

UTAH COUNTY  
PUBLIC WORKS DEPARTMENT  
2855 South State Street  
Provo, Utah 84606  
(801) 851-8600

**INVITATION TO BID**  
**for**  
**FRictional MASTIC SURFACE TREATMENT**

Bid # 2016-15R

CLOSING DATE  
FOR RECEIPT OF BIDS: Thursday, August 18, 2016

TIME: 3:00 p.m.(Mountain Time)  
Bids will be opened at 3:30 p.m.

PLACE: Office of the Utah County Purchasing Agent  
100 East Center Street  
Room 3600  
Provo, Utah 84606

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## **1. INVITATION TO BID**

### **1.1 INTENT**

Through this Invitation to Bid (ITB), Utah County intends to select a qualified contractor to furnish and install Frictional Mastic Surface Treatment to surfaces of various roadways, parking lots, parkways, and trails located in Utah County.

The County intends for this to be a multi-year award with work to be performed during Contractor's production seasons for up to three (3) years. Various roadways within Utah County shall be sealed prior to October 1, 2016 as specified herein. The specific list of roadways shall be determined after the bid is awarded and at the beginning of each subsequent year. Costs for areas to be sealed shall be based on the Unit Prices set forth in Contractor's Cost Proposal.

The Contractor shall furnish all labor, materials, equipment, tools, transportation and supplies required to complete the work in accordance with the terms hereof.

Pursuant to this ITB an agreement will be executed, a copy of which is attached as Attachment C.\

### **1.2 PROCEDURE**

- A. The procedure for response to this ITB, evaluation of bids, and selection of a Contractor is as follows:
1. Interested entities will prepare and submit their bids prior to the specified Closing Date for Receipt of Bids.
  2. Utah County and/or its representatives will evaluate all submitted bids to determine acceptance or rejection of the bids.
  3. The selected bidder(s) will be required to sign an agreement, a sample of which is included as Attachment C.

### **1.3 BID ORGANIZATION**

- A. Each respondent must submit its SEALED bid to the Utah County Purchasing Agent. The envelope containing the bid must be clearly labeled "SEALED BID - FRICTIONAL MASTIC SURFACE TREATMENT, Bid # 2016-15R". The bid must be delivered to

Utah County Purchasing Agent  
100 East Center, Room 3600  
Provo, Utah 84606

**LATE BIDS WILL NOT BE ACCEPTED EXCEPT AS SET FORTH IN UTAH COUNTY PROCUREMENT RULES AND REGULATIONS.**

- B. The bid must include:
1. Completed Contractor's Cost Proposal (Exhibit B)
  2. Completed Contractor Information Form (Attachment A).
  3. Completed Certificate of Non Collusion (Attachment B).
  4. A copy of the bidder's current local business license.
  5. A copy of the bidder's current Contractor License issued by the Utah Department of Commerce, Division of Occupational and Professional Licensing.
  6. Proof of required insurance.
  7. Documentation from the County Treasurer of the bidder's county showing that bidder is current on its personal property taxes.

#### **1.4 QUESTIONS AND CLARIFICATIONS**

Questions regarding this ITB should be directed prior to the submission deadline date to :  
Glen Tanner, Engineering Division Manager  
Business Hours: Mon-Fri 8:00 a.m. to 5:00 p.m. Mountain Time  
Telephone Number: (801) 851-8600

#### **1.5 ACCEPTANCE OF BID**

- A. Utah County reserves the right to reject any or all bids or waive minor irregularities when to do so would be in the best interests of Utah County. Minor irregularities are those which will not have a significant adverse effect on overall competition or performance levels.
- B. The responding party agrees that Utah County may terminate this procurement procedure at any time, and Utah County shall have no liability or responsibility to the responding party for any costs or expenses incurred in connection with this ITB, or such party's response.

#### **1.6 DISQUALIFICATION OF BID**

The occurrence of any of the following may result in disqualification of a bid:

- A. Failure to respond within the established timetable.
- B. Failure to completely answer all questions presented in the ITB.
- C. Use of any other type of form or format other than those indicated in the ITB.
- D. Failure to provide requested documentation at the time of bid submission.
- E. Illegible responses.
- F. If the bidder adds any provisions reserving the right to accept or reject an award or to enter into an agreement pursuant to an award, or any other unauthorized conditions, limitations or provisions.
- G. If the bidder is unable to evidence a satisfactory record of integrity.
- H. If the bidder is not qualified legally to contract.
- I. If the bid at the opening does not contain a signed bid, and a signed certificate of non-collusion.
- J. Utah County reserves the right to reject any or all bids.

