

STATE OF UTAH
DEPARTMENT OF TRANSPORTATION



SOLICITATION NO. DOT100323TW

Liquid Asphalt Statewide

RESPONSES ARE DUE PRIOR TO:

Mar 15, 2010 12:00:00 PM MDT

PREFERRED METHOD IS TO SUBMITTED ELECTRONICALLY TO:

www.bidsync.com

RESPONSES MAY BE MAILED OR DELIVERED TO:

Utah Department of Transportation
Attn: Procurement/Time Sensitive
4501 South 2700 West
Box 148260
Second Floor
Salt Lake City UT 84114-8260

Bid DOT100323TW Liquid Asphalt Statewide

Bid Number DOT100323TW
Bid Title Liquid Asphalt Statewide

Bid Start Date Feb 17, 2010 3:52:15 PM MST
Bid End Date Mar 15, 2010 12:00:00 PM MDT
Question & Answer End Date Mar 10, 2010 12:00:00 PM MST

Bid Contact Trever Ward
Purchasing Agent II
Transportation
801-965-4178
tward@utah.gov

Contract Duration 1 year
Contract Renewal Not Applicable
Prices Good for 1 year

Bid Comments Fill out pricing sheet If the pricing sheet is not filled out, bids will not be accepted.

All non-web based forms must be downloaded, filled out and then uploaded back into bidsync as an attachment.

All questions concerning this solicitation must be submitted through BidSync. Only answers issued through the BidSync system or issued via an authorized and properly issued addendum shall be the official position of the State.

Any discrepancies between documents obtained from sources outside BidSync not issued by the Division of Purchasing will be found in favor of the documents contained in BidSync.

Added on Feb 25, 2010:
see additional attached price sheet. (Attachment E)
added 2/25/2010.

Added on Mar 3, 2010:
Due to scheduling conflicts the bid end date has been extended. (3/15/2010)

Added on Mar 3, 2010:
prior extension had the improper dates inputed.
proper end dates for questions is 3/10, bid end date is 3/15.
sorry for any confusion.

Changes made on Feb 25, 2010 8:38:02 AM MST

New Documents excess frieght for liquid.xlsx

Changes made on Mar 1, 2010 7:55:01 AM MST

New Documents regionmap2010.pdf

Changes made on Mar 3, 2010 8:06:17 AM MST

Previous End Date	Mar 3, 2010 12:00:00 PM MST	New End Date	Mar 10, 2010 12:00:00 PM MST
Previous Q & A End Date	Mar 1, 2010 12:00:00 PM MST	New Q & A End Date	Mar 15, 2010 12:00:00 PM MDT

Changes made on Mar 3, 2010 10:50:22 AM MST

Previous End Date	Mar 10, 2010 12:00:00 PM MST	New End Date	Mar 15, 2010 12:00:00 PM MDT
Previous Q & A End Date	Mar 15, 2010 12:00:00 PM MDT	New Q & A End Date	Mar 10, 2010 12:00:00 PM MST

Item Response Form

Item DOT100323TW-1-01 - liquid asphalt
Quantity 1 lot
Unit Price
Delivery Location State of Utah
No Location Specified
Qty 1

Description
liquid asphalt contract.
see attached specifications and bid pricing sheets.
all prices must be filled out for consideration.



State of Utah Department of Transportation Invitation to Bid

Legal Company Name (include d/b/a if applicable)

Ordering Address

Remittance Address (if different from ordering address)

Type:

☐ Corporation☐ Partnership☐ Proprietorship☐ Government

Company Contact Person

Phone Number (include area
code)

Discount Terms(for bid purposes, bid discounts less than
30 days will not be considered)

Brand/Trade Name

Minimum Order

Company's Internet Web Address

The undersigned certifies that the goods or services offered are produced, mined, grown, manufactured, or
performed in Utah. ☐ YES ☐ NO

If no, enter where produced, etc.

Offeror's Authorized Representative's Signature

Type or Print Name

Federal Tax Identification
Number

City

City

State of Utah Sales Tax ID Number

State

State

Zip Code

Zip Code

Fax Number (include area
code)
Days Required for Delivery After Receipt of Order (see
attached for any required minimums)
Price Guarantee Period (see attached specifications for
any required minimums)

Date

Position or Title

INVITATION TO BID - INSTRUCTIONS AND GENERAL PROVISIONS

1. SUBMITTING THE BID: (a) The Utah Department of Transportation (UDOT) prefers that bids be submitted electronically. Electronic bids may be submitted through a secure mailbox at BidSync www.bidsync.com until the date and time as indicated in this document. It is the sole responsibility of the supplier to ensure their bid reaches BidSync before the closing date and time. There is no cost to the supplier to submit Utah's electronic bids via BidSync. (b) Electronic bids may require the uploading of electronic attachments. The submission of attachments containing embedded documents is prohibited. All documents should be attached as separate files. (c) If the supplier chooses to submit the bid directly to the UDOT in writing: The bid must be signed in ink, sealed in a properly addressed envelope, and delivered to the UDOT, 4501 South 2700 West, Box 148260, Calvin Rampton Building, Salt Lake City, UT 84114-8260 by the "Due Date and Time." The "Bid Number" and "Due Date" must appear on the outside of the envelope. All prices and notations must be in ink or typewritten. Each item must be priced separately. Unit price shall be shown and a total price shall be entered for each item bid. Errors may be crossed out and corrections printed in ink or typewritten adjacent and must be initialed in ink by person signing bid. Unit price will govern, if there is an error in the extension. Written bids will be considered only if it is submitted on the forms provided by UDOT. (d) Bids, modifications, or corrections received after the closing time on the "Due Date" will be considered late and handled in accordance with the Utah Procurement Rules, section R33-3-109. (e) Facsimile transmission of bids to UDOT will not be considered.

2. BID PREPARATION: (a) Delivery time is critical and must be adhered to as specified. (b) Wherever in this document an item is defined by using a trade name of a manufacturer and/or model number, it is intended that the words, "or equivalent" apply. "Or equivalent" means any other brand that is equal in use, quality, economy and performance to the brand listed as determined by the UDOT. If the supplier lists a trade name and/or catalog number in the bid, UDOT will assume the item meets the specifications unless the bid clearly states it is an alternate, and describes specifically how it differs from the item specified. All bids must include complete manufacturer's descriptive literature if quoting an equivalent product. All products are to be of new, unused condition, unless otherwise requested in this solicitation. (c) By submitting the bid the supplier certifies that all of the information provided is accurate, that they are willing and able to furnish the item(s) specified, and that prices quoted are correct. (d) This bid may not be withdrawn for a period of 60 days from bid due date.

3. FREIGHT COST: (a) Where "Freight Cost" is listed as a separate line item, suppliers are to provide product line item pricing FOB Origin Less Freight. On the line item for "Freight Cost" suppliers are to indicate the total freight cost FOB Destination Freight Prepaid, and complete the "Freight Information" document. UDOT will analyze freight charges separately from the item cost and determine how the shipment will be routed (either by the supplier, or by the State's carrier). (b) Where there is not a line item for "Freight Cost", suppliers are to provide line item pricing FOB Destination Freight Prepaid. Unless otherwise indicated on the contract/purchase order, shipping terms will be FOB Destination Freight Prepaid.

4. SOLICITATION AMENDMENTS: All changes to this solicitation will be made through electronically generated addendum only. Answers to questions submitted through BidSync shall be considered addenda to the solicitation documents. Bidders are cautioned not to consider verbal modifications.

5. PROTECTED INFORMATION: Suppliers are required to mark any specific information contained in their bid which they are claiming as protected and not to be disclosed to the public or used for purposes other than the evaluation of the bid. Each request for non-disclosure must be made by completing the "Confidentiality Claim Form" located at: <http://www.purchasing.utah.gov/contract/documents/confidentialityclaimform.doc> with a specific justification explaining why the information is to be protected. Pricing and service elements of any bid will not be considered proprietary. All material becomes the property of UDOT and may be returned only at UDOT's option. Bids submitted may be reviewed and evaluated by any persons at the discretion of the UDOT.

6. SAMPLES: Samples of item(s) specified in this bid, when required by UDOT, must be furnished free of charge to UDOT. Any item not destroyed by tests may, upon request made at the time the sample is furnished, be returned at the bidder's expense.

