

ANNEX A

DEPARTMENT OF NATIONAL DEFENCE

SPECIFICATION

ROOF REPAIRS

STANDING OFFER AGREEMENT

VARIOUS 17 WING LOCATIONS

1 Description
of Work

- .1 Work under this SOA comprises the supply of all labour, material, tools, equipment, transportation and supervision necessary to make roof repairs to various roofs at 17 Wing Winnipeg and Satellite locations:
- Minto Armoury 969 St. Matthews Ave
 - McGregor Armoury 551 Machray Ave
 - St Charles Rifle Range 4044 Saskatchewan Ave
 - Chippawa 51 Navy Way
 - Portage Armoury 143 2nd St NE Portage la Prairie
- Work will be designated by Engineer on an "as and when required basis".

1.2 Scope of Work

- .1 Repairs to the following type roofs:
- .1 Built-up roofing.
 - .2 Asphalt shingle roofing.
 - .3 Wood shingle roofing.
 - .4 Asphalt rolled roofing.
 - .5 Metal roofing.
 - .6 Repairs to include rain goods as required.
 - .7 Snow removal as required.

2 Call Outs

- .1 The Contractor shall accept call outs only from the Wing Construction Engineering Officer or the Wing Construction Engineering Officer's delegated representative and shall report to the authorized representative before commencing work. Call outs will be confirmed in writing by the Engineer on form DSS 942 (Requisition on SOA).
- .2 On completion of each job, the Contractor shall submit a detailed invoice.
- .3 Contractor shall start work as soon as possible and not later than 48 hours from receipt of request from Engineer.
- .4 Contractor to be on site within 2 hours of receiving a call for repairs deemed as "URGENT".
- .5 Contractor to provide phone number to be used on a 24-7 basis.

3 Contractor's
Use of Site

- .1 Use of Site. Exclusive and complete for the execution of the work except as follows:

3 Contractor's
Use of Site (Cont'd)

- .1 Movement around site shall be subject to restrictions imposed by Wing Commander or Engineer.
- .2 Do not unreasonably encumber site with materials or equipment.

4 Codes and
Standards

- .1 Perform all work in accordance with the latest edition of the National Building Code of Canada (NBC).
- .2 Materials and workmanship must conform to or exceed applicable standards of Canadian General Standards Board (CGSB), Canadian Standards Association (CSA), American Society for Testing and Materials (ASTM) and other referenced organizations.
- .3 Conform to latest revision of dated referenced standards, as reaffirmed or revised to date of this specification. Standards or codes not dated shall be deemed the edition in force on date of this specification.

5 Post Award
Meeting

- .1 After award of SOA, the Contractor shall visit the Service Site Authority to be given job instructions.

6 Setting Out
of Work

- .1 Locate general reference points and take action necessary to prevent their disturbance.
- .2 Employ a competent person to lay out work in accordance with control lines provided by Engineer.

7 Scaffolding

- .1 Construct and maintain scaffolding in a rigid, secure and safe manner. Erect independent of walls. Remove promptly when no longer required.

8 Fires

- .1 Fires and burning of rubbish on-site not permitted.

9 Roughing-in

- .1 Be responsible for obtaining manufacturer's literature and for correct roughing-in and hookup of equipment and fixtures.

10 Cutting, Fitting
and Patching

- .1 Execute cutting, fitting and patching of work that may be required to make work fit properly together to receive or be received by other work.
- .2 Where existing work is altered or cut, patch and make good to match existing, adjacent surfaces.
- .3 Make cuts with clean, true, smooth edges. Make patches inconspicuous in final assembly.
- .4 Fit work airtight to pipes, sleeves, ducts and conduits.

11 Location
of Fixtures

- .1 Locations of fixtures, apparatus, outlets, etc., shown or specified shall be considered as approximate. Actual locations shall be as directed and required to suit conditions at time of installation and as is reasonable. Before installation, inform Engineer of impending installation and consult with Engineer for actual location.

