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Government Administration Building 2nd & 4th Floor Bathroom Upgrades

SCOPE OF WORKS, CONTRACT CONDITIONS AND SPECIFICATION

Tender Issue

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PART I: GENERAL REQUIREMENTS

DESCRIPTION OF THE WORKS

Alterations to existing bathrooms at Government Administration Building as described in the attached Drawings.

1.0 CONTRACT CONDITIONS

- 1.1. The proposal shall be submitted in strict accordance with the applicable requirements of the Contract Documents as defined in the proposal, including all modifications, amendments, or addenda issued or in force at the time and date of the Contract agreement.
- 1.2. The right is reserved to revise or amend any portion of the Contract Documents prior to the acceptance of any proposal. Such amendments, if any, will be made known by the issuing of an addendum to all bidders.
- 1.3. The Contractor shall carry out and complete the works shown in the Contract Documents in every respect to the reasonable satisfaction of the inspecting Architect or Owner's representative. The works shall be carried out expeditiously and in accordance with the full intent and meaning of the Contract Documents.
- 1.4. The Contract Form will be A.I.A:

Document A105 (1997) – Standard Form of Agreement Between Owner and Contractor For a Project of Limited Scope where the basis of payment is a Stipulated Sum.

Document A201 (1997) – General Conditions of the Contract for Construction.

The abbreviated Bermuda Standard Form of Contract for Construction CCC107 (Stipulated Sum) 1990 Edition
- 1.5. The Contract Documents are listed and included in Appendix A.

2.0 DEFINITIONS

- 2.1. The term **Owner** shall mean **the Government of Bermuda, Public Works**
- 2.2. The term **Architect** shall mean the Project Manager, Public Works 3rd Floor GPO Building
- 2.3. The **Contractor** shall mean the individual, firm or company contracted by the Owner and responsible for furnishing all necessary labour, materials, equipment, tools and required insurance to perform, in a good workmanlike manner and to the satisfaction of the Owner and Architect, the work called for by the Contract Documents including revisions and addenda.
- 2.4. The term **Subcontractor** shall mean any individual firm or company whom the Contractor subcontracts to provide labor, or labor and materials for the contract.
- 2.5. The term **Nominated Sub Contractor** shall mean any individual firm or company named by the owner, and Sub Contracted by the Contractor who provides labor, or labor and materials for the contract.
- 2.6. The term **Named Supplier** shall mean any individual firm or company named by the owner Sub Contracted by the Contractor who provides labor, or labor and materials for the contract.

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- 2.7. The term **notice** shall mean written notice.
- 2.8. The term **approval** or **approved** shall mean written approval.
- 2.9. The term **appropriate** means compatible with, or suited to the material or situation under description.
- 2.10. The term **project development** shall mean the proposed development, which is contemplated under this contract.
- 2.11. The term **Making Good** shall mean to its fullest extent including proper jointing, cutting, toothing and bonding, painting, papering, etc., to suitable change of direction of margins, etc.
- 2.12. The **Owner's Contractor(s)** shall be the (individual) firm(s) or company(ies) contracted separately by the Owner, for works outside the Scope of the Contract agreed between the Owner and the Contractor. The Contractor shall be responsible for co-operating with the Owner's Contractors. The Owner shall advise the Contractor in advance of his intention to use separate Owner's Contractors.

3.0 CONSTRUCTION SCHEDULE

- 3.1 The Contractor is required to state along with the bid how many weeks will be needed to complete all the specified work.
- 3.2 The Contractor is required, no later than the first week of the construction program to submit to the Owner a full construction program for the entire work as described in the Specification.
- 3.3 The Date of Commencement is to be agreed by the Owner. Date of commencement shall be subject to: (1) the receipt of Statutory Approvals; (2) fabrication, shipping and custom's clearance of any/all Owner supplied items required to complete the noted works and achieve occupancy approval(s); (3) uncontrollable circumstances such as but not limited to inclement weather.
- 3.4 The Date of Substantial Completion for all works shall be agreed by the Owner and in accordance with receipt of Statutory Approvals and procurement of finishes/fixtures/owner supplier items.
- 3.5 Warranty Period will be **12** months from the date of Substantial Completion for all works, including electrical and mechanical installations.

