



DEPARTMENT OF FINANCE
PURCHASING DIVISION

June 10, 2010

INVITATION TO BID

Dear Sir/Madam,

The City of Norwalk is soliciting bids for **TREATED ROAD SALT FOR SNOW AND ICE CONTROL**. Your firm has expressed interest in providing these services. Below is an outline of some of the requirements that apply to this project.

PROJECT #	2969	Document length - 16 pages
DEADLINE	2:00 PM	July 1, 2010
PROJECT TITLE	TREATED ROAD SALT FOR SNOW & ICE CONTROL	
PROJECT SITE	Department of Public Works, 15 South Smith Street, Norwalk, CT	

BID DOCUMENTS are available upon receipt of this invitation over the Internet at <http://www.bid.ci.norwalk.ct.us>. Adobe Acrobat reader is required to view this document. If you do not have this software you may download it for free from Adobe. A link to the Adobe site is provided on the Internet bid page. The document number to request will be the same as the project number indicated above.

Questions concerning this Bid must be submitted in writing to: David Carroll, Purchasing Officer, dcarroll@norwalkct.org 125 East Avenue, Norwalk, CT 06856-5125. The deadline for submission of questions concerning this project is 2:00 pm, June 23, 2010.

Businesses, without fax or Internet access equipment, may contact the Purchasing Department at 203-854-7712 for any RFP information. Our fax number is 203-854-7817.

If, after review of the RFP documents, your firm is interested in performing the services specified, provide the information requested, sign and return the complete document, along with your detailed proposal, to the City of Norwalk Purchasing Department by the due date.

Yours truly,

David Carroll
Purchasing Officer

SECTION 1 _ RESPONSE FORMS

SPECIAL NOTES ON RESPONDING:

ADDENDA information is available over the Internet at

<http://www.bid.ci.norwalk.ct.us/>

<http://www.bid.ci.norwalk.ct.us/html/add.htm> Adobe Acrobat reader is required to view this document. If you do not have this software you may download it for free from Adobe. A link to the Adobe site is provided at the bottom of the Internet bid page. This service is also available via FAX. Dial 203_854_7897 from any phone to access the Purchasing Department's Express Request Line. Request document #1001. We strongly suggest that you check for any addenda a minimum of forty-eight (48) hours in advance of the bid deadline.

SUMMARIES will be available any time after 5:00 PM on the day of the bid opening over the Internet at <http://www.bid.ci.norwalk.ct.us/html/sum.htm> . This service is also available via FAX. Dial 203-854-7897 from any phone to access the Purchasing Department's Express Request Line. The document number to request will be the same as the project number indicated in the invitation to bid. Bid results will not be provided over the phone.

AWARD NOTIFICATION will be issued by mail.

BUSINESSES WITHOUT FAX EQUIPMENT or Internet access may contact the Purchasing Department at 203-854-7712 for this information.

BID RESPONSES Original & three (3) copies are to be delivered to:

City of Norwalk Purchasing Department
125 East Avenue, Room 103
P.O. Box 5125
Norwalk, CT. 06856-5125

See section 3 for information on delivering bids by fax.

1.1 PRICING SHEET #2969 Treated Road Salt For Snow and Ice Control

Vendor Name:		
Address:		
Phone:	Fax: _	Email:
Manager:		Fed ID#:

The undersigned hereby declares that he/she or they are thoroughly familiar with the specifications, the various sites, the City's requirements, and the objectives for each element of the project item or service and understand that in signing this proposal all right to plead any misunderstanding regarding the same is waived.

The undersigned further understands and agrees that he will furnish and provide all the necessary material, machinery, implements, tools, labor, services, and other items of whatever nature, and to do and perform all the work necessary under the aforesaid conditions, to carry out the contract and to accept in full compensation therefore the amount of the contract as agreed to by the Contractor and the City.