7. AWARD OF CONTRACT: (a) The contract will be awarded with reasonable promptness, by written notice, to the lowest responsible bidder that meets the specifications. Consideration will be given to the quality of the product(s) to be supplied, conformity to the specifications, the purpose for which required, delivery time required, discount terms and other criteria set forth in this invitation to bid. (b) The bids are opened publicly. The name of each bidder and the amount of the bid is recorded. Each bid, and the record, is open to public inspection. (c) UDOT may accept any item or group of items, or overall low bid. UDOT has the right to cancel this invitation to bid at any time prior to the award of contract. (d) UDOT can reject any or all bids, and it can waive any informality, or technicality in any bid received, if UDOT believes it would serve the best interest of the State. (e) Before, or after, the award of a contract UDOT has the right to inspect the bidder's premises and all business records to determine the holder's ability to meet contract requirements. (f) UDOT does not guarantee to make any purchase under awarded contract(s). Estimated quantities are for bidding purposes only, and not to be interpreted as a guarantee to purchase any amount. (g) Utah has a reciprocal preference law which will be applied against bidders bidding products or services produced in states which discriminate against Utah products. For details see Section 63G-6-404 and 63G-6-405, *Utah Code Annotated*. (h) Bid tabulations and awards are posted <http://purchasing.utah.gov/vendor/bidtab.html> (i) Multiple contracts may be awarded if UDOT determines it would be in its best interest.

8. UDOT APPROVAL: Purchase orders placed, or contracts written, with the State of Utah, as a result of this bid, will not be legally binding without the written approval of the director of UDOT.

9. DEBARMENT: The CONTRACTOR certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (contract) by any governmental department or agency. If the CONTRACTOR cannot certify this statement, attach a written explanation for review by UDOT.

10. ENERGY CONSERVATION AND RECYCLED PRODUCTS: The contractor is encouraged to offer Energy Star certified products or products that meet FEMP (Federal Energy Management Program) standards for energy consumption. The State of Utah also encourages contractors to offer products that are produced with recycled materials, where appropriate, unless otherwise requested in this solicitation.

11. GOVERNING LAWS AND REGULATIONS: All State purchases are subject to the Utah Procurement Code, Title 63 Chapter 56 U.C.A. 1953, as amended, and the Procurement Rules as adopted by the Utah State Procurement Policy Board. These are available on the Internet at www.purchasing.utah.gov.

12. SALES TAX ID NUMBER: Utah Code Annotated (UCA) 59-12-106 requires anyone filing a bid with the state for the sale of tangible personal property or any other taxable transaction under UCA 59-12-103(1) to include their Utah sales tax license number with their bid. For information regarding a Utah sales tax license see the Utah State Tax Commission's website at www.tax.utah.gov/sales. The Tax Commission is located at 210 North 1950 West, Salt Lake City, UT 84134, and can be reached by phone at (801) 297-2200.

(Revision: 22 October 2008 - ITB Instructions)

STATE OF UTAH | DEPARTMENT OF TRANSPORTATION
4501 South 2700 West, Box 148260, Salt Lake City, Utah 84114-8260, Fax (801) 965-4073

PURCHASE ORDER CONTRACT: TERMS AND CONDITIONS

ACCEPTANCE OF THIS PURCHASE ORDER BINDS THE CONTRACTOR TO ALL THESE TERMS AND CONDITIONS AND ALL THE TERMS, CONDITIONS AND PROVISIONS INCLUDED IN THE SOLICITATION THE DEPARTMENT OF TRANSPORTATION OFFERED RELATING TO THIS PURCHASE ORDER.

1. **AUTHORITY:** Provisions of this Purchase Order are pursuant to the authority set forth in the Utah Procurement Code, 63G-6, Utah Code Annotated (U.C.A.) 1953, as amended, and the Utah State Procurement Rules and Regulations. Any and all supplies, services and equipment furnished will comply fully with all applicable Federal and State laws and regulations.

2. **CONTRACT JURISDICTION, CHOICE OF LAW, AND VENUE:** The provisions of this Purchase Order shall be governed by the laws of the State of Utah. The parties will submit to the jurisdiction of the courts of the State of Utah for any dispute arising out of this Purchase Order or the breach thereof. Venue shall be in Salt Lake City, in the Third Judicial District Court for Salt Lake County.

3. **RECORDS ADMINISTRATION:** The Contractor shall maintain, or supervise the maintenance of all records necessary to properly account for the payments made to the Contractor for costs authorized by this Contract for at least four years. The Contractor agrees to allow State and Federal auditors, and State Agency Staff, access to all the records to this Contract, for audit and inspection, and monitoring of services. Such access will be during normal business hours, or by appointment.

4. **CERTIFY REGISTRATION AND USE OF EMPLOYMENT "STATUS VERIFICATION SYSTEM":** The Status Verification System, also referred to as "E-verify", only applies to contracts issued through a Request for Proposal process, and to sole sources that are included within a Request for Proposal. It does not apply to Invitation to Bids nor to the Multi-Step Process.

4.1 STATUS VERIFICATION SYSTEM

1. Each offeror and each person signing on behalf of any offeror certifies as to its own entity, under penalty of perjury, that the named Contractor has registered and is participating in the Status Verification System to verify the work eligibility status of the contractor's new employees that are employed in the State of Utah in accordance with UCA Section 63G-11-103.

2. The Contractor shall require that the following provision be placed in each subcontract at every tier: "The subcontractor shall certify to the main (prime or general) contractor by affidavit that the subcontractor has verified through the Status Verification System the employment status of each new employee of the respective subcontractor, all in accordance with Section 63G-11-103 and to comply with all applicable employee status verification laws. Such affidavit must be provided prior to the notice to proceed for the subcontractor to perform the work."

3. The State will not consider a proposal for award, nor will it make any award where there has not been compliance with this Section.

4. Manually or electronically signing the Proposal is deemed the Contractor's certification of compliance with all provisions of this employment status verification certification required by all applicable status verification laws including UCA Section 63G-11-103.

4.2 INDEMNITY CLAUSE FOR STATUS VERIFICATION SYSTEM

1. Contractor (includes, but is not limited to any Contractor, Design Professional, Designer or Consultant) shall protect, indemnify and hold harmless, the State and its officers, employees, agents, representatives and anyone that the State may be liable for, against any claim, damages or liability arising out of or resulting from violations of the above Status Verification System Section whether violated by employees, agents, or contractors of the following: (a) Contractor; (b) Subcontractor at any tier; and/or (c) any entity or person for whom the Contractor or Subcontractor may be liable.

2. Notwithstanding Section 1. above, Design Professionals or Designers under direct contract with the State shall only be required to indemnify the State for a liability claim that arises out of the design professional's services, unless the liability claim arises from the Design Professional's negligent act, wrongful act, error or omission, or other liability imposed by law except that the design professional shall be required to indemnify the State in regard to subcontractors or subconsultants at any tier that are under the direct or indirect control or responsibility of the Design Professional, and includes all independent contractors, agents, employees or anyone else for whom the Design Professional may be liable at any tier.

5. **CONFLICT OF INTEREST AND PROCUREMENT ETHICS:** The Contractor represents that none of its officers or employees are officers or employees of the State of Utah, unless disclosure has been made in accordance with 67-16-8, U.C.A., 1953, as amended. Further, Contractor certifies that it has not offered or given any gift or compensation prohibited by 67-16-5, U.C.A., 1953, as amended, to any officer or employee of the State of Utah to secure favorable treatment with respect to being awarded this Purchase Order.

6. **INDEPENDENT CONTRACTOR:** The Contractor shall be an independent contractor, and as such shall have no authorization, express or implied, to bind the State to any agreements, settlements, liability, or understanding whatsoever, and agrees not to perform any acts as agent for the State, except as herein expressly set forth. Compensation stated herein shall be the total amount payable to the Contractor by the State. The Contractor shall be responsible for the payment of all income tax and social security amounts due as a result of payments received from the State for these contract services. Persons employed by the State and acting under the direction of the State shall not be deemed to be employees or agents of the Contractor.

7. **INDEMNITY:** The Contractor agrees to indemnify, save harmless, and release the State of Utah, and all its officers, agents, volunteers, and employees from and against any and all loss, damages, injury, liability, suits, and proceedings arising

out of the performance of this contract which are caused in whole or in part by the negligence of the Contractor's officers, agents, volunteers, or employees, but not for claims arising from the State's sole negligence.

8. EQUAL OPPORTUNITY CLAUSE: The Contractor agrees to abide by the provisions of Title VI and VII of the Civil Rights Act of 1964 (42USC 2000e) which prohibits discrimination against any employee or applicant for employment or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on the basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age; and Section 504 of the Rehabilitation Act of 1973; or the Americans with Disabilities Act of 1990 which prohibits discrimination on the basis of disabilities. Also, the Contractor agrees to abide by Utah's Executive Order, dated March 17, 1993, which prohibits sexual harassment in the workplace. Contractor must include this provision in every subcontract or purchase order relating to purchases by the State of Utah to insure that the subcontractors and vendors are bound by this provision.

9. SEPARABILITY CLAUSE: A declaration by any court, or any other binding legal source, that any provision of this contract is illegal and void shall not affect the legality and enforceability of any other provision of this contract, unless the provisions are mutually dependent.

10. CANCELLATION OR REVISION: This Purchase Order may be changed, revised or canceled only by the Department of Transportation giving written notice to the Contractor.