4.0 SCHEDULE OF RATES / EXTRA WORK

- 4.1 The term extra work as used herein refers to and includes work required by the Owner which in the judgment of the Architect involves changes in or additions to that required by the Contract Documents and addenda and may only be carried out if issued as a written instruction by the Architect.
- 4.2 The Contractor shall provide quotations for any extra work for the Owner approval prior to the commencement of any extra work unless authorized by the Owner as a Construction Change Directive.
- 4.3 Written instructions must be received by the Contractor prior to the commencement of any extra work and must unmistakably indicate the intention of the Owner and the Architect to treat the work described therein as extra work.

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- 4.4 No item is to be carried out on a day work basis without the express prior agreement of Architect.

5.0 PROGRESS PAYMENT

- 5.1 Payment for these works will be based on monthly valuations for works completed to the satisfaction of the Owner and for materials on site. The Contractor will submit applications for payment in writing to the Owner.
- 5.2 Requests for Payment shall be on AIA G702 and G703 forms or if agreed with the Architect in similar format with detail of percentages of work completed.
- 5.3 No advance payments will be made for any materials or deposits for materials related to the construction, whether on island or supplied from overseas. Payment will be made on the basis of materials being on-site only.
- 5.4 The Contractor shall be solely responsible for the payment of Sub-Contractors. However in the event of non-payment by the Contractor to the Sub Contractor for works legitimately completed and in accordance with the Contract, the Owner shall be entitled to withhold a corresponding amount from the subsequent payment to the Contractor and pay the Sub Contractor directly, in accordance with AIA forms.

5.5 Retention of Payment to the Contractor

10% of each Progressive Payment will be retained until the work **reaches substantial completion**. At this time 5% of the retention will be released. The remaining 5% of the retention will be released after the warranty period has expired (refer to 3.5).

6.0 CONTRACTORS INSURANCE

- 6.1 The Contractor shall not commence work until he has obtained and paid for all insurance required under this Section, and under Bermuda Law, and as prescribed by the Bermuda Standard Form of Contract for Construction, 1999, item 15.9.

7.0 WORKMEN'S COMPENSATION INSURANCE AND OTHER COSTS

- 7.1 The Contractor and each subcontractor shall provide adequate workmen's compensation insurance for all employees engaged in work on this project.

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7.2 The Contractor shall be responsible for ensuring that all Government taxes and required employee benefits are paid.

8.0 PUBLIC LIABILITY INSURANCE

8.1 The Contractor shall carry public liability insurance in respect of bodily injuries or death as a result of any accident occurring from or by reason of or in the course of the operations of this contract, whether occurring by reason of the acts or omissions of the Contractor or any Subcontractor.

8.2 The insurance against loss from any accident resulting in bodily injuries to or in the death of one person shall be in the sum of \$1,000,000.00 and subject to the same limit for each person, or as required by Bermuda Law, whichever is the greater figure. The total insurance for loss from any one accident resulting in bodily injuries or death of more than one person shall be the sum of \$1,500,000.00.

9.0 FIRE AND OTHER INSURANCE

9.1 The Contractor shall effect and maintain all risk insurance against loss by fire, lightning, wind storm, hurricane, explosion, riot, riot attending a strike, aircraft, vehicle upon all new work in place and all materials or equipment in connection with these projects.

9.2 This insurance shall be in the amount equal to the full insurance value thereof at all times and shall be for the benefit of the Owner, the Contractor and each Subcontractor as their respective interests may appear.

10.0 EXAMINATION OF THE SITE

10.1 The Contractor shall carefully examine the site so as to acquaint himself thoroughly with all conditions prior to the submission of the bid; no allowance will be made for lack of full knowledge of all conditions. The Contractor should carefully examine the areas adjacent to the site where he may place his materials and equipment, and ensure that protection to adjacent public areas is put in place at the start of the works.