NOTE:

Product samples (1 pound) may be requested after submittal of your bid. The samples are to be labeled with your company name, the product in the container, and Bid number. Failure to submit product for testing will remove the bidder from consideration.

	Pricing:	\$ /Ton
1.	<i>Normal Hours Deliveries:</i> (Delivered between Monday through Friday, 7:00 a.m. to 3:30 p.m.)	
2.	<i>After-Hour Deliveries:</i> (Delivered Monday through Friday from 3:31 p.m. to 6:59 a.m., Saturdays, Sundays and holidays including Thanksgiving Day, Christmas Day and New Year's Day)	

Note: Please include, with your bid submission, a statement that your proposed product is in full compliance with the products specified herein. Failure to provide this information with your submission may result in the rejection of your bid.

Submitted by:

Print Name of Authorized Agent of Firm	
Signature of Authorized Agent of Firm	
Date	

The above signatory acknowledges receipt of the following addenda issued during the bidding period and understands that they are a part of the bidding documents (if applicable):

Addendum #1, Dated -		Addendum #2, Dated -	
Addendum #3, Dated -		Addendum #4, Dated -	

9. Where is your stockpile of magnesium chloride and OBPE located?

Magnesium chloride

OBPE

10. What is your typical inventory levels?

Magnesium chloride

OBPE

Attach any additional information that demonstrates your qualification for this work including appropriate certifications.

SECTION 2

SPECIFICATIONS FOR TREATED SALT FOR SNOW AND ICE CONTROL

GRANULAR SODIUM CHLORIDE TREATED WITH LIQUID MAGNESIUM CHLORIDE/ LIQUID ORGANIC BASED, US PATENT #4,676,918

Scope:

This specification describes a mixture of Sodium Chloride Type “A” crushed rock salt treated with Liquid Magnesium Chloride/Patent #4,676,918. The liquid treatment is intended to enhance the performance of the regular rock salt over untreated salt by reducing corrosiveness, improving low temperature performance, reducing bounce and scatter, preventing clumping and salt pile freezing, and enhancing flowability. The treated salt is intended to be used to facilitate snow and ice prevention and removal on City of Norwalk, Connecticut roads and bridges.

Description:

The finished product shall be composed of two primary constituents:

- 1) Crushed rock salt as described and specified in Section A below.
- 2) Liquid magnesium chloride Patented as described in Section B below.

The two components shall be mixed to produce a finished product as described in Section C. The final product shall meet all the requirements described in Section D, also below.

Section A

Sodium Chloride Type “A” Crushed Rock Salt Specifications

The crushed rock salt used in the preparation of the final product shall meet the following requirements.

A.1 CONTAMINATION

Upon inspection, the material shall be uniform in appearance, free flowing and free from visual evidence of foreign matter including but not limited to dirt, stone, chips, trash or any other material that could reasonably be expected to interfere with the use, handling or storage of the salt.

A.2 CHEMICAL COMPOSITION

Shall be not less than 95% Sodium Chloride. Percent of Sodium Chloride shall be determined in accordance with current ASTM-D-632.

A.3 SIZE GRADING

The salt, when tested using sieves as described in ASTM-C-136 (*) shall conform to the following requirements for particle size distribution:

<u>Sieve Size</u>	<u>Percent Passing (**)</u>
1/2" - (12.5 MM)	100
3/8" - (9.5 MM)	95 - 100
No. 4 - (4.75 MM)	20 - 90
No. 8 - (2.36 MM)	10 - 60
No. 30 - (600 Microns)	0 - 15

- * - A drying temperature of 110°C ± 5°C should be used.
- ** - Tolerance of 5 percentage points on the maximum value of the range for each sieve except 1/2" (12.5 mm) and 3/8" (9.5 mm) sizes, on which no tolerance will be allowed.

