CONTRACT No.: 2010-11

CITY OF PORT COLBORNE

REMOVAL AND REPLACEMENT OF EXISTING DRY PIPE FIREMAIN

LOCATED AT SUGARLOAF HARBOUR MARINA

MAYOR: Vance Badawey
DIRECTOR: Ron Hanson, C.E.T.
CITY CLERK: Ashley Grigg

CLOSING DATE: Tuesday, July 6, 2010 at 2:00 p.m. Local Time
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

**NOTICE**

This contract utilizes the “Niagara Peninsula Standard Contract Document” which forms the specification documents excepting the “Standard Instruction to Bidders, Form of Tender, and Supplementary Special Provisions.” The “Standard Document” is available on the internet at the “Tenders” section of the Regional Municipality of Niagara website (www.niagararegion.ca).

Contracts issued through tender calls and quotations will reference the “Standard Document” and the responsibility for obtaining or having access to the Document will rest with the Tenderer. Once acquired, the “Standard Document” can be utilized on all projects which clearly indicate reference and use of the “Niagara Peninsula Standard Contract Document”. The “Standard Document” is intended to be used as a reference specification and need not be acquired with each tender or quotation call.
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Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

SCOPE OF THE PROJECT

The City of Port Colborne is requesting tenders for the Removal and Replacement of the Existing Dry Pipe Firemain at the Sugarloaf Harbour Marina located at 3 Marina Road in Port Colborne.

This project must be completed by November 30, 2010.

EXAMINATION OF SITE

Each bidder must visit the site of the work before submitting their tender and must satisfy themselves by personal examination as to the local conditions to be met with during the construction and conduct of the work. They shall make their own estimate of the facilities and difficulties to be encountered. The Bidder is not to claim any time after submission of their tender that there was any misunderstanding of the terms and conditions of the contract relating to site conditions.

There will be a Mandatory Site Meeting with the Contract Administrator and Marina Manager on June 29th, 2010 at the Sugarloaf Harbour Marina located at 3 Marina Road at 10:00 am in the City of Port Colborne.

All Contractors wishing to bid on this project are required to be in attendance as the Form of Tender and envelopes required for bidding will only be available at this meeting, a sign-in sheet will also be provided for all Contractors at this meeting.

Any bids that are received without the Contractor attending this Mandatory Site Meeting will not be opened and will be returned to said Contractor.
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**Contract No.: 2010-11**

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### SPECIAL INSTRUCTIONS TO BIDDERS

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<tr>
<td>13.</td>
<td>Construction Schedule.</td>
<td>SIB 5</td>
</tr>
</tbody>
</table>

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1. **Named Parties**

For the purposes of this contract the following parties are identified:
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

Owner: The Corporation of the City of Port Colborne

Engineer: Genivar

Contract Administrator: The Corporation of the City of Port Colborne

Inspector: The Corporation of the City of Port Colborne

Contact for Enquiries: Jim Huppunen, Manager of Engineering Services
Telephone No.: (905) 835 2901 ext: 221 Fax No. (905) 835 2939

2. Tender Procedure

The following policy regarding the submission of tenders and the tender opening procedures will be applicable for this project. Tenderers are requested to adhere strictly to the instructions concerning submission.

:: All tenders must be sealed and submitted to:
Ashley Grigg, City Clerk on the First Floor, City Hall
66 Charlotte Street, Port Colborne, Ontario, L3K 3C8

:: By the following time:
2:00 p.m. local time
Tuesday, July 6th, 2010

Tenders received later than the time specified will not be accepted, regardless of the postal seal date. Tenders must be plainly marked to reveal the contents and the Tenderer's name and address. Tenders received after this time will be unopened and destroyed.

:: Tenders shall be submitted in the two envelopes supplied, as follows:

1) The first envelope shall contain:
   * "Agreement to Bond", duly signed and sealed (no copies or facsimiles will be accepted).
   * Tender deposit in the form of a certified cheque, money order, or an irrevocable letter of credit and in the amount of $20,000.00
Contract No.: 2010-11

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   ii) The second envelope shall contain:

      * Form of Tender (including addenda if applicable).

Please note that the tender specifications shall not be included in the second envelope. In the event the first envelope does not contain the proper documents, the second envelope will not be opened.

Tenders will be opened the same day that tenders close at 2:15 p.m. local time, Tuesday, July 6th, 2010 in Committee Room #2, Second Floor, City Hall. Any Firm submitting Tenders will be permitted to attend the Tender opening.

The total tender price will be announced for each tender opened (excluding taxes).

If you wish clarification of specifications, do not use the envelopes provided as they will not be opened prior to the Tender opening.

For any additional information contact:

   Jim Huppunen, Manager of Engineering Services
   Telephone: 905-835-2900 ext 221
   Fax: 905-835-2939
   Email: jimhuppunen@portcolborne.ca

The bid must be legible, written in ink, or typewritten. Any form of erasure, strikeout or over-writing must be initialed by the Bidder’s authorized signing officer.

All unit prices must be clearly indicated and all extensions written in figures. The bid must not be restricted by a statement added to the Form of Quotation or by covering letter, or by alterations to the Form of Quotation as supplied by the City of Port Colborne unless otherwise provided herein.

The Form of Quotation must be signed and witnessed in the spaces provided on the form, with the signature of the bidder or responsible official of the firm bidding. If a joint bid is submitted, it must be signed and addressed on behalf of each of the bidders.
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Location: Sugarloaf Harbour Marina

3. **Submission of Tenders**

Submissions shall not be made by e-mail or facsimile. Adjustment by e-mail, facsimile, letter or otherwise to a Tender already submitted is not permitted.

A bidder will be permitted to withdraw his/her Tender unopened after it has been deposited, if such request is received in writing by the City Clerk prior to the time specified for the opening of Tenders.

More than one Tender from an individual firm, partnership, corporation, or association under the same or different names will not be considered. Within a Tender submission, Bidders must bid on each of the items.

4. **Clarification, Omissions, Discrepancies**

It will be the Bidders responsibility to clarify any details in question before submitting their bid.

Bidders finding discrepancies or omissions in the specifications or other documents or having any doubts concerning the meaning or intent of any part thereof, should immediately request clarification. Written instructions or explanations will then be sent to all bidders in the form of addenda to the Tender documents.