11.0 ASSIGNMENTS

11.1 The Contractor shall not assign, transfer, convey, sublet or otherwise dispose of this contract, or his right title or interest in or to the same or any part thereof without the previous written consent of the Owner or Architect.

11.2 No consent to any assignment or other transfers and no Subcontractor shall relieve the Contractor of any of his obligations under this contract. All assignees and Subcontractors shall be deemed as agents of the Contractor.

12.0 OMISSIONS

12.1 Anything shown on the drawings but not mentioned in the specifications, or vice versa or anything not expressly set forth in either, but which is reasonably implied, shall be included without extra cost. Should anything be omitted from the drawings necessary to the proper

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construction of the work herein described, it shall be the duty of the Contractor to so notify the Architect before signing the Contract, and in the event of the Contractor failing to give such notice, he shall make good any damage or defect in his work caused thereby without extra charge.

- 12.2 Where a discrepancy occurs either within the drawings or between the drawings and the specification, the Contractor shall not make any assumptions or interpretations. However if for the sake of expediency a level of interpretation is included in the Tender submission, this shall be declared, with a separate allowance identified

13.0 INCLEMENT WEATHER

- 13.1 The Contractor shall cover-up and protect the works from inclement weather. The Contractors must make good at his own expense any part of the works damaged by such cause.

14.0 COMPLETION OF CONTRACT AND FINAL PAYMENT

- 14.1 The date of Substantial Completion of the work is the date when the construction is sufficiently completed so that the buildings are ready for use. This date will be certified by the Architect and Owner.

15.1 CONTRACT OBLIGATIONS

15.2 General:

The Contractor shall:

- 15.2.1 Ensure all works are to be carried out in accordance with the Contract Documents and as shown on subsequent drawings that may be deemed necessary, at any time during the Contract Period, by the Architect or Engineer.

15.3 Statutory Requirements:

The Contractor shall:

- 15.3.1 Comply with all relevant statutory requirements, police requirements, safety, health and welfare requirements.
- 15.3.2 Ensure that all necessary approvals are gained where necessary before work is carried out.
- 15.3.3 The Contractor will undertake to inform the statutory authorities that work will be in progress at the site, stating anticipated daily times of work and contract period.
- 15.3.4 Be responsible for advising inspectors of the progress of the works and requesting inspections at appropriate stages.
- 15.3.5 Be responsible for obtaining the Occupancy Certificate.
- 15.3.6 Be liable for any opening up for inspection required by statutory inspectors where such work fails to comply with the requirements of the contract documents, and any repeated or abortive work arising from failure to satisfy inspectors.

15.4 Access to the Site:

- 15.4.1 The Owner will allow the Contractor access to the site in order that he may carry out the specified works in a timely, sequential manner.

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15.4.2 The Contractor will allow the Owner's Contractor(s) access to the site in order that they may carry out the specified works in a timely, sequential manner.

15.5 Use of the Site/Rubbish:

15.5.1 The Site is to be kept tidy and regularly cleared of rubbish.

15.5.2 The Site is not to be used for any other purpose other than carrying out the Works.

15.5.3 The Contractor shall regularly (minimum 1/wk at the end of the week) cart away any surplus or residual materials not included in the works and ensure that the site is left in a clean and tidy condition.

15.5.4 The Contractor shall agree with the Owner a suitable staging area for work materials and equipment, and shall restrict his use of the site as directed by the Owner.

15.5.5 The Contractor shall be responsible for protecting site access, driveway and staging area, and reinstating to pre construction state at no additional cost to the Owner.

15.6 Site Safety:

Every precaution must be taken to ensure safe working conditions on site, and to protect both those involved in the work and anyone else who may be affected, from injury and hazards arising from the works.

15.7 Security:

15.7.1 The Contractor is to properly safeguard the site and existing building affected by the works from damage, and will accept full responsibility for ensuring the structural integrity and prevention of damage from inclement weather to all parts of the Works and related areas.

