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**Revision to a Request for a Standing Offer**

**Révision à une demande d'offre à commandes**

Regional Individual Standing Offer (RISO)

Offre à commandes individuelle régionale (OCIR)

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Offer remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'offre demeurent les mêmes.

**Comments - Commentaires**

**Vendor/Firm Name and Address**

Raison sociale et adresse du  
fournisseur/de l'entrepreneur

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189 Prince William Street  
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Saint John  
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E2L 2B9

<b>Title - Sujet</b> RISO Asphalt Pavement - Gagetown		
<b>Solicitation No. - N° de l'invitation</b> W6837-175285/B		<b>Date</b> 2016-11-10
<b>Client Reference No. - N° de référence du client</b> W6837-175285		<b>Amendment No. - N° modif.</b> 001
<b>File No. - N° de dossier</b> PWB-6-39109 (100)	<b>CCC No./N° CCC - FMS No./N° VME</b>	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$PWB-100-4003		
<b>Date of Original Request for Standing Offer</b> Date de la demande de l'offre à commandes originale		2016-11-10
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2016-11-30</b>		<b>Time Zone</b> <b>Fuseau horaire</b> Atlantic Standard Time AST
<b>Address Enquiries to: - Adresser toutes questions à:</b> MacDonald, Anne (PWB) D.		<b>Buyer Id - Id de l'acheteur</b> pwb100
<b>Telephone No. - N° de téléphone</b> (902) 626-4949 ( )	<b>FAX No. - N° de FAX</b> (506) 636-4376	
<b>Delivery Required - Livraison exigée</b>		
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>		
<b>Security - Sécurité</b> This revision does not change the security requirements of the Offer. Cette révision ne change pas les besoins en matière de sécurité de la présente offre.		

Instructions: See Herein

Instructions: Voir aux présentes

<b>Acknowledgement copy required</b> <b>Accusé de réception requis</b>	<b>Yes - Oui</b> <input type="checkbox"/>	<b>No - Non</b> <input type="checkbox"/>
<b>The Offeror hereby acknowledges this revision to its Offer.</b> <b>Le proposant constate, par la présente, cette révision à son offre.</b>		
<b>Signature</b>	<b>Date</b>	
Name and title of person authorized to sign on behalf of offeror. (type or print) Nom et titre de la personne autorisée à signer au nom du proposant. (taper ou écrire en caractères d'imprimerie)		
<b>For the Minister - Pour le Ministre</b>		



**DEPARTMENT OF NATIONAL DEFENCE  
REAL PROPERTY OPERATIONS  
DETACHMENT (GAGETOWN)  
5 CDSB GAGETOWN**

**SPECIFICATION**

**STANDING OFFER AGREEMENT**

**PLACEMENT AND REPAIR OF ASPHALT PAVING  
5 CDSB GAGETOWN  
01 APRIL 2017 TO 31 MARCH 2019**

  
Designed by

  
Fire Inspector

  
Project O

  
Engineering O

**PF No:**

**Job No:** L-G2-9302/167

**Date:** 2016-05-11

<b>NATIONAL DEFENCE</b>	<b>LIST OF CONTENTS</b>	<b>SECTION 00000</b>
<b>JOB NO.1-G2-9302/167</b>		<b>PAGE 1</b>
<b>5 CDSB GAGETOWN, N.B.</b>		<b>2016-05-11</b>

<u>Section</u>	<u>Title</u>	<u>Pages</u>
<u>Division 00 - Procurement and Contracting Requirements</u>		
00 21 13	Instructions to Bidders	4
<u>Division 01 - General Requirements</u>		
01 35 30	Safety Requirements	2
01 35 35	Fire Safety Requirements	3
01 35 43	Environmental Protection	1
01 56 00	Temporary Barriers and Enclosures	2
<u>Division 02 - Existing Conditions</u>		
02 41 14	Sitework Demolition and Removal	1
<u>Division 03 - Concrete</u>		
03 48 23	Concrete Curbs and Gutters	2
<u>Division 32 - Exterior Improvements</u>		
32 01 14	Asphalt Surface Treatment	2
32 17 23	Pavement Marking	2
<u>Division 33 - Utilities</u>		
33 05 14	Manholes and Catch Basins	2
<u>Annexes</u>		
Annex A	Pricing Schedule	3

**END OF SECTION**

#### 1.01 DESCRIPTION OF WORK

- .1 The work covered under this Standing Offer Agreement comprises the furnishing of all labour, materials, tools and equipment required to conduct placement and repairs of asphalt pavement in various areas of 5 CDSB Gagetown when requested on Form CF 942, Call-Up Against a Standing Offer and as specified herein.

