# QA17 WORK INSTRUCTIONS



**VERISON CONTROL**

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# QA MANAGEMENT SYSTEM
# DEMOLITION
# WORK INSTRUCTION WP.01

1. Permits must be obtained from the appropriate authority as required prior to work commencing. This may include:

   - Council / Shire;
   - authorities;
   - client;
   - road closure;
   - hazardous materials;
   - hoardings.

2. Inspect the site and identify obstacles which could affect the safety of demolition operations. Consult with relevant authorities as required and verify or mark out any services which cannot be disturbed during demolition.

3. Identify all services to be disconnected before commencing and ensure the relevant authority / utility company is notified and approvals obtained. Ensure services disconnected and sealed as required.

4 Ensure that a hazardous materials audit is carried out before commencing demolition. Any identified hazardous materials should be removed and disposed of in accordance with the relevant code of practice or Australian Standards. Ensure that only registered / licensed demolishes are employed to carry out the work. Inspections and tests must be carried out as required by the code/standard and the records maintained.

5. Ensure that the demolition is carried out safely as specified and waste material is separated into streams of compatible/recyclable materials. Ensure sites are left clean and free of rubbish to the clients specification.

# QA MANAGEMENT SYSTEM
# SITE WORKS & EXCAVATION
# WORK INSTRUCTION WP.02

1. Prior to commencement on the job a licensed surveyor must be employed to ascertain the set out points for the building and datum levels if applicable. If survey pegs are already located ensure they are the ones defining the property you are building on. Survey drawings and the like should be retained as records.

2. The site should be cleared to allow construction or excavation to commence. – See also the Demolition ITP.

3. Establish site services and amenities as required and available water – power, sewer, loading, sheds, toilets etc.

4. The bulk excavation should be carefully done with levels being checked to ensure that only the correct excavation is done. The levels of finished bench levelling should be recorded in a diary.

   If fill is required it must be compacted in layers as specified in the engineers specification (usually 150 mm). Compaction testing must be carried out if specified by an authorised tester and the results retained.

5. Soil erosion and sediment controls should be installed in accordance with the relevant Code of Practice/guidelines and the specification. The sediment fences should extend sufficiently to control run off while the access strip should be installed before any further vehicles enter the site. Ensure that controls are maintained in good order by all trades.

# QA MANAGEMENT SYSTEM
# DRAINAGE
# WORK INSTRUCTION WP.03

1 & 2 Stormwater and sewer drains. The installation of stormwater and sewer drains should be inspected to ensure that:

- they are to the correct line required;
- the excavation are to the correct lines and falls as required;
- bedding material and the correct pipes are installed to falls;
- backfill installed as required especially under driveways and the like;
- sewer drains are tested to ensure they comply with regulatory requirements;
- connection to outlets is made;
- allowance for connections into the building are completed.

3. Pits should be inspected to ensure.

- correct size, depth, levels – to detail and/or authority;
- correct lid in place at correct level;
- drain entries and exits finished.

# QA MANAGEMENT SYSTEM
# CONCRETING
# WORK INSTRUCTION WP.04

1. Ensure set out lines and levels are adequate. The initial lines and levels should be provided by a plan established by a Licensed Surveyor (where required).

2. A detailed excavation should be set out correctly from the existing datum lines. Detailed excavation should be to a depth and width as required from the structural drawings. If required the council or other regulatory body should be given the opportunity to inspect these excavations. If the authorities do inspect ensure that records are kept in your diary of the day of inspection and precisely what was inspected by whom and the outcomes of the inspection.

3. Install termite barrier/treatment to specifications – obtain certificate/approval from authorised installation body.

4. Check the formwork installation for line, level and rebates; setdowns, voids, inserts, services, conduits. (Note: for suspended slabs, formwork to approved design).

5. Check waterproof membrane for completeness, especially around penetrations, thickenings and edge beams.

6. Ensure reinforcement installed to detail:

   - type and size;
   - laps and support;
   - cover for bottom and top.