A.4 MOISTURE CONTENT

Moisture content shall not exceed 1-1/2%* when determined as follows:

$$\% \text{ Moisture} = (W_1 - W_2) / (W_1) \times 100$$

where: W₁ = Initial weight of sample
W₂ = Weight of sample after drying to a constant weight at 110°C ±

5°C.

* Procedure shall be in accordance with American Water Works Association B200-88, Section 4.3. A tolerance of 0.5% will be allowed before a non-complying product -moisture - price deduction is assessed.

A.5 SAMPLING

Sampling shall be done in accordance with current ASTM-D632. The City of Norwalk Department of Public Works or any of its authorized representatives, reserves the right to take samples from the contractor's stockpile or transfer point.

A.6 ACCEPTANCE

The salt may be rejected if it fails to conform to any of the requirements of this specification.

A.7 NON-COMPLYING PRODUCT- PRICE DEDUCTIONS

A.7.1 Non-Complying Product - Price Deduction - Moisture

If the moisture content of the salt is found to be above 2.0 %, a deduction for moisture content will be made from the delivered bid price based on the following formula:

Reduced Price/Ton = Delivered Contract Price/Ton x (1.02 - 2X)

where: X = Moisture content of the sample (expressed as the decimal equivalent of the percentage of the original sample weight to the nearest 1%)

A.7.2 Non-Complying Product - Price Deduction - Gradation (Particulate Size Distribution)

If, after delivery, the gradation of the salt is found to be out of tolerance, a deduction from the price shall be made based on the following formula:

Reduced Price/Ton = Delivered Contract Price x (1.00 - Y)

where: Y = the decimal equivalent of the total % out of gradation. The % out of tolerance for each sieve shall be to the nearest 1%. The total of the individual sieve tolerance deviations shall be used as Y.

A.7.3 General

A non-complying product - price deduction is not to be assessed unless the proper analysis and test procedures are followed. If the contractor consistently delivers salt found to be above 2% moisture content or consistently not conforming to the gradation requirements, the contract shall be subject to cancellation either in whole or in parts.

A.8 CALCULATIONS

Calculations performed relative to this specification shall be made using the rounding off method of “ASTM Recommended Practice E-29 for Designating Significant Places in Specified Limiting Values”.

Section B
Magnesium Chloride with OBPE

Material used for this component of the finished product shall be a 1 to 1 blend of liquid magnesium chloride and liquid Patent #4,676,918 or equivalent sufficient to allow the finished material to meet the specific requirements and performance criterion listed below.

HOWEVER, ALL PRODUCTS MUST CONTAIN 250 PPM OR LESS PHOSPHORUS WITH OR WITHOUT BENEFICIAL USE DETERMINATION, NO DILUTIONS ALLOWED PRIOR TO PHOSPHORUS TESTING.

B.1 Bids may not be accepted on any product that contains constituents in excess of the following established total concentration limits as tested in accordance with the listed test methodology noted in Test Section. Results are stated as Parts Per Million (ppm). If product exceeds any of the following constituents then the bidder shall identify the exception(s) and explain any mitigating circumstances. The city of Norwalk Department of Public Works reserves the right to evaluate these exceptions and make a determination of product eligibility based on the best interests of the City.

Phosphorus	250.00 ppm	Chromium	0.50 ppm
Cyanide	0.20 ppm	Cadmium	0.20 ppm
Arsenic	5.00 ppm	Barium	10.00 ppm
Copper	4.00 ppm	Selenium	5.00 ppm
Lead	1.00 ppm	Zinc	10.00 ppm
Mercury	0.05 ppm		