#### 1.02 DURATION OF CONTRACT

- .1 This Standing Offer will extend from 01 April 2017 to 31 March 2019.

#### 1.03 QUALIFICATIONS

- .1 Contractor shall provide a PWGSC proof of. Insurance from the WorkSafeNB and Compensation Commission of New Brunswick (WHSCC).

#### 1.04 ENGINEER

- .1 The Engineer, as defined and stated in this specification will be the Commanding Officer of Real Property Operations Detachment (Gagetown) or a designated representative.

The address of the Engineer is:

Contracts Office  
Real Property Operations  
Detachment (Gagetown)  
Building B18  
238 Champlain Avenue  
PO Box 17000 Stn Forces  
Oromocto, NB E2V 4J5

Tel: (506) 422-2677

Fax: (506) 422-1248

#### 1.05 DOCUMENTS REQUIRED

- .1 Maintain at the job site, one copy each of the following:
  - .1 Specifications; and
  - .2 Form CF - 942 - Call-Up Against a Standing Offer.

#### 1.06 MEASUREMENT FOR PAYMENT

- .1 All work described in this specification, at Annex B will be paid for on a unit price basis. The Contractor will submit the prices for the following in accordance with this specification. Such prices will include transportation (travel time to and from the contractors base of operation will be included in the rates provided), expenses and profit:
- .2 Payment will be for the actual quantity of material supplied and work performed.
- .3 The schedule of estimated quantities listed at Annex A are for the purpose of comparing bids only and the Contractor will make no claim for loss of

anticipated profits as a result of differences between the quantities listed and the actual quantities used.

- .4 Where exceptional quantities of work is required within a close proximity, unit prices may be negotiated.

#### 1.07 CONTRACTOR'S USE OF SITE

- .1 Access to the site of work to be as directed by the Engineer.
- .2 Do not unreasonably encumber the site with materials or equipment.
- .3 Move stored products or equipment which interfere with operations of Engineer or other Contractors.
- .4 Obtain and pay for use of additional storage or work areas needed for operations.
- .5 Base policy states when vehicles will be parked, they will be backed into a parking space or risk being towed.

#### 1.08 CONTRACTOR PASSES

- .1 All contractor employees will carry authorized Contractor Pass on their persons when employed on DND property. Such passes will be produced when requested by the Military police, Commissionaires, Security Guards and persons in authority.
- .2 The Contractor will complete an application form for contractor passes for each individual. The Contractor will accompany the employee to the Military Police Identification Section for the issuance of pass.
- .3 A photocopy of passes is to be provided to the Engineer.
- .4 The Contractor will ensure Contractor passes are recovered from employees who cease to be employed on DND property. Such passes shall be returned to the Military Police Identification Section.

#### 1.09 SECURITY CLEARANCES

- .1 The Contractor shall maintain an up to date roster of all employees involved in the contract including managers, supervisors and labourers. This roster shall be made available to the Engineer upon demand.
- .2 The Contractor shall provide proof of the information contained within the roster to the Engineer upon demand. The Engineer reserves the right to have removed from the site those personnel who do not meet security requirements, as laid down by the Military Police Section.

#### 1.10 CODES AND STANDARDS

- .1 Perform work in accordance with the latest amended National Building Code of Canada (NBC), and any other code of Provincial or Local Application provided that in any case of conflict or discrepancy, the more stringent requirements will apply.
- .2 Meet or exceed requirements of specified standards, codes and referenced

documents.

#### 1.11 SETTING OUT OF WORK

- .1 Assume full responsibility for and execute complete layout of work.
- .2 Provide devices needed to lay out and construct work.
- .3 Supply such devices as straight edges and templates required to facilitate Engineer's inspection of work.
- .4 Supply stakes and other survey markers required for laying out work.

#### 1.12 SANITARY FACILITIES

- .1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances.

#### 1.13 CLEAN UP

- .1 Upon completion of the daily work, the Contractor will remove all materials no longer required from the site and leave the site in a clean and tidy condition to the complete satisfaction of the Engineer.
- .2 On completion of each call-up against Standing Offer, the Contractor will clean up and remove all signs of their presence from areas used by them for storage and/or maintenance.