12 Temporary
Facilities

- .1 Power and Water Supply. The Department of National Defence (DND) can provide, free of charge, temporary electric power and water for construction purposes.
 - .1 Engineer shall determine delivery points and quantitative limits. Engineer's written permission is required before any connection is made.
- .2 Provide, at no cost to DND, all equipment and temporary lines to bring these services to project site.
- .3 The supply of temporary services by DND is subject to DND requirements and may be discontinued by DND site representative at any time without notice, without acceptance of liability for damage or delay caused by such withdrawal of temporary services.

13 Safety
Requirements

- .1 General. The Contractor will be responsible to take all necessary steps to protect personnel (workers, visitors, general public) and property from any harm during the course of the SOA.
- .2 Construction Safety Measures. Observe and enforce construction safety measures required by the latest edition of the National Building Code of Canada, Provincial Government, Workers Compensation Board and Municipal Statutes and Authorities.
 - .1 In event of conflict between any provisions of above authorities, the most stringent provision will apply.
- .3 Work procedures and equipment:
 - .1 All work procedures and equipment will be in accordance with legislated standards.
 - .2 A "17 Wing Fire Service Hot Work Permit" is required when using propane powered kettles and torches. These permits are issued and controlled by the Wing Fire Chief (Annex A).
 - .3 A "17 Wing Fire Service Hot Process Roofing Permit" is required for any hot work such as welding, cutting, or brazing in any area on Base. Hot Work permits are issued and

13 Safety Requirements (Cont'd)

controlled by the Wing Fire Chief (Annex B).

- .4 Position cranes, hoists or scaffolding and operate them in a manner that will not result in damage to nearby aircraft, equipment or personnel even if slung loads or smaller objects fall or the equipment collapses.
- .5 Barricades. Barricade dangerous work sites, trenches and excavations.
- .6 Unguarded Work Sites. When work sites are left unguarded, especially overnight, powered equipment must be left at zero energy potential, material must be safely positioned and stacked, and portable ladders leading to elevated work platforms removed and secured.
- .7 Lockout Procedures. When persons would be placed at risk should the facility, machine or equipment become energized or move during inspection, maintenance, or repair, lockout procedures are required. Lockouts must be initiated by qualified Department of National Defence (DND) tradespeople although each tradesperson or worker responsible for the job or the equipment/facility will separately lockout.
- .8 Safety personnel and responsibility:
 - .1 The Contractor shall supply competent personnel to implement their safety program and ensure that DND and provincial safety and health standards are being complied with.
 - .2 DND shall monitor daily to ensure safety requirements are met and safety records are properly kept and maintained. Initial disregard for safety standards will cause the contract to be reviewed and a written record of the review will become part of the contract document.
 - .3 The Contractor will report to the contract supervisor and jurisdictional authorities any accident or incident involving contractor, DND or public personnel and/or property arising from the contractor's execution of work.
- .9 Delay due to Health and Safety Regulations Infractions:
 - .1 The Contractor will include all provisions of the contract in any agreement with sub-contractors and hold all sub-contractors equally responsible for safe work performance.

13 Safety Requirements (Cont'd)

- .2 If the Contractor is responsible for a delay in the progress of work due to an infraction of legislated health and safety requirements, the Contractor will, without additional cost to DND, work such overtime, acquire and use equipment or material for the execution as deemed necessary in the opinion of the contract supervisor to avoid delay in the final completion of the work or any operation thereof.
- .10 Fire Safety Requirements. Comply with requirements of Fire Orders and Precautions for Civilian Contractors as issued by the Wing Fire Chief.
- .11 Overloading. No part of the work shall be loaded to the point which will endanger its safety.
- .12 Falsework. Falsework shall conform with CSA S269.1-1975, National, Provincial and/or Local codes and by-laws, governing this type of work.
- .13 Solvent and Adhesives. Take suitable fire precautions. Smoking is not permitted in working area. Use in well ventilated areas only. Do not dispose of volatile wastes, paint thinners, etc., in storm or sanitary sewers.

14 Hazardous Materials

- .1 Material Safety Data Sheets must be provided to the RP OPS DET WPG OC for any controlled product being brought onto 17 Wing.

