Council Meeting Date: July 18, 2011 **Agenda Item:** 7(c)

CITY COUNCIL AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Motion to Authorize the City Manager to Execute a Construction Contract with Doolittle Construction, LLC for the Implementation of the Bituminous Surface Treatment (BST) Program
DEPARTMENT:	Public Works Department
PRESENTED BY:	Mark Relph, Public Works Director Jesus Sanchez, Public Works Operations Manager
ACTION:	____Ordinance ____Resolution __X__Motion ___Discussion

PROBLEM/ISSUE STATEMENT:

The purpose of this report is to request Council to authorize the City Manager to enter into a contract with Doolittle Construction, LLC for $470,847 for the 2011 Bituminous Surface Treatment (BST) pavement preservation program. The BST program is one of the major components of the City's annual Road Surface Maintenance Program included in the 2011–2016 Capital Improvement Program (CIP). Also included in the annual program are the asphalt overlays (previously approved contract with King County), crack filling, and patching

Bids were opened on June 23, 2011 and following consideration of bidder responsibility requirements and two bid protests from the low and second low bidder, staff recommends that the contract be awarded to Doolittle Construction LLC as the lowest responsible bidder.

RESOURCE/FINANCIAL IMPACT:

Council has authorized $970,033 in the 2011 CIP Budget for the Annual Road Surface Maintenance Program. The 2011 Overlay Program is $260,000 of this budget. $517,932 has been planned for the BST pavement preservation program, with $192,101 budgeted for materials and road maintenance preparation.

RECOMMENDATION

Staff recommends that Council authorize the City Manager to execute a construction contract with Doolittle Construction, LLC for $470,847 for the 2011 BST pavement preservation program.

Approved By: _____ City Manager ____ City Attorney ___

INTRODUCTION

Due to the rising costs of asphalt treatments, the Public Works Department has been exploring road surface preservation treatments other than the typical asphalt overlay. Bituminous Surface Treatments are a maintenance strategy that supplements asphalt overlays as a more cost effective way to protect the City's infrastructure and the investments the City has made over the past 15 years.

BACKGROUND

On March 21, 2011, the Public Works Department shared with Council that the City's ability to sustain an adequate level of service with the exclusive use of asphalt overlays has greatly diminished due to the rising costs of materials. Recognizing that maintenance and preservation of the City's streets is a high priority, staff has re-examined alternatives for protecting the City's investments in its roads. One of these alternatives, BST, was selected as a key maintenance strategy for the City's road system. A copy of the March 21 staff report and all of the supporting documents can be found at:
http://cosweb.ci.shoreline.wa.us/uploads/attachments/cck/Council/Staffreports/2011/staffreport032111-7b.pdf.

BST typically consists of a three-part application of liquid asphalt and cover (aggregate or small rock), capped with a final layer of liquid asphalt. BST is widely used to extend the life of the road, create a new wearing course, and to waterproof existing pavement. Costs for a BST application are generally 10% to 25% of the cost of a typical asphalt overlay, and thus BST covers a much larger road surface area for the same cost.

Unlike an asphalt overlay, BST treatments tend to have a coarser finished road surface. This is due to larger cover aggregate, but most people would probably not notice the difference. This issue will be controlled with a specification that requires the right combination of aggregate sizes and their relative distribution. To promote public acceptance of the use of BST treatments on residential and collector streets, staff has developed a BST approach using a specific system of materials and application and a targeted public outreach and education program.

The material specifications focus on two issues: aggregate sizes and proportions, and the type of asphalt binder. The size of the aggregate will closely match that of overlays. This should meet the public's expectations from past maintenance. The asphalt binder will be a "rapid set," which promotes a quicker cure time and allows traffic back on the street within a few hours. The final sweeping and surface treatments would happen a few days later.

The primary objective the City's Road Surface Maintenance Program is to effectively maintain or enhance the integrity of the City's roadway system in the most cost-effective manner. By using BST, the City is able to stretch its resources while maintaining pavement quality. The roads identified in Attachment E are identified as strong candidates for a BST road surface preservation treatment this year.

BID RESULTS AND ANALYSIS

The BST contract bid opening was held on June 23, 2011 and two bids were received. The following table summarizes the two bids received:

Contractor	Base Bid
Ramo Construction	$451,326
Doolittle Construction, LLC	$470,847
Engineer's Estimate	$478,000

The lowest bid was $26,674 below the engineer's estimate, but the low bidder, Ramo Construction, was rejected based upon a failure to demonstrate adequate experience and qualifications as a result of the City's independent review of the bidders (Attachment A). A bid protest from Doolittle Construction, LLC was also filed contesting Ramo Construction's responsibility under the experience criterion on June 27, 2011(Attachment B).

Ramo Construction filed its own protest objecting to rejection of its bid (Attachment C) and representatives from Ramo Construction also spoke at the Council meeting of July 5th concerning their protest. The additional information and work experience submitted with the protest have been reviewed and the protest was denied on July 13, 2011 (Attachment D).

Staff has completed their review on mandatory bidder responsibility criteria on Doolittle Construction, LLC, including State Agency fiscal compliance. References were satisfactory regarding quality of construction and their history of managing budget, materials, and personnel for this type of project. Staff is confident in Doolittle Construction's ability to complete this project within all terms of the contract.

STAKEHOLDER OUTREACH

In preparing to use this alternative method of road surface maintenance, the Public Works Department developed a targeted outreach and education program designed to reach affected stakeholders in the areas planned for the City's BST application, which primarily consist of the Echo Lake neighborhood (Attachments E and F). This included an informational tri-fold brochure that was prepared and mailed to over 1,400 residents in that neighborhood (Attachment G), and two community forums held in 2011; the first in late winter and a second in May. A Frequently Asked Questions (FAQs) document was also created to assist residents with any questions or concerns they might have regarding the BST pavement preservation program (Attachment H). Thus far, community reaction has been favorable toward this new application.

COUNCIL GOAL(S) ADDRESSED

The City's BST pavement preservation program supports Council Goal 2: "Provide safe, efficient and effective infrastructure to support our land use, transportation and surface water plans." This goal is accomplished by maintaining and preserving our streets.

ALTERNATIVES

The Council can take three actions:

1) Accept the staff's findings and recommendation rejecting Ramo Construction's bid protest and award the BST contract to Doolittle Construction as the responsible low bidder; or
2) Find that Ramo Construction was a responsible bidder and award the contract to Ramo Construction as low bidder; or
3) Reject all bids and rebid this project.

Staff does not recommend rebidding a project in general unless modification to the project or bid solicitations would likely result in more contractors bidding the work. Based on the reasons detailed in Attachment D, staff recommends the first option of an award to Doolittle Construction.

Any appeals of the Council award would be filed in King County Superior Court.

RESOURCE/FINANCIAL IMPACT

Council has authorized $970,033 in the 2011 CIP Budget for the Annual Road Surface Maintenance Program. The 2011 Overlay Program is $260,000 of this budget. $511,000 has been planned for the BST pavement preservation program, with $192,101 budgeted for materials and road maintenance preparation. The award of the contract to Doolittle Construction, LLC is within the BST pavement preservation program budget.

2011 Road Surface Maintenance Program

Project Costs	
2011 Overlay Program	$260,000
2011 BST Program -	
Doolittle Construction, LLC (this contract)	**$470,847**
Materials and Road Maintenance Preparations	$192,101
Total Project Costs	**$922,948**
Project Revenue	
2011 Roads Capital Fund	$970,033
Total Revenue	**$970,033**
Project Balance (Revenue-Costs)	**$ 47,085**

RECOMMENDATION

Staff recommends that Council authorize the City Manager to execute a construction contract with Doolittle Construction, LLC for $470,847 for the 2011 BST pavement preservation program.