7. Ensure all –

   - plumbing inserts etc. installed - tape ends;
   - electrical conduits in place – tape ends;
   - any other penetrations setdowns and inserts are in the correct location.

8. Pre pour inspection.

   - ensure all above inspections complete;
   - enter time and date of inspection in diary or site memo. Include names of personnel involved.
   - obtain engineers/building surveyors certificate where inspected and certificates required.

9. Concrete pour inspections.

   - check concrete delivery dockets prior to placement to ensure correct strength, slump etc;
   - retain delivery dockets;
   - arrange for testing if specified;
   - ensure the correct finishes are known and identified on the areas poured;
   - ensure the levels are within the allowable tolerances;
   - mark up on the drawing the areas poured and initial and date adjacent on the drawing or make a diary entry recording area poured detailing inspection personnel if required.

10. Ensure the slab is cured as required for at least seven days.
    Ensure all formwork stripped and removed, the area left clean, including penetrations, setdowns inserts, membrane etc.

# QA MANAGEMENT SYSTEM
# BRICKWORK / BLOCKWORK / MASONRY
# WORK INSTRUCTION WP.05

1. The specification should indicate what samples are required for approval. These may include the type of bricks, colour of bricks, type of jointing, colour of mortar and the like. All these must be agreed with the client prior to commencing any brickwork. A sample panel of brickwork may be required. Approval must be obtained from the client and either form part of the contract or should be confirmed in writing to the client.

2. From the survey pegs ensure that the set-out is correct. Ensure that the bricklayer is working to the correct line and levels that are required to comply with the drawings.

3. The masonry should be inspected as work proceeds with walls checked for their straightness, plumb, with the correct ties, damp proof courses, lintels, sills, openings, vents, tie rods etc. As walls or areas are inspected, mark up the drawing/s, sign and date the areas of walls inspected. This may be in areas or the whole building at the end of construction. Alternatively enter details in your diary.

4. Where a termite barrier is specified ensure masonry is completed sufficiently to allow correct installation. Ensure bricklayers understand properties of termite barrier and precautions to be taken.

5. The brickwork should be cleaned to the specified requirements and when this is done an entry into the diary should be made.

# QA MANAGEMENT SYSTEM
# PRE-FABRICATED FRAMES – METAL / TIMBER WORK
# WORK INSTRUCTION WP.06

1. Shop drawings for these frames should be prepared by the sub-contractor/supplier. These need to be checked by the various people concerned such as engineers, certainly the builder, to ensure that they conform to the architectural and structural drawings especially the dimensions and will suit the project. These drawings should be stamped or signed for construction by either/or the builder and sub-contractor. A signed copy of these drawings should be kept.

2. The supplier should supply a delivery docket with the frames when delivered to the site. Obtain the delivery docket as evidence that the frames have been manufactured in accordance with the approved shop drawings.

3. Ensure that the set out for the walls and/or roof are correct to the agreed survey lines.

4. Erection of the frames should proceed with inspection ensuring:

    - frames are inserted at the correct centres;
    - frames are in line, level and plumb;
    - frames are adequately braced and secured in position with fixings as required;
    - noggings to walls and ceiling are installed correctly.

5. Mark up the shop drawing, sign and date it to indicate that frames, their installation and their connections are all complete and in accordance with the shop drawings.

# QA MANAGEMENT SYSTEM
# CARPENTRY - FRAMING
# WORK INSTRUCTION WP.07

Note The records for carpentry framing will be marking up the drawings when areas are inspected and found to comply. These should be signed and dated. Alternatively diary entries may be made to provide records of inspections. These will be the records for all carpentry framing inspections.

1. The design of timber framing may be part of the contract documents. If so, ensure that these are adequate as the work proceeds. If any framing does require design it should be done in accordance with the right timber framing code and if necessary seek engineers approval. Any computations or work to do with the design to any members should be maintained. The computation etc, stamped by the building permit must be maintained.