#### 1.14 WORK REQUISITION

- .1 The work to be performed on Form CF - 942, Call-Up Against a Standing Offer when ordered by the Engineer is as follows:
  - .1 The Contractor will generally provide service during regular working hours on a 8 hour per day, 5 days per week basis (8:00 am to 4:30 pm, Monday to Friday inclusive). Some work may be required on weekends or evenings if necessary;
  - .2 The Contractor will advise the Engineer of the telephone number or location at which they or their representative may be contacted at all times;
  - .3 The Contractor, on receipt of an acceptance of Tender will be advised by the Engineer in writing, the names of persons authorized to request service. Work undertaken at the request of others will be entirely at the Contractor's risk with regard to payment;
  - .4 The Contractor will not refuse any call for service required by the Engineer and will respond within 48 hours of any request for service;
  - .5 When service is requested, this person will notify the Contractor and detail the requirement. Service will be requisitioned on Form CF - 942, Call-Up Against a Standing Offer. This form will detail the requirement and will be signed by the Engineer or an authorized representative. Two (2) copies of this form will be given to the Contractor; and
  - .6 The Contractor will proceed to the location of the job and carry out the work. On completion of the work detailed on Form CF - 942, the Contractor will report to the Engineer and have the two copies of the Form CF - 942 initialed, indicating the work has been satisfactorily completed. The Contractor will retain one copy of Form

NATIONAL DEFENCE	INSTRUCTIONS TO BIDDERS	SECTION 00 21 13
JOB NO.1-G2-9302/167		PAGE 4
5 CDSB GAGETOWN, N.B.		2016-05-11

CF - 942 and return the other signed and dated copy to the Engineer with the original and one copy of the invoice on completion of the work.

#### 1.15 WORKMANSHIP

- .1 Workmanship will be of a uniformly high standard and in accordance with generally accepted trade practice. Mediocre or inferior workmanship will be replaced by work of first class quality without cost to DND when so ordered by the Engineer.

END OF SECTION

#### 1.01 REFERENCES

- .1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations.
- .2 Province of New Brunswick Occupational Health and Safety Act, S.N.B. 1983.
- .3 National Building Code of Canada, 2010.

#### 1.02 REGULATORY REQUIREMENTS

- .1 Do work in accordance with the safety measures of the National Building Code of Canada 2010, the Canada Labour Code Part 2, the New Brunswick Occupational Health and Safety Act and WorkSafeNB provided that in any case of conflict or discrepancy the more stringent requirements shall apply.

#### 1.03 RESPONSIBILITY

- .1 Contractor is responsible for the health and safety of all persons on site. Contractor is also responsible for the protection of property, persons and the environment on or adjacent to the site in so far as the work may affect these.
- .2 Contractor and all contractor's employees are to comply with all safety requirements specified in the Contract Documents as well as all applicable federal, provincial and local statutes, regulations, ordinances and with Contractor's site-specific Health and Safety Plan.
- .3 As outlined in the Canada Labour Code Part 2, the Contractor is responsible to provide a site-specific Health and Safety Plan. When requested, work is not to begin until this Health and Safety Plan is submitted and approved by the Engineer.
- .4 It is the Contractor's responsibility to ensure that all their employees are provided all Personal Protective Equipment (PPE) necessary to perform all work. Hard hats and safety glasses are to worn at all times.

#### 1.04 UNFORESEEN HAZARDS

- .1 Should any unforeseen or peculiar safety-related factor, hazard, or condition become evident during performance of work, the Contractor must have procedures in place to facilitate the Employee's Right to Refuse Work in accordance with Acts and Regulations of New Brunswick. The Contractor is to advise the Engineer verbally and in writing of any employee who exercises this right.

#### 1.05 CORRECTION OF NON-COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Engineer.
- .2 Provide Engineer with written report of action taken to correct non-compliance of health and safety issues identified.
- .3 Engineer may stop work if non-compliance of health and safety regulations



NATIONAL DEFENCE	SAFETY REQUIREMENTS	SECTION 01 35 30
JOB NO.L-G2-9302/167		PAGE 2
5 CDSB GAGETOWN, N.B.		2016-05-11

is not corrected.

#### 1.06 WORK STOPPAGE

- .1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for work.

END OF SECTION

#### 1.01 REPORTING FIRES

- .1 Know location of nearest fire alarm box and telephone, including emergency phone number.
- .2 Report immediately all fire incidents to Fire Department as follows:
  - .1 telephone 911.
- .3 When reporting fire by telephone, give location of fire, name or number of building and be prepared to verify the location.