11. DEBARMENT: The Contractor certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (contract), by any governmental department or agency. If the Contractor cannot certify this statement, attach a written explanation for review by the State. The Contractor must notify the State Director of Purchasing within 30 days if debarred by any governmental entity during the Contract period.

12. NONAPPROPRIATION OF FUNDS: The Contractor acknowledges that the State cannot contract for the payment of funds not yet appropriated by the Utah State Legislature. If funding to the State is reduced due to an order by the Legislature or the Governor, or is required by State law, or if federal funding (when applicable) is not provided, the State may terminate this contract or proportionately reduce the services and purchase obligations and the amount due from the State upon 30 days written notice. In the case that funds are not appropriated or are reduced, the State will reimburse Contractor for products delivered or services performed through the date of cancellation or reduction, and the State will not be liable for any future commitments, penalties, or liquidated damages.

13. SALES TAX EXEMPTION: The State of Utah's sales and use tax exemption number is **11736850-010-STC**. The tangible personal property or services being purchased are being paid from State funds and used in the exercise of that entity's essential functions. If the items being purchased are construction materials, they will be converted into real property by employees of this government entity, unless sales tax is included as a separate line item on this purchase order.

14. WARRANTY: The Contractor agrees to warrant and assume responsibility for all products (including hardware, firmware, and/or software products) that it licenses, contracts, or sells to the State of Utah under this contract for a period of one year, unless otherwise specified and mutually agreed upon elsewhere in this contract. The Contractor (seller) acknowledges that all warranties granted to the buyer by the Uniform Commercial Code of the State of Utah apply to this contract. Product liability disclaimers and/or warranty disclaimers from the seller are not applicable to this contract unless otherwise specified and mutually agreed upon elsewhere in this contract. In general, the Contractor warrants that: (1) the product will do what the salesperson said it would do, (2) the product will live up to all specific claims that the manufacturer makes in their advertisements, (3) the product will be suitable for the ordinary purposes for which such product is used, (4) the product will be suitable for any special purposes that the State has relied on the Contractor's skill or judgment to consider when it advised the State about the product, (5) the product has been properly designed and manufactured, and (6) the product is free of significant defects or unusual problems about which the State has not been warned. Remedies available to the State include the following: The Contractor will repair or replace (at no charge to the State) the product whose nonconformance is discovered and made known to the Contractor in writing. If the repaired and/or replaced product proves to be inadequate, or fails of its essential purpose, the Contractor will refund the full amount of any payments that have been made. Nothing in this warranty will be construed to limit any rights or remedies the State of Utah may otherwise have under this contract.

15. PUBLIC INFORMATION: Contractor agrees that the Purchase Order, related Sales Orders, and Invoices will be public documents, and may be available for distribution. Contractor gives the State express permission to make copies of the Purchase Order, related Sales Orders, Invoices, and the response to the solicitation in accordance with the State of Utah Government Records Access and Management Act. The permission to make copies as noted will take precedence over any statements of confidentiality, proprietary information, copyright information, or similar notation.

16. DELIVERY: Orders must be shipped directly to ordering agency at address specified. Shipments must be made in accordance with the item(s) as described and priced on this order. Also, orders must be shipped F.O.B. Destination, Freight Prepaid, unless other shipping instructions are described in this order. **UNLESS INDICATED OTHERWISE, ALL ORDERS MUST BE SHIPPED PROMPTLY (WITHIN 5 WORKING DAYS), UPON RECEIPT OF ORDER.** Responsibility and liability for loss or damage will remain with Contractor until final inspection and acceptance when responsibility will pass to the State except as to latent defects, fraud and Contractor's warranty obligations.

17. PRICING AND INVOICING: Prices to be paid for item(s) ordered are the prices listed on this Purchase Order, which include all shipping and delivery charges, unless otherwise described on this order. **CONTRACTOR WILL, AFTER DELIVERY, PROMPTLY SUBMIT A CORRECT INVOICE (WITHIN 30 DAYS OF SHIPMENT OR DELIVERY OF SERVICES) TO THE ORDERING AGENCY.** Contractor agrees that the state has a right to adjust or return any invoice that reflects incorrect pricing. The Purchase Order number shall be listed on all invoices, freight tickets, and correspondence relating to the Purchase Order. Unless otherwise specified, payment terms shall be Net 30 days following the date the order is delivered or the date a correct invoice is received, whichever is later. Where prompt payment discounts apply, the period for computing a discount shall begin on the date a correct invoice, including any adjustment for damage or

incomplete shipment, is received by the state. Discount will be taken on the total amount of the invoice. All payments to the Contractor will be remitted by mail unless paid by the State of Utah's Purchasing Card (major credit card).

18. PATENTS, COPYRIGHTS, ETC.: The Contractor shall release, indemnify and hold the State, its officers, agents and employees harmless from liability of any kind or nature, including the Contractor's use of any copyrighted or uncopyrighted composition, secret process, patented or un-patented invention, article or appliance furnished or used in the performance of this contract.

19. DEFAULT AND REMEDIES: Any of the following events will constitute cause for the State to declare Contractor in default of the Contract: 1. Nonperformance of contractual requirements; 2. A material breach of any term or condition of this Contract. The State will issue a written notice of default providing a ten (10) day period in which Contractor will have an opportunity to cure. Time allowed for cure will not diminish or eliminate Contractor's liability for damages. If the default remains, after Contractor has been provided the opportunity to cure, the State may do one or more of the following: 1. Exercise any remedy provided by law; 2. Terminate this Contract; 3. Impose liquidated damages, if liquidated damages are listed in the contract; 4. Suspend Contractor from receiving future solicitations.

20. FORCE MAJEURE: Neither party to this contract will be held responsible for delay or default caused by fire, riot, acts of God and/or war which is beyond that party's reasonable control. The State may terminate this contract after determining such delay or default will reasonably prevent successful performance of the contract.

21. CONFLICT OF TERMS: Contractor Terms and Conditions that apply must be in writing and expressly approved in writing by the State Director of Purchasing. No other Terms and Conditions will apply to this contract including terms listed or referenced on a Contractor's website, terms listed in a Contractor quotation/sales order, etc. In the event of any conflict in the contract terms and conditions, the order of precedence shall be: 1. State Standard Terms and Conditions; 2. State Additional Terms and Conditions; 3. Contractor Terms and Conditions, if applicable.

(Revision date: 4 June 2009)

SECTION 00850**ASPHALT MATERIAL****PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Asphalt materials

1.2 PAYMENT PROCEDURES

- A. Price adjustments for asphalt cement and liquid asphalt (chip-seal emulsions and/or cut-backs):
 - 1. Standard department procedures governs price adjustments made where asphalt material does not conform to the specifications
 - a. If the price adjustment exceeds 30 percent, the Engineer may order the removal of any or all the defective asphalt material.
 - b. The pay factor for such material is 0.50 when allowed to remain in place.
- B. Price adjustments for Performance Graded Asphalt Binder (PGAB):
 - 1. Standard department PGAB management plan governs price reductions or removal of material where the binder does not conform to the specifications.

1.3 REFERENCES

- A. AASHTO M 81: Cut-Back Asphalt (Rapid-Curing Type)
- B. AASHTO M 82: Cut-Back Asphalt (Medium-Curing Type)
- C. AASHTO M 140: Emulsified Asphalt
- D. AASHTO M 208: Cationic Emulsified Asphalt
- E. AASHTO M 226: Viscosity Graded Asphalt Cement
- F. AASHTO M 320: Performance Graded Asphalt Cement

- G. AASHTO R 28: Accelerated Aging of Asphalt Binder Using a Pressurized Aging Vessel (PAV).
- H. AASHTO T 44: Solubility of Bituminous Materials
- I. AASHTO T 48: Flash and Fire Points by Cleveland Open Cup
- J. ASHTO T 49: Penetration of Bituminous Materials
- K. AASHTO T 50: Float Test for Bituminous Materials
- L. AASHTO T 51: Ductility of Bituminous Materials
- M. AASHTO T 59: Testing Emulsified Asphalt
- N. AASHTO T 201: Kinematic Viscosity of Asphalts
- O. AASHTO T 228: Specific Gravity of Semi-Solid Bituminous Materials
- P. AASHTO T 240: Effect of Heat and Air on a Moving Film of Asphalt (Rolling Thin-Film Oven Test)
- Q. AASHTO T 300: Force Ductility of Bituminous Materials
- R. AASHTO T 301: Elastic Recovery Test of Bituminous Materials by Means of a Ductilometer
- S. AASHTO T 313: Determining the Flexural Creep Stiffness of Asphalt Binder Using the Bending Beam Rheometer (BBR)
- T. AASHTO T 314: Determining the Fracture Properties of Asphalt Binder in Direct Tension
- U. AASHTO T 315: Determining the Rheological Properties of Asphalt Binder Using a Dynamic Shear Rheometer (DSR).
- V. AASHTO T 316: Viscosity Determination of Asphalt Binder Using Rotational Viscometer.
- W. ASTM D 92: Flash and Fire Points by Cleveland Open Cup
- X. ASTM D 1190: Concrete Joint Sealer, Hot-Applied Elastic Type