15.7.2 The Contractor shall ensure that the site is secure from vandals and theft at the end of each day.

15.7.3 The Contractor shall ensure that the site is enclosed and secure against trespass and/or injury to the general public.

15.8 Nuisance:

The Contractor will take all necessary precautions to minimize nuisance and prevent danger to the occupiers of the neighboring buildings, and shall carry out all necessary protection of the works in this respect.

15.9 Working Area:

The working area for the Contractor will be confined to the parts of the buildings defined on the Contract Drawings. The sequence of construction involving different parts of the building is to be agreed with the Architect prior to the start of construction.

15.10 Protection of Existing Buildings:

15.10.1 The Contractor shall provide and install all necessary hoarding, dustsheets and other protection necessary to ensure that no damage is caused to the existing fabric inside or outside of the work area. Any damage so caused shall be put right to the Architect's approval at no extra cost to the Contract.

15.10.2 The Contractor is to be responsible for all propping and shoring to existing properties to ensure structural integrity and stability of contract works and adjacent properties throughout the contract period, all to Structural Engineer's satisfaction. Any damage to adjacent properties by the Main Contractor, his subcontractors and/or suppliers, shall be made good by the Contractor at his own expense.

15.11 Scaffolding/Hoist Equipment/Tools:

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15.11.1 The Contractor will be required to provide and pay for all hire charge for any scaffolding/hoist equipment deemed necessary for carrying out the works.

15.11.2 The Contractor shall maintain such temporary works as necessary, and shall dismantle and remove them upon completion. Any damage caused by such activity shall be put right by the Contractor at no extra costs to the Contract. The Contractor shall supply all tools, brushes, ladders and any equipment for the proper carrying out of the works.

15.12 Water and Electricity for the Works:

The Contractor is to agree with the Architect on site, points where he may make temporary connections to water and electrical services, and may make reasonable use of both, for the purpose of the Works. The Contractor is to be responsible for all Utility bills through out the duration of the Contract Period, and shall ensure that the water tank(s) is/are topped up on completion of the works

15.13 Telephones:

The Contractor is to provide his own telephone/communication system.

15.14 Supervision/Working Foreman:

The whole of the works is to be carried out under the supervision of an approved, competent and full-time working foreman. Orders and instructions given to him shall be deemed to have been given to the sub-contractors and all trades.

The Foreman's responsibilities shall include:

- (i) Supervision of works to ensure compliance with the drawings, specifications, and schedule by all trades.
- (ii) The Maintenance of site security. The client's requirements in this regard are to be strictly observed.

The Contractor is to allow for full cost of adequate supervision.

15.15 Working Hours

No restrictions on working hours will be in effect other than the statutory provision for the area, which are to be strictly observed.

Working hours outside 7:00am-6:00pm are to be agreed with the Architect/Owner prior to carrying out the works.

15.16 Workmen

The Foreman will keep a daily log of all workers on site to be presented on request to the Architect.

15.17 Sequence of the Works

There shall be minimal disruption to the existing property not within the scope of works, if parts of the building not within the work areas must remain habitable during the entire contract period. Disruption to services must be agreed ahead of time with the Owner and reinstated at the end of each day.

Means and methods are the responsibility of the Contractor but must be in response to the intended Phasing for the Project.

15.18 Sub-Contractors and Owner's Contractors

The Contractor shall be responsible for:

15.18.1 Executing Contracts with all Sub Contractors

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15.18.2 Co-coordinating all Sub-Contractors, and shall provide all builder's works associated with other trades, including cutting, chasing, trenching, patching and making good. Where such work is required for Owner's Contractors, the Contractor shall advise associated costs which shall be dealt with by Change Order.

15.18.3 Co-coordinating and co-operating with the Owner's Contractors.

16.1 RECORDS, MEASUREMENTS AND VALUATIONS

16.2 Cost Breakdown

The Contractor will submit to the Owner a breakdown of costs in accordance with AIA procedures

16.3 Construction Schedule

The Contractor will submit to the Owner a Construction Schedule, if requested.