ATTACHMENTS

A: Letter Rejecting Ramo Construction Bid Based on Bidder Responsibility Criteria
B. Doolittle Construction LLC Bid Protest
C. Ramo Construction Bid Protest
D Decision on Ramo Construction Bid Protest
E: 2011 Proposed BST Pavement Preservation Program List
F: 2011 Proposed BST Pavement Preservation Map
G: Road Surface Preservation Informational Tri-Fold
H: List of BST FAQs

Attachment A

CITY OF SHORELINE

City of Shoreline
17500 Midvale Avenue North
Shoreline, WA 98133-4921
(206) 801-2700 ♦ www.shorelinewa.gov

June 28, 2011

Ramo Construction
16710 Smokey Pt. Blvd. # 305
Arlington, WA 98223

RE: Bid No. 6341 – 2011 Bituminous Surface Treatment

Dear Mr. Aaron Monty,

This is to notify you that the City of Shoreline (Contracting Agency) has determined that your company does not meet the bidder qualifications and is therefore not a responsible bidder, based on the following sections of the bid documents for 2011 Bituminous Surface Treatment Bid Number 6341:

- **Statement of Qualifications, reference checks section (page 1of 2),** it states, "in the event that information obtained from the reference checks reveals **concern** about the bidder's past performance on projects identified as meeting the bidder qualification requirements, or their ability to successfully perform the work, the City may determine that the bidder is not a responsible bidder and may award to the next bidder to successfully perform the work".
- **1-02 Bid Procedures and Conditions:** Section 1-02.1 Qualifications of Bidder: "Bidders shall be qualified by experience, financing, equipment, and organization to do the work called for in the Contract Documents. The contracting Agency reserves the right to take whatever action it deems necessary to ascertain the ability of the bidder to perform the work satisfactorily".
- **Section 1-02.14 Disqualification of Bidder-** Sub-Section 2-C: "A bidder may be deemed not responsible and the proposal rejected if: 'The bidder, in the opinion of the contracting Agency, is not qualified for the work'..."

It is in the opinion of the City (Contracting Agency) that you have failed to adequately provide sufficient level of experience in the application bid for Bituminous Surface Treatments (BST Chip Seal) Bid # 6341, based on the information you provided in the reference section and subsequent discussions with the City's Roads Maintenance Supervisor. Specifically, you submitted four (4) references of which only one of these references had some form of chip seal application on a gravel rural road on Lopez Island, Washington. The other references were capital construction projects and or utility work, that did not require a chip seal application. In addition two of those references were "self-references" based on the fact that these are wholly owned projects by your company. The limited job experience you offered is dissimilar in that

the Lopez Island job entailed thick overlays on a gravel base versus a thin application over existing asphalt.
The BST Bid Application Call for Bids and Specifications state that all work will be conducted on local residential streets, with significant traffic volumes, requiring residential traffic control. This experience is not reflected in your bid submittal. In addition, working in a residential street with curbs and curb returns and cul-de-sacs requires far greater knowledge than an application of Chip Seal on a gravel rural road, which is the only reference to Chip Seal in your submittals. Based on your reference submittals and oral interviews, we have determined that RAMO Construction is not qualified for the work and has been disqualified per sections noted above.

Sincerely,

Jesus Sanchez
Public Works Operations Manager
City of Shoreline

cc: Ian Sievers, City Attorney
Mark Relph, Public Works Director
Brian Breeden, Road Maintenance Supervisor
Judy Isaac, Purchasing Officer

Attachment B

COPY

Doolittle Construction, LLC

1900 - 118 Avenue S.E., Bellevue, WA. 98005
Phone # (425) 455-1150 - Fax (425) 455-6782
Contractor License #DOOLICL960CO
www.chipseals.com

RECEIVED
JUN 27 2011
FINANCE

June 27, 2011

City of Shoreline
City Clerk
17500 Midvale Avenue North
Shoreline, WA 98133-4905

Re: 2011 Bituminous Surface Treatment (commonly known as chip seal)
Bid # 6341 – **BID PROTEST**

To whom it may concern,

I protest the (low) bid submitted by Ramo Construction, on the basis that they are not qualified to handle a project such as this one. Ramo Construction has completed only one chip seal project, located on a rural island, and 57% of the project, including the chip seal, was subcontracted. (Percentage was derived from the Dept of Labor and Industries website.) Also, their traffic control experience seems to be extremely limited, judging by the Affidavits of Wages Paid history (also on the Dept of Labor and Industries website)

Page 17 of the project specifications asks for a listing of "major projects of a similar nature". Only one project from Ramo's list is similar, but the rural nature makes it quite different from the Shoreline bituminous surface treatment; which "reveals concern about the bidder's past performance".

Page 30 of the project specifications (section 1-03.14 #2C) says that the bidder may be deemed not responsible and the proposal rejected if the bidder is not qualified for the work.

A successful City chip seal project needs an experienced chip seal crew, with the right equipment. Traffic control is also a major factor in the success of a project for safety, as well as political reasons.

Yours truly,

T Doolittle

Tom Doolittle – C.E.O.
Doolittle Construction LLC
425 455 1150

Attachment C

Ramo
Realty and Construction

16710 Smokey Point Blvd., Suite 305
Arlington, WA 98223
~~(425) 258-1775~~ (360) 659-8551
Fax: (360) 653-5332

RECEIVED
JUN 30 2011
FINANCE

June 30, 2011

City Clerk
City of Shoreline
17500 Midvale Avenue North
Shoreline, WA98133

FAX Transmission Number 206-546-1524

RE: 2011 Bituminous Surface Treatment –City of Shoreline
Bid No. 6341

Please be advised that we hereby protest the awarding of the above named bid to Doolittle Construction, LLC as stated in your letter of intent dated June 29, 2011.

RAMO Construction entered a bid in the dollar amount of 451,3254.60 for this project, and provided a bond which was far and above the amount of the bid. We were low bidder by $19,521.00 and felt that our bid was fair and met all of the criteria as called for in the invitation to bid.

We were informed that we had failed to adequately provide sufficient level of experience. Our firm has been in the construction business since 1971 and we have been involved in almost all levels of construction, including but not limited to, chip seal applications. We have constructed roads from the ground up. In addition, we work closely with a sub-contractor who has been in the business of chip seal application for twenty-eight years. This sub-contractor also submitted references to you which cited many years of chip seal application. Because these references were submitted to you, we did not include the same type of job references in our proposal. We have included a second copy of this contractor's resume with this protest, in case it was lost from the previous presentation.

We have examined your criteria for disqualification of bidders (1-02.14) in your proposal packet, and we can find no measure of fact which would pertain to our company. We have no record of unsatisfactory performance; we have no uncompleted work; we have no unpaid bills, past or current, for labor or materials. In fact, if any of these had occurred, we would not have been able to obtain the performance bond as we did, which was for far more than the bid required. The City of Shoreline would have no risk whatsoever under the terms of this bond if we should fail to perform.

Your "concern" about our past performance as stated in your letter dated June 28, 2011 is totally unjustified. Our company has never had a complaint about performance in over forty years of doing business in this area. We own all of our own equipment and we are financially sound. The projects used as references did require residential traffic control and curbs and curb returns. In fact, we have installed said curbs and returns on many occasions. We have built shopping centers, motels and churches, which were all in urban environments.

This is the first time in all of our years in business that we have been disqualified in a bid proposal. We are a family owned business and started in 1970. In recent years our son has joined the firm and we have branched out into more road work, trucking and excavation. We have worked with Green Crow Rock Products for several years and are now working with Green Mountain Mine LLC. Our MSHA number is A2510. We provide screening and crushing for mines on a contract basis. Our supply of chips comes from both WCI Monroe and Central Washington Asphalt, Moses Lake. In the event they are unable to supply, we have the ability and equipment to make our own rock to complete this job.

We are familiar with our competing bidder and know that this company has a reputation of disputing low bids on a regular basis. Because of this, many construction companies have declined to bid against him. That would explain why your city was offered only two proposals for this job. To allow this type of behavior to continue only costs more taxpayer dollars and makes a mockery of the entire bid system.

We thank you for your attention to our situation and respectfully request that you honor our bid, which was proffered in good faith by our company. As stated herein, the City of Shoreline is under no risk whatsoever in light of the bond presented on our behalf.

