x 450 mm • Field wiring as specified • Self-test facilities in place 	
Unique circuit or serial number identification	
LED mounting position correct	
LED installed as specified	
CONVENTIONAL IONISATION SMOKE DETECTORS	
Ionisation detectors as specified and listed by ActivFire as approved for use as commercial smoke detectors	
CONVENTIONAL PHOTO OPTICAL SMOKE DETECTORS	
Photo-optical detectors as specified	
CONVENTIONAL THERMAL HEAT DETECTORS	
Thermal detectors as specified	
ADDRESSABLE ANALOGUE SMOKE DETECTORS	
Photo-optical unless the environmental conditions favour the use of ionisation detectors	
Interchangeable	
Ionisation detectors dual chamber	
Photo-optical detectors as specified	
ADDRESSABLE DETECTOR MODULES	
Addressable detector modules as specified	
MULTIPLE INPUT / OUTPUT	
Multiple input / output provided where necessary as specified	
ANALOGUE ADDRESSABLE DEVICES	
Analogue addressable devices provided where necessary as specified	
BUILDING MONITORING SYSTEM (BMS) INTERFACE	
FIP provided high level communications link with the BMS	
BMS inputs as specified	
EWIS INTERFACE	
EWIS interface as specified	

ITEM	Checked - Initial & Date
AIR CONDITIONING CONTROLS	
Controls as specified	
INTERFACE WIRING / SUPERVISION	
Interface wiring / supervision as specified	
MANUAL CALL POINTS	
Break Glass Alarms provided as specified	
EXTERNAL ALARM	
Red strobe light installed as specified	
MAGNETIC DOOR HOLDERS	
Electromagnetic door holders provided as specified	
Control facilities as specified	
BLOCK DIAGRAM	
Block diagram installed as specified	
Digital copy of block diagram received	
ANCILLARY SYSTEMS AND DEVICES	
AS 1668 controls as specified	
Fire rated shutters as specified	
Retractable smoke barriers as specified	
MULTI POINT ASPIRATING SMOKE DETECTION SYSTEM (MASD)	
MASD as specified	
COMMISSIONING	
Commissioning tests : <ul style="list-style-type: none"> • Commissioning program submitted • Testing as specified • Test reports submitted 	
Acceptance testing: <ul style="list-style-type: none"> • Acceptance test procedure submitted • Testing as specified • Test reports submitted 	
Hot smoke tests <ul style="list-style-type: none"> • Testing as specified • Test reports submitted 	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – LIGHTNING AND PROTECTION

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
LIGHTNING PROTECTION CONTRACTOR SUBMISSIONS	
Operational and maintenance submitted	
Records submitted	
Shop drawings submitted	
Subcontractors names and details submitted	
Test results submitted	
LIGHTNING PROTECTION PRODUCTS	
Lightning protection system components custom designed or proprietary components	
Air terminals, mounting bases and accessories as specified	
Isolated system as specified	
Downconductors: <ul style="list-style-type: none"> • Structural steel-framed buildings as specified • Steel reinforcement encased in concrete as specified • Independent downconductors as specified 	
Equipotential bonding conductors as specified	
Earthing electrodes as specified	
LIGHTNING PROTECTION INSTALLATION	
Lightning protection earthing system as specified	
Thermal expansion: <ul style="list-style-type: none"> • Expansion loops as specified • Saddles as specified • Saddle spacing as specified 	
Air Terminations: <ul style="list-style-type: none"> • Mounting as specified • Placement and connection as specified • Requirement as specified 	
Downconductors: <ul style="list-style-type: none"> • Steel reinforcement encased in concrete and steel framed buildings as specified • Independent downconductors as specified 	
Equipotential bonding conductors: <ul style="list-style-type: none"> • Bonding as specified 	

ELECTRONIC SECURITY AND ACCESS CONTROL

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – ELECTRONIC SECURITY AND ACCESS CONTROL

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.10.2	Commissioning	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR’S SUBMISSIONS	
Records submitted	
Operational and Maintenance manuals submitted	
As-installed drawings submitted	
Cabler(s) registration(s) submitted	
SHOP DRAWINGS	
Shop drawings submitted	
PRODUCTS	
Alarm system panels or processors: <ul style="list-style-type: none"> Separate sectors for each nominated detection device zone Adjustable time delay entry/exit for each sector 	
Sealed battery and charger system contained within each control panel provided	
Activation: <ul style="list-style-type: none"> Keypads, cards, card readers and other activation devices provided Installed 1100 mm from floor level 	
External audible and visual alarms as specified	
Anti-tamper devices to control panels, external equipment, control and activating devices, and access control devices provided	
Alarm circuit supervision as specified	
Remote monitoring as specified	

ELECTRONIC SECURITY AND ACCESS CONTROL

ITEM	Checked - Initial & Date
ACCESS CONTROL	
Access control processors or panels: <ul style="list-style-type: none"> • Capacity as specified • Lock status and door position monitoring of door control devices provided • Door control devices connected in a fail-safe mode • Double leaf doors (solid frame) as specified 	
Vehicle control: <ul style="list-style-type: none"> • Vehicle access control system as specified • Exit loop detection as specified • Photo electric beam safety interlock provided • Push-buttons and readers as specified • Mounting height 1000 mm from floor level • Reed switches as specified 	
Intercom: <ul style="list-style-type: none"> • Intercom base station, interconnected with the individual local stations • Wall mounted flush stainless steel panel • IP56 • Digital push-button type • Schedule as specified • Local station as specified • Internal station type surface mounted removable handset type • Operation as specified • Door control as specified 	
INTRUDER ALARM	
Volumetric detection systems as specified	
Door contacts as specified	
DURESS ALARM	
Duress alarm switches as specified	
VIDEO MONITORING	
CCTV system as specified	
CCTV cameras as specified	
CCTV LCD colour monitors compatible with the security system provided complete with fixing brackets and hardware	
CCTV recording system as specified	
CCTV video switching system as specified	
EXECUTION	
Mains supply: <ul style="list-style-type: none"> • Licensed electrician used • Permanent power supply: <ul style="list-style-type: none"> - Intruder alarm panels - Access control panels - Intercom stations - CCTV monitors • Marking as specified 	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – GENERAL MECHANICAL

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.27.7	Completion	
#.28.2	Air balancing	
#.28.3	Water balancing	
#.28.4	Noise testing	
#.28.5	Vibration testing	
#.28.6	Acceptance	
#.28.7	Final	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
PRELIMINARY DETAILS	
Preliminary documentation submitted	
CONTRACTOR'S SUBMISSIONS	
Notes of meetings with authorities submitted	
Building penetrations details submitted	
Certification submitted	
Design documentation submitted	
Contract drawings submitted	
Functional descriptions submitted	
Maximum demand calculations	
Structural loadings submitted	
Execution details submitted	
Marking and labelling samples submitted	
Operations and maintenance manual submitted	
Maintenance log books submitted	
Products and materials data submitted	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
GENERAL MECHANICAL

ITEM	Checked - Initial & Date
Prototypes submitted	
As-built documents, photographs, system diagrams, schedules and log books submitted	
Samples submitted	
Shop drawings submitted	
Tests: <ul style="list-style-type: none"> • Inspection and testing plan submitted • Certificates for type tests submitted • Fire hazard properties submitted • Test reports and certificates submitted 	
Warranties submitted	
Identification as specified	
SHOP DRAWINGS	
Shop drawings approved	
Documentation as specified	
Functional descriptions approval as specified	
Preliminary submission as specified	
Detailed submission as specified	
WORK AS-INSTALLED DRAWINGS	
As-installed drawings submitted as specified	
Services record drawings as specified	
SITE FIRE AND LIFE SAFETY SYSTEMS MANUAL	
Manual submitted as specified	
LOG BOOK	
Maintenance attendance log book provided in each plant room and at each control system remote user interface	
PRODUCS	
Installation to manufacturer's recommendations	
Operating software passwords provided	
Substitutions as specified	
PRODUCT MATERIALS AND COMPONENTS	
Same manufacturer used for each material or product	
Corrosion resistance as specified	
Galvanizing as specified	
INSTALLATION	
General:	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020>>
GENERAL MECHANICAL

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> • Fixing as specified • Cyclone fixing as specified • Installation as specified • Concealment as specified • Lifting as specified • Suspended ground floors as specified • Arrangement as specified 	
Personnel appropriately licensed	
Dissimilar metals joined with fittings of electrolytically compatible material	
Open ends of pipe protected with metal or plastic covers or caps	
Differential movement as specified	
Certification and building approval provided	
Work platforms as specified	
CONCRETE PLINTHS	
Concrete plinths provided under all equipment located on concrete floor slabs as specified	
ACCESS FOR MAINTENANCE	
Minimum clearances as specified	
Elevated services other than in occupied areas: <ul style="list-style-type: none"> • Access classifications as specified • Temporary means of access as specified • Areas in which access is restricted to authorised maintenance personnel as specified • Other areas as specified • Labelling of equipment concealed in ceilings as specified 	
Facilities for equipment removal and replacement as specified	
Facilities for access: <ul style="list-style-type: none"> • Equipment behind hinged doors as specified • Equipment behind removable panels as specified • Removable panels as specified • Insulated plant and services as specified 	
Piping as specified	
Electrical and controls as specified	
BUILDING PENETRATIONS	
Penetrations as specified	
Sealing: <ul style="list-style-type: none"> • Fire-resisting building elements as specified • Non fire-resisting building elements as specified • Vapour barriers as specified • Water proofing barriers as specified 	
Sleeves provided as specified	
CONTROL SYSTEMS	