16.4 Variations to the Contract Sum

No Variations will be considered unless agreed to by the Architect in writing prior to the commencement of the work in question unless otherwise authorized by a Construction Change Directive.

16.5 Materials on-site

At each valuation the Architect and owner will be made aware of any uninstalled material on-site.

17.1 MATERIALS AND WORKMANSHIP

All materials used in the works or the execution thereof will be the best of their respective kinds and in accordance with the Contract Drawings and Specifications. All materials must be used in accordance with manufacturer's instructions and/or recommendations.

17.2 Supply and Install

All items indicated in the Specification and/or drawings are deemed to be supplied and installed by the Contractor unless otherwise stated.

17.3 Materials provided by or supplied on behalf of the Owner

17.3.1 Details of such materials are given in Appendix B, including those requiring installation by the Contractor.

17.3.2 The Contractor is responsible for receiving delivery of, marking receipts for, and taking into appropriate storage. Owner supplied items delivered to the site for the purposes of the works.

17.3.3 The Contractor is responsible for advising the Architect at the start of works on site when Owner supplied items are required, and for advising the Architect of any adjustments to the schedule which he feels may affect such delivery dates.

17.4 Handling and Storage of Material on Site

17.4.1 The Contractor shall make provision to ensure that all materials used in their works are supplied from recognized sources and delivered to the site in good condition.

17.4.2 All building materials to be handled, stored and protected in strict accordance with manufacturer's instructions and recommendations.

17.4.3 All materials to be protected from the elements and secured from theft.

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17.5 Labour

All works shall be thoroughly carried out, in accordance with the highest standards of the particular trade.

17.6 Code Compliance

All work shall be in accordance with the relevant Building Codes, Industry Standards of Practice and the recommendations to the relevant technical and advisory organizations.

17.7 Setting Out

17.7.1 The Contractor is responsible for taking site dimensions and for the setting out and leveling of the works; the Architect's duties do not include checking the setting out for the Contractor.

17.7.2 The Contractor will be required to achieve the tolerances and setting out shown on the drawing, and to replace any inaccurately positioned or wrongly sized items at no extra cost to the Owner.

17.7.3 If the Contractor shall find any discrepancy in the Contract Documents he shall immediately give to the Architect a written notice identifying the discrepancy and the Architect shall issue instructions in regard of this matter.

17.8 Cutting Holes, Chases

The Contractor is to be responsible for cutting holes, chases and making good thereafter for all trades including public utilities and tradesmen, and the Owner's Contractor(s).

18.1 SITE VISITS/INSTRUCTIONS

18.2 Architect's Site Visits

The Owner will make periodic site visits to inspect the progress and quality of the works.

18.3 Site Instructions

Only the Owner may give instructions. All instructions shall be either in writing or, if verbal shall be confirmed in writing.

Where the Contractor considers that an instruction received is likely to affect the cost or progress of the works he shall at the time of the instruction:

1. Notify the Owner
2. Mark the instruction "Extra" or "Saving" and confirm the approximate Variation.

If this is not done, it will be assumed that the Contractor is willing to carry out the variation without cost adjustment to the Contract.

19.1 COMPLETION OF WORKS

19.2 Testing

All mechanical and electrical equipment, fixtures and fittings to be properly tested to ensure proper functioning prior to certificate of Substantial Completion.

19.3 Cleaning

The works and adjacent areas are to be left free from marks, scuffs, protective coverings; cleaned in accordance with manufacturer's instructions with moving parts adjusted, eased and lubricated as relevant.

The Contractor shall ensure that the site is left clean and tidy. The Contractor is responsible for reinstating any areas damaged during the course of Construction.

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19.4 Maintenance Information

The Contractor shall provide the Owner with all relevant maintenance information within two weeks of contract completion, labeling where relevant all electrical panels, valves, switches etc.