Bidders may inquire into and clarify any requirements of this Tender. Inquiries must be directed to the attention of:

| Jim Huppunen                     |
| Manager of Engineering Services |
| Telephone: 905-835-2900 ext 221 |
| Fax: 905-835-2939               |
| Email: jimhuppunen@portcolborne.ca |

Please note that: **No inquiries will be taken on the Closing Date of the Contract.**

Responses, if not already addressed in the Tender, will be addressed in the form of addendum, if required. No oral interpretations will be effective to modify any provisions of the Tender.
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Location: Sugarloaf Harbour Marina

5. Errors and Corrections

City staff may clarify any aspect of a Tender submission with the Bidder at any time after the Tender has been opened. Any such clarification will not alter the Tender and will not be constituted as a negotiation or renegotiation of the Tender. The Corporation of the City of Port Colborne is not required to clarify any part of a Tender. Any clarification of a Tender by a Bidder shall not be effective until confirmation has been delivered in writing.

6. Estimated Tender Price

The estimated tender price of the project is as follows (excluding applicable taxes).

Estimated Tender Price .................................................................................. $150,000.00

7. Tender Award

The award of this tender is subject to the Owner obtaining approval from:

The Council of the City of Port Colborne.

Tentatively, construction may commence, but is not guaranteed, by:

October 4, 2010.
See SPSCI 6 & 7.

8. Maintenance Holdback

The following maintenance holdback will apply to this contract: (5%) for 1 year after the completion of the project.

Maintenance Holdback shall apply as per Special Provisions - General Section G19. Special Provisions - General Section G19 (iv) is to be disregarded.

9. Liquidated Damages

The liquidated damages for this contract shall be Five Hundred Dollars ($500) for each and everyday’s delay as outlined in Special Provisions - General.

10. Additional Insured

The following parties are identified to be included as additional insured for this project:

The Corporation of the City of Port Colborne.

SIB 4
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Location: Sugarloaf Harbour Marina

11. **Workplace Safety & Insurance Board Certificate of Clearance**

A generic and/or specific Certificate of Clearance shall be provided to the Department Director or designate and the Certificate shall be valid for sixty (60) days from the date of the commencement of the project.

All bidders shall furnish the Workplace Safety & Insurance Compensation Board account number in the Form of Tender where indicated. Prior to release of each and every progress draw if the payment falls out of the 60 day validity period, the successful bidder shall be required to provide a new Certificate of Clearance to the Corporation. The Certificate shall indicate that the bidder has complied with the requirements of the Workplace Safety & Insurance Compensation Board and is in good standing in the records of the Board.

12. **Acceptance or Rejection of Tenders**

The Owner reserves the right to reject any bids as the interests of the Owner require, without stating the reasons therefore, and the lowest or any Tender will not necessarily be accepted.

13. **Construction Schedule**

The Contractor shall submit to the Engineer his proposed construction schedule at the pre-construction meeting. Construction shall commence no later than October 4th, 2010. Please see SPS 6 & 7 for completion dates.

Bi-weekly construction progress meetings will be held throughout the duration of the contract with attendance required by the Contractor and City staff.
OPS GENERAL CONDITIONS OF CONTRACT

(Refer to Niagara Peninsula Standard Contract Documents)
INSTRUCTIONS TO BIDDERS

(Refer to Niagara Peninsula Standard Contract Documents)
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Location: Sugarloaf Harbour Marina
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Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

FORM OF TENDER

We, the undersigned Contractor(s) have carefully examined the attached documents as herein listed and forming part of this tender.

Special Provisions
Special Instructions to Bidders
Instructions to Bidders
General Conditions
Supplementary General Conditions
Standard Specifications (as noted)
Plans (as noted)
Addenda (if applicable)

and have carefully examined the site and location of the work to be done under this contract. We, the undersigned Contractor(s), understand and accept the said drawings and contract documents, and, for the prices set forth in this Tender, hereby offer to furnish all machinery, labour, tools, apparatus and other means of construction, furnish all materials except as otherwise specified in the Contract, and to complete the work in strict accordance with the drawings and contract documents referred to above, for the total tender price of __________________________ Dollars.

($) __________________________ excluding taxes.
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Location: Sugarloaf Harbour Marina

We acknowledge that we have received Addendum/Addenda No. inclusive, and that all changes specified in the Addendum/Addenda have been included in the prices submitted.

We agreed to commence work as specified to proceed continuously to the completion and to complete all the work within 40 working days.

We agree that this tender is to continue open to acceptance and irrevocable until the formal contract has been executed by the successful tenderer for the said work, and the bond or bonds as specified have been executed by the approved surety or sureties, and that the Owner may, at any time, within 45 (forty five) calendar days of closing date, accept this tender without notice, whether any tender has been previously accepted or not.

* to be filled in by Tenderer.

OFFERED ON BEHALF OF THE CONTRACTOR

<table>
<thead>
<tr>
<th>Signature</th>
<th></th>
<th>Signature</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Address</th>
<th>Witness</th>
<th>Date</th>
</tr>
</thead>
</table>

Insert Workplace Safety & Insurance Board Account No.

Contractor’s Seal
Contract No.: 2010-11

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Location: Sugarloaf Harbour Marina

NOTE:

(a) If the Tenderer is a Corporation, the Corporate seal must be affixed under the signature of a duly authorized officer or officers of the Corporation.

(b) If the Tenderer is not a Corporation or a Partnership, the Tenderer must sign in the presence of a witness who must also sign.

(c) If the Tenderer is a Partnership, each member of the Partnership must sign in the presence of a witness who must also sign.
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Location: Sugarloaf Harbour Marina

**SCHEDULE OF QUANTITIES**

**SECTION 1: GENERAL**

<table>
<thead>
<tr>
<th>Item</th>
<th>Spec. No.</th>
<th>Description</th>
<th>Est. Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>SPSCI 1 A1</td>
<td>Bonding</td>
<td>1</td>
<td>L.S.</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>1.2</td>
<td>SPSCI 2</td>
<td>Allowance for Securing Dock</td>
<td>1</td>
<td>L.S.</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>1.3</td>
<td>SPSCI 3</td>
<td>Allowance for Working IN and ABOVE Water</td>
<td>1</td>
<td>L.S.</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>1.4</td>
<td>SPSCI 4</td>
<td>Allowance for Debris Containment as per NPCA requirements</td>
<td>1</td>
<td>L.S.</td>
<td>$________</td>
<td>$________</td>
</tr>
</tbody>
</table>