ITEM	Checked - Initial & Date
General: <ul style="list-style-type: none"> • Controlled variables as specified • Service interruption as specified • Safety controls as specified • Control interlocks as specified • Smoke and fire control as specified • Radio frequency interference as specified • Environment as specified 	
Equipment: <ul style="list-style-type: none"> • General as specified • Packaged plant as specified 	
Controls provided which are compatible with existing plant	
Plant operation: <ul style="list-style-type: none"> • Time switching as specified • Manual override as specified • Approved makes as specified • Fan/coil unit controls as specified • Room thermostats as specified • Temperature controllers as specified • Air flow safety cut-outs as specified • Sequences of operation as specified 	
Installation: <ul style="list-style-type: none"> • To manufacturer's written instructions • Sensor locations as specified • Identification as specified • Corrosion protection as specified • Vibration isolation as specified • Dust control as specified • Room controls as specified • Sensing elements as specified 	
MECHANICAL WIRING AND ACCESSORIES	
Cables: <ul style="list-style-type: none"> • Type as specified • Electronic control as specified • Smoke spill systems as specified • Installation as specified • Terminations as specified • Identification as specified • Colour codings as specified • Tagging as specified 	
Conduits: <ul style="list-style-type: none"> • Materials as specified • Installation as specified 	
Motors: <ul style="list-style-type: none"> • Enclosures as specified • Separate terminal boxes for power and accessory cables provided • Heaters as specified • Variable frequency drives as specified 	
MECHANICAL SWITCHBOARDS	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
GENERAL MECHANICAL

ITEM	Checked - Initial & Date
Construction: <ul style="list-style-type: none"> • Design as specified • Construction as specified • Installation as specified • Coordination as specified 	
Electrical equipment: <ul style="list-style-type: none"> • Mounting as specified • Busbars as specified • Neutral links as specified • Wiring as specified • Terminations as specified • Circuit breakers as specified • Phase failure relays as specified • Control relays as specified • Fire alarm relays as specified • Contactors as specified • Motor starters as specified 	
Switching and indication: <ul style="list-style-type: none"> • Control switches as specified • Auto-off-manual switches as specified • Indicator lights as specified • Ammeters and voltmeters as specified • Watthour meters as specified 	
VIBRATION SUPPRESSION	
Connections as specified	
Inertia bases as specified	
Vibration isolation mountings as specified	
FINISHES TO BUILDING SERVICES	
Powder coating as specified	
Surface preparation as specified	
Painting as specified	
Paint application: <ul style="list-style-type: none"> • Coats as specified • Combinations as specified • Protection as specified 	
Protective coatings <ul style="list-style-type: none"> • Aluminium as specified • Galvanized steel as specified • Rolled steel as specified 	
Underground metal piping: <ul style="list-style-type: none"> • Corrosion protection provided • Protection methods as specified 	
Low VOC emitting paints used	
Services subject to potential damage: <ul style="list-style-type: none"> • Protection as specified • Vapour barriers as specified 	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
GENERAL MECHANICAL

ITEM	Checked - Initial & Date
IDENTIFICATION, MARKING AND LABELLING	
Services and equipment marked and labelled	
Scheme consistent across all services elements	
Extent as specified	
Label samples and schedules submitted as specified	
Isolating switches and outlets labelled to identify circuit origin	
Operable devices marked as specified	
Equipment concealed in ceilings as specified	
Points list as specified	
Pressure vessels as specified	
Valves and pumps as specified	
Underground services as specified	
Depth of cover: <ul style="list-style-type: none"> • Chilled water as specified • Electrical services as specified • Gas services as specified 	
Location marking: <ul style="list-style-type: none"> • Markers installed as specified • Marker bases 200 mm diameter x 200 mm deep minimum, concrete • Direction marking as specified • Plates brass, aluminium or stainless steel with black filled engraved lettering, minimum size 75 x 75 x 1 mm thick • Waterproof adhesive and 4 brass or stainless steel countersunk screws for plate fixing • Marker plate flush with paved surfaces, and 25 mm above other surfaces 	
Labels and notices: <ul style="list-style-type: none"> • Materials as specified • Emergency functions as specified • Colours as specified • Edges as specified • Labelling text and marking as specified • Lettering heights as specified • Label locations as specified • Fixing as specified • Labels do not penetrate vapour barriers 	
TOOLS AND SPARE PARTS	
Spare parts provided	
Tools and spare parts schedule submitted	
TESTING	
Testing by registered testing authority	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
GENERAL MECHANICAL

ITEM	Checked - Initial & Date
Test reports submitted	
Completion tests: <ul style="list-style-type: none"> • Functional checks as specified • Type test reports as specified • Sound pressure level measurements as specified • Sound pressure levels as specified 	
Certification as specified	
Manufacturer's certificate submitted	
Calibration certificate submitted	
COMMISSIONING	
Air balancing tests as specified	
Water balancing tests as specified	
Noise testing tests as specified	
Vibration testing tests as specified	
Acceptance tests as specified	
Final tests as specified	
TRAINING	
Training provided as specified	
CLEANING	
All exterior and interior surfaces cleaned	
Labels removed not required for maintenance	
OPERATIONAL MAINTENANCE	
Maintenance period as specified	
Maintenance program submitted	
Maintenance records recorded as specified	
POST CONSTRUCTION MANDATORY INSPECTIONS AND MAINTENANCE	
Records as specified	
Certification as specified	
Annual inspection as specified	
Final completion as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – MECHANICAL SYSTEMS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
GENERAL CLIENT REQUIREMENTS	
Durability of component design, fabrication, installation, commissioning and maintenance as specified	
Energy efficiency criteria as specified	
Safety requirements as specified	
Peak load performance as specified	
Energy monitoring provided as specified	
GENERAL MECHANICAL SYSTEM DESCRIPTION	
Cooling plant design as specified	
Chilled water recirculation design as specified	
Cooling plant heat rejection design as specified	
Air handling systems design as specified	
DESIGN	
Design for durability and maintainability as specified	
Outdoor design conditions as specified	
Indoor design conditions as specified	
Heat rejection equipment design conditions as specified	
Preliminary details as specified	
CONTRACTOR'S SUBMISSIONS	
Calculations submitted	
Certification submitted	
Electrical loading information for mechanical services: <ul style="list-style-type: none"> • Electrical loading information submitted • Loading and connection information submitted • Starting characteristics details submitted • Switchboards information submitted 	
Mechanical services contract drawings submitted	
Technical data submitted	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – MECHANICAL EQUIPMENT

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
SPLIT SYSTEM AIR CONDITIONING UNITS	
Cassette indoor units: <ul style="list-style-type: none"> • Above ceiling type and as specified • Installation as specified • Control as specified 	
Wall mounted indoor units: <ul style="list-style-type: none"> • Slim line construction and as specified • Installation as specified • Control as specified 	
Under ceiling indoor units: <ul style="list-style-type: none"> • Slim line construction and as specified • Installation as specified • Control as specified 	
Floor mounted indoor units: <ul style="list-style-type: none"> • Slim line construction and as specified • Installation as specified 	
Outdoor units: <ul style="list-style-type: none"> • Weatherproofed units suitable for outdoor operation and as specified • Installation as specified • Clearance as specified • Protection as specified 	
Operating conditions: <ul style="list-style-type: none"> • Ambient temperature range as specified • Refrigerant type R410A • Refrigerant piping as specified • Unit capacities as specified 	
Condensate drains: <ul style="list-style-type: none"> • 20 mm minimum drains provided and as specified • UPVC pressure pipes and fittings • Installation as specified • Soaker pit provided as specified • Drip tray provided as specified 	
Electrical as specified	
ROOM AIR CONDITIONER UNITS	
General: <ul style="list-style-type: none"> • Packaged air conditioners provided as specified • Air diffuser, return air grille and filter, and user controls supplied 	

MECHANICAL EQUIPMENT

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> • Unit capacities as specified • Installation as specified 	
Condensate drains: <ul style="list-style-type: none"> • 20 mm minimum drains provided and as specified • UPVC pressure pipes and fittings • Installation as specified • Soaker pit provided as specified 	
Wall mounted type: <ul style="list-style-type: none"> • Through the wall type, mounted in a vertical cabinet • Electrical hard wire from isolating switches adjacent to the units 	
Window/wall type: <ul style="list-style-type: none"> • Single chassis unit housed in a metal cabinet fixed in an opening in the window or wall • Electrical connect to adjacent general purpose outlet, with a suitably rated 3 flat pin plug and flexible cord 	
PACKAGED AIR CONDITIONING UNITS	
General: <ul style="list-style-type: none"> • Air cooled, package unit type and as specified • Fan-coil section as specified • Condensing section as specified 	
Operating conditions as specified	
Refrigerant type R410A	
Plant capacities suit the design conditions	
Line devices: <ul style="list-style-type: none"> • Stop valves as specified • Service valves as specified • Dryer as specified • Flow and moisture indicator as specified • Strainer as specified 	
Safety devices: <ul style="list-style-type: none"> • Pressure relief as specified • High pressure cut out as specified • Low pressure cut out as specified • Oil safety cut out as specified 	
Condensate drains: <ul style="list-style-type: none"> • 20 mm minimum drains provided and as specified • UPVC pressure pipes and fittings • Drip tray provided as specified • Soaker pit provided as specified 	
Fan coil unit insulation as specified	
Installation: <ul style="list-style-type: none"> • Cyclonic regions to Northern Territory Building Act • Non cyclonic regions to manufacturer's recommendations • Fan coil units as specified • Condensing units as specified • Refrigeration piping as specified 	
Control as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
MECHANICAL EQUIPMENT

ITEM	Checked - Initial & Date
Electrical as specified	
CHILLED WATER AIR HANDLING UNITS	
Unit construction as specified	
Supply air fan as specified	
Cooling coils as specified	
Installation as specified	
Electrical as specified	
Control as specified	
EVAPORATIVE COOLERS	
Construction: <ul style="list-style-type: none"> • Corrosion resistant materials suitable for outdoor operation • Structural frame as specified • Cabinet as specified • Water reservoir as specified 	
Supply air fan as specified	
Installation: <ul style="list-style-type: none"> • To manufacturer's recommendations • Upstands as specified • Above roof as specified • Floor mounting within plantroom as specified • Floor mounting at ground level as specified 	
Water supply connected to each unit, automatically controlled by a ball float valve	
Bleed, drain and overflow as specified	
Control as specified	
Electrical as specified	
FANS	
General: <ul style="list-style-type: none"> • Quite operation and as specified • Balancing as specified 	
Axial flow fans: <ul style="list-style-type: none"> • Construction as specified • Heavy galvanised steel or bronze mesh guards provided • terminal box external to the fan casing and wired to the fan motor provided 	
Centrifugal fans: <ul style="list-style-type: none"> • Assembly as specified • Backward inclined blades as specified • Forward inclined blades as specified • Drive as specified 	
In-line centrifugal fans: <ul style="list-style-type: none"> • Direct-driven fan with casings of galvanised steel, moulded fibreglass or impact resistant plastic • Impellers backward inclined 	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
MECHANICAL EQUIPMENT