- Y. ASTM D 2007: Characteristic Groups in Rubber Extender and Processing Oils and Other Petroleum-Derived Oils by the Clay-Gel Absorption Chromatographic Method
- Z. ASTM D 2026: Cutback Asphalt (Slow-Curing Type)
- AA. ASTM D 3405: Joint Sealants, Hot-Applied, for Concrete and Asphalt Pavements
- BB. ASTM D 4402: Viscosity Determinations of Unfilled Asphalts Using the Brookfield Thermosel Apparatus
- CC. ASTM D 5329: Sealants and Fillers, Hot-Applied, For Joints and Cracks in Asphaltic and Portland Cement Concrete Pavements
- DD. ASTM D 5801: Toughness and Tenacity of Bituminous Materials
- EE. California Test Methods
- FF. UDOT Materials Manual of Instruction
- GG. UDOT Minimum Sampling and Testing Guide
- HH. UDOT Asphalt Binder Quality Management Plan

1.4 SUBMITTALS

- A. For each shipment of material, supply a vendor-prepared bill of lading showing the following information:
 - 1. Type and grade of material
 - 2. Type and amount of additives, used, if applicable
 - 3. Destination
 - 4. Consignee's name
 - 5. Date of Shipment
 - 6. Railroad car or truck identification
 - 7. Project number
 - 8. Loading temperature
 - 9. Net weight in tons (or net gallons corrected to 60 degrees F, when requested)
 - 10. Specific gravity
 - 11. Bill of lading number
 - 12. Manufacturer of asphalt material

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Each shipment of asphalt material must:
 - 1. Be uniform in appearance and consistency.
 - 2. Show no foaming when heated to the specified loading temperature.
- B. Do not supply shipments contaminated with other asphalt types or grades than those specified.

1.6 GRADE OF MATERIAL

- A. The Engineer determines the grade of material to be used based on the supply source designated by the Contractor when the bid proposal lists more than one grade of asphalt material.

PART 2 PRODUCTS

2.1 PERFORMANCE GRADED ASPHALT BINDER (PGAB)

- A. Supply PGABs under the Approved Supplier Certification (ASC) System. Refer to the UDOT Minimum Sampling and Testing Guide, Section 509, Asphalt Binder Management Plan.
- B. As specified in AASHTO M 320 for all PGABs having algebraic differences less than 92 degrees between the high and low design temperatures.
- C. As specified in Tables 1, 2, 3, 4, 5, 6, 7, and 8 for all PGABs having algebraic differences equal to or greater than 92 degrees between the high and low design temperatures.

Table 1**PG58-34**

Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@58°C, G*, kPa	1.30 Min.
	@58°C, phase angle, degrees	74.0 Max.
Rotational Viscometer, AASHTO T 316	@135°C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T 240		
Dynamic Shear Rheometer, AASHTO T 315	@5°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod ¹	%	65 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@16°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-24°C, S, MPa	300 Max.
	@-24°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-24°C, Failure Strain, %	1.5 Min.
	@-24°C, Failure Stress ² , MPa	4.0 Min.
¹ Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissor...		
² No allowances will be given for passing at a colder grade		

Table 2**PG64-28**

Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@64°C, G*, kPa	1.30 Min.
	@64°C, phase angle, degrees	74.0 Max.
Rotational Viscometer, AASHTO T 316	@135°C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T 240		
Dynamic Shear Rheometer, AASHTO T 315	@64°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod ¹	%	65 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@22°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-18°C, S, MPa	300 Max.
	@-18°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-18°C, Failure Strain, %	1.5 Min.
	@-18°C, Failure Stress ² , MPa	4.0 Min.
¹ Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissors...		
² No allowances will be given for passing at a colder grade		

Table 3**PG64-34**

Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@64°C, G*, kPa	1.30 Min.
	@64°C, phase angle, degrees	71.0 Max.
Rotational Viscometer, AASHTO T 316	@135°C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T-240		
Dynamic Shear Rheometer, AASHTO T 315	@64°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod ¹	%	70 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@19°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-24°C, S, MPa	300 Max.
	@-24°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-24°C, Failure Strain, %	1.5 Min.
	@-24°C, Failure Stress ² , MPa	4.0 Min.
¹ Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissors...		
² No allowances will be given for passing at a colder grade		

Table 4**PG70-22**

Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@70°C, G*, kPa	1.30 Min.
	@70°C, phase angle, degrees	74.0 Max.
Rotational Viscometer, AASHTO T 316	@135°C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T 240		
Dynamic Shear Rheometer, AASHTO T 315	@70°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod ¹	%	65 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@28°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-12°C, S, MPa	300 Max.
	@-12°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-12°C, Failure Strain, %	1.5 Min.
	@-12°C, Failure Stress ² , MPa	4.0 Min.
¹ Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissors...		
² No allowances will be given for passing at a colder grade		

Table 5**PG70-28**

Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@70°C, G*, kPa	1.30 Min.
	@70°C, phase angle, degrees	71.0 Max.
Rotational Viscometer, AASHTO T 316	@135°C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T 240		
Dynamic Shear Rheometer, AASHTO T 315	@70°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod ¹	%	70 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@25°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-18°C, S, MPa	300 Max.
	@-18°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-18°C, Failure Strain, %	1.5 Min.
	@-18°C, Failure Stress ² , MPa	4.0 Min.
¹ Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissors...		
² No allowances will be given for passing at a colder grade		

Table 6**PG70-34**

Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@70°C, G*, kPa	1.30 Min.
	@70°C, phase angle, degrees	71.0 Max.
Rotational Viscometer, AASHTO T 316	@135 °C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T 240		
Dynamic Shear Rheometer, AASHTO T 315	@70°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod ¹	%	75 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@22°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-24°C, S, MPa	300 Max.
	@-24°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-24°C, Failure Strain, %	1.5 Min.
	@-24°C, Failure Stress ² , MPa	4.0 Min.
¹ Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissors...		
² No allowances will be given for passing at a colder grade		

Table 7**PG76-22**

Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@76°C, G*, kPa	1.30 Min.
	@76°C, phase angle, degrees	71.0 Max.
Rotational Viscometer, AASHTO T 316	@135°C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T 240		
Dynamic Shear Rheometer, AASHTO T 315	@76°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod ¹	%	70 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@ 31°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-12°C, S, MPa	300 Max.
	@-12°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-12°C, Failure Strain, %	1.5 Min.
	@-12°C, Failure Stress ² , MPa	4.0 Min.
¹ Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissors...		
² No allowances will be given for passing at a colder grade		

Table 8**PG76-28**

Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@76°C, G*, kPa	1.30 Min.
	@76°C, phase angle, degrees	71.0 Max.
Rotational Viscometer, AASHTO T 316	@135°C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T 240		
Dynamic Shear Rheometer, AASHTO T 315	@76°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod ¹	%	75 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@28°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-18°C, S, MPa	300 Max.
	@-18°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-18°C, Failure Strain, %	1.5 Min.
	@-18°C, Failure Stress ² , MPa	4.0 Min.
¹ Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissors...		
² No allowances will be given for passing at a colder grade		

2.2 ASPHALTIC CEMENT, LIQUID ASPHALTS, REJUVENATING AGENTS

A. As specified in AASHTO M 226, Table 2 with the following modifications:

1. Delete and replace ductility at 77EF (25EC) with ductility at 39.2EF (4EC) with values as detailed below.

AC - 2.5
50+

AC - 5
25+

AC - 10
15+

AC - 20
5+

B. As specified for cationic and anionic emulsified asphalt.

1. All standard Slow Setting (SS, CSS), Medium Setting (MS, CMS), and Rapid Setting (RS, CRS) grades; inclusive of all High-Float designations (HF).
2. Supply under the Approved Supplier Certification System (ASC).
3. Meet AASHTO M 208 and M 140.

C. Conform to the requirements of one of these tables:

1. Table 9: Cationic Rapid Setting Emulsified Polymerized Asphalt (CRS-2P)
2. Table 10: Latex Modified Cationic Rapid Setting Emulsified Asphalt (LMCRS-2)
3. Table 11: Cationic Medium Setting Emulsified Asphalt (CMS-2S)
4. Table 12: High Float Medium Setting Emulsified Asphalt (HFMS-2)
5. Table 13: High Float Medium Setting Emulsified Polymerized Asphalt (HFMS-2P)
6. Table 14: High Float Rapid Setting Emulsified Polymerized Asphalt (HFRS-2P)
7. Table 15: Cationic Rapid Setting Emulsified Asphalt (CRS-2A, B)

D. Curing cut-back asphalt:

1. As specified for slow curing (SC) in ASTM D 2026.
2. As specified for medium curing (MC) in AASHTO M 82.
3. As specified for rapid curing (RC) in AASHTO M 81.