**TOTAL SECTION 1: GENERAL**

$________________
**Contract No.: 2010-11**

**Title:** Removal and Replacement of Existing Dry Pipe Firemain

**Location:** Sugarloaf Harbour Marina

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**SCHEDULE OF QUANTITIES**

**SECTION 2: REMOVALS**

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<th>Item</th>
<th>Spec. No.</th>
<th>Description</th>
<th>Est. Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Amount</th>
</tr>
</thead>
</table>
| 2.1  | SPSCI 5   | Remove and dispose as directed—  
  a) Existing Dry Pipe Firemain  
  b) Existing Hose Cabinets  
  c) Existing Pipe Hangers  
  d) Existing Combing  
  e) Existing Wooden Decking within limits of Dry Pipe Firemain  
  f) Existing Wooden Stringers within limits of Dry Pipe Firemain  
  g) Existing Shore End Connections | 1 | L.S. | $_____ | $_______ |
|      |           |             |               |      |            |        |

**TOTAL SECTION 2: REMOVALS**

$_____________
## SCHEDULE OF QUANTITIES

### SECTION 3: INSTALLATION OF DRY PIPE FIREMAIN

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<th>Item</th>
<th>Spec. No.</th>
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<th>Unit</th>
<th>Unit Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>SPSCI 6</td>
<td>Supply &amp; Install – New Stainless Steel Dry Pipe Firemain in Existing Location complete with all appurtenances required for proper operation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>a) Westerly Marginal Dock</td>
<td>250</td>
<td>m</td>
<td>$_____</td>
<td>$________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Easterly Marginal Dock</td>
<td>210</td>
<td>m</td>
<td>$_____</td>
<td>$________</td>
</tr>
<tr>
<td>3.2</td>
<td>SPSCI 6</td>
<td>Supply &amp; Install – a) Stainless Steel Pipe Hangers at required spacing sufficient to support System when charged</td>
<td>1</td>
<td>L.S.</td>
<td>$_____</td>
<td>$________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Thrust supports sufficient to support system when charged as per Layout Drawing</td>
<td></td>
<td>L.S.</td>
<td>$_____</td>
<td>$________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) Hose Connections above dock as specified on Layout Drawing</td>
<td>8</td>
<td>ea.</td>
<td>$_____</td>
<td>$________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d) Access Panels at Blow-off Valve locations</td>
<td>2</td>
<td>ea.</td>
<td>$_____</td>
<td>$________</td>
</tr>
<tr>
<td>3.3</td>
<td>SPSCI 7</td>
<td>Install Ex. 100 mm (4&quot;) Storz Connections as specified on Layout Drawing</td>
<td>2</td>
<td>ea.</td>
<td>$_____</td>
<td>$________</td>
</tr>
<tr>
<td>3.4</td>
<td>SPSCI 8</td>
<td>Testing of System (Contractor shall arrange to have Fire Department on site during testing)</td>
<td>1</td>
<td>L.S.</td>
<td>$_____</td>
<td>$________</td>
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**TOTAL SECTION 3: INSTALLATION OF DRY PIPE FIREMAIN**

$________________
Contract No.: 2010-11

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Location: Sugarloaf Harbour Marina

**SCHEDULE OF QUANTITIES**

**SECTION 4: WOOD INSTALLATION**

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<th>Spec. No.</th>
<th>Description</th>
<th>Est. Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>SPSCI 9</td>
<td>Supply &amp; Install – New Wooden Decking within limits of the Dry Pipe Firemain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>a) Westerly Marginal Dock</td>
<td>1070</td>
<td>ea.</td>
<td>$_____</td>
<td>$______</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Easterly Marginal Dock</td>
<td>910</td>
<td>ea.</td>
<td>$_____</td>
<td>$______</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) New Fasteners for Wooden Decking</td>
<td>27700</td>
<td>ea.</td>
<td>$_____</td>
<td>$______</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d) New Wooden Stringers within limits of Dry Pipe Firemain</td>
<td>625</td>
<td>ea.</td>
<td>$_____</td>
<td>$______</td>
</tr>
<tr>
<td></td>
<td></td>
<td>e) New Fasteners for Wooden Stringers</td>
<td>1700</td>
<td>ea.</td>
<td>$_____</td>
<td>$______</td>
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<tr>
<td>4.2</td>
<td></td>
<td>Remove and Reuse – Existing Wooden Decking on Westerly Marginal Dock</td>
<td>1</td>
<td>L.S.</td>
<td>$_____</td>
<td>$______</td>
</tr>
<tr>
<td>4.3</td>
<td></td>
<td>Supply &amp; Install – Stainless Steel Brackets to hold Existing Electrical</td>
<td>5</td>
<td>ea.</td>
<td>$_____</td>
<td>$______</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Receptacles on Westerly Marginal Dock at former Hose Cabinet locations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL SECTION 4: WOOD INSTALLATION**

$________________
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Location: Sugarloaf Harbour Marina

TENDER SUMMARY

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</thead>
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<td>$___________</td>
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<tr>
<td>SECTION 2: REMOVALS</td>
<td>$___________</td>
</tr>
<tr>
<td>SECTION 3: INSTALLATION OF DRY PIPE FIREMAIN</td>
<td>$___________</td>
</tr>
<tr>
<td>SECTION 4: WOOD INSTALLATION</td>
<td>$___________</td>
</tr>
<tr>
<td>TOTAL TENDER PRICE</td>
<td>$____________________________</td>
</tr>
</tbody>
</table>

NOTE: The above TOTAL TENDER PRICE shall exclude applicable taxes, and shall be entered on pages FT 1 and FT 11 of the Form of Tender.
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Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

STATEMENT “A”

LIST OF SUB-CONTRACTORS

The bidders shall list hereunder the names of all sub-contractors intended to be used in the execution of this work subject to the approval of the Contract Administrator.

All work not performed directly by the Contractor’s forces shall be included in this list. Unless this list is properly completed, the Tender may be disqualified. All changes to this list must be approved by the Contract Administrator.