15 Materials

- .1 General. Use new materials unless otherwise specified.
- .2 Manufacturers' Instructions. Unless otherwise specified, comply with manufacturers' latest printed instructions for materials and installation methods to be used.
 - .1 Notify Engineer in writing of any conflict between these specifications and manufacturers' instructions, so that Engineer can designate which specification is to be followed.
- .3 Fastenings. Provide metal fastenings and accessories in same texture, colour and finish as base metal in which they occur. Prevent electrolytic action between dissimilar metals. Use non-corrosive fasteners, anchors and spacers for securing exterior work.

16 Cleaning

- .1 General. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.

16 Cleaning (Cont'd)

- .1 Do not bury rubbish and waste materials on project site.
- .2 Do not dispose of wastes into streams or waterways.
- .3 Store volatile wastes in covered metal containers and remove from premises daily.
- .4 Prevent accumulation of waste which create hazardous conditions. Do not conceal waste material in hidden spaces.
- .5 Provide adequate ventilation during use of volatile or noxious substances.
- .2 Materials. Use only cleaning materials recommended by manufacturer of surface to be cleaned and as recommended by cleaning material manufacturer.
- .3 Cleaning During Construction. Maintain project grounds and public properties free from accumulations of waste materials and rubbish.
 - .1 Wet down materials and rubbish to prevent blowing dust.
 - .2 Provide on-site containers for collection of waste materials and rubbish.
 - .3 Remove waste materials and rubbish from site.
- .4 Final Cleaning. In preparation for substantial completion or occupancy, conduct final inspection of sight-exposed exterior surfaces and of concealed spaces.
 - .1 Broom clean hard surfaces; rake exterior work areas.
 - .2 Remove debris and materials from roof areas.
 - .3 Leave entire work area neat, clean.

17 Roof Repairs to Existing Building

- .1 Execute work with least possible interference or disturbance to occupants and normal use of premises. Arrange with Engineer to facilitate execution of work.
- .2 Accept liability for damage, safety of equipment, and overloading of existing equipment.
- .3 All material on site at the end of the work day are to be secured to prevent movement.

18 Responsibilities

- .1 The Contractor shall provide daily work sheets showing start and completion times of each job performed against this contract.
- .2 Work sheets shall be signed by the Engineer or his representative on site and shall be submitted with each invoice forwarded for payment.

19 Method of Payment

- .1 Invoices
 - .1 All invoices submitted for payment shall be accompanied by applicable DSS/MSS 942 (Requisition on SOA).
 - .2 Invoices are to include a breakdown as follows:
 - .1 Rate of pay and hours of work for each tradesperson.
 - .2 An itemized list of materials used, by cost, shall be shown on all invoices submitted for payment.
 - .3 Extended total.
 - .4 Good and Services Tax (GST) shall be shown as a separate item.
 - .5 Where subcontracting is involved a copy of subcontractor's paid invoice shall accompany the invoice against the requisition.
 - .3 Invoices submitted for payment against this SOA that are not properly identified will be returned to the Contractor for proper annotation before certification for payment is made.

20 Work Estimates

- .1 The Engineer's Contracts Inspectors will normally request an approximate cost for call-ups, in which case a verbal estimate is acceptable.
- .2 If a quote is requested, a written quote shall be e-mail/faxed to the Engineer's Contracts Inspector requesting it at no cost to DND.

21 Security Requirement

- .1 The Contractor will be required to supply the names of all personnel that will require access to 17 Wing and its associated units to the Engineer upon award of contract and on a regular basis as employees change or as requested by the Engineer.
- .2 This requirement is in place to ensure quick access to 17 Wing and associated units. If a Contractor's employee name is not provided in advance, the Contractor's employee may experience delays in

21 Security Requirements (Cont'd)

getting access. Any time lost while the Contractor's employees are waiting for access due to names not being forwarded to the Engineer, will be the responsibility of the Contractor.

Roof Repairs

PART 2 - PRODUCTS

2.1 Materials

.1 For Asphalt Roofing

- .1 Primer: asphalt primer 37-GP-9M.
- .2 Adhesive: cold process cement 37-GP-4M.
- .3 Surfacing: asphalt emulsion 37-GP-28M.
- .4 Felt: 25 lb cold process felt CSA A123.3M.
- .5 Insulation: as specified by the Engineer.
- .6 Sealer: sealing compound 37-GP-29M.
- .7 Membrane: glass fibre membrane 37-GP-63M.