2. Ensure that all works are set out in accordance with the established survey.

3. The sub floor framing should be inspected to ensure that:

- the stump hole excavation is to the required depth and diameter;
- the correct stumps are installed with adequate concrete base;
- stumps are backfilled and if bracing is required adequate and correct bracing installed;
- bearers and joists installed to the correct line and level, trimmed and correct allowances made for walls and the like;
- if sheet flooring is installed at this stage ensure that it is installed to manufacturers requirements. All edges must be supported adequately.

3. Wall framing to be inspected to ensure that:

- the set out is in accordance with the survey drawings to provide the correct lines and levels for the project;
- walls should be constructed with the correct studs, centres, bracing, beams, lintels, tiedowns etc as noggings for fixtures are in correct position. straightness;
- ensure all openings are in the correct location
- per the approved design;
- frames should be checked for plumb, level and to the right size;

3. The roof framing should be checked to ensure that:

- the correct pitch and shape of the roof is set out;
- the correct sizes, supports, tie downs and connections of the timber members are used;
- ridges, hips, valleys are installed as required;
- eaves and fascias are to the right size and line;
- battens if required, trimming to sky lights, openings and the like are installed;
- noggings for fixtures are in correct positions.

6. Ceiling framing to be checked to ensure the correct size of members and the centres are correct.

7. If termite treatment is to be installed this must be done at an appropriate time when the under floor area is clean of debris and the area treated will not be disturbed after treatment. On completion of the termite treatment ensure that a certificate is obtained from the applicator to provide evidence that the treatment has been installed and complies with the Australian Standard.

8. The window and door schedule may be part of the original contract. If so ensure that the supplier is given all appropriate details. If not ensure that the correct type, size, material, finishes etc of the windows and doors is agreed with the client and confirm their approval in writing to the client.

Inspect the doors and windows after installation to ensure that:

- the units are plumb and in line;
- flashings are installed to detail to ensure water tight openings;
- if sealant or the like is required this is installed at the appropriate time to render the opening waterproof.

Window and door glazing must be checked by the installer to ensure glass complies with the Australian Standard. A Certificate of Compliance should be sought and gained from the glazier.

# QA MANAGEMENT SYSTEM
# STRUCTURAL STEEL / METAL WORK
# WORK INSTRUCTION WP.08

1. Shop drawings should be completed prior to fabrication of any items to ensure the correct size, finish, bolt holes, brackets, cleats, welds etc are included. The drawings should be tamped "Approved for Manufacture" or similar by the fabricator (and builder if appropriate) prior to fabrication.

2. When installation is complete, inspect the steelwork to ensure:

   - all welds are complete;
   - all bolts are tightened;
   - all base metal is primed;
   - members are plumb, square and true;
   - correct heights and clearance are maintained;
   - temporary propping is installed/removed as required.

3. Mark up shop drawings on completion, or enter in the diary.

# QA MANAGEMENT SYSTEM
# ROOFING
# WORK INSTRUCTION WP.09

Note: The evidence of compliance will be diary notes and/or marked up drawings.

1. The specifications should indicate the colour, type and style of roofing required. Samples should be submitted if required. Client acceptance and confirmation in writing is required prior to commencement.

2. The fascias gutters and sumps should be checked to ensure their correct type and size, fixed securely and sealed. Also ensure that they are to fall and drain properly. Ensure the fascia is fixed at the correct soffit height.

   Again the evidence of compliance will be marked up drawings and/or diary notes to indicate these inspections have been made and the installation complies with the drawings and specification.

3. Inspect all the valleys and under flashes to ensure they are installed properly, lapped sealed to provide a water tight flashing.

4. Sarking and insulation should be installed if required to detail. Lap sarking and ensure there are no gaps in the insulation.

5. a) Installation of roof tiles should be in accordance with manufacturers specification. Ensure that battens are installed to the correct centres. Ensure that the tiles are installed and secured as required, there are no gaps, no leaks, no cracked tiles installed.

   b) For metal deck or corrugated metal roofs ensure that they are installed to the manufacturers specification with screw fixings as prescribed.

   For both types of roofs ensure that the correct method of tying the roof down complies with the terrain category specified.

6. Ensure that ridges and flashings are installed according to details. Ensure there are no leaks, a lapping is correct and all joints are sealed as required.