<table>
<thead>
<tr>
<th>SUB-TRADE</th>
<th>NAME OF SUB-CONTRACTOR</th>
<th>ADDRESS OF SUB-CONTRACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

FT 9
Contract No.: 2010-11
Title: Removal and Replacement of Existing Dry Pipe Firemain
Location: Sugarloaf Harbour Marina

STATEMENT “B”

TENDERER’S EXPERIENCE IN SIMILAR WORK

<table>
<thead>
<tr>
<th>YEAR COMPLETED</th>
<th>DESCRIPTION OF WORK</th>
<th>FOR WHOM WORK PERFORMED</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FT 10
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

STATEMENT “C”

(a) **Federal Goods and Services Tax:**

The Contractor shall **NOT** include any amount in his tender price for the Goods and Services Tax (G.S.T.). Any amount to be levied with respect to the G.S.T. will be included as a separate item on the payment certificate. The appropriate G.S.T. levy will be paid to the Contractor in addition to the amount approved by the Contract Administrator for work performed under the contract and will, therefore, not affect the amount of the contract. The contractor will be required to make the appropriate remittance to Revenue Canada in accordance with the legislation.

i) Total Tender Price: $ ___________

ii) Estimated Cost of Goods and Services Tax $ ___________

iii) Total Contract Amount [(i) + (ii)] $ ___________

iv) G.S.T./H.S.T. Registration Number: ___________________

(b) Award of Contract is based on Base Bid prices **EXCLUDING** all sales taxes and shall be calculated in the following manner:

i) Provincial Sales Tax – for materials to be used and paid for before July 1, 2010

All prices quoted for the work shall include Provincial Sales Tax in the base price on all materials to be incorporated into the work. The bidder shall be responsible to contact the Retail Sales Tax Branch directly to verify any questions on applicable taxes.

ii) Federal Excise Tax and/or Goods and Services Tax -

Prior to July 1, 2010, the Bidder shall show separately on all invoices or progress payment requests, all applicable Goods & Services Tax and shall be responsible to verify with the Customs and Excise Branch of Revenue Canada any rulings for payment of tax or tax exemptions.
ii) Please be aware that it is expected that the new Harmonized Sales Tax (HST) will be implemented on July 1, 2010. Contractors (vendors) will be able to apply for input tax credits to collect reimbursement for PST paid by them and currently included in the base bid price. Bidders are expected to take these anticipated savings into consideration when developing their bids. HST will apply to all invoices or progress payment requests as of July 1, 2010.

________________________
Company Name     Contractor's Signature(s)

_______________________   ________________________
Address      Contractor's Seal

Witnesses: _________________ _________
_______________________

FT 12
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

AGREEMENT TO BOND

We, the undersigned, hereby agree to become bound as Surety for:

...........................................................................................................................................
...........................................................................................................................................

in a bond totaling One Hundred Per Cent (100%) of the contract amount, and
conforming to the Instruments of Contract attached hereto, for the full and due
performance and maintenance of the works shown as described herein if the Tender for
...........................................................................................................................................
...........................................................................................................................................

is accepted by the Owner. We also agree to a bond as surety for the payment of the
cost of all labour and materials for an amount equal to 100% of the contract sum used
by the Contractor in due performance of his work.

It is a condition of this Agreement that if the above-mentioned Tender is accepted,
application for a Performance Bond and Labour and Materials Payment Bond, must be
completed with the undersigned within fourteen (14) days of acceptance of the tender
related thereto, otherwise this Agreement shall be null and void.

Dated this day of , 2010

________________________ ____________________
Name of Bonding Company

____________________________________________
Signature of Authorized Person Signing for Company

____________________________________________
(Company Seal)

____________________________________________
Position
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

Schedule of Drawings

1. Contract Drawings
   M1 – Specifications Legend Demolition Details
   M2 – Revised Details

2. O.P.S.D. (Not Included in Contract Documents)

3. Municipal Standard Drawings (If Applicable)
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

ARTICLE A-2 CONTRACT DOCUMENTS

The following is an exact list of the Contract Documents referred to in Article A-1 of this Agreement. This list is subject to subsequent amendments in accordance with the provisions of the Contract and agreed upon between the parties.

Title Page
Table of Contents
Special Instructions to Bidders
Instructions to Bidders (Refer to Niagara Peninsula Standard Contract Documents)
Form of Tender
  - Form of Tender Declaration
  - Schedule of Quantities
  - Provisional Items
  - Statement A - List of Sub-Contractors
  - Statement B - Tenderer’s Experience in Similar Work
  - Statement C - Federal Goods and Services Tax
Agreement to Bond
Agreement between Owner and Contractor (Form of Contract Agreement)
Schedule of Drawings
Special Provisions - General (Refer to Niagara Peninsula Standard Contract Documents)
Special Provisions - Contract Items (Refer to Niagara Peninsula Standard Contract Documents)
Special Provisions - Supplementary Special Provisions (If Applicable)
Special Provisions - Labour Conditions and Fair Wage Schedule (If Applicable)
Standard Drawings (Refer to Niagara Peninsula Standard Contract Document)
Supplementary General Conditions of Contract
  (Refer to Niagara Peninsula Standard Contract Documents)
OPS General Conditions of Contract (Refer to Niagara Peninsula Standard Contract Documents)
Geotechnical Report (Not Applicable)
AGREEMENT BETWEEN OWNER AND CONTRACTOR

This Agreement made on the                    day of                                  in the year two thousand and ten.

by and between

The Corporation of the City of Port Colborne
66 Charlotte Street
Port Colborne, Ontario
L3K 3C8

hereinafter called the “Owner”

and

hereinafter called the “Contractor”;

witnesses: that the parties agree as follows

ARTICLE A-1 THE WORK

The Contractor shall:

(a) perform the Work required by the Contract Documents for Contract # 2010-11 Removal and Replacement of Existing Dry Pipe Firemain which have been signed by the parties, and which were prepared by City of Port Colborne acting as hereinafter called the Engineer

(b) do and fulfil everything indicated by this Agreement, and

(c) commence the Work by the           day of and attain completion of the Work, as certified by the Contract Administrator, by no later than the Thirtieth (30th) day of November, 2010.
ARTICLE A-3 CONTRACT PRICE

(a) The quantities shown in the Schedule of Contract Unit Prices are estimated. The Tender Price shall be the final sum of the products of the actual quantities that are incorporated in, or made necessary by the Work, as confirmed by count and measurement, and the appropriate Tender Unit Prices, together with any adjustments that are made in accordance with the provisions of the Contract Documents.

(b) The Estimated Tender Price shall be the sum of the products of the estimated quantities and the appropriate Tender Unit Prices in the Schedule.

(c) Schedule of Tender Unit Prices, as per pages FT 1 and FT 8, included as part of this contract.