19.5 Remedy of the Works

The Contractor shall remedy any omissions and defects arising from the Works within the Warranty period at no extra cost to the Owner, arranging times suitable to the Owner when access may be gained. These may be outside normal working hours.

END OF PART I

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PART II: SCHEDULE OF WORKS

1.0 DEMOLITION EXCAVATIONS AND EXISTING SERVICES

1.1 Protection of Existing Areas to remain

The Contractor is to install temporary hoardings and sealed walls to separate and protect areas outside the scope of work for each phase.

1.2 Existing Openings

Remove existing door/windows and frames, as required. All work to be made good. All finishes to be flush and true.

Protect Existing Openings to remain adjacent to work areas.

1.3 Existing Internal Finishes

Carefully remove all finishes as required. Make good to receive new finishes.

Carefully remove all fixtures and fittings as required. Salvage Owner Items where indicated.

Remove existing floor finishes, and prepare area to receive new work.

Adequately protect existing Floor surfaces to remain throughout construction period. Agree protection methodology with Architect.

1.4 Internal Walls

Carefully demolish existing wall sections as indicated on drawings, and to Structural Engineer's specifications. Adequately protect adjacent areas to remain.

1.5 External Walls

1.6 Electrical Services

Disconnect and make safe electrical fittings and services to works area. Carefully remove & cart away existing fixtures as indicated on drawings.

NOTE: Electrical Service must be maintained in habitable areas outside the work area throughout Construction operations. Interruptions to service must be agreed with Owner in advance.

1.7 Plumbing Services

Carefully remove & cart away existing fixtures as indicated on drawings and cap off waste and supply.

NOTE: Plumbing Service must be maintained in habitable areas outside the work area throughout Construction operations. Interruptions to service must be agreed with Owner in advance.

1.8 Water Supply/Tanks

Contractor is to use water from Existing tank. On completion existing Tank is to be inspected and repaired as required.

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2.0 STRUCTURAL WORK

- 2.1 All structural work, including support of existing work, preparation and method of placing/laying materials, shall be to the satisfaction of the structural engineer, and the Building Inspector.
- 2.2 All temporary propping arrangements are to be to the Engineer's satisfaction.
- 2.3 Supply and install new steel beams as required and to Structural Engineer's Specifications.
- 2.4 Supply and install new R.C. beams over new openings, to Structural Engineer's specification.

3.0 FLOORS

- 3.1 Supply and install floor finishes as indicated on drawings. Lay all flooring substrates to suit levels of new floors.
- 3.2 Unless otherwise indicated on the drawings, all new floors are to finish flush with existing adjacent finishes where at all possible.
- 3.3 Unless otherwise indicated on the drawings, where new drains are indicated, floors are to be laid to fall to drains..

4.0 EXTERIOR WALLS

5.0 ROOF CONSTRUCTION

6.0 JOINERY/CARPENTRY

- 6.1 All timber is to be the best of its kind, free from defects, carefully selected and properly seasoned with moisture content at installation between +or- 2% of the average equilibrium that it will attain during service.
- 6.2 All timber liable to wetting or damp conditions to be treated with double vacuum impregnated organic solvent preservative after working before assembly. Bedding faces are to be thickly coated with red lead primer and sealed with suitable sealer.
- 6.3 Keep all timber dry and do not overstress, distort, or disfigure sections or components during transit, storage, lifting, erection or fixing.
- 6.4 Store timber and components under cover, clear of ground, and with good ventilation. Support on regularly spaced level bearers on a firm dry base. Open pile to ensure free movement of air through stack.
- 6.5 All timber specified to receive paint finish to be poplar or similar approved species.

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6.6 Joining

All framing and joining to be properly secured and finished in accordance with trade best practices. All work shall be plumb, true and square and all fixings supports etc. fixed by the joiner. No insets or lengthening pieces will be allowed.

Framing shall mean best methods of jointing: by mortise and tenon, dovetail or similar and joints shall be hidden from view unless otherwise described.