Respectfully, Ralph Monty

Ralph G.Monty

RAMO Construction
RAMOC**034LK

Key Personnel

Michael Wold 30 years Distributor Operator

Jody Wold 20 years Roller Operator

Toler Wolfe 7 years Chip Spreader Operator

Luiz Galuis 6 years Roller operator

Dustin McDay 2 years Roller Operator

Todd Mundale 11 years Dump Truck Operator

Art Bowman 7 years Dump Truck Operator

Kerry Taylor 8 years Dump Truck Operator

Audey Kilts 25 years Loader Operator

Key Equipment

1 4000 gallon Bearcat Distributor 18 years of service

1- 2011 20" wide Bearcat Chip Spreader

2- 4500 gallon Asphalt Tankers

3- 9 tire 10 ton Hyster Tire Rollers

1 – 1996 Peterbilt Transfer Dump Truck

2-2005 (22ton) Peterbilt Super dumps

1- John Deere Loader

Michael H. Wold Co. Inc 1993-present

Michael H. Wold/ Owner President
Jody L. Wold/ Vice President, Secretary/Treasure

18 years owning and operating Distributor for Michael H. Wold Co., Inc
10 years prior working for Eagle Crest Construction Co. as a Distributor Operator
2 years prior working for Tak Petroleum Spokane, WA as a Distributor Operator
30 years operating Distributor spreading liquid asphalt for BST and Fog seal projects; and applying lignin liquor for dust abatement

**1993 to Present/ Numerous Private Homeowners Association Chip Seals

** 2000 to present Tommer Construction Co., Inc / BST projects for City Streets and County Highway Contracts. Contact Chris Tommer. (509)-750-8954

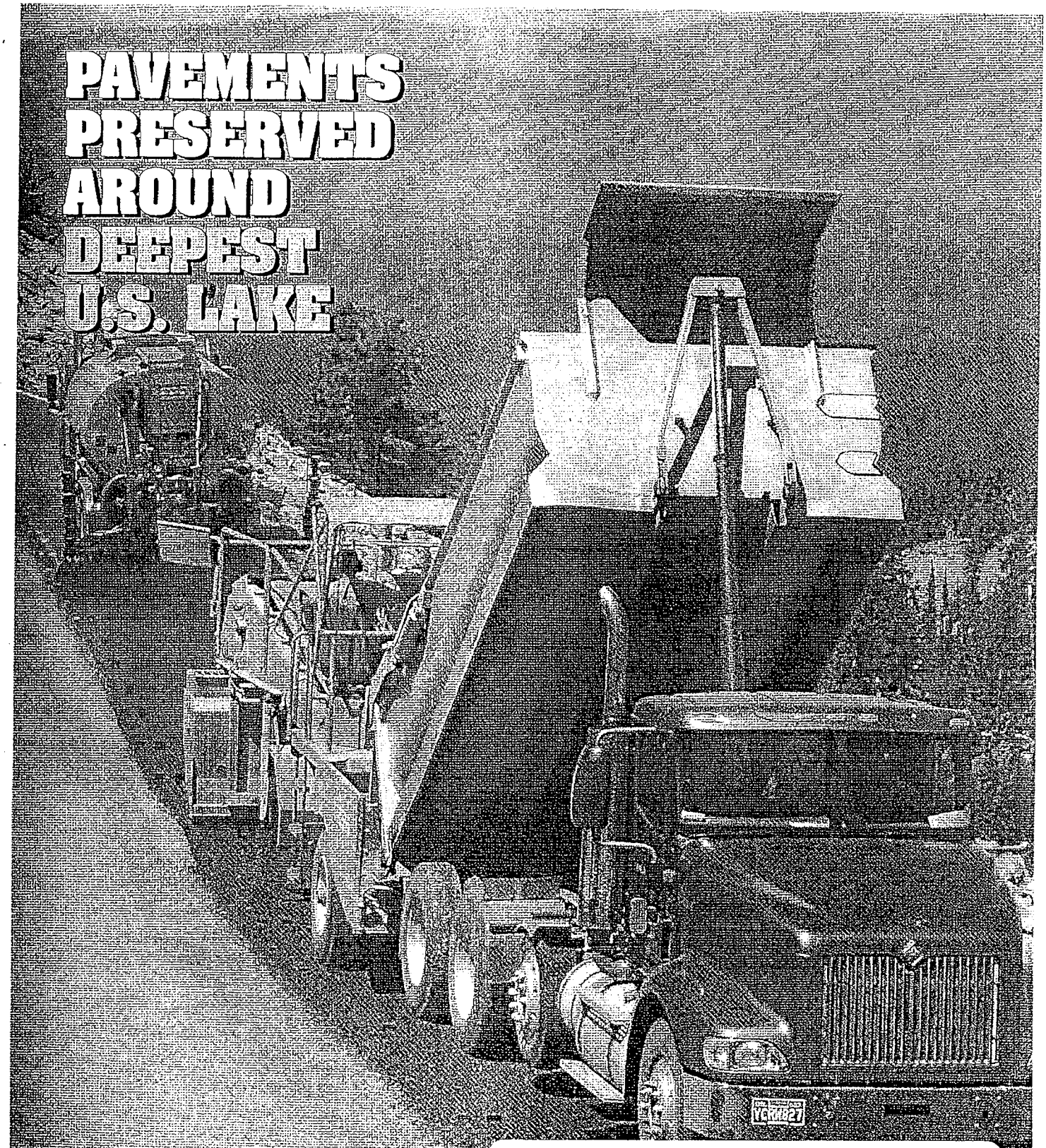
** 2002 to present Central Washington Asphalt/ spreading liquid Asphalt on Federal, State and Public works contracts including City Contracts for BST. Contact Pamp Maiers. (509)-757-2089

**1993-2001 Superior Asphalt (dba Granite Construction Yakima,Wa) Spreading liquid Asphalt on Seal contracts and City Contracts.

** Other agencies that I have and currently still work under: Persons and Phone Numbers available upon request

*Idaho WSDOT
*Portland Federal Highway Administration
* Port Angeles National Park Service
*Grant County Public Works
*NCR Seal WSDOT
*Eastern Region Seal WSDOT
*Columbia County Public Works
*Yakima County Public Works
*Thurston County Public Works
*Department of Defense (Fort Lewis Chip Seal)
*Snohomish County Public Works
*Wenatchee National Forest
*Clem Elum National Forest
*Leavenworth National Forest

PAVEMENTS PRESERVED AROUND DEEPEST U.S. LAKE



Same crew and equipment (Wold Co) as documented in Pacific Builder and Engineer

7-13

Volume 115 Number 2 • DECEMBER 2009

Pacific Builder and Engineer Edition

Serving Alaska, Idaho, Montana, Oregon and Washington

PAVEMENTS PRESERVED AROUND DEEPEST U.S. LAKE

Chip sealing of roads at Oregon's Crater Lake, part of new National Park Service program, provides data for groundbreaking FHWA/Fed Lands study

By Paul Fournier

At Oregon's Crater Lake National Park, a BearCat chip spreader applies aggregate during chip sealing of road next to the deepest lake in the United States.

Several roads at Oregon's Crater Lake National Park were recently chip sealed as part of a new National Park Service (NPS) pavement preservation program, with the project providing valuable information for a study designed to help transportation officials across the country.

Contractor D. L. Santos Construction of North Bend, Washington, recently chip sealed approximately 22 miles of roads in the park that encompasses the deepest lake in the United States, an effort that not only extended the service life of the roads but allowed researchers to complete a study of polymer-modified asphalt emulsions as well. That technology study is underway by the National Center for Pavement Preservation under contract to the Federal Highway Administration (FHWA) and Federal Lands Division.

Adopting Pavement Preservation

The Division is coordinating efforts to develop the pavement preservation program to protect all roads in the National Park System, according to Charles "Chuck" Luedders, a registered professional engineer and manager for FHWA's pavement management program. Luedders is responsible for pavement preservation projects from beginning to end, i.e., from the scoping phase, through design, construction and agency acceptance.

He said that at present the new program is in place in two of the Park System's regions – Intermountain and Pacific West – and credited David Kruse, former NPS project coordinator and current Lava Beds National Monument superintendent, for working with FHWA to promote the establishment of a road pavement preservation program to replace a "haphazard, uneven" paving program. Under the old program, he explained, each National Park was responsible for obtaining federal funding, designing and overseeing road paving in its own park. Smaller parks lacked design and construction expertise, so large parks received the majority of federal funds while road paving programs in smaller parks languished. The new program aims to establish a rational, systematic and consistent procedure for selecting candidate roads and the corresponding correct pavement preservation treatment.

"The National Park Service pavement preservation program was launched in 2007 with a single project. In 2008 there were two major projects and this year there are four active projects. Next year, we expect to let at least four more pavement preservation jobs," said Luedders.

Filling A Knowledge Gap

In addition to being one of NPS' four 2009 pavement preservation projects, Crater Lake is the final job providing data for the polymer-modified asphalt emulsion study. This information is critical to the report since Crater Lake is the only project that utilized both SBR latex and SBS polymer-modified asphalt emulsions in the chip seal process. SBR latex, a polymer dispersion of styrene-butadiene rubber, was employed in all other projects.