E. Conform to requirements for Emulsified Asphalt Pavement Rejuvenating Agent:

1. Table 16: Type B
2. Table 17: Type B Modified
3. Table 18: Type C
4. Table 19: Type D

Table 9

Cationic Rapid Setting Emulsified Polymerized Asphalt (CRS-2P)			
Tests	AASHTO Test Method	Min.	Max.
Emulsion			
Viscosity , SF, 140EF (60EC), s (Project-site Acceptance/Rejection Limits)	T59	100	400
Settlement (a) 5 days, percent	T 59		5
Storage Stability Test (b) 1 d, 24 h, percent	T 59		
Demulsibility (c) 35 ml, 0.8% sodium dioctyl sulfosuccinate, percent	T 59	40	
Particle Charge Test	T 59	Positive	
Sieve Test, percent	T 59		0.10
Distillation			
Oil distillate, by volume of emulsion, percent			0
Residue (d), percent		68	
Residue from Distillation Test			
Penetration, 77EF(25EC), 100 g, 5 s, dmm	T 49	80	150
Ductility, 39.2EF(4EC), 5 cm/min, cm	T 51	35	
Toughness, lb-in	ASTM D 5801	75	
Tenacity, lb-in	ASTM D 5801	50	
Solubility in trichloroethylene, percent	T 44	97.5	
(a) The test requirement for settlement may be waived when the emulsified asphalt is used in less than a five-day time; or the purchaser may require that the settlement test be run from the time the sample is received until it is used, if the elapsed time is less than 5 days. (b) The 24-hour (1-day) storage stability test may be used instead of the five-day settlement test. (c) The demulsibility test is made within 30 days from date of shipment. (d) Distillation is determined by AASHTO T 59, with modifications to include a 350 ± 5EF ($177 \pm 3^\circ\text{C}$) maximum temperature to be held for 15 minutes. Modify the asphalt cement prior to emulsification.			

Table 10

Latex Modified Cationic Rapid Setting Emulsified Asphalt (LMCRS-2)			
Tests	AASHTO Test Method	Min.	Max.
Emulsion			
Viscosity, SF, 122EF (50EC), s (Project Site Acceptance/Rejection Limits)	T59	100	400
Settlement (a) 5 days, percent	T 59		5
Storage Stability Test (b) 1 d, 24 h, percent	T 59		1
Demulsibility (c) 35 ml, 0.8% sodium dioctyl Sulfosuccinate, percent	T 59	40	
Particle Charge Test	T 59	Positive	
Sieve Test, percent	T 59		0.3
Distillation			
Oil distillate, by volume of emulsion, percent			0
Residue (d), percent		65	
Residue from Distillation Test			
Penetration, 77EF (25EC), 100 g, 5 s, dmm	T 49	40	200
Torsional Recovery (e)		18	
(a) The test requirement for settlement may be waived when the emulsified asphalt is used in less than a five-day time; or the purchaser may require that the settlement test be run from the time the sample is received until it is used, if the elapsed time is less than 5 days. (b) May use the 24-hour (1-day) storage stability test instead of the five-day settlement test. (c) Make the demulsibility test within 30 days from date of shipment. (d) Determine distillation by AASHTO T 59, with modifications to include a 350 ± 5 EF (177$\pm$3EC) maximum temperature to be held for 15 minutes. (e) CA 332 (California Test Method)			
Co-mill latex and asphalt during emulsification			

Table 11

Cationic Medium Setting Emulsified Asphalt (CMS-2S)		
Tests	AASHTO Test Method	Specification
Emulsion		
Viscosity, SF, 122EF (50EC), s	T 59	50 - 450
Percent residue	T 59	60 min
One-day storage stability, percent	T 59	1 max
Sieve percent	T 59	0.10 max
Particle charge	T 59	Positive
Oil Distillate, percent by volume of emulsion	T 59	5-15
Residue		
Penetration, 77EF (25EC), 100g, 5 sec, dmm	T 59	100-250
Solubility, percent	T 59	97.5 min.

Table 12

High Float Medium Setting Emulsified Asphalt (HFMS-2)			
Tests	AASHTO Test Method	Min.	Max.
Emulsion			
Viscosity, SF, 122°F (50°C), s (Project Site Acceptance/Rejection Limits)	T59	70	300
Storage Stability Test, 1d, 24 h, percent	T59		1.0
Sieve Test , percent	T59		0.1
Distillation	T59		
Oil Distillate, by volume of emulsion, percent	T59	NA	NA
Residue, percent	T59	65	
Residue from Distillation Test			
Penetration, 77°F (25°C), 100g, 5 s, dmm	T49	50	200
Float Test, 140°F (60°C), s	T50	1200	
Solubility in Trichloroethylene, percent	T44	97.5	
Ductility, 77°F (25°C) 5 cm/min, cm	T51	40	

Table 13

High Float Medium Setting Emulsified Polymerized Asphalt (HFMS-2P) (a)			
Tests	AASHTO Test method	Min.	Max.
Emulsion			
Viscosity, SF, 122EF (50EC), s (Project Site Acceptance/Rejection Limits)	T 59	100	450
Storage Stability Test (a) 1 d, 24 h, percent	T 59		0.1
Sieve Test, percent	T 59		0.1
Distillation			
Oil distillate, by volume of emulsion, percent	T 59	1	7
Residue (c), percent	T 59	65	
Residue from Distillation Test			
Penetration, 77EF (25EC), 100 g, 5 s, dmm	T 49	70	300
Float Test, 140EF (60EC), s	T 50	1200	300
Solubility in trichloroethylene, percent	T 44	97.5	
Elastic Recovery, 77EF (25EC), percent	T 301	50	
(a) Supply an HFMS-2P (anionic, polymerized, high-float) as an emulsified blend of polymerized asphalt cement, water, and emulsifiers. Polymerize the asphalt cement with a minimum of 3.0% polymer by weight of the asphalt cement prior to emulsification. After standing undisturbed for a minimum of 24 hours, the emulsion shall be smooth and homogeneous throughout with no white, milky separation, pumpable, and suitable for application through a distributor. (b) May use the 24-hour (1-day) storage stability test instead of the five-day settlement test. (c) Determine the distillation by AASHTO T 59, with modifications to include a 350 ± 5EF (177 ± 3EC) maximum temperature to be held for 15 minutes.			

Table 14

High Float Rapid Setting Emulsified Polymerized Asphalt (HFRS-2P) (a)			
Tests	AASHTO Test method	Min.	Max.
Emulsion			
Viscosity, SF @ 122EF (50EC), s (Project Site Acceptance/Rejection Limits)	T 59	50	450
Storage Stability Test (b) 1 d, 24 h, percent	T 59		1
Demulsibility 0.02 N Ca Cl ₂ , percent	T 59	40	
Sieve Test, percent	T 59		0.1
Distillation			
Oil distillate, by volume of emulsion, percent	T 59		3
Residue (c), percent	T 59	65	
Residue from Distillation Test			
Penetration, 77°F (25EC), 100 g, 5 s, dmm	T 49	70	150
Float Test, 140EF (60EC), s	T 50	1200	
Solubility in trichloroethylene, percent	T 44	97.5	
Elastic Recovery, 77EF (25EC), percent	T 301	58	
(a) Supply an HFMS-2SP (anionic, polymerized, high-float) as an emulsified blend of polymerized asphalt cement, water, and emulsifiers. Polymerize the asphalt cement with a minimum of 3.0% polymer by weight of the asphalt cement prior to emulsification. After standing undisturbed for a minimum of 24 hours, the emulsion shall be smooth and homogeneous throughout with no white, milky separation, pumpable, and suitable for application through a distributor. (b) May use the 24-hour (1-day) storage stability test instead of the five-day settlement test. (c) Determine the distillation by AASHTO T 59, with modifications to include a 350 ± 5EF (177±3EC) maximum temperature to be held for 15 minutes.			

Table 15

Cationic Rapid Setting Emulsified Asphalt (CRS-2A,B)			
Tests	AASHTO Test Method	Min	Max
Emulsion			
Viscosity, SF, 122EF (50EC), s (Project Site Rejection/Acceptance Limits)	T 59	140	400
Storage stability test, 24 h, percent	T 59		1
Demulsibility, 35 mL 0.8 percent Sodium Dioctyl Sulfosuccinate, percent	T 59	40	
Particle charge test	T 59	Positive	
Sieve test, percent	T 59		0.10
Distillation			
Oil distillate, by volume of emulsion, percent	T 59		0
Residue, percent	T 59	65	
Use PG58-22 and PG64-22 as base asphalt cement for CRS-2A, B, respectively. Specification for high temperature performance: original and RTFO G*/sin* within 3EC of grade.			