- B.2 pH - The pH of submitted liquid chemical products shall be 6-8. The pH limit of liquid chemical products may be waived by the City. The right to waive the pH will be at the discretion of the City. The City's decision to waive the pH requirement shall be in the best interest of the City and shall be final.
- B.3 Material shall contain 15% MgCl₂ by weight plus or minus 2%
- B.4 Material shall contain 21% plus or minus 2% Patent #4,676,918 or equivalent to produce a final material having a eutectic (freezing) point of -20°F or lower.
- B.5 A table showing Freezing Point-Specific Gravity for various percentage dilutions of product in water shall be provided. Table shall include data starting from at least 5% product in water and continue to include the percentage product in water to produce the eutectic (lowest freezing point) composition.
- B.6 A 3% solution of the corrosion inhibited chemical product shall have a corrosion value of at least 70% less than that of a 3% solution of Sodium Chloride. (Determined by NACE (National Association of Corrosion Engineers) - Standard TM-01-69 as modified by PNS (Pacific Northwest Snow fighters)).
- B.7 This chemical product shall not contain greater than 4.0% (V/V) Total Settleable Solids and shall have ninety nine percent (99.0%) of the Solids Passing through a Number 10 sieve after being stored at -17.8°C +/- 1°C (0°F +/- 2°F) for 168 hours.
- B.8 An independent certified analysis showing compliance with all the above requirements must be submitted with the bid along with an intended use statement for the product. Exceptions to the requirements must be stated and the City reserves the right to reject the product.
- B.9 Bidder **must** complete and submit with bid a Vendor Certified Product Data Sheet (located on page of this document). The liquid must meet the percentage requirement as stated in B3 and B4. The product must be created by using one to one ratio of a 30% Magnesium chloride solution and Patent liquid #4,676,918 . A separate sheet shall be submitted for each Lot for which a bid is submitted. Separate or additional flyers, product literature, etc. will **not** be accepted in lieu of a completed Vendor Certified Product Data Sheet.

Section C

Mixing the Sodium Chloride and Magnesium Chloride/OBPE

The materials described in Section A and Section B above shall be mixed as described in this section to produce the finished product. Mixing procedures shall comply with all requirements described in this section.

- C.1 The City of Norwalk Department of Public Works or any of its authorized representatives, reserves the right to take samples from the contractor's stockpile or transfer point before the salt is mixed with the Liquid Magnesium Chloride/ liquid Patent #4,676,918. Both salt and liquid samples may be taken.
- C.2 The contractor will thoroughly mix a minimum of 8 gallons of Liquid Magnesium Chloride per ton of salt.
- C.3 The contractor will ensure a consistent thorough mix (e.g. spray system, pugmill, conveyor) so that there is maximum coverage of the liquid on the salt crystals (loader mixing and stockpile injection methods are not acceptable) and will specify the mix method in the bid.
- C.4 Trucks must be weighed on certified scale with printout after loading the final product (salt and liquid mixture) and prior to delivery destination. The weight ticket shall include the net weight of the final product and the stockpile source. The certification must bear the weighmaster's signature. Handwritten weights are not acceptable.
- C.5 All shipments of finished product shall be accompanied by a ticket indicating the amount of Liquid Magnesium Chloride mixed in the finished product. This amount will be indicated on the ticket by Gallons. The amount of gallons shall be recorded by a printing device or handwritten.
- C.6 The finished product shall be shipped via bulk delivery. Trucks delivering the mixture shall have the entire cargo area completely covered by a waterproof tarpaulin or similar sheeting material. Torn or ripped covers may be cause for rejection of the shipment.
- C.7 The City of Norwalk Department of Public Works reserves the right to, at anytime; inspect the operation to take salt and liquid samples, to ensure that the proper amount of liquid is being applied and that the mix method is appropriate.

Section D

**Final Product: Rock Salt Treated with Liquid Magnesium Chloride
(Patented)**

The Treated Salt shall meet the following requirements:

D.1 CONTAMINATION

Upon inspection of delivered salt, the material shall be uniform in appearance, free flowing and free from visual evidence of foreign matter including but not limited to dirt, stone, chips, trash or any other material that could reasonably be expected to interfere with the use, handling or storage of the salt.

D.2 FLOWABILITY

Properly stored product (covered or inside storage) shall be uniform and free flowing in a manner consistent with its intended use and shall show no objectionable clumping or caking.