(d) Based on the Schedule of Unit Prices, referred to in Article A-3 (c), the tender price is

$_________________ ______________________________________________
in Canadian Funds (Excluding taxes)
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

ARTICLE A-4 PAYMENT

(a) The Owner shall pay the Contractor in Canadian funds for the performance of the Contract, the amounts being determined by actual measured quantities of the individual work items contained in the Schedule of Tender Unit Prices in Article A-3 (c) of this Agreement, and measured in accordance with the methods of measurement given in the specifications.

(b) Subject to applicable legislation and the provisions of the Contract Documents, and in accordance with legislation and statutory regulations respecting holdback percentages and, where such legislation or regulations do not exist or apply, subject to a holdback of five percent (5%), the Owner shall:

(1) make monthly payments to the Contractor on account of the work performed as certified by the Contract Administrator, and

(2) upon completion of the Work as certified by the Contract Administrator pay to the Contractor the unpaid balance of holdback monies then due, and

(c) If the Owner fails to make payments to the Contractor as they become due under the terms of this Contract or in an award by arbitration or court, interest of five percent (5%) per annum on such unpaid amounts shall also become due and payable until payment. Such interest shall be calculated and added to any unpaid amounts monthly.

ARTICLE A-5 RIGHTS AND REMEDIES

(a) The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

(b) No action or failure to act by the Owner, Contract Administrator or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

ARTICLE A-6 RECEIPT OF AND ADDRESSES FOR NOTICES

Communications in writing between the parties or between them and the Contract Administrator shall be considered to have been received by the addressee on the date of delivery if delivered by hand to the individual or to a member of the firm or to an officer of the corporation for whom they are intended or if sent by fax, to have been delivered within five (5) working days of the date of mailing, or dispatch when addressed as follows:

The Owner at .......................................................... The Corporation of the City of Port Colborne
............................................................................................................. 66 Charlotte Street
........................................................................................ Port Colborne, Ontario L3K 3C8

The Contractor at

The Contract Administrator at ..................... The Corporation of the City of Port Colborne
............................................................................................................. 66 Charlotte Street
........................................................................................ Port Colborne, Ontario L3K 3C8

ARTICLE A-7 LAW OF THE CONTRACT

The law of the Place of the Work shall govern the interpretation of the Contract.

ARTICLE A-8 LANGUAGE OF THE CONTRACT

This Agreement is drawn in English at the request of all parties hereto.
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

ARTICLE A-9 SUCCESSION

The General Conditions of the Unit Price Contract hereto annexed, and the other aforesaid Contract Documents, are to be read into and form part of this Agreement and the whole shall constitute the Contract between the parties and subject to law and the provisions of the Contract Documents shall ensure to the benefit of and be binding upon the parties hereto, their respective heirs, legal representatives, successors and assigns.

In witness whereof the parties hereto have executed this Agreement under their respective corporate seals and by the hands of their proper officers thereunto duly authorized.

SIGNED, SEaled AND DELiVERED
in the presence of:

OWNER

CITY OF PORT COLBORNE

VANCE BADAWEY, Mayor

ASHLEY GRIGG, Clerk

CONTRACTOR

name

name and title

signature       witness

name and title    name and title
Contract No.: 2010-11
Title: Removal and Replacement of Existing Dry Pipe Firemain
Location: Sugarloaf Harbour Marina

SPECIAL PROVISIONS - GENERAL
(Refer to Niagara Peninsula Standard Contract Documents)

SPECIAL PROVISIONS – CONTRACT ITEMS
(Refer to Niagara Peninsula Standard Contract Documents)

SPECIAL PROVISIONS – SUPPLEMENTARY CONTRACT ITEMS
(If Applicable)

SPECIAL PROVISIONS – SUPPLEMENTARY SPECIAL PROVISIONS
(Included)

SPECIAL PROVISIONS – LABOUR CONDITIONS & FAIR WAGE SCHEDULE
(If Applicable)

STANDARD DRAWINGS
(Refer to Niagara Peninsula Standard Contract Documents)

SUPPLEMENTARY GENERAL CONDITIONS OF CONTRACT
(Refer to Niagara Peninsula Standard Contract Documents)

OPS GENERAL CONDITIONS OF CONTRACT
(Refer to Niagara Peninsula Standard Contract Documents)
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

SPECIAL PROVISIONS - GENERAL

In addition to the conditions stipulated in the Niagara Peninsula Standard Contract Document, the following shall also apply.

(a) This contract encompasses the provision of all labour, materials and equipment necessary for the installation of a dry pipe firemain all appurtenances and restoration on:

   **The Westerly and Easterly Marginal Docks at the Sugarloaf Harbour Marina**

   The work involves the replacement of the dry pipe firemain all appurtenances and dock restoration.

   The above description is general only and shall not be construed as limiting the scope of the contract.

(b) The successful bidder shall note that only the following words “or from blasting or vibration from pile driving or caisson work” may be deleted on the following clause of the Certificate of Insurance:

   “No exclusions for damage or loss from the removal or weakening of support of any property, building or land whether such support be natural or otherwise or from blasting or vibration from pile driving or caisson work.”

(c) The contractor shall provide a construction schedule at the pre-construction meeting.

(d) Any unreasonable damage to lawns, driveways, etc. shall be repaired or replaced immediately by the contractor at their expense.

(e) The Contractor shall protect and maintain all service crossings including but not limited to water services, electrical services etc. All damaged services shall be repaired by the Contractor to original condition or better and to the satisfaction of the Contract Administrator with no cost to the City.

(f) All procedures in the “Safe Work Procedures for Excavating in the Vicinity of Underground Electrical Plant” guide book must be adhered to. Any associated costs are deemed to be included in the tender items.
Contract No.: 2010-11
Title: Removal and Replacement of Existing Dry Pipe Firemain
Location: Sugarloaf Harbour Marina

(g) The Contractor shall take all necessary precautions during construction, to prevent damage to any utility services (hydro, gas, bell, fibre optic etc.) The Contractor shall adhere to the safety requirements of the local authorities while working in the vicinity of the utility services. All costs associated with any repairs from undue damage, or supporting poles, cables, bracing etc. shall be the responsibility of the Contractor.

(h) Any other debris removed from the area of excavation, i.e. pipe, valve boxes, catch basins, etc. are the property of the contractor unless stated otherwise in the contract documents.