SemMaterials, the single largest supplier of SBS-modified emulsions in North America, filed for bankruptcy in July 2008. This, coupled with the shortage of SBS block copolymer during the peak paving season in 2008, led to a lack of availability of SBS-modified emulsion for use in polymer-modified chip seal projects last season. SBR-latex and SBS-block copolymers are the two most common polymers used to modify asphalt emulsions for the chip seal application.

"It was necessary to have a comparison of performances of both polymers," said Mike Voth, pavement and materials technical leader for Federal Lands, who oversees the polymer study/report.

An important role in the study has been assumed by industry, he noted.

"Private industry has been a very good partner with us in this effort," Voth said, referring to both pro bono and at-cost laboratory work provided by the private sector. Materials from the NPS projects selected for the study have been sent to a number of private labs for testing and analysis.

Voth said that Chris Lubbers, former senior technical service engineer for BASF Corporation's construction polymers and now technical sales manager for the paving and roofing business unit at Kraton Polymers, was instrumental in securing a supply of SBS polymer-modified asphalt emulsion for the Crater Lake job. At BASF, which early on provided pro-bono funding and professional assistance, Lubbers had performed research and materials testing for the study, efforts he has continued after relocating his family to California and joining Kraton Polymers.

A Fair Comparison

Lubbers wanted to make sure the Crater Lake project utilized both SBS and SBR polymers to provide a fair comparison.

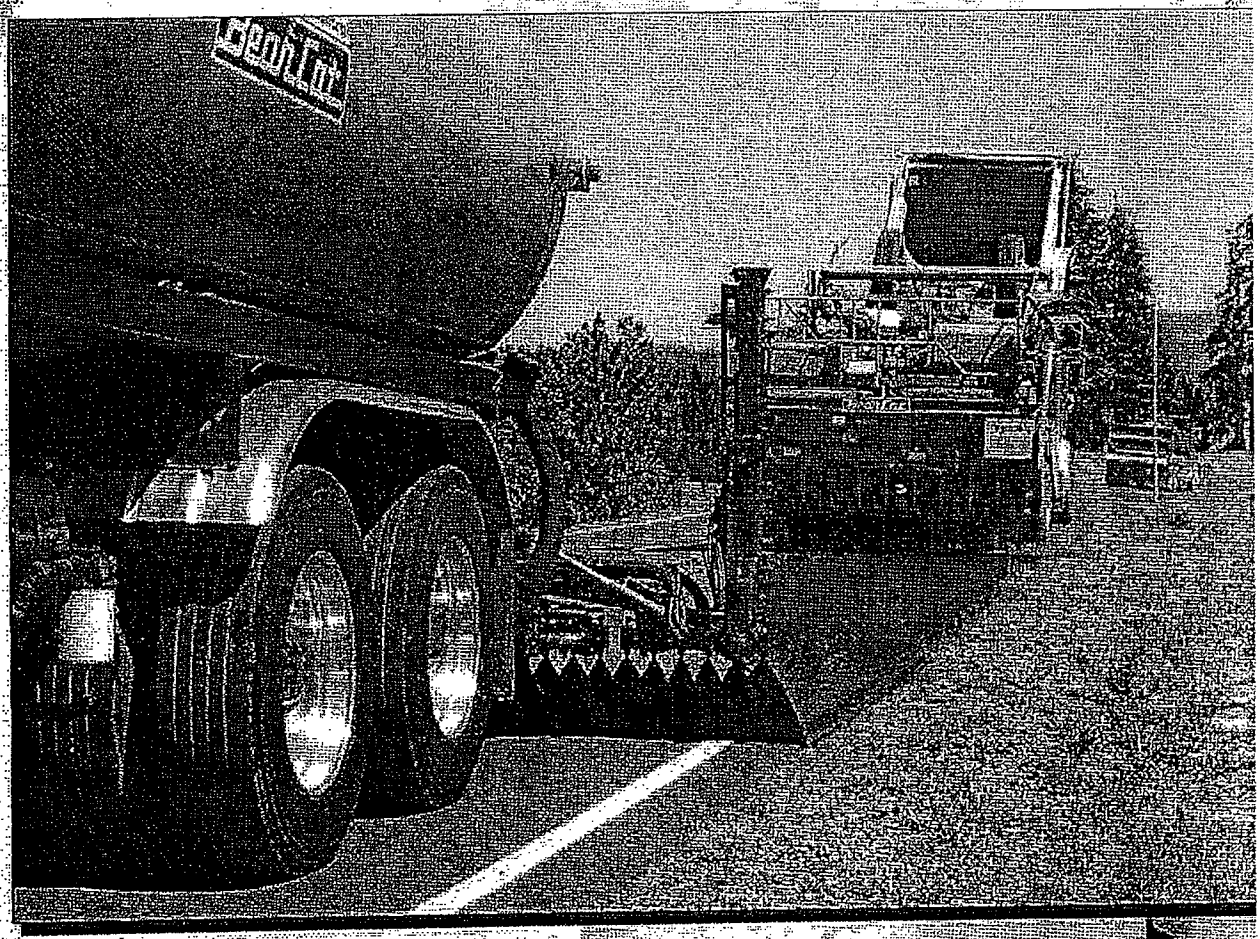
"The idea was to show the government agencies that we were not trying to promote a particular type of polymer, but to convince them that the use of polymer-modified asphalt emulsions in pavement preservation treatments would ultimately benefit everybody in the industry," said Lubbers. "So it was necessary to hold off completing the study until it included a project employing SBS polymers," he added.

Results of the study are expected to help transportation officials choose appropriate pavement preservation treatments. Polymer-modified asphalt emulsions are increasingly being used to improve such treatments as chip sealing, micro surfacing and thin-lift overlays, but until this study, little information has been collected in one place on the proper use, application techniques and benefits of polymers in emulsion-based surface maintenance treatments.

In addition to providing a comparison of different polymer-modified asphalt emulsions, Crater Lake offered researchers an opportunity to study the products' performances in a climate markedly different from the hot and dry conditions experienced in other project areas, according to Federal Lands' Voth.

"We were concerned about the effects of ambient and pavement temperature fluctuations experienced in a cool, wetter climate," Voth said.

Crater Lake was a perfect test case for comparing climate and altitude effects on polymer-modified asphalt performance.



Emulsion is sprayed at the rate of 0.41 gallons per square yard, followed by chips being broadcast at the rate of 22.5 pounds per square yard.

Left: About 22 miles of roads around Crater Lake were chip sealed as part of a new National Park Service pavement preservation program.

The Perfect Climate

As described by NPS, the centerpiece of Crater Lake National Park lies in a basin called a caldera that was formed from the explosion and collapse of the center of a volcano more than 5000 years ago. As the floor of the caldera cooled, springs, snow and rain began to fill the basin. Evaporation and seepage balanced the incoming flow. Today Crater Lake measures up to six miles wide and has a maximum water depth of 1943 feet, making it the deepest lake in the U.S., the second deepest in the Western Hemisphere, and the seventh deepest in the world.

The Crater Lake chip seal project covered about 22 miles of two-lane, 22-foot-wide road. Included in the job were ten miles of Crater Lake Highway, five miles of the North Entrance Road, and six miles of West Rim Drive. The latter is part of Rim Drive, a 33-mile road encircling the lake that has elevations averaging between 7000 feet and 8000 feet above sea level. At this altitude, even in the middle of summer, daytime temperatures can average in the mid-80 degrees Fahrenheit and plunge in the evening to the low 40s. Furthermore, snowfall averages about 44 feet per year. It is an ideal climate to study and compare polymer-modified asphalt emulsion performance with that of, say, California's Death Valley, where a chip seal treatment was applied as part of the study.

While applying the chip seals in late July, temperatures were conducive to the process, according to FHWA's Chuck Luedders.

"We experienced average ambient daytime temperatures of 85 degrees and pavement temperatures of about 140 degrees during the seven days of construction," said Luedders. "At night, it got down to the 40s and 50s," he said. Temperatures dictated that they work each day between 10 AM and 6 PM.

Different Polymers, Same Specs

For the West Rim Drive portion, Santos' crews began work at the intersection with the North Entrance Road on the northwestern side of the lake, and proceeded southward to the Rim Village Visitor Center. The existing pavement consisted of hot-mix asphalt that had been covered with a single chip seal application some years before. One section of road employed SBR latex-modified emulsion, the other SBS-modified emulsion. Application rates for aggregate and emulsions were the same for each section, as were compaction procedures.