D.3 LEACHING

Properly stored product (covered or inside storage) shall show no indication of objectionable leaching or separation of components to the extent that such condition produces adverse affects in the handling or usage of the product or routine maintenance of the storage facility.

D.4 CHEMICAL COMPOSITION

Shall be not less than 91.2% Sodium Chloride. Percent of Sodium Chloride shall be determined as follows: Apparent total % Sodium Chloride content shall be determined in accordance with current ASTM-D-632. Magnesium and Calcium content shall be determined in accordance with ASTM E-534 and computed as % Magnesium Chloride and % Calcium Chloride respectively. % Sodium Chloride shall then be computed as follows:

$$\% \text{ Sodium Chloride} = \% \text{ Apparent Sodium Chloride} - (\% \text{ Magnesium Chloride} + \% \text{ Calcium Chloride})$$

D.5 SIZE GRADING

The salt, when tested using sieves as described in ASTM-C-136 (*) shall conform to the following requirements for particle size distribution:

<u>Sieve Size</u>	<u>Percent Passing (**)</u>
1/2" - (12.5 MM)	100
3/8" - (9.5 MM)	95 - 100
No. 4 - (4.75 MM)	20 - 90
No. 8 - (2.36 MM)	10 - 60
No. 30 - (600 Microns)	0 - 15

* - A drying temperature of $110^{\circ}\text{C} \pm 5^{\circ}\text{C}$ should be used.

** - Tolerance of 5 percentage points on the maximum value of the range for each sieve except 1/2" (12.5 mm) and 3/8" (9.5 mm) sizes, on which no tolerance will be allowed.

D.6 MOISTURE CONTENT

Moisture content shall not exceed 4.8% when determined as follows:

$$\% \text{ Moisture} = (W_1 - W_2) / (W_1) \times 100$$

where: W_1 = Initial weight of sample

W_2 = Weight of sample after drying to a constant weight at $110^{\circ}\text{C} \pm 5^{\circ}\text{C}$.

NOTE: Procedure shall be in accordance with American Water Works Association B200-88, Section 4.3. A tolerance of 0.5% will be allowed before a non-complying product - moisture - price deduction is assessed.

D.7 SAMPLING

Sampling shall be done in accordance with current ASTM-D632. The Department of Public Works or any of its authorized representatives, reserves the right to take samples from the contractor's stockpile or transfer point.

D.8 ACCEPTANCE

The treated salt may be rejected if it fails to conform to any of the requirements of this specification.

D.9 NON-COMPLYING PRODUCT - PRICE DEDUCTIONS

D.9.1 Non-Complying Product - Price Deduction - Moisture

If the moisture content of the treated salt is found to be above 5.3%, a deduction for moisture content will be made from the delivered bid price based on the following formula:

$$\text{Reduced Price/Ton} = \text{Delivered Contract Price/Ton} \times (1.106 - 2x)$$

where: X = Moisture content of the sample (expressed as the decimal equivalent of the percentage of the original sample weight to the nearest 1%)

D.9.2 Non-Complying Product - Price Deduction - Gradation (Particule Size Distribution)

If, after delivery, the gradation of the treated salt is found to be out of tolerance, a deduction from the price shall be made based on the following formula:

$$\text{Reduced Price/Ton} = \text{Delivered Contract Price} \times (1.00 - Y)$$

where: Y = the decimal equivalent of the total % out of gradation. The % out of tolerance for each sieve shall be to the nearest 1%. The total of the individual sieve tolerance deviations shall be used as Y.

D.9.3 General

A non-complying product - price deduction is not to be assessed unless the proper analysis and test procedures are followed. If the contractor consistently delivers salt found to be above 2% moisture content or consistently not conforming to the gradation requirements, the contract shall be subject to cancellation either in whole or in parts.