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> • Terminal box external to the fan casing and wired to the fan motor provided 	
Window/wall mounted fans weatherproof plastic construction and as specified	
Roof mounted fan units: <ul style="list-style-type: none"> • Weatherproof construction and as specified • Fan types centrifugal, axial or mixed flow • Housing as specified 	
Installation: <ul style="list-style-type: none"> • Access provided for maintenance • Vibration isolation • Flexible duct connections to isolate fans from ductwork and plant casings used • Trims as specified 	
Electrical as specified	
AIR FILTERS	
Media as specified	
Frames as specified	
Filter access provided as specified	
Measurement as specified	
PUMPS	
Material as specified	
Construction: <ul style="list-style-type: none"> • Casing as specified • Components as specified • Motors as specified • Couplings as specified • Base plates as specified 	
Installation: <ul style="list-style-type: none"> • Alignment as specified • Doweling as specified • Shaft seal drip trays as specified 	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – AIR COILS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

GIVE SUFFICIENT NOTICE SO THAT THE SUPERINTENDENT MAY WITNESS TESTING:

Spec. Ref.	Item	Checked – Initial and date
#.5.4.1	Pre completion tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
DESIGN	
Air pressure drop as specified	
Face velocity as specified	
Fin pitch as specified	
Water pressure drop as specified	
PRODUCTS	
Production tests as specified	
Fabrication: <ul style="list-style-type: none"> • Tubes arranged with uniform spacing in a staggered pattern • Fins as specified • Frames as specified • Air leakage as specified • Eliminator plates as specified 	
WATER COILS	
Chilled and hot water coils < 100°C as specified	
High temperature water coils ≥ 100°C as specified	
Headers as specified	
REFRIGERANT COILS	
Direct expansion coils: <ul style="list-style-type: none"> • Connections as specified • Tube arrangement as specified • Material as specified 	
Condensing coils:	

ITEM	Checked - Initial & Date
<ul style="list-style-type: none">• Connections as specified• Tube arrangement as specified Material as specified	
ADDITIONAL COIL TREATMENT	
Coil corrosion protection coating to the condensing coils as specified	
Treatment as specified	
MARKING	
Labels provided as specified	
EXECUTION	
Pipe connections temporary sealing of end connections as specified	
Fins protected with double corrugated cardboard or hardboard as specified	
COILS	
Fluid and air flow directions are counter flow	
Heating coils in ductwork access and support as specified	
Damaged fins combed straight	
PIPING	
Access, removal and support as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – CHILLERS COMBINED

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.16.1	Commissioning	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR'S SUBMISSIONS	
Certification as specified	
Factory performance testing submitted	
Product data submitted	
PRODUCTS	
Performance rating to AS/NZS 4776.1.1	
Weatherproof sheet metal enclosures provided for equipment requiring weather protection	
Motors and starters as specified	
Integrated lifting facilities as specified	
Labels provided as specified	
COMPRESSORS	
Scroll compressors as specified	
Screw compressors as specified	
SHELL AND TUBE LIQUID COOLERS	
Direct expansion type as specified	
Flooded type as specified	
Construction as specified	
Accessories as specified	

ITEM	Checked - Initial & Date
PLATE EVAPORATORS	
316 stainless steel single pass, counterflow, brazed plate heat exchangers provided	
LIQUID COOLER INSULATION	
Cold system with metal sheathing or elastomeric foam with minimum material R-value: 1.8 m ² .K/W	
SHELL AND TUBE CONDENSERS	
Type and performance rating as specified	
Construction: <ul style="list-style-type: none"> • Shells as specified • Tube bundles as specified • Tube plate material as specified • Rigidly fixed to suitable supports 	
Removable water boxes provided as specified	
Accessories as specified	
AIR COOLED CONDENSERS	
Type and performance rating as specified	
Equipment enclosures as specified	
Condensing coils as specified	
Condenser fans as specified	
Additional fan corrosion protection as specified	
4.9.7 Control panel degree of protection ≥ IP44.	
HEAT RECOVERY CHILLER	
Compressor and drive as specified	
Heat recovery or double-bundle condenser: <ul style="list-style-type: none"> • Mounted on the chiller next to the cooling tower condenser • Construction as specified • Hot gas bypass as specified 	
REFRIGERATION SYSTEM	
Minimum refrigerant leakage	
Flammable refrigerants not used	
Accessories as specified	
CONTROL SYSTEM	
Menu driven, stand alone, microprocessor based module	
Remote monitoring: <ul style="list-style-type: none"> • Common alarm provided • Interrogated to the BMS 	
Scroll chillers as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
CHILLERS COMBINED

ITEM	Checked - Initial & Date
Screw chillers as specified	
SAFETY CONTROLS	
Requirement as specified	
CAPACITY CONTROL	
Scroll chillers: <ul style="list-style-type: none"> • Operation as specified • Capacity controller as specified 	
Screw chiller: <ul style="list-style-type: none"> • Operation as specified • Control system as specified • Current limiter as specified • Demand limiter as specified 	
Fan cycling for head pressure control provided to air cooled chillers	
Condenser water control as specified	
INSTALLATION	
Installation to manufacturer's instructions	
Seismic restraint provided	
Damage or loss of refrigerant holding charge reported	
Piping as specified	
Refrigerant pressure relief as specified	
Safety provisions as specified	
Refrigerant sensor as specified	
COMMISSIONING	
Commissioning as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – COOLING TOWERS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.12.1	Type tests/production tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR'S SUBMISSIONS	
Technical data provided	
PRODUCTS	
Marking as specified	
Materials: <ul style="list-style-type: none"> • Pipe connections as specified • Fibreglass treatment as specified • Fibreglass gel coat as specified • Nozzles ABS or polypropylene • Hardware for wetted parts type 316 stainless steel to ASTM A240/A240M • Fill and drift eliminators as specified 	
Galvanized steel components as specified	
Stainless steel components as specified	
COOLING TOWER CONSTRUCTION	
Fibreglass towers: <ul style="list-style-type: none"> • Casing material fibreglass • Cold water basin fibreglass • Atmospheric corrosivity category as specified 	
Stainless steel towers: <ul style="list-style-type: none"> • Casing material stainless steel • Cold water basin stainless steel • Mechanical equipment support stainless steel • Non-wetted structure stainless steel • Hardware for non-wetted parts stainless steel 	

ITEM	Checked - Initial & Date
COLD WATER BASINS	
Construction: <ul style="list-style-type: none"> • Capable of supporting the weight of service personnel and the rated water content • Fibreglass cold water basins: Minimum thickness 6 mm 	
Capacity as specified	
Accessories as specified	
Sumps as specified	
CASING	
Louvres and splash guards: <ul style="list-style-type: none"> • Readily removable air inlet louvres and splash guards provided • Air inlet louvres as specified • Air inlet screens as specified 	
Cell partitions as specified	
WATER DISTRIBUTION SYSTEM	
Fill wave formed sheets designed for even water distribution to give maximum wetted surface area	
Drift eliminators as specified	
Distribution system: <ul style="list-style-type: none"> • Counterflow towers as specified • Crossflow towers as specified 	
FANS	
Centrifugal fans	
Axial flow fans	
Rotating equipment balanced statically and dynamically	
Shaft stainless steel	
Guards provided as specified	
Belt drives: <ul style="list-style-type: none"> • Belts as specified • Belt tensioning equipment as specified • Drive guards as specified • Pulleys as specified 	
Gearboxes as specified	
Fan bearings as specified	
Fan stacks smoothly contoured with minimum fan blade tip clearance	
Motors as specified	
ACCESS AND CLEANING PROVISIONS	
Access doors and panels watertight and airtight	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – DUCTWORK

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.26	Leakage testing	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
RESPONSIBILITIES	
Design and construct: <ul style="list-style-type: none"> • Requirement as specified • Standards as specified • Size as specified • Drawings as specified 	
Construction: <ul style="list-style-type: none"> • Pressure rating as specified • Sealing as specified 	
CONTRACTOR'S SUBMISSIONS	
Calculations submitted	
Construction methodologies submitted	
Certification, test certificates, and duct conformance report submitted	
Execution details submitted	
Fire hazard properties submitted	
Samples submitted	
Type test certificates submitted	
MATERIALS AND COMPONENTS	
Corrosion resistance as specified	
Adhesive duct tapes non-toxic, high tack, synthetic pressure-sensitive type	
SHEET METAL DUCTWORK	
Material:	

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> • Galvanized steel as specified • Thickness as specified • Components as specified 	
Fasteners: <ul style="list-style-type: none"> • Rivets as specified • Self-tapping screws as specified • Self-drilling and tapping screws as specified • Bolts, nuts, washers and drop rods as specified • Washers provided under nuts and bolt heads 	
Draw bands material as specified	
Duct sealing: <ul style="list-style-type: none"> • Duct seal class as specified • Extent of sealing as specified • Sealant materials as specified • Adhesive duct tapes as specified • Mastic at corners of machine rolled flanges 	
PVC-U DUCTWORK	
Material as specified	
Sheet stiffening as specified	
Thickness as specified	
Welding as specified	
Bending as specified	
Seams as specified	
Cross joints: <ul style="list-style-type: none"> • Flanged as specified • Slip sockets as specified 	
Fittings as specified	
Dampers fabricated from PVC-U	
Supports for PVC-U ductwork as specified	
FLEXIBLE DUCT	
Uninsulated flexible duct as specified	
Insulated flexible duct as specified	
Material R-value as specified	
KITCHEN EXHAUST DUCTWORK	
Construction: <ul style="list-style-type: none"> • Grading as specified • Joints as specified • Access as specified • Drains as specified • Spark arresstance as specified 	
FIRE PROTECTION OF DUCTWORK	