(i) All construction activities must comply with the Ministry of Labour and the Occupational Health & Safety Act.

(j) Any work that is conducted on a Saturday will not be considered as a Contract working day. Work on Saturdays will be subject to approval by the City’s representative.

(k) After the work of any section of the Contract has been completed, all debris, excess materials, etc., shall be removed by the Contractor from the site and disposed of to the satisfaction of the Contract Administrator. The site shall be left in a safe, neat and workmanlike condition as applicable to any present regulations. The Contractor shall include in his rates for cleaning the site.

(l) The Contractor shall also be responsible for all costs incurred for the supply, installation, maintenance and removal of all de-watering equipment, and any other materials or equipment which may be required to cope with the ground conditions in order to complete the work. It will also be the Contractor’s responsibility for reinstatement of such areas which were disturbed by their operations to their original condition. All unit prices bid have made allowances for this under their appropriate item.

(m) The City has made provisions for the Contractor to store all construction materials in the parking lot adjacent to the access to the Marginal Docks. Access must be maintained for emergency vehicles.
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

(n) Payment for each item listed in the Form of Tender shall be made according to the unit rates specified in the Form of Tender.

(o) The Contractor shall be responsible for providing on site washroom facilities for all staff, and provide power for all construction work activities.

(p) In addition to GC 3.07 the following shall also be amended to include:

.04 If the Work is delayed by labour disputes, strikes or lock-outs including lock-outs decreed or recommended to its members by a recognized union organization, of which the Owner is a member or to which the Owner is otherwise bound, which are beyond the Owner’s control, then the contract time shall be extended in accordance with section GC 3.06. In no case shall the extension of Contract Time be more than the time lost as the result of the event causing the delay, unless a longer extension is agreed to by the Owner. The Contractor shall not be entitled to payment for standby time.

(q) The Contract Administrator shall inspect all materials and appurtenances prior to the installation. Any items deemed unacceptable are to be tagged or otherwise identified as “unacceptable” and removed from site immediately. Replacement item(s) shall be examined for conformance to specifications by the Contract Administrator.

(r) It should be noted that while the work of this project is in progress, the Marina may be in limited use by boaters. The Contractor shall make all necessary accommodation to the marina users and ensure that their safety is not jeopardized by their operations.

(s) There are existing utilities on the docks including, but not limited to, electrical plant, domestic water system, power pedestals and fire protection system. The Contractor will provide in their bid an allowance for working near or crossing existing utilities and for their protection with the exception of the existing firemain under the docks including PVC sleeves and leads to hose cabinets, which all are to be removed prior to the installation of the new system. Should it appear necessary to relocate a utility because of line or grade conflict with the proposed work, the Contractor shall inform the Contract Administrator as soon as possible and not proceed.
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

with affected work until further authorization from the City to do so. Relocations necessary because of conflict with construction equipment operation of method shall be the Contractor’s responsibility. The Owner will not consider claim for cost of delays due to utility crossings, conflicts and relocation. Clearances between existing utilities must be maintained as per applicable Codes (i.e. Electrical Code).

(t) The Contractor shall reinstate the shore area and floating dock system, where disturbed by the Contractor, to the existing conditions prevailing prior to commencement of construction. Any floating dock system component damaged by the Contractor shall (at the Contractor’s expense) be replaced or repaired by Technomarine Inc. or repaired under their direction or supervision so as not to affect the long-term functionality of the floating dock system.

All reinstatements, permanent or temporary, shall be carried out at the Contractor’s expense and the costs shall be included in the bid price.

(u) The value of final inspection, testing and commissioning the works covered by this Contract shall be deemed to be such that the works will not be deemed complete until an inspection has been made by the Contract Administrator and until testing and commissioning in accordance with SPSCI 8 has been completed to the satisfaction of the Contract Administrator. They shall be accompanied during the inspection by a competent person supplied by the Contractor at the Contractor’s expense. The inspection shall not be made until the entire site had been reinstated and cleaned to the satisfaction of the Contract Administrator.

(v) Emergency Repairs

During the Maintenance Holdback period, where a deficiency develops or is discovered which requires immediate remedial measures (i.e. Threatening damage to property or danger/hazard to persons), the Owner will undertake (or arrange to have undertaken) the necessary work. The Owner will not be required to notify the Contractor before these repairs are undertaken and the cost of such repairs shall be the responsibility of the Contractor. The decision of the Contract Administrator will be final as to the necessity of repairs done or required and the amount expended for these repairs.
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

Non-emergency Repairs

The Contractor shall undertake repairs to the works to the satisfaction of the Contract Administrator within twenty-four (24) hours written notice unless otherwise instructed. Should the Contractor fail to effect the repairs within the time stipulated, or should the status of the deficiency become emergency in nature, the Owner shall undertake the repairs and the Owner’s cost in the regard shall be the responsibility of the Contractor.

When the repairs are undertaken by the Contractor during construction or during the Maintenance Holdback period, such repairs shall be made in the presence of the Contract Administrator unless otherwise authorized by the Contract Administrator. If the works required are due to faulty workmanship or material, the City’s inspector’s costs shall be paid by the Contractor.

(w) The Contractor shall take utmost care to protect the existing floating dock system and utilities and shall not undertake any modifications or relocations of same without prior permission from the Contract Administrator. All decking required to be removed for installation of piping and fittings shall be carefully removed and stored and shall be replaced in the same locations with the original or equivalent hardware.

(x) Materials and equipment use for the work shall be stored neatly on site in a location to be designated by the Contract Administrator.
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

SPECIAL PROVISIONS - SUPPLEMENTARY CONTRACT ITEMS
SECTION 1 - GENERAL

SPSCI-1  Item 1.1
SPCD-A1
BONDING

The conditions stipulated in the Niagara Peninsula Standard Contract Documents shall apply to this item.

SPSCI-2  Item 1.2
ALLOWANCE FOR SECURING DOCK

In addition all applicable conditions stipulated in the Niagara Peninsula Standard Contract Document, as illustrated in the contract documents, the following shall also apply.

The Contractor is responsible to ensure that there is to be no access to the docks by the general public or Marina users during the construction period. The Site must be secured at any times when the Contractor is not on site.

SPSCI-3  Item 1.3
ALLOWANCE FOR WORKING IN AND ABOVE WATER

In addition all applicable conditions stipulated in the Niagara Peninsula Standard Contract Document, as illustrated in the contract documents, the following shall also apply.