#### 1.02 INTERIOR AND EXTERIOR FIRE PROTECTION AND ALARM SYSTEMS

- .1 Fire protection and alarm system will not be:
  - .1 obstructed;
  - .2 shut-off; and
  - .3 left inactive at end of working day or shift without authorization from Fire Chief.
- .2 Fire hydrants, standpipes and hose systems will not be used for other than fire-fighting purposes unless authorized by Fire Chief.

#### 1.03 FIRE EXTINGUISHERS

- .1 Supply fire extinguishers, as scaled by Fire Chief, necessary to protect work in progress and Contractor's physical plant on site.

#### 1.04 BLOCKAGE OF ROADWAYS

- .1 Advise Fire Chief of any work that would impede fire apparatus response. This includes violation of minimum overhead clearance, as prescribed by Fire Chief, erecting of barricades and digging of trenches.

#### 1.05 SMOKING PRECAUTIONS

- .1 Observe smoking regulations at all times.

#### 1.06 RUBBISH AND WASTE MATERIALS

- .1 Rubbish and waste materials are to be kept to a minimum.
- .2 Burning of rubbish is prohibited.
- .3 Removal:
  - .1 Remove all rubbish from work site at end of work day or shift or as directed.
- .4 Storage:
  - .1 Store oily waste in approved receptacles to ensure maximum cleanliness and safety.
  - .2 Deposit greasy or oily rags and materials subject to spontaneous combustion in approved receptacles and remove.

#### 1.07 FLAMMABLE AND COMBUSTIBLE LIQUIDS

- .1 Handling, storage and use of flammable and combustible liquids are to be

governed by the current National Fire Code of Canada.

- .2 Flammable and combustible liquids such as gasoline, kerosene and naphtha will be kept for ready use in quantities not exceeding 45 litres provided they are stored in approved safety cans bearing Underwriters' Laboratory of Canada or Factory Mutual seal of approval. Storage of quantities of flammable and combustible liquids exceeding 45 litres for work purposes requires permission of Fire Chief.
- .3 Transfer of flammable and combustible liquids is prohibited within buildings or jetties.
- .4 Transfer of flammable and combustible liquids will not be carried out in vicinity of open flames or any type of heat producing devices.
- .5 Flammable liquids having a flash point below 38° C such as naphtha or gasoline will not be used as solvents or cleaning agents.
- .6 Flammable and combustible waste liquids, for disposal, will be stored in approved containers located in a safe ventilated area. Quantities are to be kept to a minimum and Fire Department is to be notified when disposal is required.

#### 1.08 HAZARDOUS SUBSTANCES

- .1 Work entailing use of toxic or hazardous materials, chemicals and/or explosives, or otherwise creating hazard to life, safety or health, will be in accordance with National Fire Code of Canada.
- .2 Obtain from Fire Chief a "Hot Work" permit for work involving welding, burning or use of blow torches and salamanders, in buildings or facilities.
- .3 When Work is carried out in dangerous or hazardous areas involving use of heat, provide fire watchers equipped with sufficient fire extinguishers. Determination of dangerous or hazardous areas along with level of protection necessary for Fire Watch is at discretion of the Fire Chief. Contractors are responsible for providing fire watch service for work on a scale established and in conjunction with Fire Chief at pre-work conference.
- .4 Where flammable liquids, such as lacquers or urethanes are to be used, proper ventilation will be assured and all sources of ignition are to be eliminated. Fire Chief is to be informed prior to and at cessation of such work.

#### 1.09 QUESTIONS AND/OR CLARIFICATION

- .1 Direct any questions or clarification on Fire Safety in addition to above requirements to Fire Chief through the Engineer.

#### 1.10 FIRE INSPECTION

- .1 Site inspections by Fire Chief will be coordinated through Engineer.
- .2 Allow Fire Chief unrestricted access to work site.
- .3 Co-operate with Fire Chief during routine fire safety inspection of work site.

NATIONAL DEFENCE	FIRE SAFETY REQUIREMENTS	SECTION 01 35 35
JOB NO.L-G2-9302/167		PAGE 3
5 CDSB GAGETOWN, N.B.		2016-05-11

.4 Immediately remedy all unsafe fire situations observed by Fire Chief.

END OF SECTION

#### 1.01 GENERAL

- .1 Contractor will take all reasonable steps to ensure that they and their employees have complied with all pertinent legislation and have protected the environment.

#### 1.02 FIRES

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

#### 1.03 DISPOSAL OF WASTES

- .1 Do not bury rubbish and waste materials on site unless approved by Engineer.
- .2 Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.