   For tiled roofs ensure pointing to ridges, gable etc. are to colour and complete.

7. Ensure that the correct type and size of downpipes are installed and secured with positive laps and connected to the storm water system.

# QA MANAGEMENT SYSTEM
# PLASTERBOARD
# WORK INSTRUCTION WP.10

The evidence of compliance will be marked up drawings and/or diary notes for all inspections for the plasterer.

1. Insulation should be installed to specification ensuring a tight fit between studs, rafters etc. No gaps should be evident. Ensure the correct R value is installed to walls and ceiling.

2. Wall linings should be inspected to ensure the correct installation with corner angles and the like installed. Ensure all joints are sanded smooth, ready for painting. WR board to wet areas, flashed and sealed to manufactures details.

3. Ceiling linings should be inspected to ensure all joints are completed, filled and sanded off.

4. Cornices and mouldings should be inspected to ensure the correct types are installed to the details necessary, all mitre cuts filled and the areas left ready for painting.

# QA MANAGEMENT SYSTEM
# CARPENTRY - GENERAL
# WORK INSTRUCTION WP.11

Note: The records for all the carpentry items in general will be the marked drawings, schedules which are signed and dated or a diary entry to indicate compliance of the particular unit with the drawings and specifications.

1. The door and hardware schedule should also be agreed with the client if it is not already part of the contract. Ensure the correct types of doors and frames, the sizes, the materials to be made of, hardware to be used and the like, prior to commencement. Again, confirm in writing to the client their approval.

2. If external cladding is to be installed ensure that it is the right type, installed in accordance with any specific details on the drawings. Sarking or other membranes should be installed behind the cladding. Window and door frames may be installed before or after the cladding depending on the details and flashing required. Ensure whatever method used that the installation will withstand moisture penetration. On completion inspect all cladding to ensure completeness and water tightness of the building.

3. Floorboards if specified should be inspected to ensure they are installed to industry standards which ensures they are clamped and nailed, either exposed or secret nailing. If any sisalation or insulation under the floorboards ensure that this is installed.

4. Ensure external trims such as fascias, barges, soffit linings are installed according to the drawings.

5. Internal doors should be inspected to ensure they comply with the drawings, schedule and specification and they are operable.

6. Ensure that skirtings, architrave's, pelmets or other trims are installed to detail with mitred corners and the like to all openings requiring that detail.

7. Internal timber linings must be checked to ensure they are installed to specification / manufacturers instructions including square and mitre cuts, joints, fixings and trims.

# QA MANAGEMENT SYSTEM
# JOINERY
# WORK INSTRUCTION WP.12

1. Shop drawings should be obtained and reviewed to ensure that the correct sizes, finishes, fittings and fixtures etc are included and the shop drawings are approved by the builder and the client (if required) prior to commencement of construction.

2. When installed ensure that the kitchen, bathroom robes and other joinery is installed to the correct details. Trims and the like should be inspected to ensure there are no gaps. All joinery should be inspected to ensure that it is operable. The records for this will be diary notes or drawings marked up to show the installation is complete. Ensure surfaces are protected as required.

3. Built in joinery should be inspected to ensure it complies with the detailed design and that it is operable.

4. Internal stairs should be inspected to ensure that they comply with regulations and details for the stair construction. Goings and risers should be in compliance with regulations. Balusters and hand rails should be checked for compliance with the Building Code of Australia BCA.

# QA MANAGEMENT SYSTEM
# FLOOR & WALL FINISHES
# WORK INSTRUCTION WP.13

1. Finishes schedule must be approved and agreed with the client prior to starting. Colours, types of materials, precise locations and junction details should be agreed. Confirmation must be given to the client of acceptance of the finishes schedule. Supply samples as necessary to achieve acceptance.

2. Wall tiles should be inspected to ensure that:

   - the correct glue is being used;
   - flashings installed if required;
   - there are no drummy tiles evident;
   - grouting has been installed and cleaned up;
   - the areas is left clean.