#### **1.7 DISPOSITION OF BIDS**

All bids (and the information contained therein) shall become the property of Utah County. No bid shall be returned to the respondent regardless of the outcome of the selection process.

#### **1.8 EVALUATION CRITERIA**

All bids will be evaluated by authorized representatives of Utah County for compliance with the terms and conditions contained in this ITB and the resulting agreement awarded to the lowest responsive and responsible bidder.

#### **1.9 GENERAL**

- A. Utah County will award a contract in reliance upon the information contained in bids submitted in response to the ITB. Utah County will be legally bound only when and if there is a signed agreement entered into between Utah County and the awarded bidder.
- B. It is vitally important that any person who signs a bid or agreement on behalf of a respondent certifies that he or she has the authority to so act. The bidder who has its bid accepted may be required to answer further questions and provide further clarification of its bid and responses.

- C. Receiving this ITB or responding to it does not entitle any entity to participate in services or transactions resulting from or arising in connection with this ITB. Utah County shall have no liability to any person or entity under or in connection with this ITB, unless and until Utah County and such person have executed and entered into an agreement pursuant to the terms of this ITB.
- D. By responding to this ITB each responding party acknowledges that neither Utah County nor any of its representatives is making or has made any representation or warranty, either express or implied, as to the accuracy or completeness of any portion of the information contained in this ITB. The responding party further agrees that neither Utah County nor any of its representatives shall have any liability to the responding party or any of its representatives as a result of this ITB process or the use of the information contained in this ITB. Only the terms and conditions contained in an agreement when, as, and if executed, and subject to such limitations and restrictions as may be specified therein, may be relied upon by the respondent in any manner as having any legal effect whatsoever.

#### **1.10 INTERPRETATION OF ITB**

The invalidity of any portion of this ITB shall not prevent the remainder from being carried into effect. Whenever the context of any provision shall require it, the singular number shall be held to include the plural number, and vice versa, and the use of any gender shall include all genders. The paragraph and section headings in this ITB are for convenience only and do not constitute a part of the provisions hereof.

#### **1.11 PROPRIETARY INFORMATION**

The Contractor shall mark proprietary information contained in the bid which is not to be disclosed to the public or used for purposes other than the evaluation of the bids. Pricing and service elements of the successful bid will not be considered proprietary.

#### **1.12 RULES OF PROCUREMENT**

- A. This procurement shall conform to and is governed by The Utah County Division of Purchasing, Procurement Rules and Regulations.
- B. For this procurement, all bids must be submitted in the bid format outlined herein.
- C. All prospective bidders must meet the required criteria as of the date of submission. Respondents must provide all information requested in the Contractor Information Form.
- D. Utah County has established certain requirements with respect to bids to be submitted by respondents. The use of "shall", "must", or "will", in this ITB indicates a requirement or condition from which a material deviation will not be approved by Utah County.

**EXHIBIT A**

**A. SPECIFICATIONS**

**A.1 APWA STANDARD SPECIFICATIONS**

All work performed by the Contractor shall meet or exceed all applicable specifications listed in the publication American Public Works Association - Manual of Standard Specifications, 2012 Edition, published by the Utah Chapter of the American Public Works Association, hereinafter referred to as the "Manual of Standard Specifications."

**A.2 LOCATIONS AND COMPLETION DATE**

- A. Various roadways within Utah County shall receive a Frictional Mastic Surface Treatment as specified herein prior to October 1, 2016:
  - 1. The specific list of roadways shall be determined after the bid is awarded and at the beginning of each subsequent year.
- B. Various parking lots within Utah County at various building complexes and parks shall receive a Frictional Mastic Surface Treatment as specified herein prior to October 1, 2016:
  - 1. The specific list of parking lots shall be determined after the bid is awarded and at the beginning of each subsequent year.
- C. Various parkways and trails within Utah County shall receive a Frictional Mastic Surface Treatment as specified herein prior to October 1, 2016:
  - 1. Murdock Canal Parkway  
From 800 North Parking lot to Utah Lake and the County line
  - 2. Other parkways or trails may be added after the bid is awarded and at the beginning of each subsequent year.
- D. Surface Treatment of additional roadways, parking lots, parkways, and trails shall be performed during Contractor's production seasons for up to three (3) additional years. All work shall be completed generally between the dates April 15 and October 1, as approved by the County. Costs for additional areas to be sealed this year and in subsequent years shall be based on the Unit Prices set forth in Contractor's Cost Proposal. A provision for requesting a price increase on an annual basis is included in the contract.