A 4500-gallon BearCat asphalt distributor applied emulsions at the rate of 0.41 gallons per square yard, spraying a total of 520 tons. Western States Asphalt from their Pasco, Washington facility provided D. L. Santos with the SBR latex-modified emulsion. BASF Corporation supplied the SBR latex polymer to Western States Asphalt. SBS-modified emulsion was provided to the contractor by Albina Asphalt, with Dynasol US supplying the block copolymer to Albina.

Right behind the asphalt distributor, Santos' BearCat chip spreader broadcast 3/8-inch-minus aggregate at the rate of 22.5 pounds per square yard. They applied a total of 4000 tons of aggregate, which was supplied by Knife River Company of Medford, Oregon. The contractor compacted the material with HYPAC, HYSTER and BOMAG pneumatic rollers.

Luedders observed that the 1-1/4 mile elevation influenced the emulsions equally.

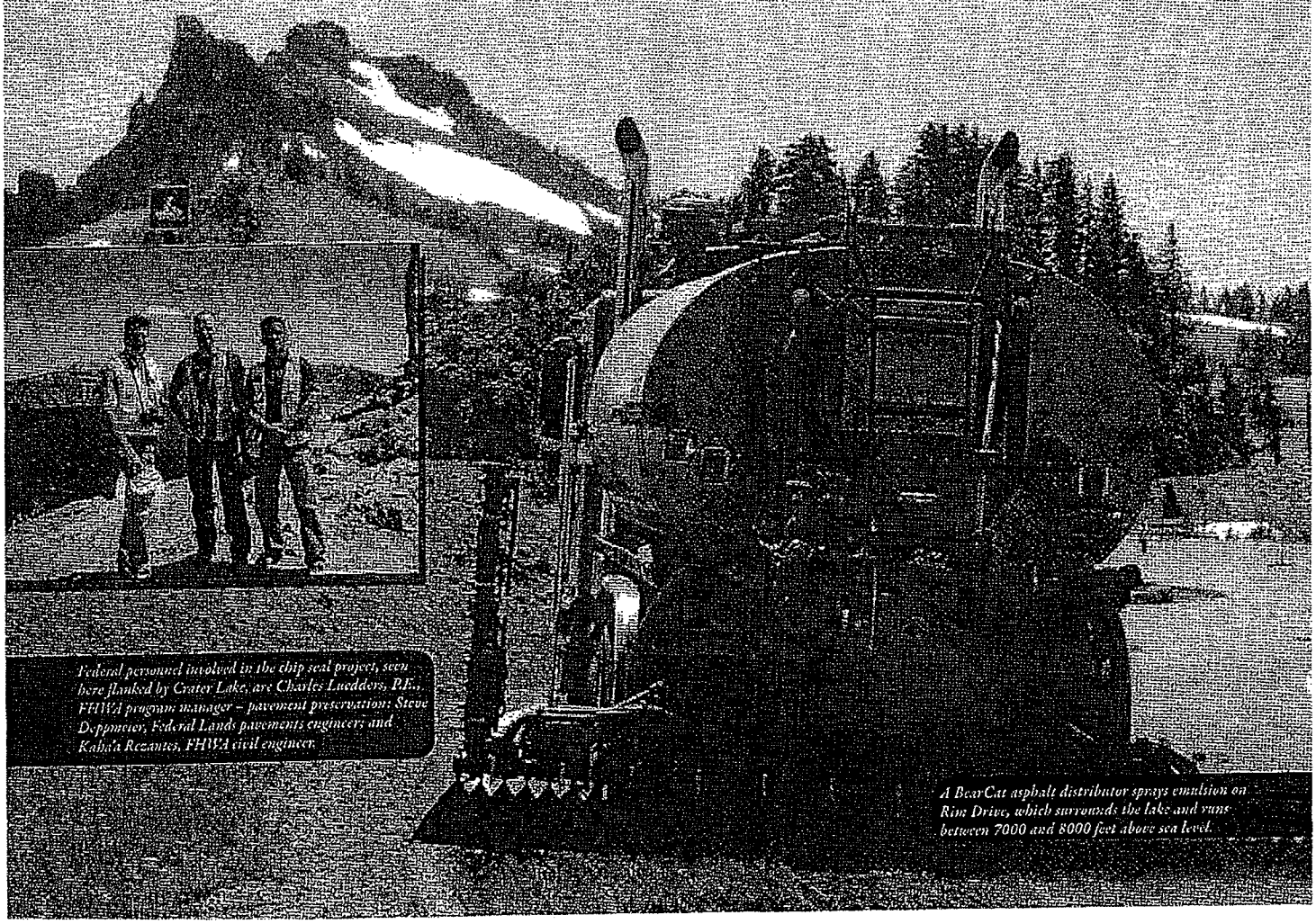
"The high elevation affected them in that the cure time for both SBS- and SBR latex-modified emulsions was shortened," he said. "The contractor was able to put traffic on completed portions of the road in just 15 minutes following application."

He pointed out that crews completed about 1-1/2 miles of lane at a time, using flaggers to control one-way traffic. After a one-lane section was finished, they waited 15 minutes, allowed traffic on it, and returned to the beginning of the section to do the other lane. Production started on the project on July 20 and was completed July 30.

Finishing The Study

All construction materials from the Crater Lake project were sent to five private laboratories for pro-bono and at-cost testing and analyses: BASF Corporation, PBI Asphalt Technologies Inc., Paragon Technical Services Inc., Ultrapave, and Kraton Polymers.

Their work finishes the laboratory testing of field samples, providing data essential for the completion of the technology study. The final report is expected to be published before the end of 2009. ■



Federal personnel involved in the chip seal project, seen here flanked by Crater Lake, are Charles Luedders, P.E., FHWA program manager – pavement preservation; Steve Deppmeier, Federal Lands pavements engineer; and Kabir Rezanur, FHWA civil engineer.

A BearCat asphalt distributor sprays emulsion on Rim Drive, which surrounds the lake and runs between 7000 and 8000 feet above sea level.

Bituminous Surface Treatment

2007 Chip Seal
Design and Construction Workbook

Washington State Department of Transportation

Quality Control

Uniformity and consistency begins with the operators and equipment used to apply the chip seal.

NCHRP Synthesis 342 recommends:

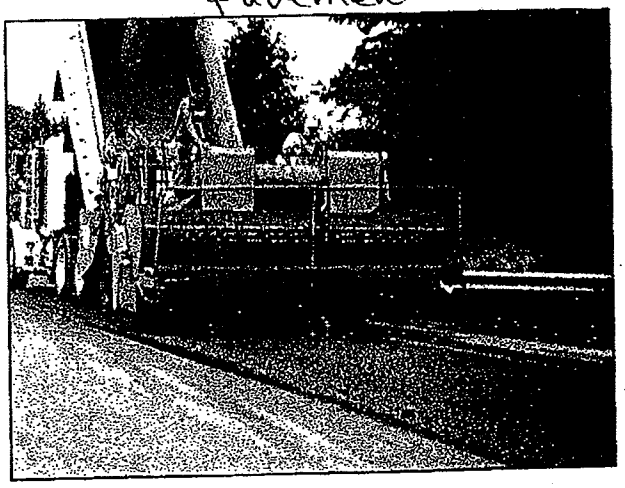
"that the distributor be calibrated in accordance with ASTM D2995, Standard Recommended Practice for Determining Application Rates of Bituminous Distributors."

← Mike Wold

Most modern Asphalt Distributors and Aggregate Spreaders are equipped with computerized application controls. It is essential that these systems be calibrated prior to use.

Chip-sealing on Pavement

Aggregate Spreaders can be calibrated using ASTM D5624, Standard Test Method for Determining the Transverse-Aggregate Spread Rate for Surface Treatment Applications.



This will assure that the operators as well as the equipment are able to provide satisfactory results.

Attachment D

CITY OF SHORELINE

City of Shoreline
17500 Midvale Avenue North
Shoreline, WA 98133-4921
(206) 801-2700 ♦ www.shorelinewa.gov

via facsimile only

July 13, 2011

Ramo Construction
c/o Mr. Ralph Monty
16710 Smokey Pt. Blvd. # 305
Arlington, WA 98223

RE: Bid No. 6341 – 2011 Bituminous Surface Treatment

Dear Mr. Monty,

The City has reviewed the bid protest submitted by Ramo Construction and the additional information provided with the protest. After review, the City's June 29 determination rejecting Ramo Construction's bid remains the City's final determination.