ITEM	Checked - Initial & Date
Sprayed coatings type as specified	
Composite systems type as specified	
Access: <ul style="list-style-type: none"> • Fire damper access as specified • Exhaust fan access as specified 	
FLEXIBLE CONNECTIONS	
Requirement as specified	
Materials as specified	
Sufficient slack free movement and vibration isolation provided	
Connected equipment openings aligned	
Fixing as specified	
Easy removal and replacement provided	
Restriction as specified	
Insulation and vapour sealing as specified	
DAMPERS - GENERAL	
Balancing dampers located at each branch duct or tee and as specified	
VOLUME CONTROL DAMPERS	
General: <ul style="list-style-type: none"> • Free of rattles, fluttering or slack movement and as specified • Face dimensions equal to duct size • Mating angle flanged cross joints connection • Frames as specified • Dampers in smoke-spill systems as specified 	
Blades: <ul style="list-style-type: none"> • Metallic-coated steel, aluminium or stainless steel • No sharp edges and sufficiently rigid • Thickness as specified • Maximum length 1200 mm • Single blade dampers as specified • Multi blade dampers as specified 	
Bearings as specified	
Spindles: <ul style="list-style-type: none"> • Material as specified • Securely fix to damper blades • Minimum diameter as specified 	
Linkages fixed securely to blades so that the blades rotate equally and close tightly without slip	
Damper adjustment as specified	
SPLITTER DAMPERS	
Construction as specified	

ITEM	Checked - Initial & Date
MOTORISED DAMPERS	
Construction as specified	
Flow characteristics as specified	
NON-RETURN DAMPERS	
Construction as specified	
FIRE AND SMOKE DAMPERS	
General: <ul style="list-style-type: none"> • Type as specified • Requirement as specified • Material as specified 	
Links: <ul style="list-style-type: none"> • Mechanical fire dampers as specified • Smoke dampers as specified • Mount for easy replacement 	
Access for maintenance and replacement of links provided	
SUBDUCTS	
Material same as connecting ductwork or shaft	
Subducts through lightweight walls as specified	
ACCESS OPENINGS - LOCATION	
Access doors provided as specified	
ACCESS PANELS	
Sizes as specified	
Construction: <ul style="list-style-type: none"> • Type as specified • Arranged to prevent condensation on cold surfaces • Frames as specified • Seals as specified • Latches type and number as specified • D handles provided 	
ACCESS DOORS	
Construction: <ul style="list-style-type: none"> • Thickness \geq 50 mm • Construction as specified • Size as specified • Door swing as specified • Arranged to prevent condensation on cold surfaces • Jamb, stiles and head as specified • Door hardware as specified • Seals as specified • Insulation as specified 	
ELECTRIC DUCT HEATERS	
Elements: Sheathed in steel or nickel alloy with brazed spiral steel fins	

ITEM	Checked - Initial & Date
Frames as specified	
Heating section as specified	
Fin rating: < 20 W/m2	
Permanent electrical connection to the heater	
KITCHEN HOODS	
Material as specified	
Volume dampers as specified	
Luminaires as specified	
FUME CUPBOARDS	
Type as specified	
Standards as specified	
Fans: <ul style="list-style-type: none"> • Type as specified • Motor variable speed • Construction as specified • Fan located outside the building • Material as specified 	
Construction: <ul style="list-style-type: none"> • Materials and fabrication as specified • Shell and interior welded PVC-U • One piece welded PVC-U work surface • Sash as specified • Double sided fume cupboards as specified • Finish of internal fixtures and components 	
Ductwork: <ul style="list-style-type: none"> • Material as specified • Installation as specified • Lockable damper in each system • Discharge as specified 	
Drains: <ul style="list-style-type: none"> • Location as specified • Construction as specified • Discharge to waste 	
Services: <ul style="list-style-type: none"> • Lighting as specified • Socket outlets located outside the chamber • Acid neutralising tank for waste treatment 	
Controls as specified	
DUCTWORK INSTALLATION	
Storage and delivery as specified	
Arrangement as specified	
Spacing as specified	

ITEM	Checked - Initial & Date
Seismic restraint provided	
Flexible duct <ul style="list-style-type: none">• Installation as specified• Length as specified• Joints as specified• Joints between flexible ducts as specified• Support as specified• Maximum length of flexible duct sections 3 metres• Substitution as specified	
Fire and smoke dampers as specified	
Motorised dampers <ul style="list-style-type: none">• Maintenance access as specified• Mounting as specified• Operation as specified	
<ul style="list-style-type: none">• Construction debris and foreign material removed from inside ducts	
Drainage as specified	
Ductwork exposed to weather as specified	
LEAKAGE TESTING	
Standard as specified	
Test method as specified	
Leakage testing report submitted	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – DUCTWORK INSULATION

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
RESPONSIBILITIES	
Plant and equipment selections as specified	
Insulating materials selection as specified	
Ducting insulation design, application and calculations as specified	
Documentation drawings as specified	
CONTRACTOR'S SUBMISSIONS	
Calculations provided	
Condensation tray locations provided if applicable	
Acoustic performance details provided	
Fire hazard properties submitted	
Products and materials evidence of conformance submitted	
Samples submitted	
PRODUCTS	
Insulation material R-value as specified	
Insulation material properties as specified	
Vapour barrier classification as specified	
Semi-rigid insulation: <ul style="list-style-type: none"> • Properties as specified • Type as specified 	
Adhesives suitable for bonding facing to the insulation with Smoke-Developed-Index 0	
Aluminium foil laminate sheet as specified	
Adhesive duct tapes as specified	
Elastomeric foam insulation: <ul style="list-style-type: none"> • Material as specified • Physical properties as specified • Adhesives as specified • Protection as specified • Alternative protection as specified 	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
DUCTWORK INSULATION

ITEM	Checked - Initial & Date
EXECUTION	
Fixing devices: <ul style="list-style-type: none"> No traverse free edge insulation joins Stud welded fully annealed metallic-coated steel pins Speed clips as specified Protection as specified 	
Insulation overlap as specified	
Joins as specified	
Insulation near moisture producing equipment as specified	
Vapour barriers: <ul style="list-style-type: none"> Type as specified Location as specified 	
Application of tapes as specified	
Duct free from off cuts, drill swarf or other loose material	
Internal insulation of ductwork connected to evaporative coolers, kitchen exhaust, and moisture laden ducting as specified	
INTERNAL INSULATION - LAMINATE FACED	
Semi-rigid board or batt	
Application as specified	
Joins as specified	
Fixing: <ul style="list-style-type: none"> Butt joints as specified Vapour sealing as specified Demountable joints as specified Fixing pins as specified Internal insulation as specified 	
INTERNAL INSULATION - METAL FACED	
Location as specified	
Type as specified	
Application as specified	
Rectangular ductwork: <ul style="list-style-type: none"> Metal facing as specified Facing material 0.55 mm metallic-coated steel uniformly perforated with 2.5 mm diameter holes as specified End nosings as specified Nosing size 0.55 mm thick with a minimum 25 mm turn-back over the metal facing Fixing as specified 	
Circular ductwork: <ul style="list-style-type: none"> Material as specified Method and fabrication as specified	
EXTERNAL INSULATION - LAMINATE FACED	
Flexible batts or blanket	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
DUCTWORK INSULATION

ITEM	Checked - Initial & Date
Application as specified	
Fixing method as specified	
EXTERNAL INSULATION - LAMINATE FACED AND METAL SHEATHED	
Semi-rigid batts	
Application: <ul style="list-style-type: none">• Support as specified• Joints in sheathing as specified• Sealing as specified	
INSULATION OF DUCTWORK COMPONENTS AND FITTINGS	
Insulation material R-value as specified	
Installation as specified	
Plenum and cushion head boxes on air grilles: <ul style="list-style-type: none">• Insulation type as specified• Insulation fixing as specified	
Dampers <ul style="list-style-type: none">• Internal as specified• External as specified	
Insulation provided to access doors and panels	
INSULATION OF DUCT FLEXIBLE CONNECTIONS	
Insulation material R-value equal to connected duct	
Method as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – AIR GRILLES

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR'S SUBMISSIONS	
Type tests submitted	
Samples submitted	
MANUFACTURE	
Proprietary air grilles as specified	
Powder coat finish colour	
Fixings as specified	
VOLUME CONTROL DAMPERS	
Dampers controlling a single air grille attached to flexible duct as specified	
Butterfly dampers as specified	
Stream splitter dampers as specified	
Opposed blade dampers as specified	
AIR GRILL TYPES	
Air grilles in suspended ceilings as specified	
Louvre ceiling diffusers: <ul style="list-style-type: none"> • Type as specified • Reducer necks as specified • Frame as specified • Cushion necks as specified • Air volume control as specified 	
Circular diffusers: <ul style="list-style-type: none"> • Spun circular aluminium material • Cushion head box provided to a flexible duct • Air volume control as specified 	
Curved blade diffusers <ul style="list-style-type: none"> • Cushion head box provided to a flexible duct • Air volume control as specified 	
Perforated plate diffusers <ul style="list-style-type: none"> • Cushion head box provided to a flexible duct • Air pattern control as specified • Air volume control as specified 	

ITEM	Checked - Initial & Date
Perforated face air grilles as specified	
Luminaire air diffusers <ul style="list-style-type: none"> • Single sided or double sided, to conform to design of light fitting • Physical compatibility • Performance as specified • Construction as specified • Air flow deflection as specified • Air volume control as specified 	
Slot diffusers <ul style="list-style-type: none"> • Type as specified • Construction as specified • Plenum as specified • Frame as specified • Finished appearance as specified • Air pattern control as specified • Air volume control as specified 	
Side wall registers <ul style="list-style-type: none"> • Type as specified • Construction as specified • Removable core • Blades > 600 mm long supported at mid-point on a notched support bar • Dampers as specified 	
Jet diffusers <ul style="list-style-type: none"> • 3 concentric sections made of spun aluminium, bolted together • Air pattern control as specified • Cushion head box provided to a flexible duct • Air volume control as specified • Mounting suitable for either ceiling, wall or direct duct mounted application 	
Thermally powered VAV diffusers <ul style="list-style-type: none"> • Type as specified • Construction as specified • Powder coated metallic-coated steel sheet material • Frame style to suit the type of ceiling, and ceiling grid mounting requirements • Operation • Control • Heating operation • Room temperature set point adjustable from below the face of the diffuser over the range 21°C to 26°C • Cushion head box provided to a flexible duct • Air volume control as specified 	
Weatherproof louvre grilles <ul style="list-style-type: none"> • Extruded aluminium with fixed horizontal blades set into a fixed frame • Louvre blades as specified • Flanged or channel frame to suit the installation profile • Pressure drop ≤ 15 Pa at the documented air flow • Screens as specified 	
Return or exhaust air grilles – indoor	