#### 1.04 SPILL PROTECTION

- .1 The Contractor must have adequate clean up materials for any potential hazardous materials used in the completion of the work (ie. Foams, fuels, oils, lubricants, etc).

END OF SECTION

### 1.01 REFERENCE STANDARD

- .1 Regulate traffic in accordance with The Manual of Uniform Traffic Control Devices for Canada (2000) (UTCD) distributed by Transportation Association of Canada, except where specified otherwise.

### 1.02 PROTECTION OF PUBLIC TRAFFIC

- .1 Comply with requirements of Acts and By-Laws in force for regulation of traffic or use of roadways upon or over which it is necessary to carry out work or haul materials or equipment.
- .2 When working on travelled way:
  - .1 Place equipment in position to present minimum of interference and hazard to travelling public;
  - .2 Keep equipment units as close together as working conditions will permit and preferably on same side of travelled way; and
  - .3 Do not leave equipment on travelled way overnight.
- .3 Do not close any lanes of road or highway without approval of Engineer. Before re-routing traffic erect suitable signs and devices in accordance with instructions contained in UTCD. Provide sufficient crushed gravel to ensure a smooth riding surface during work.
- .4 Keep travelled way well graded, free of pot holes and of sufficient width that required number of lanes of traffic may pass.
- .5 Provide and maintain reasonable road access and egress to property fronting along or in vicinity of work under Contract unless approved otherwise by Engineer.

### 1.03 INFORMATIONAL DEVICES AND WARNING DEVICES

- .1 Provide and maintain signs and other warning devices required to indicate construction activities or other temporary and unusual conditions resulting from project work which may require road user response.
- .2 Supply and erect signs, delineators, barricades and miscellaneous warning devices as specified in Part D, Temporary Conditions Signs and Devices, of manual titled UTCD.
- .3 Place signs and other devices in locations recommended in UTCD manual.
- .4 Meet with Engineer prior to commencement of work to prepare list of signs and other devices required for project.
- .5 Continually maintain traffic control devices in use by:
  - .1 Checking signs daily for legibility, damage, suitability and location. Clean, repair or replace to ensure clarity and reflectance; and
  - .2 Removing or covering signs which do not apply to conditions existing from day to day.

#### 1.04 CONTROL OF PUBLIC TRAFFIC

- .1 Provide flag persons, trained in accordance with and properly equipped as specified in UTCD manual in following situations:
  - .1 When public traffic is required to pass working vehicles or equipment which may block all or part of travelled roadway;
  - .2 When it is necessary to institute one-way traffic system through construction area or other blockage where traffic volumes are heavy, approach speeds are high and traffic signal system is not in use;
  - .3 When workers or equipment are employed on travelled way over brow of hills, around sharp curves or at other locations where on-coming traffic would not otherwise have adequate warning;
  - .4 Where temporary protection is required while other traffic control devices are being erected or taken down;
  - .5 For emergency protection when other traffic control devices are not readily available; and
  - .6 In situations where complete protection for workers, working equipment and public traffic is not provided by other traffic control devices.

END OF SECTION

NATIONAL DEFENCE	SITWORK DEMOLITION	SECTION 02 41 14
JOB NO.I-G2-9302/167	AND REMOVAL	PAGE 1
5 CDSB GAGETOWN, N.B.		2016-05-11

#### 1.01 SCOPE OF WORK

- .1 This section specifies the requirements for the removal of deteriorated asphalt and granular base as designated by the Engineer.

#### 1.02 REFERENCES

- .1 ASTM D1557-02e1 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>))

#### 1.03 MEASUREMENT FOR PAYMENT

- .1 Measurement for payment for this section is included in Para 1.6, Section 00 21 13.

#### 1.04 PROTECTION

- .1 Protect existing items designated to remain in event of damage. Immediately replace such items or make repairs to approval of Engineer and at no additional cost to Engineer.

#### 1.05 PREPARATION

- .1 Inspect site and verify with Engineer, areas designated for removal and installation of new asphalt.
- .2 Locate and protect utility lines. Preserve in operating condition active utilities traversing site.

#### 1.06 REMOVAL

- .1 Remove items as indicated by Engineer.
- .2 Do not disturb adjacent items designated to remain in place.
- .3 In removal of asphalt areas:
  - .1 Square up adjacent surfaces to remain by saw cutting or other approved method;
  - .2 Protect adjacent joints and load transfer devices; and
  - .3 Protect underlying granular materials.
- .4 Remove soft or other unstable materials that will not compact properly.
- .5 Backfill to underside of pavement level with granular base material approved by the Engineer.
- .6 Compact to 98% Modified Proctor Density ASTM D1557-09.