Care shall be taken to minimize effects of shrinkage and wraps; gaps, etc., more than 1mm in any direction shall be replaced under defects liability.

Pelleting shall be used only where approved and then shall be selected from the same timber, matched precisely and be at least 6mm deep.

6.7 Additional Supports

Where not shown on the drawings position and fix additional studs, noggings, or battens for appliances, fixtures, edges of sheets, etc., in accordance with manufacturer's recommendations, as required for new cabinetry.

7.0 DOORS AND WINDOWS

7.1 Windows

7.2 External Doors

7.3 New Interior Doors and Frames

Contractor to sand and paint existing bathroom doors and frames.

8.1 DRAINAGE AND PLUMBING

8.2 General

Unless otherwise stated the Drawings are for Design assist only. The Contractor is to design system complete with all components and adequate falls to industry standards and

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to be code compliant. Contractor to supply and install all necessary components, parts and fittings for plumbing installation as indicated on the drawings. All work to comply with the relevant Building Regulations. Contractor is to be responsible for design of installation and arrange statutory test certificate upon completion.

The Contractor shall obtain all necessary approvals and consents for alterations to drainage and plumbing, and shall be responsible for testing and commissioning of new system.

- 8.2 When not otherwise specified, use jointing and bedding compounds recommended by the manufactures of the appliances, accessories, and pipes being jointed or bedded.
- 8.3 Extend connections from existing system and install new hot and cold supply lines and waste lines as indicated on drawings.
- 8.4 Connect new waste pipes to existing system. Bed in waterproof jointing compound and fix with resilient washer between appliance and backnut.
- 8.5 Make good all penetrations through external walls.
- 8.6 Unless otherwise indicated on the drawings, all pipework is to be concealed within wall and/or floor and/or ceiling construction.

8.7 Testing

Give at least 3 days notice to Owner of intention to commence testing.

Carry out testing before pipe insulation.

Thoroughly flush out all parts of the system, fill with water, remove all air and check for leaks.

Run system to maximum operating temperature and check for leaks.

Allow system to cool, leave in cool condition for at least 3 hours and check for leaks.

Check and adjust operation of all equipment. Controls, and safety devices.

Check operation of all outlets for satisfactory rate of flow and temperature.

9.0 ELECTRICAL SERVICES

9.1 General

Unless otherwise stated the Drawings are for Design assist only. The Contractor is to design system complete with all components to industry standards and to be code compliant. Contractor to collect Owner Supplied Materials and install all necessary components, parts and fittings for electrical installation as indicated on the drawings. Contractor is to be responsible for design of installation and arranging statutory test certificate upon completion.

Install, test and commission the electrical work in accordance with the Regulations, all current and relevant Codes of Practice and requirements, ensuring compliance with

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design and performance requirements, to provide a safe well insulated, earth protected system capable of supplying the anticipate maximum demand.

- 9.2 Installation work to be carried out by qualified electricians fully conversant with the BOCA National Electrical Code.
- 9.3 Fastenings, bushes, glands, terminals, connectors, clips, clamps, and all other minor accessories necessary to complete the installation to be types recommended for the purpose by relevant equipment, accessories etc., manufacturer.
- 9.4 In locations where moisture is present or may occur, use corrosive resisting fastening and Avoid contact between dissimilar metals.
- 9.5 All cabling to be concealed in floors and ceilings or chased in walls, including external lighting.
- 9.6 **Fixing of electrical accessories/equipment**

Supply and install electrical fixtures as indicated on drawings:

Position accurately and square to vertical and horizontal axes.

Where not shown otherwise, align adjacent accessories on the same vertical or horizontal axis as appropriate.

Where not shown otherwise, fix accessories/equipment at heights above finish floor level to match existing.

Where not shown, connect multigang switches so that there is a logical relationship with luminaries.

9.7 **Inspection and Testing**

To Building Inspectors satisfaction.

Give not less than 24 hours notice before commencing testing of new works.

After satisfaction completion of tests submit copies of inspection and completion certificates to Architect/Owner.