Pursuant to RCW 39.04.350(c) if a bidder fails to supply information requested concerning responsibility within the time and manner specified in the bid documents, the municipality may base its determination of responsibility upon any available information related to the supplemental criteria or may find the bidder not responsible. The public works bidding laws serve two purposes: cost savings for taxpayers through competition and a process that provides a fair opportunity to all contractors. Failure to provide complete bid information by the deadline for opening bids would provide a material advantage to the tardy bidder in that the decision to accept the contract or not could be controlled by the bidder by supplementing the needed data on responsibility or not.

On June 27, 2011, after bid opening, the City received a facsimile from Ramo Construction with Wold Co. references. The City also received a bid protest from you on June 30 with Mr. Wold's resume of work, a Pacific Builder and Engineer article and a page from WSDOT training materials. Even if this supplemental responsibility information were timely submitted with the bid documents, the experience requirements are still not met by the facsimile received on June 27, 2011 or the attachments included with your bid protest.

Wold Co.'s references submitted on June 27 indicated Wold was a subcontractor on Chip Seal Projects for various state and federal agencies. Out of the six projects listed, one reference, Central Washington Asphalt, was provided for three of the projects. The City contacted Central Washington Asphalt who indicated that Wold provided the emulsion/oils on the listed projects after Central Washington Asphalt applied the chip seal/rock aggregate. The City also left a voicemail for Tommer Construction on Monday, July 11th and the City's voicemail was never returned. A fifth project listed did not provide phone number; the City did check the state registry for general contractors

to locate a listing for the prime contractor but found none. Thus, the City was unable to check that reference. The sixth reference was Ramo Construction for the Lopez Island project, which the City already did a reference check on. This reference checks completed by the City reflects that Wold's experience was in supplying and applying oils as part of the chip seal process applied by another contractor. This is not adequate experience for Shoreline's project which requires the contractor complete the entire chip seal process.

Furthermore, Mr. Wold's resume of work, the Pacific Builder and Engineer article, and the page from the WSDOT training manual submitted with the bid protest also do not reflect adequate experience in the chip seal work. Wold's resume only referenced "spreading liquid asphalt," which is only one of the several steps in the chip seal process. The Pacific Builder and Engineer article did not mention Wold Co. and neither did the WSDOT training materials.

In sum, the supplemental documents you submitted do not reflect sufficient experience for Wold Co; the subcontractor needs to have experience with the entire chip seal process, not just one part of it.

In addition, it is critical for the contractor awarded the contract (i.e, the bidder) to have experience with bituminous surface treatment in residential neighborhoods. As detailed in the City's June 29 letter, the "projects of similar nature" listed by Ramo Construction in their bid submittal did not provide sufficient experience for this project. Only one of these listed projects had some form of chip seal application, but this listed project was dissimilar from Shoreline's scope of work in that it entailed thick overlays on gravel base versus a thin application over existing asphalt, the latter requiring a higher level of skill. In addition, the listed project was completed in a rural area, not on residential streets.

We believe the requirement for BST overlay projects as a criteria for responsible bidders is not unduly narrow, and experience in general construction or even asphalt paving is not sufficient. Because our project chip seals are constructed as a thin surface treatment, the construction process is significantly different than that used for HMA paving. Instead of mixing asphalt and aggregates at a hot plant, the individual components of the chip seal are transported and applied at the site separately. Asphalt distributor trucks spray heated asphalt emulsion across the street or road, which must be monitored closely to ensure that the aggregates are applied before the asphalt emulsion "breaks." Aggregates are applied in a single layer and then pneumatic tire rollers set the aggregates into the asphalt emulsion to allow the asphalt emulsion to wet the aggregates to the proper height. The Contractor must be able to apply quality control procedures, monitor for aggregate moisture, asphalt temperature, dust proportions, shot rate uniformity, and aggregate spread rate to ensure that the applied chip seal meets City of Shoreline specifications.

You argue that your performance bond should have been an adequate substitute for experience since this guarantees job completion. However, a payment and performance bond is required for all public works contracts by RCW 39.08.010 yet the City is required by RCW 39.23.352 to award public works contracts to the lowest *responsible* bidder in spite of the bond. State law requires several mandatory responsibility criteria. The City is permitted to supplement these with realistic experience related to the work to be bid in evaluating bidder responsibility. The public harm in lost use and inconvenience from a failed overlay project will not be compensated by the performance bond.

We share your concern that only two bids were submitted for our project; as stated above, promoting cost saving by encouraging competition is a primary goal of our bidding laws. We believe BST will become an important tool in maintaining Shoreline's road system and encourage your participation in future bids. We suggest that you consider forming a joint venture, limited partnership or limited liability company with an experienced subcontractor for the purpose of bidding these projects. This would allow us to rely on the BST project experience of your partner to satisfy this responsibility criterion in the near term.

In sum, based on the bid submittal and supplemental materials provided, neither Ramo Construction nor Wold Co. have the level of experience required under the Statement of Qualifications, and 1-02 Bid Procedures and Conditions: Section 1-02.1 Qualifications of Bidder. The City's June 29 decision to reject the bid under Section 1-02.14 is confirmed.

Sincerely,

Jesus Sanchez
Public Works Operations Manager

Ian Sievers
City Attorney

cc: Mark Relph, Public Works Director
Brian Breeden, Road Maintenance Supervisor
Judy Isaac, Purchasing Officer

2011 BST CHIP SEAL LOCATION LIST

Attachment: E

STREET	FROM	TO	LENGTH	WIDTH	SQUARE YARDS
Stone Ave N	N 185th ST	N 188th ST	814	28	2,532
Stone Ave N	N 188th ST	N 191st St	560	22	1,369
Stone Ave N	N 191 st ST	N 192nd ST	285	20	633
Ashworth Ave N	N 185th ST	N 188th ST	801	20	1,780
Ashworth Ave N	N 188th ST	N 190th ST	517	20	1,149
Ashworth Ave N	N 190th ST	N 192nd ST	342	20	760
Ashworth Ave N	N 192nd ST	N 195th ST	994	20	2,209
Ashworth Ave N	N 195th ST	N 196th ST	257	20	571
Ashworth Ave N	N 196th ST	N 197th Pl	201	23	514
Ashworth Ave N	N 197th Pl	N 199th ST	534	20	1,187
Ashworth Ave N	N 199th ST	N 200th ST	336	29	1,083
Densmore Ave N	N 185th ST	N 188th ST	800	20	1,778
Densmore Ave N	N 188th ST	CDSN	263	20	584
Wallingford Ave N	N 185th ST	N 188th ST	803	26	2,320
Wallingford Ave N	N 188th ST	N 189th ST	154	26	445
Wallingford Ave N	N 189th ST	N 190th ST	366	20	813
Wallingford Ave N	N 190th ST	N 192nd ST	341	20	758
Wallingford Ave N	N 192nd ST	N 195th ST	994	23	2,540
Wallingford Ave N	N 195th ST	N 196th PL	181	26	523
Wallingford Ave N	N 196th PL	N 197th Pl	316	26	913
Wallingford Ave N	N 197th Pl	N 198th ST	166	27	498
Wallingford Ave N	N 198th ST	N 199th ST	329	27	987
Wallingford Ave N	N 199th ST	N 200th ST	332	25	922
Wallingford Ave N	N 200th ST	N 201st ST	230	22	562
Wallingford Ave N	N 201st ST	N 203rd ST	426	23	1,089
Wallingford Ave N	N 203rd ST	N 204th PL	449	20	998
Wallingford Ave N	N 204th PL	N 204th PL	114	20	253
Wallingford Ave N	N 204th PL	CDSN	39	60	260
Burke Ave N	N 185th ST	N 189th ST	955	32	3,396
Burke Ave N	N 189th ST	N 190th ST	366	32	1,301
Burke Ave N	N 192nd ST	N 195th ST	995	21	2,322
Burke Ave N	N 195th ST	N 198th ST	660	20	1,467
Burke Ave N	N 203rd ST	CDSN	177	20	393
Corliss Ave N	End of Road	N 186th ST	52	28	162
Corliss Ave N	N 186th ST	N 188th ST	512	28	1,593
Corliss Ave N	N 188th ST	N 189th ST	256	22	626
Corliss Ave N	N 189th ST	N 190th ST	219	34	827