END OF SECTION



#### 1.01 DESCRIPTION OF WORK

- .1 This section specifies requirements for constructing Portland cement concrete curbs and gutters to match adjacent curbs.

#### 1.02 RELATED WORK

- .1 Asphalt Surface Treatment: Section 02548.

#### 1.03 REFERENCES

- .1 CAN/CSA - A23.1/A23.2-04 Concrete Materials and Methods of Concrete Construction.
- .2 ASTM C260-06 Standard Specification for Air-Entraining Admixtures for Concrete.
- .3 ASTM D1751-04(2008) Specification for Preformed Expansion Joint Fillers For Concrete Paving and Structural Construction (Non Extruding and Resilient Bituminous Types).
- .4 ASTM D260-86(2001) Specification for Boiled Linseed oil.
- .5 ASTM D698-07e1 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600kN-m/m<sup>3</sup>)).
- .6 CAN/CSA-A3000-03 Portland Cement.
- .7 CAN/CSA-S269.3-M92(R2008) Concrete Formwork.

#### 1.04 MATERIALS

- .1 Concrete: concrete mix designed to produce 35 MPa minimum compressive strength at 28 days and containing 20 mm maximum size coarse aggregate, with water/cement ratio to CAN/CSA-A23.1/A23.2, Table 7, for Class C2 exposure and 80 mm slump at time and point of deposit. Air entrainment 5 to 8%, minimum cement content 335 kg/m<sup>3</sup>.
- .2 Joint filler: to ASTM D1751-04(2008), thickness 20 mm preformed, non-extruding, resilient, bituminous type.
- .3 Granular base: to Section 02548.
- .4 Curing compound: to CAN/CSA-A23.1/A23.2.
- .5 Boiled linseed oil: to ASTM D260-86.
- .6 Non-staining mineral type form release agent: chemically active release agents containing compounds that react with free lime to provide water soluble soap.
- .7 Formwork lumber: plywood and wood formwork material to CAN/CSA-S269.3.
- .8 Admixtures:
  - .1 Air-entraining Admixture to ASTM C260-06.

- .9 Concrete aggregates: to CAN/CSA-A23.1/A23.2.

#### 1.05 GRANULAR BASE

- .1 Place granular base material to lines, widths and depths indicated or directed.
- .2 Compact granular base to at least 98% of maximum density ASTM D698.

#### 1.06 FORMING

- .1 Form vertical surfaces to full depth using forming material that will not deform under loading by plastic concrete.
- .2 Securely position forms to required lines and grades.
- .3 Coat forms with form release agent.
- .4 Obtain approval of forms before placing concrete.
- .5 Slip forming may be approved subject to evaluation of mechanical equipment proposed for use.

#### 1.07 CONCRETE

- .1 Do concrete work in accordance with CAN/CSA-A23.1/A23.2 and as specified herein.
- .2 Level sub-grade, remove unsuitable material and place and compact new material.
- .3 Finish exposed surfaces to a smooth, uniform finish, free of open texturing and exposed aggregate. Do not work more mortar to surface than required. Do not use neat cement as a drier to facilitate finishing.
- .4 Wood float finish surface to provide non-skid texture.
- .5 Round edges, including edges of joints, with 10 mm radius edging tool.
- .6 Finish surfaces to within 3 mm in 3 m from line, level or grade as measured with a straight edge placed on surface.
- .7 Cure and protect concrete in accordance with CAN/CSA-A23.1/A23.2.
- .8 Backfill concrete curbs to designated elevations with approved materials and shape to required contours as directed by Engineer.

#### 1.08 JOINTS

- .1 Install contraction joints at intervals of 3m.
- .2 Install isolation joints to ASTM D1751 along length adjacent to concrete sidewalks.
- .3 Seal joints with approved sealant.

END OF SECTION

#### 1.01 SCOPE OF WORK

- .1 This section covers repairs to asphalt areas as designated by the Engineer by applying a single or double application of asphalt and aggregate to an existing paved surface or a granular base.

#### 1.02 REFERENCES

- .1 ASTM D5581-07a e1 Standard Test Method for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus (6 inch - Diameter Specimen).
- .2 CAN/CGSB-16.2-M89 Emulsified Asphalts, Anionic Type, for Road Purposes.
- .3 CAN/CGSB-16.3-M90 Asphalt Cement for Road Purposes.
- .4 ASTM D3203-05 Test Method for Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures.
- .5 Province of New Brunswick, Department of Transportation, Standard Specifications, January 2011.