Table 16

Emulsified Type B Asphalt Pavement Rejuvenating Agent Concentrate		
Tests	Test Method	Limits
Viscosity, SF, 77EF (25EC), s	AASHTO T 59	25-150
Residue, percent W	AASHTO T 59 (mod) (a)	62 Min.
Sieve Test, percent W	AASHTO T 59	0.10 Max.
5-day Settlement	AASHTO T 59	5.0 Max.
Particle Charge	AASHTO T 59	Positive
Pumping Stability (b)		Pass
Residue from Distillation (a)		
Viscosity @ 140°F (60°C), mm ² /s	AASHTO T 201	2500-7500
Solubility in 1,1,1 Trichloroethylene, percent	AASHTO T 44	98 Min.
Flash Point, COC	ASTM D 92	204EC, Min.
Asphaltenes, percent W	ASTM D 2007	15 Max.
Saturates, percent W	ASTM D 2007	30 Max.
Aromatics, percent W	ASTM D 2007	25 Min.
Polar Compounds, percent W	ASTM D 2007	25 Min.
(a) Determine the distillation by AASHTO T 59 with modifications to include a 300 ±5EF (149±3EC) maximum temperature to be held for 15 minutes.		
(b) Test pumping stability by pumping 475 ml of Type B diluted 1 part concentrate to 1 part water, at 77EF (25°C) through a 1/4 inch gear pump operating at 1750 rpm for 10 minutes with no significant separation or coagulation in pumped material.		
Type B: an emulsified blend of, lube oil and/or lube oil extract, and petroleum asphalt.		

Table 17

Emulsified Type B Modified Asphalt Pavement Rejuvenating Agent Concentrate		
Property	Test Method	Limits
Viscosity, SF, 77EF (25EC), s	AASHTO T 59	50-200
Residue by distillation or Evaporation (a), percent W	AASHTO T 59	62 Min.
Sieve Test, percent W	AASHTO T 59	0.20 Max.
5-day Settlement, percent W	AASHTO T 59	5.0 Max.
Particle Charge	AASHTO T 59	Positive
Pumping Stability (b)		Pass
Residue from Distillation (a)		
Viscosity (c) 275EF (135EC), cP	ASTM D 4402	150 - 300
Penetration, 77EF (25EC), dmm	AASHTO T 49	180 Min.
Solubility in 1,1,1 Trichloroethylene, percent	AASHTO T 44	98 Min.
Flash Point, COC, EF (EC)	AASHTO T 48	400(204) Min.
Asphaltenes, percent W	ASTM D 2007	20-40
Saturates, percent % W	ASTM D 2007	20 Max.
Polar Compounds, percent W	ASTM D 2007	25 Min.
Aromatics, percent W	ASTM D 2007	20 Min.
PC/S Ratio	ASTM D 2007	1.5 Min.
(a)	Determine the distillation by AASHTO T 59 with modifications to include a 300±5EF (149±3°C) maximum temperature to be held for 15 minutes.	
(b)	Pumping stability is tested by pumping 475 ml of Type B diluted 1 part concentrate to 1 part water, at 77EF (25EC) through a 1/4 inch gear pump operating at 1750 rpm for 10 minutes with no significant separation or coagulation in pumped material.	
(c)	Brookfield Thermocel Apparatus-LV model. ≥ 50 rpm with a #21 spindle, 7.1 g residue, at > 10 torque	
As required by the Asphalt Emulsion Quality Management Plan, UDOT Minimum Sampling and Testing Guide, Section 508) the supplier certifies that the base stock contains a minimum of 15% by weight of Gilsonite Ore. Use the HCL precipitation method as a qualitative test to detect the presence of Gilsonite.		

Table 18

Emulsified Type C Asphalt Pavement Rejuvenating Agent Concentrate		
Property	Test Method	Limits
Viscosity, SF, 77EF (25EC), s	AASHTO T 59	10-100
Residue (a), percent W (Type C supplied ready to use 1:1 or 2:1.	AASHTO T 59 (a)	30 Min. 1:1 40 Min. 2:1
Sieve Test, percent W (b)		0.10 Max.
5-day Settlement, percent W	AASHTO T 59	5.0 Max.
Particle Charge	AASHTO T 59	Positive
pH (May be used if particle charge test is inconclusive)		2.0 - 7.0
Pumping Stability (c)		Pass
Tests of Residue from Distillation (a)		
Viscosity, 275EF (135°C), mm ² /s	AASHTO T 201	475-1500
Solubility in 1,1,1 Trichloroethylene, percent	AASHTO T 44	97.5 Min.
RTFO mass loss, percent W	AASHTO T 240	2.5 Max.
Specific Gravity	AASHTO T 228	0.98 Min.
Flash Point, COC	AASHTO T 48	232 EC, Min.
Asphaltenes, percent W	ASTM D 2007	25 Min., 45 Max.
Saturates, percent W	ASTM D 2007	10 Max.
Polar Compounds, percent W	ASTM D 2007	30 Min.
Aromatics, percent W	ASTM D 2007	15 Min.
(a) Determine the distillation by AASHTO T 59 with modifications to include a 300± 5EF (149 ± 3EC) maximum temperature to be held for 15 minutes. (b) Test method identical to AASHTO T 59 except that distilled water is used in place of 2 % sodium oleate solution. (c) Test pumping stability by pumping 475 ml of Type diluted 1 part concentrate to 1 part water, at 77EF (25EC) through a 1/4 inch gear pump operating at 1750 rpm for 10 minutes with no significant separation or coagulation in pumped material.		
As required by the Asphalt Emulsion Quality Management Plan, UDOT Minimum Sampling and Testing Guide, Section 508), the supplier certifies that the base stock contains a minimum of 10% by weight of Gilsonite ore. Use the HCL precipitation method as a qualitative test to detect the presence of Gilsonite.		

Table 19

Emulsified Type D Asphalt Pavement Rejuvenating Agent Concentrate		
Property	Test Method	Limits
Viscosity, SF, 77EF (25EC), s	AASHTO T 59	30-90
Residue, (a) percent W	AASHTO T 59 (mod) (a)	65
Sieve Test, percent W	AASHTO T 59	0.10 Max.
pH		2.0 - 5.0
Residue from Distillation (c)		
Viscosity, 140EF (60EC), cm ² /s	AASHTO T 201	300-1200
Viscosity, 275EF (135EC), mm ² /s	AASHTO T 201	300 Min.
Modified Torsional Recovery (b)	CA 332 (Mod)	40 % Min.
Toughness, 77EF (25EC), in-lb	ASTM D 5801	8 Min.
Tenacity, 77EF (25EC), in-lb	ASTM D 5801	5.3 Min.
Asphaltenes, percent W	ASTM D 2007	16 Max.
Saturates, percent W	ASTM D 2007	20 Max.
(a) California test method #331 for recovery of residue.		
(b) Torsional recovery measurement to include first 30 seconds.		
(c) Determine the distillation by AASHTO T 59 with modifications to include a 300±5EF (149±3EC) maximum temperature to be held for 15 minutes.		

2.3 HOT-POUR CRACK SEALANT FOR BITUMINOUS CONCRETE

- A. Combine a homogenous blend of materials to produce a sealant meeting properties and tests in Table 20.
- B. Packaging and Marking: Supply sealant pre-blended, pre-reacted, and pre-packaged in lined boxes weighing no more than 30 lb.
 1. Use a dissolvable lining that will completely melt and become part of the sealant upon subsequent re-melting.
 2. Deliver the sealant in the manufacturer's original sealed container. Clearly mark each container with the manufacturer's name, trade name of sealant, batch or lot number, and recommended safe heating and application temperatures.

Table 20

Hot-Pour Bituminous Concrete Crack Sealant			
Application Properties:			
Workability:	Pour readily and penetrate 0.25 inch and wider cracks for the entire application temperature range recommended by the manufacturer.		
Curing:	No tracking caused by normal traffic after 45 minutes from application.		
Asphalt Compatibility: ASTM D 5329, Section 14.	No failure in adhesion. No formation of an oily ooze at the interface between the sealant and the bituminous concrete or softening or other harmful effects on the bituminous concrete.		
Material Handling:	Follow the manufacturer's safe heating and application temperatures.		
Test Method	Property	Minimum	Maximum
AASHTO T 51	Ductility, modified, 1cm/min, 39.2EF (4EC), cm	30	
UDOT method 967	Cold Temperature Flexibility	no cracks	
AASHTO T 300 (a)	Force-Ductility, lb force		4
ASTM D 5329	Flow 140EF (60EC), 5 hrs 75Eangle, mm		3
ASTM D 3405 (b)	Tensile-Adhesion, modified	300%	
AASHTO T 228	Specific Gravity, 60EF (15.6EC)		1.140
ASTM D 5329	Cone Penetration, 77EF (25EC), 150 g, 5 sec., dmm		90
ASTM D 5329	Resilience, 77EF (25EC), 20 sec., percent	30	
ASTM D 4402	Viscosity, 380EF (193.3EC), SC4-27 spindle, 20 rpm, cP		2500
ASTM D 5329	Bond as per ASTM D 1190, Section 6.4		Pass
(a) Maximum of 4 lb force during the specified elongation of 30 cm @ 1 cm/min, 39.2EF (4EC).			
(b) Use ASTM D 3405, Section 6.4.1. Delete bond and substitute tensile-adhesion test in accordance to D 5329.			