D.10 CALCULATIONS

Calculations performed relative to this specification shall be made using the rounding off method of “ASTM Recommended Practice E-29 for Designating Significant Places in Specified Limiting Values”.

D.11 Corrosion rating of treated salt

A 3% solution of the treated salt product shall have a corrosion value of at least 50% less than that of a 3% solution of Sodium Chloride. (Determined by NACE (National Association of Corrosion

Engineers) - Standard TM-01-69 as modified by PNS (Pacific Northwest Snow fighters)).

Section E

1. Delivery: Deliveries shall be made on a 24-hour-a-day basis, 7-days-a-week (including holidays) as requested by the City’s, Department of Public Works. The vendor shall ensure that deliveries can be facilitated. Normal deliveries shall be made within 48 hours after order placement. During periods of repeated storm activity or when the Department of Public Works consider supply critical, deliveries shall be made within 12 hours after order placement. Deliveries shall be coordinated with the City of Norwalk’s representative to ensure that appropriate arrangements are made for receipt of material.

Normal hour deliveries are defined as deliveries of road sand made Monday through Friday, 7:00 a.m. to 3:30 p.m.

After-hour deliveries are defined as deliveries of road sand made Monday through Friday from 3:31 p.m. to 6:59 a.m., Saturdays, Sundays and holidays including Thanksgiving Day, Christmas Day and New Year's Day.

The vendor shall designate an employee responsible for accepting emergency telephone orders on a 24-hour basis. Such employee shall authorize and schedule deliveries as requested by the participating municipalities.

2. Payment: Payment will be made at the contract unit price bid per ton of mixture received and accepted. Certified weight slips from the supplier must accompany each truckload.
 For the City of Norwalk, the vendor shall supply certified weight slips in quadruplicate indicating truck number, tare, gross, weight, applicable unit price and purchase order number. All shipments shall be weighed on the Department of Public Works scale, located at 15 South Smith Street, Norwalk, CT, to verify gross weight. The truck shall be weighed again after unloading to verify tare weight. The City's representative will sign the weighed slip at the delivery site and return the fourth copy to the vendor. Payment will be made only for deliveries accepted by the City's representative.

DELIVERIES TO NORWALK

Delivery tickets are to be sent to: Invoices are to be sent to:

Public Works Center
 Highway Division
 Attn: Chris Okafor
 15 South Smith Street
 Norwalk, CT 06855

City of Norwalk
 Department of Public Works
 Attn: Chris Okafor
 125 East Avenue
 Norwalk, CT 06851

3. Acceptance: Delivered material deemed unsuitable by the City of Norwalk's representative shall be removed by the vendor without cost to the participating municipality or if not promptly removed, the participating municipality may have the material removed at the vendor's expense. The opinion of the participating municipality's representative shall binding upon the vendor.
4. Quantities: Quantities are estimated for bidding purposes only. Award of contract shall be for the quantities actually ordered as needed during the contract period, October 2010 – June 2011. However, the City of Norwalk reserves the right to increase or decrease the quantities without any additional cost.

Delivery Address:

Estimated Quantity:

Public Works Center
 Highway Garage
 15 South Smith Street
 Norwalk, CT

3,000 tons

NOTE: The City of Norwalk is not obligated to order any of the estimated quantity stated above. Less or more may be purchased as deemed necessary.

SECTION 3 _ GENERAL INFORMATION

NOTE: SECTION 3 _ GENERAL INFORMATION contains the City's Standard Terms and Conditions. You are responsible for obtaining a copy prior to bidding. If you do not have a revision dated 111205 or later on file you may obtain a copy over the Internet at <http://www.bid.ci.norwalk.ct.us/html/terms.htm> . Adobe Acrobat reader is required to view this document. If you do not have this software you may down load it for free from Adobe. A link to the Adobe site is provided. This service is also available via FAX. Dial 203-854-7897 from any phone to access the Purchasing Department's Express Request Line. Request document number 1002.