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> • Type as specified • Pressure drop \leq 10 Pa at the documented air flow • Blades as specified • Air volume control as specified 	
Mesh air grilles <ul style="list-style-type: none"> • Light duty type as specified • Heavy duty type as specified 	
Egg crate return or exhaust air grilles <ul style="list-style-type: none"> • Type as specified • Removable core provided • Free area \geq 90% of nominal face area • Air volume control as specified 	
INSTALLATION OF AIR GRILLES	
Protective wrappings in place until final mounting	
Mounting as specified	
Fixing as specified	
Plenum and cushion head boxes: <ul style="list-style-type: none"> • Material as specified • Insulation as specified • Interior of plenum box matt black, if visible through the air grille • Flexible duct connections as specified • Support of plenum boxes as specified 	
Alternative plenum and cushion head boxes: <ul style="list-style-type: none"> • Shop drawings provided • Warranties provided 	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – MECHANICAL PIPEWORK

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

GIVE SUFFICIENT NOTICE SO THAT THE SUPERINTENDENT MAY WITNESS TESTING:

Spec. Ref.	Item	Checked – Initial and date
#.33.1	Completion tests	
#.33.2	Hydrostatic testing	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
DESIGN	
Design pressures as specified	
Piping system as specified	
Piping design, application and calculations as specified	
Shop drawings submitted	
Valves and pipeline components for water systems as specified	
Valves and pipeline components for steam and condensate systems as specified	
Valves and pipeline components for liquid fuel systems as specified	
CONTRACTOR'S SUBMISSIONS	
Manufacturer's specifications and reports submitted	
COPPER PIPING	
Jointing as specified	
Fittings: <ul style="list-style-type: none"> • Capillary fittings as specified • Compression fittings as specified • Unions as specified • Flanges as specified • Bends and tees as specified • Centreline radius of bend or tee branch ≥ 1.5 times the pipe diameter 	
3.4.4 Permanent joints as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
MECHANICAL PIPEWORK

ITEM	Checked - Initial & Date
STEEL PIPING	
Steel pipe for closed systems	
3.5.2 Pipe for aerated systems	
3.5.3 Jointing	
3.5.4 Fittings: <ul style="list-style-type: none"> • Welded pipe as specified • Bends and tees as specified • Centreline radius of bend or tee branch ≥ 1.5 times the pipe diameter • Steel for fabricated pipe fittings same grade and wall thickness as the pipe • Non-vertical lines as specified 	
STAINLESS STEEL PIPING	
Pipes as specified	
Jointing as specified	
Fittings: <ul style="list-style-type: none"> • Material stainless steel of the same grade and wall thickness as the pipe • Unions as specified • Flanges as specified • Bends and tees as specified • Centreline radius of bend or tee branch ≥ 1.5 times the pipe diameter • Stainless steel nuts bolts and washers of the same grade as the pipe used 	
Welding as specified	
ABS PIPING	
Installation as specified	
Solvent cement and priming as specified	
Jointing as specified	
PVC PIPING	
Installation as specified	
Jointing as specified	
POLYETHYLENE (PE) PIPING	
Installation as specified	
Jointing as specified	
VALVES AND FITTINGS - GENERAL	
Components: <ul style="list-style-type: none"> • Valve size as specified • Insulated valves as specified • Automatic control valves as specified 	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
MECHANICAL PIPEWORK

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> • Connections as specified • Handwheels and handles as specified • Copper alloy valves as specified • Valves for water circuits open to air including open condenser water circuits as specified 	
Installation as specified	
Valve identification as specified	
WATER VALVE TYPES	
Drinking water to PCA B1 and PCA B2	
Non-drinking water as specified	
WATER VALVES AND FITTINGS	
Selection as specified	
Gate valves as specified	
Ball valves as specified	
Butterfly valves as specified	
Non-return valves as specified	
Globe valves as specified	
Calibrated balancing valves as specified	
Automatic/dynamic system balancing valves as specified	
Pressure relief valves as specified	
Pressure-reducing valves as specified	
Ball float valves as specified	
Strainers as specified	
Automatic air vents as specified	
Vacuum breaker valves as specified	
STEAM AND CONDENSATE VALVES AND FITTINGS	
Selection as specified	
Ball valves as specified	
Non-return valves as specified	
Combined sight glass and non-return valve as specified	
Globe valves as specified	
Pressure relief valves as specified	
Pressure-reducing valves as specified	
Ball float valves as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
MECHANICAL PIPEWORK

ITEM	Checked - Initial & Date
Steam traps as specified	
Strainers as specified	
Automatic air vents as specified	
Vacuum breaker valves as specified	
STEAM SEPARATORS	
Baffle type as specified	
Diffuser-vortex type as specified	
LIQUID FUEL VALVES AND FITTINGS	
Selection as specified	
Gate valves as specified	
Ball valves as specified	
Non-return valves as specified	
Globe valves as specified	
Pressure relief valves as specified	
Strainers as specified	
HOT WATER PANEL RADIATORS	
Pressed steel construction with welded joints, baked enamel finish	
Key operated air vent provided	
Mounting at least 150 mm clear of floor, with concealed wall mounting brackets	
Valves as specified	
INSTRUMENTS - GENERAL	
Locations as specified	
PRESSURE GAUGES	
Bourdon tube type as specified	
Full scale range between 130% and 200% of maximum working pressure	
Construction as specified	
Installation as specified	
THERMOMETERS	
Dial thermometers: <ul style="list-style-type: none"> • Mercury in steel • Accuracy within $\pm 1\%$ of full scale deflection or better • Construction as specified • Installation as specified 	
SENSING POINTS	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
MECHANICAL PIPEWORK

ITEM	Checked - Initial & Date
Test plugs as specified	
Thermometer pockets as specified	
Thermometer wells as specified	
WATER FLOW MEASUREMENT	
Pitot type sensors as specified	
Flow meters as specified	
REFRIGERATION PIPING	
Pips as specified	
Bends as specified	
Pipe fittings as specified	
Brazed joints as specified	
Sleeves as specified	
Layout as specified	
Refrigeration pipe insulation as specified	
Pressure test and holding charge as specified	
INSTALLATION	
General: <ul style="list-style-type: none"> • Requirement as specified • Layout as specified • Arrangement as specified • Spacing as specified • Dissimilar metals as specified • Structural point loads submitted • Secondary support necessary to transfer piping mass through to the primary structure provided • Vibration suppression devices provided 	
Connections as specified	
Seismic restraint provided	
Hydraulic separation of components	
Accessibility as specified	
CLEANING	
Scale, rust, burrs and grease removed	
Surfaces clean and dry	
Protection as specified	
SUPPORTS	
Support systems as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
MECHANICAL PIPEWORK

ITEM	Checked - Initial & Date
Support spacing as specified	
FLEXIBILITY	
General: <ul style="list-style-type: none"> • Requirement as specified • Anchors and guides as specified 	
Flexible connections as specified	
SLEEVES	
Provided where penetrations through walls, floors, and other building elements	
Cover plates as specified	
JOINTS	
Demountable joints as specified	
Flanged joints as specified	
Screwed joints as specified	
DRAINS, VENTS AND GRADING	
Drains: <ul style="list-style-type: none"> • Water systems as specified • Drain size as specified • Drain points as specified • Air inlet points for draining systems as specified 	
Air release vents: <ul style="list-style-type: none"> • Vent type as specified • Location as specified • Water system risers as specified 	
Grading as specified	
UNDERGROUND PIPING	
Underground piping separated from electrical cables, gas pipes and other services by ≥ 300 mm	
Installation: <ul style="list-style-type: none"> • Pipe underlay as specified • Bedding material as specified • Chases as specified 	
Pipe surrounds as specified	
Valves installed in underground control boxes	
Corrosion protection as specified	
SERVICES SUBJECT TO POTENTIAL DAMAGE	
Insulated piping as specified	
Vapour barriers as specified	
TESTING	
Completion tests as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – MECHANICAL PIPEWORK INSULATION

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
RESPONSIBILITIES	
Performance as specified	
Plant and equipment selections as specified	
Insulating materials selection as specified	
Piping insulation design, application and calculations as specified	
Documentation submitted as specified	
CONTRACTOR'S SUBMISSIONS	
Calculations submitted	
Selection and fixing statements submitted for vapour barrier installation	
Exposed cold surfaces details submitted	
Acoustic performance details submitted	
Fire hazard properties submitted	
Samples submitted	
INSULATION PERFORMANCE	
Material R-value as specified	
PRODUCTS	
Insulation materials as specified	
Fire hazard properties as specified	
Vapour barrier classification as specified	
Polystyrene foam as specified	
Polyolefin foam as specified	
Phenolic, polyurethane and polyisocyanurate foam as specified	
Glass wool and rock wool and polyester as specified	
Adhesives, sealants and mastics as specified	
Aluminium foil laminate sheet as specified	

MECHANICAL PIPEWORK INSULATION

ITEM	Checked - Initial & Date
Aluminium foil laminate tape as specified	
Elastomeric foam insulation as specified	
Metal sheathing as specified	
INSTALLATION - GENERALLY	
Preparation as specified	
Surface temperature as specified	
Supports as specified	
Joints as specified	
Use of multiple layers as specified	
Cold piping as specified	
Hot piping as specified	
Pump and valve insulation as specified	
COLD PIPING INSULATION SYSTEMS	
Installation of cold piping insulation systems other than elastomeric foam: <ul style="list-style-type: none"> • Vapour barrier as specified • Application of adhesive or sealant as specified • Longitudinal joints as specified • Butt joints as specified • Straps as specified • Bends as specified • Mounting blocks as specified 	
Installation of elastomeric foam insulation: <ul style="list-style-type: none"> • Installation as specified • Protection as specified • Alternative protection as specified 	
Fittings, valves and flanges: <ul style="list-style-type: none"> • R-value as specified • Installation as specified • Vapour barrier as specified 	
HOT PIPING INSULATION	
Glass wool, rock wool and polyester: <ul style="list-style-type: none"> • Surface finish as specified • Application as specified 	
Elastomeric foam insulation as specified	
SHEATHING OF PIPING INSULATION	
Location as specified	
Surface protection material secured without damaging vapour barriers	
Metal sheathing: <ul style="list-style-type: none"> • Installation as specified • Fixing as specified 	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
MECHANICAL PIPEWORK INSULATION