PART 3 EXECUTION Not used

END OF SECTION

Attachment D
Price Sheet FOB Plant
Liquid Asphalt

FOB Plant pick-up	Price per ton
SC Asphalt Material	
MC Asphalt Material	
SS or CSS Emulsified Asphalt Material - Various Grades	
CRS-2A or CRS-2B Emulsified Asphalt Material - Various Grades	
LCRS-2A or LMCRS2A Asphalt Materials - Various Grades	
The items below shall be bid index +/-, % of UDOT Binder index http://www.udot.utah.gov/go/binderindex	
Asphalt Rejuvenation Type B	%
Asphalt Rejuvenation Type B Modified - Various grades	%
Asphalt Rejuvenation Type C	%
Asphalt Rejuvenation Type C - Various Grades	%
Asphalt Rejuvenation Type D	%
Asphalt Rejuvenation Type D - Various Grades	%
High Float Emulsion - Various Grades	%

Plant Name and location

State of Utah
Attachment D
Price Sheet
Zone Delivery
Liquid Asphalt

Bid DOT100323TW

REGION ONE								
PRODUCT	ZONE 1-A	ZONE 1-B	ZONE 1-C	ZONE 1-D	ZONE 1-E	ZONE 1-F	ZONE 1-G	ZONE 1-H
CRS-2P								
QUANTITY (TONS)	**	**	24	**	**	**	**	**
BID PRICE PER TON	**	**		**	**	**	**	**
LMCRS-2								
QUANTITY (TONS)	**	**	941	479	**	**	**	**
BID PRICE PER TON	**	**			**	**	**	**
CSS DILUTED 1:1								
QUANTITY (TONS)	**	**	214	106	**	**	**	**
BID PRICE PER TON	**	**			**	**	**	**

REGION TWO								
REGION THREE								
CSS-1 2:1	ZONE 6-A	ZONE 6-B	ZONE 6-C	ZONE 6-D	ZONE 6-E	ZONE 6-F	ZONE 6-G	
QUANTITY (TONS)	34	69	**	70	**	98	**	
BID PRICE PER TON								
CRS-2p	ZONE 6-A	ZONE 6-B	ZONE 6-C	ZONE 6-D	ZONE 6-E	ZONE 6-F	ZONE 6-G	
QUANTITY (TONS)	151	309	**	324	**	443	**	
BID PRICE PER TON								
REGION 4/Price								
MC-800	ZONE 4-A	ZONE 4-B	ZONE 4-C	ZONE 4-D	ZONE 4-E	ZONE 4-F		
QUANTITY (TONS)	**	**	**	**	**	50		
BID PRICE PER TON	**	**	**	**	**			
PASS CR	ZONE 4-A	ZONE 4-B	ZONE 4-C	ZONE 4-D	ZONE 4-E	ZONE 4-F		
QUANTITY (TONS)	50	50	50	50	50	50		
BID PRICE PER TON								
CSS-1	ZONE 4-A	ZONE 4-B	ZONE 4-C	ZONE 4-D	ZONE 4-E	ZONE 4-F		
QUANTITY (TONS)	50	50	50	50	50	50		
BID PRICE PER TON								
CSS-1 1:1	ZONE 4-A	ZONE 4-B	ZONE 4-C	ZONE 4-D	ZONE 4-E	ZONE 4-F		
QUANTITY (TONS)	50	50	50	50	50	50		
BID PRICE PER TON								
CSS-1 2:1	ZONE 4-A	ZONE 4-B	ZONE 4-C	ZONE 4-D	ZONE 4-E	ZONE 4-F		
QUANTITY (TONS)	50	50	104	50	50	50		

State of Utah
Attachment D
Price Sheet
Zone Delivery
Liquid Asphalt

Bid DOT100323TW

BID PRICE PER TON								
SS -1	ZONE 4-A	ZONE 4-B	ZONE 4-C	ZONE 4-D	ZONE 4-E	ZONE 4-F		
QUANTITY (TONS)	50	50	50	50	50	50		
BID PRICE PER TON								
ss-1 1:1	ZONE 4-A	ZONE 4-B	ZONE 4-C	ZONE 4-D	ZONE 4-E	ZONE 4-F		
QUANTITY (TONS)	50	50	50	50	50	50		
BID PRICE PER TON								
ss-1 2:1	ZONE 4-A	ZONE 4-B	ZONE 4-C	ZONE 4-D	ZONE 4-E	ZONE 4-F		
QUANTITY (TONS)	50	50	104	50	50	50		
BID PRICE PER TON								
CRS-2p	ZONE 4-A	ZONE 4-B	ZONE 4-C	ZONE 4-D	ZONE 4-E	ZONE 4-F		

State of Utah
Attachment D
Price Sheet
Zone Delivery
Liquid Asphalt

Bid DOT100323TW

QUANTITY (TONS)	50	50	50	50	50	50		
BID PRICE PER TON								
LMCRS	ZONE 4-A	ZONE 4-B	ZONE 4-C	ZONE 4-D	ZONE 4-E	ZONE 4-F		
QUANTITY (TONS)	**	**	50	**	**	**		
BID PRICE PER TON	**	**		**	**	**		
LMCRS-2	ZONE 4-A	ZONE 4-B	ZONE 4-C	ZONE 4-D	ZONE 4-E	ZONE 4-F		
QUANTITY (TONS)	**	**	418	**	**	**		
BID PRICE PER TON	**	**		**	**	**		
HFMS-2p	ZONE 4-A	ZONE 4-B	ZONE 4-C	ZONE 4-D	ZONE 4-E	ZONE 4-F		
QUANTITY (TONS)	**	**	50	**	**	**		
BID PRICE PER TON	**	**		**	**	**		

PRODUCT							REGION 4/Cedar	
PASS CR	ZONE 5-A	ZONE 5-B	ZONE 5-C	ZONE 5-D	ZONE 5-E	ZONE 5-F		
QUANTITY (TONS)	50	50	50	50	50	50		
BID PRICE PER TON								
CSS-1	ZONE 5-A	ZONE 5-B	ZONE 5-C	ZONE 5-D	ZONE 5-E	ZONE 5-F		
QUANTITY (TONS)	50	50	50	50	50	50		
BID PRICE PER TON								
CSS-1 1:1	ZONE 5-A	ZONE 5-B	ZONE 5-C	ZONE 5-D	ZONE 5-E	ZONE 5-F		
QUANTITY (TONS)	50	50	50	50	50	50		
BID PRICE PER TON								
CSS-1 2:1	ZONE 5-A	ZONE 5-B	ZONE 5-C	ZONE 5-D	ZONE 5-E	ZONE 5-F		
QUANTITY (TONS)	261	50	50	50	102	50		
BID PRICE PER TON								
SS-1	ZONE 5-A	ZONE 5-B	ZONE 5-C	ZONE 5-D	ZONE 5-E	ZONE 5-F		
QUANTITY (TONS)	50	50	50	50	50	50		
BID PRICE PER TON								
SS-1 1:1	ZONE 5-A	ZONE 5-B	ZONE 5-C	ZONE 5-D	ZONE 5-E	ZONE 5-F		
QUANTITY (TONS)	50	50	50	50	50	50		
BID PRICE PER TON								
SS-1 2:1	ZONE 5-A	ZONE 5-B	ZONE 5-C	ZONE 5-D	ZONE 5-E	ZONE 5-F		
QUANTITY (TONS)	261	50	50	50	102	50		
BID PRICE PER TON								
CRS-2p	ZONE 5-A	ZONE 5-B	ZONE 5-C	ZONE 5-D	ZONE 5-E	ZONE 5-F		
QUANTITY (TONS)	50	50	50	50	50	50		
BID PRICE PER TON								
LMCRS	ZONE 5-A	ZONE 5-B	ZONE 5-C	ZONE 5-D	ZONE 5-E	ZONE 5-F		

State of Utah
Attachment D
Price Sheet
Zone Delivery
Liquid Asphalt

Bid DOT100323TW

QUANTITY (TONS)	50	**	**	**	50	**		
BID PRICE PER TON		**	**	**		**		
LCMRS-2	ZONE 5-A	ZONE 5-B	ZONE 5-C	ZONE 5-D	ZONE 5-E	ZONE 5-F		
QUANTITY (TONS)	1045	**	**	**	408	**		
BID PRICE PER TON		**	**	**		**		
HFMS-2p	ZONE 5-A	ZONE 5-B	ZONE 5-C	ZONE 5-D	ZONE 5-E	ZONE 5-F		
QUANTITY (TONS)	50	**	**	**	50	**		
BID PRICE PER TON		**	**	**		**		
PRODUCT REGION 4/Richfield								