3. Floor tiles should be checked to ensure that:

   - the correct adhesive is used;
   - there are no drummy areas of flooring under the tiles;
   - tiles are grouted and left clean;
   - any shower outlets or floorwastes are cleaned out to ensure no grout or glue is washed down into the drain.

4. Vinyl sheet or tiling should be inspected to ensure that:

   - the correct underlay is installed if required to manufacturers recommendations;
   - the vinyl is laid to the required areas with joints welded as appropriate and skirtings installed.

5. If silicone or mastic sealant is to be installed it should be inspected to ensure that the areas are watertight and no gaps are evident. Clean up including excess sealant.

6. If parquetry or cork specified these should be installed to manufacturers and/or specification recommendations over the floor as required. Check to ensure that all cuts, mitres edging and the like are carried out in accordance with the plan.

7. Ensure the timing for sanding and sealing is done to ensure the job is done in a suitable environment eg. no tradesmen, no dust etc. Sanding and sealing any floor boards, parquetry or cork must be done in accordance with the manufacturers and/or specification recommendations. Ensure that the areas are finished as required, all protection removed and the floor left to cure for the minimum period recommended.

8. Install carpet and ensure that all edges are secured, all trims and naplocks are installed to the required specification.

# QA MANAGEMENT SYSTEM
# SOLID PLASTERING & APPLIED FINISHES
# WORK INSTRUCTION WP.14

1. Internal solid plastering should be checked to ensure that the correct thickness of plaster was installed, the correct angles used for corners and the finish is flat and straight.

2. External render should be inspected to ensure that it is installed to the areas as required, to the depth as required with all ex angles, trims etc as required.

3. Approve samples of applied texture finishes prior to commencement. Ensure finishes are applied in complete sections to avoid joins. Mask and cover any windows, trims etc as required. Obtain warranty from applicator on completion (if required).

# QA MANAGEMENT SYSTEM
# PLUMBING
# WORK INSTRUCTION WP.15

1. Ensure that the schedule of fixtures and fittings to be used throughout the building are agreed with the client. This includes the colours, types, locations and the like of all units. Confirmation in writing must be given to the client of approval of the schedule of fixtures and fittings.

   Ensure authority applications are made as required and receipt filed.

2. Underground water and gas services should be run from the meters into the building in accordance with regulatory requirements. Excavation depths and backfill material shall be in accordance with the regulations and site requirements.

3. The rough in of services, ie. sewer, hot water, cold water and gas within the structure should be inspected to ensure that:

   - correct materials are used for all services;
   - falls are maintained in all the sewer pipework;
   - hot water, cold water and gas pipework is installed to the right sizes and to regulations;
   - all services are clipped and secured to the structure to ensure a solid installation;
   - pressure tests are carried out on the services as required;
   - record the results of pressure tests carried out in diary notes or other entries – record the type of test and pressures recorded.

4. The installation of fixtures should be checked to ensure that they are installed to the manufacturers recommendations and/or the drawings and specification for the project.

5. Fitting off the sewer, hot water, cold water and gas within the structure should be checked to ensure that all the correct fittings are connected in accordance with regulations and manufacturers recommendations. Purge the systems and ensure all fittings and appliances are operative. (This may have to be coordinated with electrical fit off).

6. External cold water and other services required should be inspected to ensure that they are in the right location and they are operative.

7. Maintenance manuals, as-built drawings, guarantees must be submitted on completion of the job. These must be checked prior to handing over to the client to ensure that drawings are complete and indicate the precise location of services and that the manuals provide any brochures and guarantees for all the fixtures as installed in the building. Authority inspection and approvals should be included in this handover.

8. If a heating system is to be included this must be checked to ensure that it is installed to specification, working and the maintenance manual is available to the owner.

# QA MANAGEMENT SYSTEM
# ELECTRICAL
# WORK INSTRUCTION WP.16

1. Ensure that the schedule of fixtures and fittings is agreed with the client, including the types, colours, locations of all fittings and fixtures, the type and requirements for switchboards and meter locations. Confirmation should be given in writing to the client of his approval.

   Ensure authority applications are made as required and receipt filed.