.2 Coal-Tar Pitch Roofing

- .1 Primer: coal-tar primer 37-GP-32M.
- .2 Adhesive: cutback tar plastic 37-GP-19M.
- .3 Surfacing: coal-tar emulsion 37-GP-33M.
- .4 Felt: No. 15 coal-tar felt CSA A123.3-M1979.
- .5 Insulation: as specified by the Engineer.
- .6 Sealer: plastic cement 37-GP-19M.
- .7 Membrane: glass fibre membrane 37-GP-63M.

.3 Asphalt - Shingled Roofs

- .1 Asphalt shingles: to match existing.
- .2 Asphalt plastic cement 37-GP-5M.
- .3 Asphalt emulsion 37-GP-28M.
- .4 Plywood: GIS, size and thickness to match existing.
- .5 Metal drip edge: to match existing.
- .6 Shingle nails: 50 mm galvanized large head.

2.1 Materials (Cont'd)

.4 Wood Shingle Roofing

- .1 Wood shingles: to match existing.
- .2 Shingle nails: 50 mm, ringed.
- .3 Wood preservative: copper napthenate or pentachlorophenol base, water repellant wood preservative to CSA 080-1974, colour green.

.5 Asphalt Roll Roofing

- .1 Asphalt roll roofing to match existing.
- .2 Asphalt primer 37-GP-9M.
- .3 Asphalt emulsion 37-GP-28M.
- .4 Plywood: to match existing.
- .5 Nails: common, 2 inch - 50 mm.

.6 Metal Roofing

- .1 Paint: to match existing.
- .2 Corrugated galvanized sheets: to match existing.
- .3 Preformed steel sheets: to match existing.
- .4 Preformed aluminum sheets: to match existing.
- .5 Zinc dust/zinc oxide primer 1-GP-178M.
- .6 Degreasing thinners 1-GP-4M.
- .7 Glass fibre membrane 37-GP-63M.
- .8 Emulsion 37-GP-28M.

.8 EPDM Roofing

- .1 Materials for EPDM roofing systems repairs are all and only those materials as specified by the EPDM roofing manufacturers.

.9 Rain Goods

- .1 Replacements to meet or exceed existing.
- .10 Snow removal to be performed to prevent damage to existing systems.

17 WING FIRE SERVICE HOT WORK PERMIT

DATE:		CONTRACTOR/SHOP:	
BUILDING:		LOCATION OF WORK:	
WORK TO BE DONE:			
SPECIAL PRECAUTIONS TO BE TAKEN:			
FIRE WATCH PROVIDED:	YES	NO	NAME:
The work location has been checked and necessary precautions have been taken. Permission is granted for this work.			
PERMIT START DATE/TIME:			
PERMIT EXPIRY DATE/TIME:			
SIGNED:		SIGNED:	
	Fire Inspector/Shop Foreman		Job Supervisor
Before approving any cutting, welding or use of open flame, the Wing Fire Inspector or the Wing Fire Inspector's appointed representative (Shop Foreman) shall inspect the work area and confirm that all necessary precautions have been taken to prevent fire in accordance with NFPA 51B.			
<u>PRECAUTIONS:</u>			
<input type="checkbox"/> Flammable liquids removed or adequately covered	<input type="checkbox"/> F.A. system shut down		
<input type="checkbox"/> Covers set up below work area to catch hot slag and sparks	<input type="checkbox"/> All wall and floor openings covered		
<input type="checkbox"/> Combustible floors protected (wet down, covered in wet sand or Metal shields)	<input type="checkbox"/> Smoke detectors/fire alarm system		
<input type="checkbox"/> Cutting and welding equipment in good repair	<input type="checkbox"/> Sprinklers in service		
<u>WORK ON WALLS OR CEILINGS:</u> (tanks, containers, ducts, dust collectors, etc)			
<input type="checkbox"/> Equipment cleaned of all combustibles	<input type="checkbox"/> Containers purged of flammable liquids		
<u>FIRE WATCH:</u>			
<input type="checkbox"/> To be provided during and for 30 minutes following operations			
<input type="checkbox"/> Extinguisher on site			
<input type="checkbox"/> Trained in use of extinguisher and in sounding fire alarm.			
<p>1. All contractor personnel have been briefed in the use of fire equipment and in sounding fire alarms. Fire emergency number 911 on the Wing and 911 for the Armouries.</p> <p>2. At the end of each working day, the contractor shall notify the Wing Fire Department Duty Platoon Chief by telephone at 833-2646 that work for the day has been completed 30 minutes after work is halted. Foremen will wait till the Fire Hall has carried out Post Fire Inspection.</p>			