The Contractor will be working in/above the water during the construction and is required to be in accordance with any relevant Regulations.
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

SPSCI-4 Item 1.4

ALLOWANCE FOR DEBRIS CONTAINMENT AS PER NPCA REQUIREMENTS

In addition all applicable conditions stipulated in the Niagara Peninsula Standard Contract Document, as illustrated in the contract documents, the following shall also apply.

The Contractor is responsible for an appropriate debris containment system that must be implemented prior to the commencement of works to prevent sediment, debris and/or construction related dust from entering the water. This system must meet the requirements set forth by the Niagara Peninsula Conservation Authority (NPCA). Detail drawings for the system must be submitted to the City as per SPSCI 6 & 7.
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

SPECIAL PROVISIONS - SUPPLEMENTARY CONTRACT ITEMS
SECTION 2 – REMOVALS

SPSCI-5  Item 2.1  REMOVALS

In addition all applicable conditions stipulated in the Niagara Peninsula Standard Contract Document, as illustrated in the contract documents, the following shall also apply.

- Removal of approximately 460 m of existing 100 mm∅ galvanized Schedule 10 pipe including brackets and fittings
- Removal of existing hose cabinets
- Removal of existing aluminum combing materials
- Removal of existing wooden deckings and fasteners
- Removal of existing wooden stringers and fasteners
- Disposal of all removed materials including all applicable permits and tipping fees for disposal

Payment shall be full compensation for all equipment, labour and material necessary to do the work.
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

SPECIAL PROVISIONS - SUPPLEMENTARY CONTRACT ITEMS
SECTION 3 – INSTALLATION OF DRY PIPE FIREMAIN

SPSCI-6&7  Items 3.1, 3.2 & 3.3

INSTALLATION

In addition all applicable conditions stipulated in the Niagara Peninsula Standard Contract Document, as illustrated in the contract documents, the following shall also apply.

Shop Drawings
Within twenty-one (21) days following execution of the Contract and no later than fourteen (14) days prior to commencement of the work, the Contractor shall furnish complete shop drawings for the following:
- Pipe support detail including pipe location and any proposed modifications to the existing dock system
- Thrust restraint details
- Hose connection leads including connection to main, type and configuration of pipe, and details of stub above deck surface including pipe anchoring, valve and hose connections
- Blow-off valves together with access details including any proposed modifications to the existing dock system
- Flex joint details at locations between dock sections
- Access Panel details
- Receptacle Bracket details
- Debris containment drawings noting the type of system proposed and appropriate details (to be reviewed by NPCA)

Preparation
Prior to installation of the Dry Pipe Firemain under the dock; all pipe, hangers, fittings, bolts etc. must be thoroughly washed to eliminate any contamination to Lake Erie.

Construction Schedule
- There will be some boats still in their slips and the Contractor will need to notify the Marina Manager prior to working in the vicinity of these boats.
- The Contractor will be required to have the Dry Pipe Firemain installed, tested successfully and winterized prior to Tuesday November 30th, 2010.
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

Method of Construction

- Dry Pipe Firemain is to be removed/installed by slinging pipe over the side of the dock into the water and under the floats. This method limits the number of dock boards to be removed and replaced in the sections where newer dock boards are present. A diver may be required to perform such tasks as installing pipe hangers & brackets and fastening the brackets to the pipe. This method has been reviewed by NPCA staff to ensure minimal disruption to fish habitats along with the requirements for **SPSCI 4 DEBRIS CONTAINMENT** with Contractor at Pre-construction meeting. Dock boards at critical connection points will be permitted to be removed by Contractor to perform connections of the pipe sections.

- Contractor must submit detailed plan of method of construction at least 3 weeks prior to commencement of work for both the City’s review and approval.

Method of Installation

- Assembly and installation of the dry pipe firemain system shall be in strict accordance with manufacturer’s specifications and recommendations, with the proposed method of installation submitted with the Tender/Proposal, and with the latest revisions of shop drawings submitted to the Contract Administrator. Permission for any deviations from the above provision shall be sought and received from the Contract Administrator prior to commencement of that aspect of the work. Dry Pipe Firemain shall be installed as close to the underside of the dock structure as possible to maintain maximum clearance from water surface to the Firemain.

Westerly Marginal Dock

- 250 m of 100 mm∅ firemain including 90° bend and thrust restraint at dock bend and Existing 100 mm∅ Storz coupling and removable Storz cap at shore end
- 5 leads to former cabinet locations including ‘tee’ at firemain, 100 mm∅ lead from firemain to location above top of dock
- Mainland connection to be located near gangway as per location specified on drawing and shall meet specifications noted in **SPSCI 6 & 7**
- Sufficient ‘blow-off’ valve at the furthest point away from shore to winterize system, including access panel
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

EASTERLY MARGINAL DOCK
- 210 m of 100 mm∅ firemain including Existing 100 mm∅ Storz coupling and removable Storz cap at shore end
- 3 leads including ‘tee’ at firemain, 100 mm∅ lead from firemain to location above top of dock
- Mainland connection to be located near gangway as per location specified on drawing and shall meet specifications noted in SPSCI 6 & 7
- Sufficient ‘blow-off’ valve at the furthest point away from shore to winterize system, including access panel

All materials to be installed under this Contract shall be supplied by the Contractor unless specified otherwise

Pipe
- Pipe shall be smooth-wall Stainless Steel type 316L capable of withstanding 1.38 MPa (200 psi) internal test pressure with a minimum factor of safety of 1.5 and associated surges and hydraulic transients. Stainless pipe shall conform to AWWA C220 and fittings shall conform to AWWA C226. The pipe shall be suitable for prolonged use in a freshwater marine environment.

Couplings
- Couplings below dock shall be flexible so as to provide for movements of docks as specified elsewhere in these documents and shall withstand 1.38 MPa (200 psi) internal test pressure with a minimum factor of safety of 1.5 and associated surges and hydraulic transients.
- Couplings above dock shall be rigid and shall withstand 1.38 MPa (200 psi) internal test pressure with a minimum factor of safety of 1.5 and associated surges and hydraulic transients.

Valves
- Valves shall conform to the appropriate AWWA standard, AWWA C500, C504 or C509 and shall be designed for minimum 1.38 MPa (200 psi) internal test pressure with a minimum factor of safety of 1.5 and associated surges and hydraulic transients and shall be operable with maximum 355 Newton force on the rim of the operating wheel.
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

Access Panels
- Access Panels shall be installed at Blow-off Valve locations to enable easy operation of valves.
- Access Panels shall be constructed of Stainless Steel.