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> • Bends as specified • Weatherproofing as specified • Serviceable items as specified 	
TANK, VESSEL AND HEAT EXCHANGER INSULATION	
R-value as specified	
Material as specified	
Vapour barrier installed as specified	
Removable insulated covers provided	
COLD TANK, VESSEL AND HEAT EXCHANGER INSULATION	
Rigid foam sheet as specified	
Elastomeric foam insulation as specified	
HOT TANK, VESSEL AND HEAT EXCHANGER INSULATION	
Installation and fixing as specified	
SHEATHING OF TANK, VESSEL AND HEAT EXCHANGER INSULATION	
Location as specified	
Metal sheathing: <ul style="list-style-type: none"> • Installation and fixing as specified • External joints and fixings weatherproof with sealant 	
FLUE AND EXHAUST PIPE INSULATION	
Insulation material as specified	
R-value as specified	
Application as specified	
Sheathing as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – WATER TREATMENT

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

GIVE SUFFICIENT NOTICE SO THAT THE SUPERINTENDENT MAY WITNESS TESTING:

Spec. Ref.	Item	Checked – Initial and date
#.12.1	Tests before building occupation	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR'S SUBMISSIONS	
Execution details submitted	
CHEMICAL DOSING - OPEN SYSTEMS	
Requirement as specified	
Storage tanks: <ul style="list-style-type: none"> • Size as specified • Bund provided • Alarm provided 	
Dosing pumps electrically direct driven, manually adjustable type with clear plastic suction lines	
Automatic bleed as specified	
Biocide dosing as specified	
CHEMICAL DOSING - CLOSED SYSTEM	
Requirement as specified	
Feeder vessels as specified	
WATER FILTERS	
Construction as specified	
CATHODIC PROTECTION	
System characteristics as specified	
Probe sockets as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
WATER TREATMENT

ITEM	Checked - Initial & Date
CHEMICALS	
Chemicals for pre-cleaning, cleaning, flushing and treatment of mechanical piping systems provided	
Quantities as specified	
TEST LOOPS	
Test loops provided as specified	
MARKING	
Piping and storage vessels containing hazardous materials identified	
Safety signage to hazardous chemical storage	
INITIAL TREATMENT	
Chemical cleaning and flushing as specified	
Initial treatment as specified	
Discharge to sewer as specified	
COMPLETION	
Tests before building occupation as specified	
Test reports submitted	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – BUILDING MANAGEMENT SYSTEM

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.6.5	Pre completion Tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
FUNCTIONAL DESCRIPTIONS	
Preliminary descriptions submitted as specified	
SYSTEM ARCHITECTURE	
Specialized plant controllers: <ul style="list-style-type: none"> • Requirements as specified • Safety as specified • Interlocks as specified • Modulation as specified • Data as specified • High level interface as specified 	
Local plant controllers: <ul style="list-style-type: none"> • Operation as specified • Local data storage as specified • Information transfer as specified • Communication between LPC'S as specified • Remote user interfaces as specified • Communication network as specified • Power supplies as specified 	
General configuration: <ul style="list-style-type: none"> • System components as specified • System integration as specified • System performance as specified • Expansion provisions as specified 	
CONTRACTOR'S SUBMISSIONS	
Listings submitted	
Samples submitted	
Documentation submitted	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
BUILDING MANAGEMENT SYSTEM

ITEM	Checked - Initial & Date
Drawings submitted	
ITPs submitted	
Manuals submitted	
Prototypes submitted	
Products and materials submitted	
Subcontractor's qualifications submitted	
Technical data submitted	
System hardware submitted	
System software submitted	
As installed documentation submitted	
PRODUCTS	
Local plant controllers: <ul style="list-style-type: none"> • Resident library as specified • Functionality as specified 	
Operating software: <ul style="list-style-type: none"> • Hardware operating software as specified • Algorithm software as specified 	
Devices for incorporation as specified	
Spare capacity as specified	
Software: <ul style="list-style-type: none"> • Passwords provided • Manuals provided • Compatibility as specified • Licence as specified • OSI model as specified • System software as specified • Application software as specified • Function as specified • Modular construction as specified • Pre-delivery tests as specified • High level interface test as specified 	
Operator interface properties: <ul style="list-style-type: none"> • BACnet web server as specified • System security as specified • Graphics as specified • Object properties as specified • Operating schedules as specified • Alarms as specified • Critical alarms as specified • Trends as specified • Reports as specified • Logs as specified • Server operating system as specified • Control system hardware as specified • Priorities as specified 	

BUILDING MANAGEMENT SYSTEM

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> Time synchronisation as specified 	
<p>Active computer hardware</p> <ul style="list-style-type: none"> Network hub/switch as specified Network router as specified Gateways as specified Routers as specified Wireless access point as specified ADSL modem as specified Coaxial cable modem as specified Printers as specified WAN interfaces as specified 	
<p>Web server and operator workstations:</p> <ul style="list-style-type: none"> Operator workstations as specified Web server as specified 	
<p>Portable operator terminals:</p> <ul style="list-style-type: none"> Licenced software provided Terminals as specified Physical configuration as specified Display as specified Access as specified Software and software functions as specified Trend logs as specified Trend log display as specified History as specified Hours run as specified 	
<p>Network architecture:</p> <ul style="list-style-type: none"> System requirement as specified Network protocol as specified System communication as specified Data network cabling as specified Copper as specified Optical fibre as specified External as specified Copper cable connections as specified 	
<p>Data sharing:</p> <ul style="list-style-type: none"> Data values as specified Monitoring as specified Modification of values as specified Analog objects as specified Binary objects as specified Out of service as specified Calendar objects as specified Loop objects as specified Multistate objects as specified Schedule objects as specified Dynamic object creation as specified Maintenance system as specified High level interface as specified Low level interface as specified 	
EXECUTION	
Programming operator interface as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – MECHANICAL COMMISSIONING

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
RESPONSIBILITIES	
General: <ul style="list-style-type: none"> • Ratings and capacities of existing points for connection confirmed • Terminations as specified • Commissioning and re-commissioning of staged works as specified • Commissioning points locations provided 	
Experienced personnel engaged	
Works program submitted	
Safe workplace procedures developed	
Noise and vibration as specified	
Occupant amenity as specified	
INDEPENDENT CERTIFICATION OF COMMISSIONING AGENT	
Registered testing authority	
CONTRACTOR'S SUBMISSIONS	
Calibration certificates submitted	
Certification submitted: <ul style="list-style-type: none"> • Fire and life safety • Manual and automatic safety devices • Penetrating services • Deemed to comply provisions 	
Completion program submitted	
Records report submitted	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
MECHANICAL COMMISSIONING

ITEM	Checked - Initial & Date
COMMISSIONING	
Fire safety measures as specified	
Reports submitted	
Starting up to manufacturer's recommendations and as specified	
RELATED TESTS	
Factory performance testing as specified	
Statutory authorities as specified	
INSTRUMENTATION	
Calibration certificates	
Air quantity at diffusers, outlets and grilles: <ul style="list-style-type: none"> • Hood adjustment factors as specified • Instruments as specified 	
Air pressures and differential pressures as specified	
Water pressure and differential pressures as specified	
Temperature: <ul style="list-style-type: none"> • Air temperature instruments as specified • Chilled water and condenser water temperature instrument as specified • Instrument specifications for other temperature applications as specified 	
Humidity instruments as specified	
Water flow instruments as specified	
Electrical instruments as specified	
Rotational speed as specified	
Recording instruments as specified	
SOUND PRESSURE LEVEL MEASUREMENTS	
Internal as specified	
External as specified	
AIR BALANCING	
Air balancing conditions met as specified	
Diversity as specified	
Measurement methods as specified	
Preparation for air balancing as specified	
Additional adjustment of air quantities as specified	
On completion of air balancing as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
MECHANICAL COMMISSIONING

ITEM	Checked - Initial & Date
MANUFACTURER'S RECOMMENDED COMMISSIONING PROCEDURES	
Commissioning procedures as specified	
Instrumentation as specified	
Tolerances as specified	
FIRE MODE OPERATION	
All fire mode systems tested	
Related systems as specified	
All systems returned to normal operating mode	
Fire and smoke dampers as specified	
Fire isolated exit pressurisation as specified	
Testing completed before the date for Practical Completion	
MOTORISED DAMPER LEAKAGE	
Testing: <ul style="list-style-type: none"> • Dampers as specified • Leakage criterion as specified • Procedure as specified 	
AIR BALANCE REPORTS	
Air balancing reports submitted and as specified	
ROOM AIR PRESSURE DIFFERENTIALS	
General: <ul style="list-style-type: none"> • Adjustment as specified • Pressure differentials without numerical value as specified • Test conditions as specified • Excessive building air leakage reported 	
Procedure as specified	
BUILDING ENVELOPE TESTING	
Positive and negative building envelope pressurization test conducted as specified	
Construction quality as specified	
Pressurization equipment sizing as specified	
Test conditions as specified	
WATER BALANCING	
Balancing conditions met	
Water quantity tolerances as specified	
Diversity as specified	
Preparation for water balancing as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
MECHANICAL COMMISSIONING

ITEM	Checked - Initial & Date
Water flow measurement methods as specified	
Completion as specified	
HEATING VALVE LEAKAGE	
All heating valves tested for leakage	
Procedure as specified	
ELECTRIC DUCT HEATERS	
Testing as specified	
WATER BALANCE REPORTS	
Water balance reports submitted	
AUTOMATIC CONTROLS	
Tested for correct operation	
Sensors calibrated	
SAFETY CONTROLS	
Testing as specified	
Monitoring as specified	
PLANT OPERATION PERIOD	
Mechanical systems operated continuously during the plant operation period	
FIRE AND LIFE SAFETY TRAINING	
Fire authority training provided	
Principal training provided	
COMPLETION TESTS	
Heating and air conditioning performance tests as specified	
Electric duct heaters as specified	
HANDOVER	
Handover meeting provided	
Support material provided	
HANDOVER MEETING	
Handover meeting minutes provided	
Agenda items as specified	
HANDOVER TRAINING	
Handover training provided	
Training topics as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – MECHANICAL MAINTENANCE