2. The supply of electricity either underground or overhead should be checked to ensure that it complies with the authorities requirements. Location of meter box should be agreed with the client if not already done.

3. All wiring, rough in should be checked to ensure that it complies with the drawings, specifications and regulations.

4. The electrical power and light outlets should be fitted and inspected to ensure that the circuits are operative and all outlets work. Volt meter, amp meter and insulation testing should be carried out as required by the electrician. Circuits should be identified on the switchboard.

   Appliances such as exhaust fans, air conditioning, cook tops, etc should be run to ensure they are correctly installed and operating as required.

5. External lighting and power should be inspected to ensure that it complies with the drawings and regulations and all the circuits have been tested and are satisfactory.

6. The maintenance manuals and as-built drawings must be submitted and reviewed for completeness prior to hand over to the client. This hand over should include the certificate from registered authority.

# QA MANAGEMENT SYSTEM
# PAINT & PAPER HANGING
# WORK INSTRUCTION WP.17

1. A colour schedule must be agreed with the client prior to commencing on the paint work. The colours, types of paint, locations of different paints, colours must be agreed with the client. The agreed schedule should be approved by the client and confirmation given in writing to the client.

   If necessary sample panels may be prepared and agreed prior to commencement.

2. The external paint work to walls, windows, doors, and trims should be inspected to ensure that:

   - preparation satisfactory eg. masking, filling, sanding;
   - there are no runs, no splashes, no oversprays;
   - priming coats, undercoats and top coats are completed to the specification and/or the manufacturers instruction;
   - correct paint work in the correct location as per the schedule;
   - masking etc. removed and area left clean.

3. Internal painting to walls, ceilings, windows, doors, and trims should be inspected to ensure that:

   - preparation satisfactory eg. masking, filling, sanding;
   - there are no runs visible in the paint work;
   - there are no splashes or overspray evident;
   - priming coats, undercoats and top coats are completed to the specification and/or the manufacturers instruction;
   - all masking and protective materials should be removed and cleaned away;
   - correct paint to the schedule applied.

4. Wall paper should be inspected on completion to ensure that:

   - it is installed to the manufactures recommendations;
   - the joints are vertical and no gaps are visible;
   - trimming to openings, skirting and cornices is satisfactory.

# QA MANAGEMENT SYSTEM
# GLAZING
# WORK INSTRUCTION WP.18

1. Glazing to external windows and doors may have been covered under the ITP for Carpenter General with the supply of the windows and doors. Any further glazing required must be done in accordance with the Australian Standards. A Certificate of Compliance should be supplied by the glazier to verify that the correct glass has been installed.

2. Shower screens and doors must be inspected to ensure that they are the correct type and colours and details as the plan. They must be sealed and operable.

3. Ensure mirrors installed are to detail, they are secured and sealed as required.

4. Clean all glass surfaces internally and externally and all mirrors.

# QA MANAGEMENT SYSTEM
# EXTERNAL WORKS
# WORK INSTRUCTION WP.19

Paving is concrete, pavers or tiles laid on sand or concrete sub-base.

1. Ensure the site is cleared and levelled as required. Use ITP2 – Site Works and Excavation if necessary.

2. Ensure the base preparation is satisfactory and able to support paving. Check levels, lines and falls. Inspect the correct paving is laid to approved colour, pattern, jointing etc. On completion clear away all debris.

3. External structures should be constructed using the appropriate ITP's to control the process if necessary eg. ITP 02 – Site works and excavation
   ITP 04 – Concreter
   ITP 05 – Brickwork/Blockwork/Masonry
   etc.

   Alternatively inspect the structure on completion against the specifications and drawing, and sign the ITP when satisfied it is correct.

4. Fences and gates are to be constructed from the specified materials. Ensure correct lines, levels and type of fence and gates. Ensure gates are operable.

5. Ensure landscaping is to detailed design excavations, contouring, topsoil, plants, grass etc. Ensure the responsibility for maintenance of plants during defects liability period is resolved.

6 Ensure watering system is installed to plan and is fully operable. Operation manuals should be handed over to the customer