Hose Connections
- Hose connections on each marginal dock must be 65 mm∅ (2 ½”) brass Wilco fittings complete with cap and chain.
- Hose connections at the shore end of each marginal dock must reuse 2 of the best existing 100 mm∅ (4”) Storz fittings complete with cap and new chain.
- Exact type and model number for such fittings are to be approved by City of Port Colborne Fire Chief prior to delivery and installation.

Air Release/Draining/Blow-off Valves and Fittings
- Valves for air release and system draining shall conform to applicable AWWA and/or CSA standard and shall provide for adequate air release during pressurization and draining following use.

Pipe Hangers and Thrust Restraint
- Materials for and arrangements of pipe support and restraint systems shall be designed for minimum 1.38 MPa (200 psi) test pressure with a minimum factor of safety of 1.5 and associated surges and hydraulic transients, and shall be designed for minimum of 30 years life with full exposure to air and freshwater marine environment and shall not adversely affect the structural integrity of the docks. Pipe supports shall be constructed of Stainless Steel.

Design Pressure and Flows
- The dry pipe system including pipe, fittings, couplings and appurtenances shall be designed for a long-term minimum design test pressure of 1.38 MPa (200 psi) with a minimum factor of safety of 1.5. The system shall pass a minimum of 379 L/min (100 GPM) with a maximum residual pressure of 175 psi at any hose connection. The system shall also be designed to withstand all associated surges and hydraulic transients.

The Dry Pipe Firemain shall be designed and installed in accordance with NFPA 14 and NFPA 303.
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

Dock Movement

The floating dock system is subject to a significant amount of movement and adjacent dock sections can move relative to each other. The firemain pipe system shall be designed to withstand all dock movements. Manufacturer’s typical details for the dock system are provided for the purpose of designing the pipe system.

Firemain Operation

The firemain system shall be designed to remain dry unless in operation and shall be self-draining following use. The system is to be charged using a pumper fire truck at the shore end which will pump from a standard pumper port on a hydrant on shore and discharge at approximately 175 psi to the dry firemain at the shore end of the dock.

The fire department will fight a fire from the hose connection immediately shoreward of the dock on which the fire is located. After ensuring that the line valves shoreward are open, the fire department will connect a 65 mmØ (2 ½”) fire hose to the hose connection lead stub. They will then extend the hose using additional 65 mmØ (2 ½”) hoses as required.

The Contractor shall supply and install 65 mmØ (2 ½”) fire department approved hose fittings at each of the hose connections on the Westerly and Easterly marginal docks and reinstall the existing 100 mmØ (4”) Storz hose fittings at the shore end of each marginal dock, all such that firefighters are able to make quick connections.

Accessibility to Plant

Stub ends of hose connection leads, shore ends of the firemain on each dock and all line valves shall be easily accessible from on top of the deck in the event of a fire.

Payment shall be full compensation for all equipment, labour and material necessary to do the work.
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

SPSCI-8 Items 3.4
TESTING

In addition all applicable conditions stipulated in the Niagara Peninsula Standard Contract Document, as illustrated in the contract documents, the following shall also apply.

- Following completion of the installation of the Dry Pipe Standpipe system, the system shall be tested in its entirety. Testing shall be arranged and carried out by the Contractor. Final testing of the system is to be witnessed by a Fire Protection Engineer and the Fire Chief (or designate) for Port Colborne Fire & Emergency Services. The verification of the final testing is to be signed off by a third-party Fire Protection Engineer.

- All costs associated with testing in order to satisfy these requirements shall be borne by the Contractor.

Test Method

- The Standpipe system shall be tested in conformance with NFPA 14 and NFPA 303, Standard for the Installation of Standpipe & Hose Systems.
Contract No.: 2010-11

Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

SPECIAL PROVISIONS - SUPPLEMENTARY CONTRACT ITEMS
SECTION 4 – WOOD INSTALLATION

SPSCI-9   Items 4.1, 4.2 & 4.3
WOOD INSTALLATION

Wooden Decking
- The Wood Decking between the Gangway and the corner on the Westerly Marginal Dock is newer and will be reused during the installation of the Dry Pipe Firemain. Only sections required to access the Firemain below should be removed and reinstalled. Use of New Fasteners is recommended. Contractor is responsible for replacement at their own cost if boards in this area are damaged.
- Wooden Decking shall comprise of 19 x 140 mm (5/4" x 6") pressure treated Select Grade wood decking.
- Decking shall be installed across full width of each dock to compensate for the removal of the combing sections.
- Westerly Marginal Dock requires 10’ long boards.
- Easterly Marginal Dock requires 10’ long boards.
- Where deck boards have been cut a clear sealant must be applied to protect cut end. (ex. Thompson’s Waterseal)

Wooden Decking Fasteners
- Wood Decking Fasteners shall be coated #8x2-1/2” Flat Socket screws specifically designed for use on wooden decks in wet environments or equivalent.
- Wood Decking requires 2 fasteners per row of stringers. (14 fasteners per board)

Wooden Stringers
- Wooden Stringers shall comprise of 38 x 89 mm (2” x 4”) pressure treated Select Grade wood members.
- For purpose for providing a quantity, 12’ long members were assumed.
- Stringers shall be cut to size to replace existing members.
- An additional row of stringers is to be installed along each of the outside edges of docks to allow for the fastening of the wooden decking along the edge
- Where stringers have been cut a clear sealant must be applied to protect cut end. (ex. Thompson’s Waterseal)
- Stringers are to be fastened using existing locations in “U-channel” pockets.
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Title: Removal and Replacement of Existing Dry Pipe Firemain

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Wooden Stringer Fasteners

Wooden Stringer Fasteners shall be coated #8x2-1/2" Flat Socket screws specifically designed for use on wooden decks in wet environments or equivalent.

Receptacle Brackets

Receptacle Brackets shall be constructed of Stainless Steel and shall be mounted in place of the former Hose Cabinet to support the receptacle when Hose Cabinet is removed.

Receptacle Brackets shall be fastened using coated fasteners designed to be used in wet environments or equivalent.
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Title: Removal and Replacement of Existing Dry Pipe Firemain

Location: Sugarloaf Harbour Marina

GEOTECHNICAL REPORT

Not Applicable