2011 BST CHIP SEAL LOCATION LIST

Attachment: E

STREET	FROM	TO	LENGTH	WIDTH	SQUARE YARDS
Corliss Ave N	N 190th ST	N 192st St	493	33	1,808
Corliss Ave N	N 192nd ST	N 193rd ST	329	20	731
Corliss Ave N	N 193rd ST	N194th ST	317	24	845
1st Ave N	N 185th ST	N 187th ST	627	31	2,160
1st Ave N	N 187th ST	N 188th ST	257	26	742
1st Ave N	N188th ST	N 190th ST	429	36	1,716
1st Ave N	N 190th ST	N 190th CT	190	27	570
1st Ave N	N 190th CT	N 192nd ST	304	27	912
1st Ave N	N 192nd ST	N 193rd ST	325	20	722
1st Ave N	N 193rd ST	N 194th ST	311	20	691
1st Ave N	NE 194th ST	NE195th ST	185	20	411
1st Ave N	NE 195th ST	N 197th Pl	712	30	2,373
1st Ave N	N 197th Pl	N 200th PL	704	22	1,721
1st Ave N	N 200th PL	N 202nd PL	567	22	1,386
1st Ave N	N 202nd PL	NE 205th st	662	22	1,618
5th Ave NE	NE 185th ST	NE 189th ST	999	21	2,331
5th Ave NE	NE 189th ST	NE 189th CT	170	20	378
5th Ave NE	NE 189th CT	NE 190th ST	136	20	302
5th Ave NE	NE 190th ST	NE 190th PL	213	20	473
5th Ave NE	NE 190th PL	NE 192nd ST	291	20	647
5th Ave NE	NE 192nd ST	NE 193rd ST	325	20	722
5th Ave NE	NE 193rd ST	NE 195th ST	490	20	1,089
5th Ave NE	NE 195th ST	NE 205th ST	2,660	24	7,093
3rd Ave NE	NE191st ST	NE 192nd ST	232	16	412
3rd Ave NE	NE 192nd ST	NE 193rd ST	326	16	580
3rd Ave NE	NE 193rd ST	NE 194th ST	311	30	1,037
3rd Ave NE	NE 194th ST	NE195th ST	181	28	563
N 188th ST	Densmore Ave N	Wallingford Ave N	320	20	711
N 188th ST	Endroute	Corliss Ave N	185	26	534
N 188th ST	Corliss Ave N	1st Ave NE	673	24	1,795
N 189th ST	Wallingford Ave N	Burk Ave N	355	32	1,262
N 190th ST	Ashworth Ave N	Wallingford Ave N	611	24	1,629
N 190th ST	Wallingford Ave N	Burk Ave N	373	24	995
N 190th ST	Burk Ave N	Meridian Ave N	342	24	912
N 190th ST	Meridian Ave N	Bagley PL	380	23	971
N 190th ST	Corliss Ave N	ENDROUTE	165	26	477
N 191st ST	Stone Ave N	CDSW	102	28	317

2011 BST CHIP SEAL LOCATION LIST

Attachment: E

STREET	FROM	TO	LENGTH	WIDTH	SQUARE YARDS
N 190th ST	Bagley PL	Corliss Ave N	244	28	759
N192nd ST	Midvale Ave N	Stone Ave N	445	25	1,236
N192nd ST	Stone Ave N	Ashworth Ave N	444	24	1,184
N 192nd ST	Ashworth Ave N	Densmore Ave N	424	22	1,036
N 192nd ST	Densmore Ave N	Wallingford Ave N	187	23	478
N 192nd ST	Wallingford Ave N	Wallingford Ave N	49	25	136
N192nd ST	Wallingford Ave N	Burk Ave N	340	26	982
N 192nd ST	Burk Ave N	Meridian Ave N	326	26	942
N192nd ST	Meridian Ave N	Corliss Ave N	662	22	1,618
N 192nd ST	Corliss Ave N	1st Ave NE	665	26	1,921
N 192nd ST	3rd Ave NE	5th Ave NE	665	30	2,217
N 193rd ST	Meridian Ave N	Corliss Ave N	663	22	1,621
N 193rd ST	Corliss Ave N	1st Ave NE	664	22	1,623
N 193rd ST	1st Ave NE	3rd Ave NE	664	32	2,361
N 193rd ST	3rd Ave NE	5th Ave NE	664	30	2,213
N 194th ST	Meridian Ave N	Corliss Ave N	664	26	1,918
N 194th ST	Corliss Ave N	1st Ave NE	663	26	1,915
N 194th ST	1st Ave NE	3rd Ave NE	665	20	1,478
NE 194th ST	3rd Ave NE	ENDROUTE	270	20	600
N 195th ST	Stone Ave N	Ashworth Ave N	428	20	951
N 195th ST	Ashworth Ave N	Wallingford Ave N	664	26	1,918
N 195th ST	Wallingford Ave N	Burk Ave N	337	22	824
N 195th ST	Burk Ave N	Meridian Ave N	323	24	861
NE 195th ST	1st Ave NE	3rd Ave NE	667	21	1,556
NE 195th ST	3rd Ave NE	5th Ave NE	662	20	1,471
N 197th PL	Ashworth Ave N	CDSE	128	26	370
N 197th PL	ENDROUTE	Wallingford Ave N	273	22	667
N 198th ST	Wallingford Ave N	Burk Ave N	334	22	816
N 198th ST	Burk Ave N	Meridian Ave N	321	22	785
N 199th ST	Ashworth Ave N	Wallingford Ave N	666	20	1,480
N 199th ST	Wallingford Ave N	Meridian Ave N	662	29	2,133
N 203rd ST	Wallingford Ave N	Burk Ave N	384	20	853
N 203rd ST	Burk Ave N	Meridian Ave N	275	20	611
Burke Ave N	N 203rd ST	CDSN	177	20	393

City of Shoreline
Geographic Information System

Bituminous Surface Treatment

2011

Attachment F

Bituminous Surface Treatment
9.0 Miles

Other Map Feature

- Other City Park
- City of Shoreline Park
- Water

City of Edmonds

Lake Ballinger

City of Mountlake Terrace

FREMONT AVE N
AURORA AVE N
N 200TH ST
N 195TH ST
N 192nd St
N 190th St
N 189th St
N 188th St
N 185TH ST
LINDEN AVE N
Wallingford Ave N
Ashworth Ave N
ASHWORTH AVE N
Burke Ave N
MERIDIAN AVE N
Densmore Ave N
Stone Ave N
N 198th St
N 197th Pl
1st Ave NE
5th Ave NE
5TH AVE NE
NE 195th St
NE 194th St
NE 193rd St
N 193rd St
N 191nd St
N Corliss Ave N
10TH AVE NE
NE PERKINS WY
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7-25

PAVEMENT PRESERVATION

A good street system is a critical component of a healthy economy and a strong community. Well maintained streets are vital to our local economy and essential in connecting our citizens. Whether moving goods and services to and from our local businesses or ensuring that our children have a safe route to school, our streets connect us together. Our aging streets must be preserved in good physical condition to provide the high level of service we demand.

FAST FACTS

- Return on Investment (ROI) -- According to the American Public Works Association, every $1.00 spent on pavement preservation will **save from $4.00 to $5.00 or more** in rehabilitation/reconstruction costs.
- On average, pavement preservation projects support approximately **25% more jobs** on a dollar for dollar basis compared with new construction or rehabilitation projects.
- Pavement preservation is socially responsible and Eco-friendly. It utilizes up to **80% less of the earth's non-renewable resources** than highway rehabilitation and reconstruction programs.
- Pavement preservation improves efficiency and safety, reducing motorist delays by using techniques that can be **completed faster with less traffic disruptions**.

2011 STREET PRESERVATION PROGRAM

The following streets will receive a BST surface treatment planned for summer 2011.