3. All fires are to be reported to Fire Services at 833-2646:

Work area and all adjacent areas to which sparks and heat might have spread [including floors above and below and on opposite side of wall(s)] were inspected 30 minutes after the work was completed and were found to be fire safe.

Signed _____
17 Wing Fire Inspector .

DISTRIBUTION

Original - to be held by the Fire Services Inspector

Duplicate - to supervisor (contractor)

17 WING FIRE SERVICE HOT PROCESS ROOFING

DATE:			CONTRACTOR OR SHOP:			
BLDG:			PROCESS TYPE:			
FIRE WATCH REQUIRED:		YES	NO	NAME:		
Permit Start Date/Time:					Permit Expiry Date/Time:	
SPECIAL PRECAUTIONS TO BE TAKEN FOR HOT ROOF TARRING (TAR KETTLE)						
<input type="checkbox"/> Kettles equipped with thermometer or gauge <input type="checkbox"/> Kettle must have metal cover to smother flames <input type="checkbox"/> Kettle watchman must keep area clear and orderly <input type="checkbox"/> Mops to be removed from roof daily after work done <input type="checkbox"/> Mops must be stored away from combustible materials by at least 3 m or in the kettle				<input type="checkbox"/> Kettle to be manned continuously while in use <input type="checkbox"/> Fire extinguisher (4A/40BC) must be near kettle, serviceable. <input type="checkbox"/> Only glass fibre roofing mops <input type="checkbox"/> All roofing material shall be stored in locations at least 3 m from any building		
SPECIAL PRECAUTIONS TO BE TAKEN FOR HOT ROOFING PERMIT (PROPANE CYLINDERS & TORCHES)						
<input type="checkbox"/> Propane cylinders used on roof to be secured in upright position at all times <input type="checkbox"/> Larger mobile tanks must be at least 7.6m away from kettle <input type="checkbox"/> All contractors materials be at least 3m from bldgs <input type="checkbox"/> Fire extinguishers shall be readily available when propane torches are in use				<input type="checkbox"/> Propane cylinders must be at least 4.5m away from kettle at all times, <input type="checkbox"/> Stored propane tanks must be at least 3m from bldgs <input type="checkbox"/> If torches used, special precautions should be made around any combustible material and bldgs <input type="checkbox"/> Special Precautions: Kettle is to be located at least 3 m from building.		
NOTE: Contact Fire Hall 30 minutes after all work is completed for the day for post fire inspection.						
<u>GENERAL INFORMATION</u>						
1. All contractor personnel have been briefed in the use of fire equipment and in sounding fire alarms. Fire emergency number 911 on the Wing and 911 for the Armouries. 2. At the end of each working day, the contractor shall notify the Wing Fire Department Duty Platoon Chief by telephone at 833-2646 that work for the day has been completed 30 minutes after work is halted. Foremen will wait till the Fire Hall has carried out Post Fire Inspection. 3. All fires are to be reported to Fire Services at 833-2646.						
<u>PRECAUTIONS:</u>				<u>FIRE WATCH:</u>		
<input type="checkbox"/> Sprinklers in service <input type="checkbox"/> F.A. system serviceable <input type="checkbox"/> Flammable liquids removed or adequately covered <input type="checkbox"/> Roofing equipment in good repair				<input type="checkbox"/> Extinguisher on site <input type="checkbox"/> Trained in use of extinguisher and in sounding fire alarm. <input type="checkbox"/> To be provided during and for 30 minutes following operations		
Contractor Name/Print				Contractor Signature		

Fire Insp Name/Print:	Fire Insp Signature:
<u>DISTRIBUTION</u> <u>Original</u> – to supervisor and returned to Fire Services upon completion of the work.	
<u>Duplicate</u> – to be held by the Fire Services Inspector	