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
REFERENCE DOCUMENTATION	
Operating and maintenance instructions and as installed documentation returned	
Maintenance log books provided	
CONTRACTOR'S SUBMISSIONS	
Maintenance and performance reports submitted as specified	
Statutory certification submitted	
Statutory reports submitted	
Spillage or spoilage reports submitted	
PRODUCTS	
Products to be substituted submitted	
MAINTENANCE REQUIREMENTS	
Frequency as specified	
Software uploads installed	
Operational enhancements rationale submitted	
EMERGENCY REPAIRS	
Remedial work as specified	
Temporary work as specified	
Contact details provided	
PERIODIC MAINTENANCE	
General: <ul style="list-style-type: none"> • Routine visits as specified • Notification of defects as specified • Requirement as specified • System and component maintenance as specified 	
Replacement materials and consumables: <ul style="list-style-type: none"> • Requirement as specified • Substitution as specified 	
Maintenance for energy efficiency as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
MECHANICAL MAINTENANCE

ITEM	Checked - Initial & Date
Air filters as specified	
Air intake and discharge as specified	
Air pressure differentials as specified	
Air quality as specified	
Automatic controls as specified	
Boilers and burners as specified	
Chillers as specified	
Cooling towers and cooling water systems as specified	
Ductwork including electric duct heaters, kitchen exhaust ducts and hoods as specified	
Electrical systems as specified	
Evaporative air coolers as specified	
Fire and smoke dampers as specified	
Fume cupboards as specified	
Gas-fired appliances as specified	
Humidifiers as specified	
Medical gas systems as specified	
Packaged air conditioning plant and room air conditioners as specified	
Piped systems as specified	
Refrigeration systems as specified	
Tanks and piping for potable water as specified	
VAV boxes as specified	
Water treatment as specified	
END OF MAINTENANCE PERIOD SERVICE	
Service tasks as specified	
RECOMMISSIONING	
To manufacturer's recommendations	
COMPLETION	
Maintenance reports submitted	
Restitution after maintenance tasks as specified	
FINAL COMPLETION	
Final completion meeting	
HANDOVER TRAINING	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – PAVING

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
MATERIALS AND COMPONENTS	
Bedding sand as specified	
Mortar: <ul style="list-style-type: none">• Sand, cement, and water as specified• Mix proportions: 1:3 cement:sand	
Bitumen as specified	
PAVING GENERALLY	
Substrate clean and dust free	
Grades and falls are correct	
Tolerances as specified	
Movement joints installed	
10 mm thick closed cell cross-linked polyethylene compressible filler strip installed at abutments with buildings for paving greater than 1.5 m	
Junctions installed as specified	
BASE COURSE	
Subgrade 150 mm compacted to 95% MMDD CBR 10	
Base material for gravel and asphalt paving: <ul style="list-style-type: none">• Urban areas fine crushed rock as specified• Outside urban areas natural gravel as specified	
Spread and compacted as specified	
Required density is as specified	
Level are as specified	
SPRAY SEALED SURFACING WORKS	
Surface preparation: <ul style="list-style-type: none">• Constructed to the specified density, shape and level• Tightly bound and free from vegetation and other foreign matter• Surface broomed	
Spray sealing as specified	
Conformance testing on finished works as specified	

ITEM	Checked - Initial & Date
DENSE GRADED ASPHALT	
Asphalt properties as specified	
Surface preparation: <ul style="list-style-type: none"> • Constructed to the specified density, shape and level • Tightly bound and free from vegetation and other foreign matter • Surface broomed 	
Mixing as specified	
Spreading as specified	
Compaction as specified	
Conformance testing on finished works as specified	
UNIT PAVING	
Masonry units are as specified	
Cut units maintain accurate joints and sharp arises	
50 mm sand bedding in place	
Sand bedding compacted	
Mortar bedding as specified	
Laying pattern as specified	
Edge restraints in place	
Paving joints as specified	
IN SITU CONCRETE PAVING	
Correct thickness	
Reinforcing mesh in place	
Subgrade 100 mm compacted to 95% MMDD CBR 10	
50 mm sand bedding in place with 200 µm builders plastic	
Quality assurance testing results as specified	
Formwork secure	
Movement joints installed as required	
Finish as specified: <ul style="list-style-type: none"> • Broom • Exposed aggregate • Sponge • Pattern 	
GRAVEL PAVING	
Stabilizing as specified	
Surface is level	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – CIVIL WORKS

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

- Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.3.6	Proof rolling	
#.4.7	Proof rolling	
#.5.14	Spraying	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CLEARING, GRUBBING AND REHABILITATION	
Mulching: <ul style="list-style-type: none"> • Clearing as specified • Stockpiles 2 m maximum 	
Stripping of top layer <ul style="list-style-type: none"> • Top layer of natural material to a depth of 100 mm • Stockpiles 2 m maximum 	
Grubbing as specified	
Reinstatement as specified	
Excess fill, rubble and other debris removed from site	
EARTHWORKS	
Excess material as specified	
Rock in subgrade as specified	
Unsuitable material below subgrade surface other than rock as specified	
Unsuitable material beneath fill as specified	
Fill material as specified	
Proof rolling: <ul style="list-style-type: none"> • Proof rolling procedure submitted • Plant requirements as specified • Level tolerance and layer thickness as specified • Compliance as specified 	
Conformance testing: <ul style="list-style-type: none"> • Each layer of fill material • Subgrade as specified 	

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> Subgrade conformance 	
PAVEMENTS AND SHOULDERS	
Natural gravel as specified	
Fine crushed rock as specified	
Sand clay as specified	
Program and procedure for process control testing submitted	
Level checking as specified	
Level auditing as specified	
Tolerances as specified	
Proof rolling conformance	
Conformance testing as specified	
SPRAY SEALING	
Material requirements as specified	
Bitumen emulsion as specified	
Sprayers and personnel: <ul style="list-style-type: none"> Accreditation Calibration of sprayers Spraying plant and equipment must be in good working condition 	
Preparation of pavement: <ul style="list-style-type: none"> Deleterious materials, rocks, refuse and organic materials removed Loose stones, dust, dirt and foreign matter removed by sweeping Excess water removed No traffic on prepared surface 	
Binder coat requirements as specified	
Prime coat as specified	
Straight run binder coats as specified	
Polymer modified binder coats as specified	
Sampling of binder as specified	
Precoating aggregate: <ul style="list-style-type: none"> Aggregates dry before precoating Uniform film of precoating material applied Precoating to take place at pre-approved site stockpile locations Powered shaking screen deck precoater used 	
Adhesion agent as specified	
Spraying as specified	

ITEM	Checked - Initial & Date
Application of aggregate as specified	
DENSE GRADED ASPHALT	
Mix type and binder type as specified	
Mix requirements: <ul style="list-style-type: none"> Registered in accordance with Department's Code of Practice for Registration of Asphalt Mix Designs 	
Materials as specified	
Surface preparation as specified	
Construction program and paving plan submitted	
Compaction as specified	
CONFORMANCE TESTING	
Panel Period Contractors contractor list provided	
Notice of testing	
Conformance testing results received	
PAVEMENT MARKING	
Painting Contractor Certification Program accreditation	
Road marking paint: <ul style="list-style-type: none"> Conforming to APAS 0041/5 Suitable for application by spray equipment to asphalt and bituminous seal road surfaces Suitable for use with Intermix drop on spherical glass beads Paint Certificate of Compliance submitted 	
Materials as specified	
Setting out to DIPL Standard Drawing CS 3400	
Application: <ul style="list-style-type: none"> Equipment approval Equipment calibration to NTTM 405.1 Glass bead application as specified Markings free from ghosting and raggedness Road surface is free from dirt, loose detritus, mud and other extraneous matter, and dry 	
Application rates as specified	
Longitudinal application as specified	
Transverse and other marking applications as specified	
Tolerances as specified	
Workmanship: <ul style="list-style-type: none"> Markings straight, with smooth even curves Defective marking removed by sand blasting, or other approved methods Applications protected from traffic Tyre pickup marks removed 	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – FABRIC SHADE STRUCTURES

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
SPECIALIST FIRM	
Specialist firm details provided	
GENERAL LAYOUT	
As shown on drawings	
CONTRACTOR SUBMISSIONS	
Design drawings received	
Section 40 certificate received	
Calculations received	
Fabric samples received	
BUILDING CERTIFICATION	
Section 40 certificate received	
Permit to Build received	
Occupancy Certificate received	
SUPPORT STRUCTURE	
As shown on drawings	
Support poles completely sealed	
Continuous fillet welds around plate caps, brackets and cleats	
Correct finish	
PROTECTIVE COATINGS	
Steelwork hot-dip galvanized	
Fasteners and components hot-dip galvanized	
Bases of columns shall be coated with Epirez 215	
SUSPENSION CABLES AND FITTINGS	
Suspension cables as specified	
Terminal connections stainless steel grade 316	
Membrane anchor plates material and finish as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JANUARY 2020 >>
FABRIC SHADE STRUCTURES

ITEM	Checked - Initial & Date
Weak links as specified	
MEMBRANE FABRIC	
Shade fabric as specified: <ul style="list-style-type: none"> • Material • UV factor • Colour • Seams • Stitching • Perimeter reinforcing • Warranty received 	
Waterproof membranes as specified: <ul style="list-style-type: none"> • Material • Quality • Weight • Colour • Seams • Joins • Seam tests • Warranty received 	
MEMBRANE INSTALLATION	
Handling as specified	
Tensioned to design tension figures shown on drawings	
AS-CONSTRUCTED DRAWINGS	
Drawings received	
MAINTENANCE MANUAL	
Maintenance manual received	
COMPLETION	
Installation clean	
Connections tight	
Tensioning systems secured	
Locking mechanisms in place	
Any damage made good	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – FENCING