Stone Ave N	N 185th St to N 192nd St
Ashworth Ave N	N 185th St to N 200th St
Densmore Ave N	N 185th St to N 188th St
Wallingford Ave N	N 185th St to N 204th St
Burke Ave N	N 185th St to N 203rd St
Corliss Ave N	N 186th St to N 195th St
1st Ave N	N 185th St to NE 205th St
5th Ave NE	NE 185th St to NE 205th St
3rd Ave NE	NE 191st St to NE 195th St
N 188th St	Densmore Ave N to 1st Ave NE
N 189th St	Wallingford Ave N to Burke Ave N
N 190th St	Ashworth Ave N to Corliss Ave N
N 192nd St	Midvale Ave N to 5th Ave NE
N 193rd St	Meridian Ave N to 5th Ave NE
N 194th St	Meridian Ave N to 3rd Ave NE
N 195th St	Stone Ave N to 5th Ave NE
N 197th Pl	Ashworth Ave N to Wallingford Ave N
N 198th St	Wallingford Ave N to Meridian Ave N
N 199th St	Ashworth Ave to Meridian Ave N
N 203rd St	Wallingford Ave N to Meridian Ave N

CITY OF SHORELINE

Public Works
Street Operations

17500 Midvale Avenue N
Shoreline, WA 98133-4905
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2011 Street Preservation Program

PROTECTING OUR INVESTMENT

The City of Shoreline will be applying a new Bituminous Surface Treatment (BST) surface to approximately eight miles of residential and collector streets in summer 2011 for the purpose of preserving our street network.

SAVE THE DATE!

Shoreline Public Works will hold a public meeting to discuss the 2011 Street Preservation Program.

Location: **Echo Lake Elementary**
19345 Wallingford Avenue N.
Shoreline, WA 98133

Date/Time: **May 18, 2011, 6:00PM – 8:00 PM**

CITY OF SHORELINE

Public Works
Street Operations

THE SHORELINE BST SYSTEM

The first step in the BST system is to spray a heavy coating of emulsified asphalt oil onto the street surface and then immediately cover the oil with specified rock size (1/4" or less). Rollers are then utilized to embed the rock into the oil. The second step occurs after the first seal is allowed to cure and harden for typically three to seven days. The second step consists of a fog seal, which is a light coating of slow-setting emulsified asphalt sprayed on the rock to seal the new road surface. The result is a cost-effective seal coat that will preserve the existing pavement, slow pavement deterioration, and provide a new pavement wearing surface. See the photographs below, which show the typical two-part BST/fog seal

Asphalt and chips are applied to the existing pavement

A fog seal is applied after the BST has cured

BST BENEFITS

- Preserves surface condition
- Slows pavement deterioration
- Seals cracks
- Restores skid resistance
- Corrects minor pavement damage
- Saves money compared to overlays

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WHAT SHOULD I EXPECT ON MY STREET?

If your street is selected to receive a BST this summer, you will receive notice approximately one week before the work is to take place.

All private trees and other vegetation will need to be trimmed back behind the edge of the pavement to allow room for the large dump trucks, street sweeper and equipment. This means any branches extending out over the pavement edge must be trimmed to a vertical height of 13-feet prior to the start of the project.

We ask that you move your vehicles off the street to clear the street on the day of that the BST will be placed.

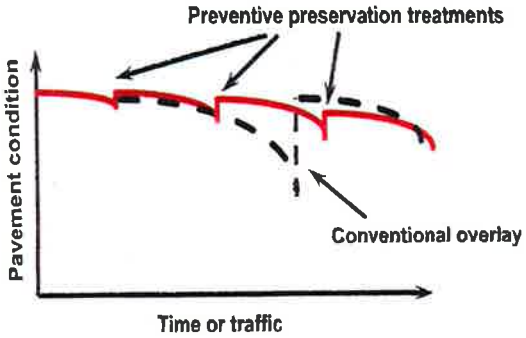
The BST process is very fast, but the finished product must cure, sometimes overnight, to ensure that the chips adhere to the fresh oil. Please abide by traffic control signs and do not use newly sealed streets until directed.

cost-effective solutions to preserve our streets

PAVEMENT PRESERVATION

Pavement preservation is the concept that it is better to keep good pavements in good condition and not to allow them to deteriorate to the point where costly rehabilitation methods are required. The idea is to recognize the value of the existing pavement network and establish as a priority the preservation the investment that has already been made.

Pavement preservation takes advantage of the pavement deterioration curve by focusing on the purchase of inexpensive preservation treatments that can cost a fraction of the cost of standard street rehabilitation methods. Preservation focuses on the use of surface treatments on regular frequent intervals to give a small boost to the condition of an already good pavement. Pavement preservation techniques are employed only on those pavements that are structurally sound.



BITUMINOUS SURFACE TREATMENT (BST)

FREQUENTLY ASKED QUESTIONS (FAQS)

1. **When can I start driving and walking on the road surface once this application has been completed?**

The street will remain open to automobile and non-vehicular traffic, except for brief delays when equipment is present. You should expect a one hour process to sweep the road, place the tack coat and roll the aggregate rock. Please drive SLOWLY (10 mph max) for several days after the BST has been placed due to the loose aggregate on the street surface. Bicyclists and motorcyclists should use extra caution due to loose rock. Pedestrians should know that walking on new BST may result in tracking oil on to the soles of shoes. Ensure that you do not track the oil into homes, businesses, and other facilities as it is difficult to clean from flooring, especially carpet. The Fog Coat surface will take two hours to dry before you are able to drive or walk on the surface (this is the last step of the process usually completed one week later.)

2. **What streets will the City be working on and what is the planned schedule?**

Please see the map accompanying this list of FAQs. The project is planned for early August.

3. **Do I need to move my car, truck or other vehicles off the street? If so, how much notice will I receive?**

Yes, vehicles should be moved off the street on the day of BST operations. Notification will be given to property owners twice—one week ahead and three days ahead of BST operations. If you do not move your vehicle, it will be towed.

4. **Will the entire road be closed? If so, where do I park?**

The entire street will be closed in both directions. Please park your vehicle in your driveway or another location that is not closed for road work.

5. **Will there be emergency access to my home?**

Streets will remain open at all times except for the brief period when construction crews are working on your street. Property owners will not be prevented from accessing their homes. Emergency crews—police, fire, ambulance—will have full and open access to your home during this project.

6. **What will be the hours of operation for this project on my street?**

BST operations will be conducted during daylight hours. Exact work hours for your street will be difficult to predict due to the possibility of delays during construction.

7. **Why is the City choosing to use this method of application to preserve the road instead of the normal overlay that is done each year?**

BST is a widely used street surface treatment that is proven to preserve the condition of our existing street network. They are less expensive than overlays and when used properly, BST is a crucial part of a successful pavement management plan.

- BST improves the street by sealing cracks and restoring the skid resistant surface.
- BST lowers life-cycle costs by increasing durability and prolonging street life.
- BST improves safety by renewing the contrast between the dark street surface and light-colored striping and traffic control markings.

8. **Does this new approach save money?**

Yes. BSTs have lower initial costs than normal overlays and can help preserve street conditions. The City is adopting BST as part of our 'pavement preservation' approach to managing the street network at the lowest life-cycle cost to the public.

9. **But our street is in good condition—why is the City applying a BST?**

The City has invested a considerable amount of money in building and rehabilitating streets to bring them up to good condition. BST is intended to seal and preserve pavements that are in good condition so that they do not deteriorate quickly. This approach delays more extensive and costly repairs, lowering the life-cycle cost of our streets.

10. **Is the BST material being used environmentally safe?**

Not only are BSTs absolutely safe for the environment, they are also a 100% recyclable product that can be milled and reused when the street is rehabilitated at a future time.

11. **Will we be notified if there is a change in the City's schedule? How much advance notice will we receive?**

While the City will attempt to stay on our schedule, there are bound to be some changes. We ask for your patience with the work schedule as there are many factors involved, including good weather. In general, when you see the "No Parking" signs on your street, this will indicate that the work will commence within the following three days, weather permitting. The project is planned for early August.

12. **What do you recommend for pet owners?**

You can help us by keeping your pets indoors, leashed, or in a fenced area on the day of BST operations.

13. **How will I get my mail?**

Mail will be delivered as usual.

14. **While the project is in progress, will we still receive the normal services that we current receive, such as garbage collection, UPS, and FED-EX?**

    Normal services such as garbage collection, UPS and FED-EX will continue as usual.

15. **If there is an emergency in our home and we need to get out while the project is going on, how will this work?**

    The streets will be open to traffic during this project except for a brief delay while construction crews are on your street. We ask that if you must leave your home due to an emergency, please do so by notifying the flaggers.

16. **Will there be someone on site, at all times during the project, to address any questions or concerns we may have?**

    The City's Project Manager and/or representatives will be available by telephone and on site to address your questions and concerns. The Project Manager can be reached at (206) 801-2441.