#### 1.03 SOURCE SAMPLING

- .1 One week prior to commencing work, inform the Engineer of proposed source of aggregate and provide access for sampling.
- .2 If materials have been tested by an independent testing laboratory within previous two months and have successfully passed tests equal to requirements of this specification, submit test certificates from testing laboratory showing suitability of materials for this project.

#### 1.04 PROTECTION

- .1 Prevent damage to buildings, landscaping, curbs, sidewalks, trees, fences and of adjacent property. Make good any damage.

#### 1.05 PROTECTION

- .1 Keep traffic off newly paved areas until paving has properly set.
- .2 Maintain access to building at all times. Arrange paving schedule so as not to interfere with normal use of premises.

#### 1.06 MATERIALS

- .1 Granular base and subbase to Province of New Brunswick, Department of Transportation, Standard Specifications, Item No. 201.2.4.1 31.5mm base and 75mm subbase crushed rock.
- .2 Asphaltic concrete mix: to Province of New Brunswick Department of Transportation, Standard Specifications, Item No. 260, Type D or E Surface Course, Type B Base Course.
  - .1 Asphalt cement: to CAN/CGSB 16.3, graded 85-100.
  - .2 Mineral filler: dry limestone dust or other non-plastic mineral matter, free from lumps and loosely bonded aggregations.

- .3 Bituminous tack coat: emulsified asphalt to CAN/CGSB-16.2, Grade SS-1 to NBDOT, Item No. 259.

#### **1.07 PREPARATION**

- .1 Clean paved surfaces of mud, dust and other foreign material.
- .2 All asphalt repairs will be prepared with straight line cuts.

#### **1.08 INSPECTION OF UNDERLYING SUB-GRADE**

- .1 Do not place granular base until finished sub-grade surface is inspected and approved by the Engineer.

#### **1.09 PLACING AND COMPACTING GRANULAR BASE**

- .1 Place and compact granular base and subbase to the Province of New Brunswick, Department of Transportation, Standard Specifications, Item No. 203.
- .2 Finished base surface to be within 10 mm of specified grade, but not uniformly high or low.
- .3 Shape and roll alternately to obtain smooth even and uniformly compacted base.
- .4 In areas not accessible to rolling equipment compact to specified density with approved mechanical tampers.
- .5 Correct soft areas by removing defective material to depth and extent directed by Engineer. Replace with granular base and subbase material and compact to specified density.

#### **1.10 ASPHALT COURSE**

- .1 All asphalt related work will be executed in accordance with the Province of New Brunswick, Department of Transportation, Standard Specifications, Item No's 259 and 260.
- .2 Apply tack coat to existing asphalt where new asphalt comes in contact with it.
- .3 Place asphalt concrete in maximum compacted thickness of 38 mm.

#### **1.11 JOINTS**

- .1 Bituminous tack coat to full depth as required to exposed fresh vertical surfaces. Remove any broken or loose material.
- .2 Carefully place and compact hot asphaltic material against joints.

#### **1.12 REPAIRS TO LAWNS**

- .1 Repair all lawn or grassed areas damaged by method of work, to its original condition.

**END OF SECTION**

## 1 GENERAL

### 1.01 REFERENCES

- .1 CAN/CGSB-1.5-M91, Low Flash Petroleum Spirits Thinner.
- .2 CGSB 1-GP-12c-68, Standard Paint Colours.
- .3 CGSB 1-GP-71, Method of Testing Paints and Pigments.
- .4 CGSB 1-GP-74M, Paint, Traffic, Alkyd.

### 1.02 MEASUREMENTS FOR PAYMENT

- .1 Pavement marking including reflective glass beads will be measured by lump sum.

## 2 PRODUCTS

### 2.01 MATERIALS

- .1 Paint:
  - .1 To CGSB 1-GP-74M, alkyd traffic paint.
  - .2 Colour: to CGSB 1-GP-12C, yellow 505-308 white 513-301.
- .2 Thinner: to CAN/CGSB-1.5-M91.
- .3 Glass beads:
  - .1 Overlay type: to CGSB 1-GP-74M.

### 2.02 SUBMITTALS

- .1 Provide copies of manufacturers application recommendations and MSDS sheets.