PRODUCT	QUANTITY (TONS)	BID PRICE PER TON	r1	r2
CRS-2P	0			
LMCRS-2	0			
CSS 1:1 DILUTION	30		29.58	
CSS 2:1 DILUTION	189		189.31	
LMCRS-2A	0			
REJ TYPE B MODIFIED	0			
HFMS-2	0			
HFMS-2P DILUTED	0			
SS DILUTED 1:1	0			
REJ TYPE B MODIFIED	0			
	0			
	0			
	0			
	0			
	0			
	0			
	0			
	0			
	0			

r3	price	richfield	cedar
0.00			0.00
0.00			0.00
0.00			0.00
0.00			0.00
0.00			0.00

Attachment C

Special Terms and Conditions

- 1. Non-Collusion**
By signing the bid/proposal, the offeror certifies that the bid/proposal submitted has been arrived at independently and has been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other vendor of materials, suppliers, equipment or services described in the Solicitation, designed to limit independent proposing or competition.
- 2. Bid/Proposal Preparation Costs**
The State is not liable for any costs incurred by the offeror in bid/proposal preparation.
- 3. Quantity Estimates**
State does not guarantee to purchase any amount under this contract. Estimated quantities are for proposing purposes only and are not to be construed as a guarantee to purchase any amount.
- 4. Inspections**
Goods furnished under this contract will be subject to inspection and test by UDOT at times and places determined by UDOT. If UDOT finds goods furnished to be incomplete or not in compliance with bid/proposal specifications, UDOT may reject the goods and require Contractor to either correct them without charge or deliver them at a reduced price which is equitable under the circumstances. If Contractor is unable or refuses to correct such goods with a time deemed reasonable by UDOT, UDOT may cancel the order in whole or in part. Nothing in this paragraph will adversely affect UDOT's rights including the rights and remedies associated with revocation of acceptance under the Uniform Commercial Code.
- 5. Non-Compete Clause**
The Contractor represents its officers and employees are free to contract with State and are not subject to restrictions by the terms of their present or past employment, including, but not limited to an agreement not to compete for a period of time unless disclosure has been made. Contractor must disclose to the State any possible conflicts in writing, before the contract is signed, and the State will evaluate whether to continue with contract execution. State may elect to terminate a contract immediately with a Contractor who is subsequently determined to be subject to such restrictions without liability to the State. If the State elects to terminate a contract for this reason, the State will supersede paragraph # 13 in Attachment A – Standard Terms and Conditions and will not provide 60-day prior notice to the Contractor.
- 6. Price Guarantee, Adjustments**
The contract pricing resulting from this bid/proposal will be guaranteed for 1-year. Following the guarantee period, any request for price adjustment must be for an equal guarantee period, and must be made at least 30-days prior to the effective date. Request for price adjustment must include documentation

Attachment C
Special Terms and Conditions

supporting the request and demonstrating a logical mathematical link between the current price and the proposed price. The State will be given the immediate benefit of any decrease in the market, or allowable discount.

7. Responsibility for Wages

Contractor is responsible for all applicable company wages in accordance with the Federal, State and local laws and ordinances

8. Invoicing

Contractor shall submit invoices to State:

Utah Department of Transportation
~~Lee Nitchman~~
~~2010 S 2760 W~~
~~Box 148399~~
~~Salt Lake City, Utah 84104-4597~~

The Purchase Order or Contract number shall appear on all invoices and correspondence. Billings must be itemized identifying clearly all products or services purchased. Invoices shall be submitted in a timely manner.

In the event the State is entitled to a cash discount, the period of computation shall commence on the delivery date or the date of a correct invoice, whichever is later. If an adjustment in payment is necessary due to damage, the cash discount period shall commence on the date final approval is authorized. The State reserves the right to adjust incorrect invoices. State will remit payment by mail or electronic commerce.

End

Attachment E
EXCESS FREIGHT CHARGES

COST per Load

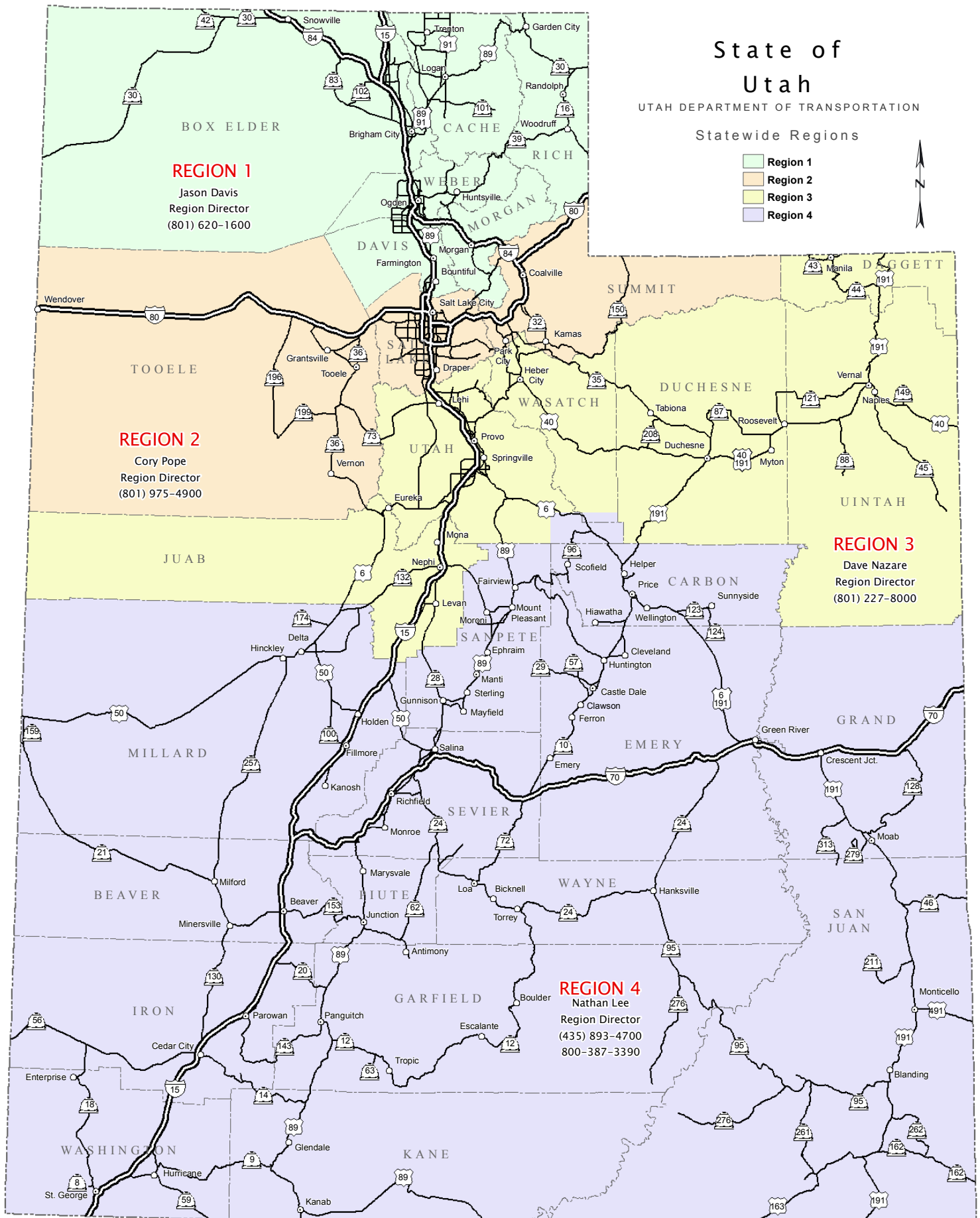
DEMURRAGE	
PUMP CHARGE	\$
SPLIT LOAD	\$
RETURN LOADS	\$
LAYOVERS	\$

State of Utah

UTAH DEPARTMENT OF TRANSPORTATION

Statewide Regions

- Region 1
- Region 2
- Region 3
- Region 4



Question and Answers for Bid #DOT100323TW - Liquid Asphalt Statewide

OVERALL BID QUESTIONS

Question 1

How do I get a District and Zone Map for this bid (Submitted: Feb 25, 2010 4:07:38 PM MST)

Answer

- I have uploaded a new region map. This will show the proper region, for zones you will have to find the road and City on the map and distinguish from there where it is.

thank you (Answered: Mar 1, 2010 7:58:00 AM MST)

Question 2

I see no where for Standby Charges for Transport Trucks, or Spreader Truck hourly rates, Please advise.
(Submitted: Mar 3, 2010 3:11:52 PM MST)

Answer

- see the latest attachment for excess freight charges. please add any additional charges there. (Answered: Mar 3, 2010 3:34:10 PM MST)

Question Deadline: Mar 10, 2010 12:00:00 PM MST