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
MATERIALS AND COMPONENTS	
Galvanizing as specified	
Powder coating as specified	
Steel tubes as specified	
Wire as specified	
Concrete as specified	
Metal components as specified	
CONSTRUCTION GENERALLY	
Fence alignment cleared as specified	
Property boundaries confirmed survey	
Posts, gates and bracing panels are positioned as specified	
Post holes excavated as specified	
Concrete footings installed and finished as specified	
Steel panel fencing drain holes to bottom rails and are at least 50 mm clear of the ground or mowing strip	
Mowing strip provided	
GATES	
Location as per drawings	
Hardwire as specified	
Hand access provided	
Swimming pool enclosures as specified	
FENCE TYPES	
Domestic fences as specified	
Security fences as specified	
Remote community fences as specified	
Swimming pool fences as specified	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – LANDSCAPE

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Suppliers data received <ul style="list-style-type: none"> • Certificates identifying seed species and germination viability • Material source • Planting and maintenance recommendations 	
Samples received	
Warranties received	
PREPARATION	
Weeds eradicated	
Vegetative spoil removed as specified	
EARTH MOUNDS	
150 mm clean fill layers	
Compaction 85% of the dry density ratio of the surrounding soil	
Changes in grade as specified	
ROCK WORK	
Existing rock work as specified	
New rock work as specified	
SUBSOIL	
Ripping depth as specified	
Cultivation as specified	
Additives applied after ripping	
TOPSOIL	
Site topsoil as specified	
Imported topsoil as specified	
Placing topsoil: <ul style="list-style-type: none"> • Finished levels and contours achieved after light compaction • Grassed areas finished 20 mm below adjacent hard surfaces 	
Consolidation: <ul style="list-style-type: none"> • Design levels correct 	

ITEM	Checked - Initial & Date
<ul style="list-style-type: none"> • Finished surfaces smooth and free of stones and lumps of soil • Graded to drain freely • Graded evenly into adjoining surfaces 	
Topsoil depths are as specified	
Surplus topsoil spread on designated areas on site or disposed off-site	
FERTILIZER	
Correct type	
Fertilizer schedule is as specified	
BARRIERS, BOLLARDS	
Location as per drawings	
Precast concrete bollards <ul style="list-style-type: none"> • Correct material • Installed as specified 	
Timber bollards <ul style="list-style-type: none"> • Correct material • Installed as specified • Termite protection provided 	
Steel tube bollards <ul style="list-style-type: none"> • Correct material • Tube filled with concrete • Concrete footing provided as specified 	
Recycled plastic bollards <ul style="list-style-type: none"> • Correct material • Installation as per manufacturer recommendations 	
GARDEN EDGING	
Masonry edging installed as specified	
Steel edging installed as specified	
Spade edging is as specified	
Profiled concrete edging is as specified	
GRASS SEEDING	
Preparation as specified	
Sowing as specified	
Rolling completed after sowing	
Correct seed type	
Watering as specified	
Germination as specified	
Any weeds removed	
TURFING	

ITEM	Checked - Initial & Date
Topsoil fertilized before laying	
Turf layed in specified pattern	
Watering as specified	
Finish is flush with adjacent surfaces	
SPRAYGRASS (HYDROSEEDING / HYDROMULCHING)	
Preparation as specified	
Application as specified	
Watering as specified	
MOWING	
Grass height between 40 to 80 mm	
TREES, SHRUBS AND GROUND COVERS	
Characteristics: <ul style="list-style-type: none"> • Large healthy root systems • Sturdy trunks/stems • A minimum of three months in their container • Vigorous, well established, and free from disease and pests • Hardened off and suitable for planting 	
Treatment of plants as specified	
EXCAVATION AND PLANTING	
Setting out of holes: <ul style="list-style-type: none"> • Cable and services locations identified • Set out as per drawings 	
Planting holes excavated as specified	
Plant type is as specified	
Ripline planting as specified	
Holes treated as specified	
Spoil removed	
Plant species labelled	
Storage as specified	
Locations as per drawings	
Watering as specified	
Placement as specified	
Root control barrier installed as per drawings	
Hole fertilized as specified	
Hole backfilled as specified	
Watering basin for plants in grass provided where specified	

ITEM	Checked - Initial & Date
MULCHING	
Mulch sample received	
Mulch type as specified	
Mulch depth as specified	
STAKES AND TIES	
Stakes: <ul style="list-style-type: none">• Correct material• Correct sizes	
Ties provided as specified	
TREE SURGERY	
Qualified arborist employed	
Tree surgery is as specified	
PLANTING ESTABLISHMENT	
Maintenance work as specified	
Stakes and ties removed at the end of the establishment period	
Temporary fencing removed at the end of the establishment period	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – IRRIGATION

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.4.1	Hydrostatic tests	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Design drawings received	
Manufacturer's data received	
TESTS	
Hydrostatic test results received	
CONNECTION	
Local authorities informed	
Connection as specified	
PIPEWORK MATERIALS	
Galvanised steel pipe is as specified	
Finishes as specified	
Valves match connected pipework	
EXCAVATION AND INSTALLATION	
Setting out: <ul style="list-style-type: none"> • Cable and services locations identified • Set out as per drawings 	
Excavation as specified	
Installation as specified	
Maintenance accessibility as specified	
Backfilling as specified	

ITEM	Checked - Initial & Date
Fill material as specified	
IRRIGATION SYSTEM	
Performance as specified	
FIXED LOCATION SYSTEMS	
Heads as specified	
Risers as specified	
Pressure regulating valves as specified	
Irrigation controllers as specified	
Quick coupling valves as specified	
MICRO IRRIGATION SYSTEMS	
Polyethylene irrigation pipe class RURAL	
Pipe layed under mulch and fixed in place with U shaped stakes	
Microsprays mounted on stakes 300 mm above ground and connect to the piping with microtubes	
Turbulent flow drippers used	
Valve box as specified	
VALVE BOX INSTALLATION	
Flush with the surrounding surface in turfed areas	
50 to 100 mm above the surrounding surface in garden beds or mulched areas	
COMPLETION	
System flushed	
Strainers clean	
Even distribution	
Work-as-executed drawings received	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – PLAY EQUIPMENT

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.14.1	Comprehensive post-installation inspection	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Subcontractor names and contact details received	
Subcontractor past experience received	
Section 40 Structural Certificate received	
Permit to Build received	
Product information received	
Installation information received	
EXISTING SERVICES	
Located and marked	
BASE PREPERATION	
As specified	
Spoil removed from site as specified	
SUBGRADE	
150 mm depth mixed and re-compact to 95% standard compaction	
BASE MATERIAL	
Fine crushed rock – urban areas as specified	
Natural gravel – outside urban areas as specified	
Placement as specified	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JULY 2020 >>
PLAY EQUIPMENT

ITEM	Checked - Initial & Date
SUBSOIL DRAINAGE	
Drain pipe 100 mm diameter SN8 class 400	
Installation depth 450 mm to the crown of the pipe	
Trench width minimum 300 mm	
Geotextile fabric as specified	
Filter material 20 mm particle size	
Installation as specified	
FOOTINGS	
Tops of the foundations are at minimum 200 mm below the loose fill surface	
Covered by items of equipment or parts	
INSTALLATION	
To manufacturer's installation manuals	
Protective coatings removed	
Surfaces cleaned	
Identification plaque fixed permanently in a position visible from ground level	
Base level mark for impact-attenuating clean washed soft fall sand height	
FINISH OF EQUIPMENT	
Non splintering materials	
No protrusions that may cause injury	
All welds shall be ground smooth	
INSTALLATION INSPECTIONS	
Comprehensive post-installation inspection undertaken by an independent qualified Level 3 Comprehensive Playground Safety Inspector	
Report received	
Recommendations received to achieve compliance on any non-compliant elements.	
MAINTENANCE AND INSPECTION PROGRAM	
Maintenance program received	
Inspection frequencies received	
COMPLETION	
Test reports received	
Warranties received	

DEPARTMENT OF INFRASTRUCTURE PLANNING AND LOGISTICS

CHECK LIST – PLAYGROUND SURFACING

PROJECT		SPEC. NO.	
Checked by		Title	
Work lot		Date	

TESTS

Give sufficient notice so that the Superintendent may witness testing:

Spec. Ref.	Item	Checked – Initial and date
#.12.1	On-site impact-attenuating surface testing	

COMPLIANCE CHECKS – REFER SPECIFICATION

ITEM	Checked - Initial & Date
CONTRACTOR SUBMISSIONS	
Operation and maintenance manuals received	
Manufacturer's data received	
Samples received	
Subcontractor names and contact details received	
EXISTING SERVICES	
Located and marked	
BASE PREPERATION	
As specified	
Spoil removed from site as specified	
SUBGRADE	
150 mm depth mixed and re-compact to 95% standard compaction	
BASE MATERIAL	
Fine crushed rock – urban areas as specified	
Natural gravel – outside urban areas as specified	
Placement as specified	
SUBSOIL DRAINAGE	
Drain pipe 100 mm diameter SN8 class 400	
Installation depth 450 mm to the crown of the pipe	

<< MAJOR BUILDING WORKS PROJECT CHECK LIST JULY 2020 >>
PLAYGROUND SURFACING

ITEM	Checked - Initial & Date
Trench width minimum 300 mm	
Geotextile fabric as specified	
Filter material 20 mm particle size	
Installation as specified	
IMPACT-ATTENUATION SUB LAYER (SHOCK PADS)	
Properties as specified	
Installation as specified	
IMPACT-ATTENUATING SURFACE (WEARING LAYER)	
Material properties as specified	
Certificate of authenticity received	
Installation as specified	
EDGE TREATMENT	
Abutting hard pavements as specified	
Abutting garden beds, turf areas or tree surrounds as specified	
TESTING	
Testing date not sooner than 14 days from the last day of the installation	
Tester independent qualified and competent person	
Test reports received	
COMPLETION	
Spare materials received	
Warranties received	
As-constructed drawings received	
LOOSE-FILL IMPACT-ATTENUATING MATERIAL	
Depth 300 mm	
Soft fall sand certified to AS 4422	
5 kg sample received	
Material properties as specified	
Boards for containment of loose fill materials as specified	