10.0 **VENTILATION/HEATING/AIR-CONDITIONING**

11.0 **GAS SERVICES**

12.0 **FINISHES**

12.1 **Walls and Ceilings**

Construct new stud walls as follows and indicated on drawings:

- ½" plasterboard both sides on timber stud to overall thickness of 6" taped and plastered to smooth finish.
- Supply and install new ceilings as indicated on drawings.

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12.2 **Tile Floor Finishes**

- 12.2.1 Supply and install of all new floor finishes is to be as indicated on drawings and per attached Appendix B, C and D. New flooring to be laid on sub-flooring as recommended by flooring manufacturers and specialist suppliers and installers.
- 12.2.2 Suitability of background bases – Before starting work ensure that backgrounds/bases are sufficiently flat to permit specified flatness of finished surfaces, bearing in mind the permissible minimum and maximum thickness of the bedding materials.
- 12.2.3 Check that there are no unintended irregularities within the tile colour/shade, thoroughly mix variegated tiles.
- 12.2.4 Bedding and Grouting – Use bedding and grouting materials recommended by flooring manufacturer. Allow bedding material to harden sufficiently before grouting.
- 12.2.5 Fill joints completely, tool to an approved profile, clean off and leave free of blemishes.
- 12.2.6 Flatness of Floor Tiling – Sudden irregularities not permitted. When measured with a slip gauge, the variation in gap under a 6'-0" straight edge with feet placed anywhere on the surface not to be more than 1/8".
- 12.2.7 Supply and install new timber saddles to thresholds of all doorways to adjacent areas with existing floor finish.

12.3 **Wood Floor Finishes**

12.4 **Exterior Wall Finishes.**

12.5 **Replastering to existing walls**

All exposed pipework to be lagged and concealed within new finishes.

Replaster existing walls to works areas, as required to make good

12.6 **Wall Tiling:**

Install new owner supply ceramic wall tiles as indicated on drawings.

Flatness of Wall Tiling – Sudden irregularities not permitted. When measured with a slip gauge, the variation in gap under a 6'-0" straight edge with feet placed anywhere on the surface not to be more than 1/8".

13.0 **DECORATIONS**

13.1 **Generally -**

Operatives must be appropriately skilled and experienced.

All areas to receive paint finishes to be protected.

Apply coating to clean dust free, suitably dry surfaces in dry atmospheric conditions and after any previous coats have hardened. Lightly sand between coats as necessary.

Apply a minimum of 2 coat over the base coat, applied evenly to give a smooth finish of uniform colour, free from brush strokes, nibs, sags, runs and other defects. Cut in neatly and cleanly. Do not splash or mark adjacent surfaces.

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Where new paint colour is to be applied over existing ensure that surface is cleaned and all loose paint removed, prior to application. Ensure that appropriate number of coats are applied to ensure full and even coverage.

Keep all surfaces clean and free from dust during coating and drying. Adequately protect completed work from damage.

Follow Manufacturer's Instructions for paint applications and site conditions.

13.2 **Walls and Ceilings** – 1no. mist coat, 2no. coats emulsion. Colour(s) to Owner Selection.

13.3 **Interior Doors** – 2 base/primer coats, 2 finish coats semi-gloss enamel/emulsion. Product and Colour(s) to Owner Selection.

13.4 **Windows**

13.5 **Cabinets**

13.6 **Roof**

14.0 **SITE WORKS**

14.1 Any Fill/Soil removed during Site Preparations shall be stored in an area agreed with the Architect. Fill and soil piles shall be kept separate from contamination by rubbish/construction debris.

14.2 Contractor shall agree site access for each Phase with Architect and Owner.

14.3 Contractor shall agree areas for stockpiling materials for construction, and shall protect existing areas to remain. Where damage occurs as a result of the Work the Contractor is to reinstate to pre-existing condition at no additional cost to the Owner.

14.4 Contractor to remove site debris on a regular basis and at least once a week.

END OF PART II