## 3 EXECUTION

### 3.1 Equipment

#### REQUIREMENTS

- .1 Paint applicator to be an approved pressure type mobile distributor capable of applying paint in single lines. Applicator to be capable of applying marking components uniformly, at rates specified, and to dimensions as indicated, as to have positive shut-off.
- .2 Distributor to be capable of applying reflective glass beads as an overlay on freshly applied paint.

### 3.02 CONDITION OF SURFACES

- .1 Pavement surface to be dry, free from ponded water, frost, ice, sand/gravel,

oil, grease and other foreign materials.

- .2 Any materials indicated in 3.2.1 are to be removed prior to painting of lines.

### 3.03 APPLICATION

- .1 As per paint manufacturers application recommendations.
- .2 Unless otherwise approved by Engineer, apply paint only when air temperature is above 10°C, wind speed is less than 20km/h and no rain is forecast within next 4 hr.
- .3 Apply traffic paint evenly to provide lines 100mm wide with a minimum 230 +/- 25 microns dry film thickness.
- .4 Center lines to be yellow and edge lines to be white.
- .5 Do not thin paint unless approved by Engineer.
- .6 Paint lines to be of uniform colour and density with sharp edges.
- .7 Thoroughly clean distributor tank before refilling with paint of different colour.
- .8 Apply glass beads at rate of 0.7 kg. per litre of paint immediately after application of paint.

### 3.04 TOLERANCE

- .1 Paint markings to be within plus or minus 12mm of dimensions indicated.

### 3.05 PROTECTION OF COMPLETED WORK

- .1 Protect pavement marking until dry.

END OF SECTION

### 1.01 WORK INCLUDED

- .1 The work of this section comprises the adjustment and/or repairs to catch basins manholes, gratings and frames and valve access covers as required and as designated by the Engineer.

### 1.02 MATERIALS

- .1 Precast concrete manhole and catch basins grate rings to CAN/CSA A257 SERIES-03.
- .2 Mortar type: for load bearing, Type M to CSA A179-04.
- .3 Bonding agent: Standard of Acceptance: Albitol, as manufactured by Albert Chemical Sales of Canada Ltd. or equivalent.

### 1.03 METHOD OF WORK

- .1 General:
  - .1 Inspect site and verify with Engineer manholes catch basins and valve access covers designated for repair, raise and/or re-adjustment;
  - .2 Prior to commencing work, determine location of possible underground piping and utility lines;
  - .3 Maintain crowns and cross slopes to provide good surface drainage to catch basin.
  - .4 Dispose of excavated materials in area designated by the Engineer;
  - .5 Protect work and excavations from water ponding;
  - .6 Prevent entrance of excavated and construction materials into storm sewers; and
  - .7 Coordinate all work with Engineer for the degree and scope of work required.
- .2 Adjusting tops of existing catch basin:
  - .1 Remove all existing gratings, frames and deteriorated masonry;
  - .2 Raise units by roughening existing top to ensure proper bond and extend to required elevation with precast concrete grate rings;
  - .3 Lower masonry units as required including concrete work where designated by the Engineer and rebuild with new precast concrete to required elevations;
  - .4 Excavation lines and depth require Engineer's approval prior to placing new materials; and
  - .5 Replace deteriorated masonry with new where directed by the Engineer.
- .3 Valve access cover and manholes:
  - .1 Raise and/or re-adjust as indicated or as designated by the Engineer.
- .4 Masonry repair:
  - .1 Construct units plumb and true to alignment and grade;
  - .2 Catch basin frames shall be set to finish elevation in full bed of mortar;
  - .3 All work to be done "to fit" catch basin frame for accurate fitting and even sitting of screens;
  - .4 Finish interior surface of joints smooth;
  - .5 Do not backfill or pave until grade and alignment has been checked and accepted by the Engineer;

NATIONAL DEFENCE  
JOB NO. I-G2-9302/167  
5 CDSB GAGETOWN, N.B.

MANHOLES AND CATCH BASINS

SECTION 33 05 14  
PAGE 2  
2016-05-11

- .6 Hand place granular material in uniform layers of 150 mm thick or less. Dumping of material directly on top of masonry is not permitted;
- .7 Place layers uniformly and simultaneously around masonry course;
- .8 Compact each layer to at least 95% of corrected maximum dry density;
- .9 Ensure completed joints are restrained by compacting granular material; and
- .10 All catch basins will be kept free from any accumulation of silt, debris or foreign matters during work progress and upon completion of work in area concerned. Thoroughly clean work area and catch basin.

END OF SECTION