**A.3 QUANTITIES AND PRICING**

- A. Various Roadways within Utah County
  - 1. Units for bidding 200,000 sq ft
- B. Various Parking Lots within Utah County
  - 1. Units for bidding 50,000 sq ft
- C. Various Parkway and Trails within Utah County
  - 1. Units for bidding (including Murdock Canal Parkway) 750,000 sq ft
- D. The quantities specified herein are only estimates used for bid evaluation purposes. Actual payment will be based upon inspection records kept by the County, the actual work completed and the amount of materials installed, approved, and accepted by the County.
- E. The Unit Prices listed in Contractor's Cost Proposal for Roadways shall be:
  - 1. A per-square-foot cost for a completed Frictional Mastic Surface Treatment consisting of an engineered mixture of fine aggregates, clay polymers, additives, and an asphalt emulsion that cures by evaporation and all associated costs.
- F. The Unit Prices listed in Contractor's Cost Proposal for Parking Lots shall be:
  - 1. A per-square-foot cost for a completed Frictional Mastic Surface Treatment consisting of an engineered mixture of fine aggregates, clay polymers, additives, and an asphalt emulsion that cures by evaporation and all associated costs.
- G. The Unit Prices listed in Contractor's Cost Proposal for Parkway and Trails shall be:
  - 1. A per-square-foot cost for a completed Frictional Mastic Surface Treatment consisting of an engineered mixture of fine aggregates, clay polymers, additives, and an asphalt emulsion that cures by evaporation and all associated costs.
- H. Unit prices shall include all costs of work and material to prepare and apply a mastic seal. Including labor, materials, equipment, tools, transportation and supplies required to complete the work and all incidental work in accordance with the terms hereof.

**A.4 PUBLIC NOTICING**

- A. Follow Laws and Regulations concerning when and to whom notices are to be given at least two (2) days prior to applying surface treatment material.
- B. Indicate application time and when the surface can be used. Include a map providing detailed directions signifying the specific area to be closed.
- C. Provide phone numbers of at least two (2) individuals who represent the Contractor who can be reached at any time during the work.
- D. Should work not occur on specified day, issue an updated notice.

**A.5 TRAFFIC CONTROL**

(Section 01 55 26 of the Manual of Standard Specifications shall apply)

- A. The Contractor shall do no work that endangers, interferes, or conflicts with pedestrian or vehicular traffic or access to a roadway, parking lot, parkway, or trail until a satisfactory traffic control plan has been submitted and approved by the County using the federal “Manual on Uniform Traffic Control Devices (MUTCD)” as a guide.
- B. The Contractor shall place signs and barricades closing applicable areas as work progresses. Type and placement of signs shall be identified on the traffic control plan to be approved by County prior to Contractor’s work.
- C. If a roadway, parking lot or parkway and trails closure is approved by the County, the Contractor shall provide advance public notification before closure takes place at least 7 days prior to closure. This shall be done using electronic message boards (variable message signs) to be placed at the beginning and end of each reach to be closed and in all directions at intersections, and all access point, as well as flyers to the residents in the vicinity.
- D. The Contractor shall implement traffic control measures to safely and properly secure the work area, equipment, residents, and personnel throughout the duration of the project. This requirement also applies to areas of work being performed by subcontractors.
- E. All costs for this items are the responsibility of the Contractor and shall NOT be paid as a separate item.

**A.6 SAFETY**

The Contractor shall comply with all applicable requirements of the Utah Labor Commission and Occupational Safety and Health Act of 1970. Nothing in this Agreement shall relieve the Contractor of responsibility assigned herein, in Utah Labor Commissions’ requirements, or in Federal, state, and local laws and ordinances.

**A.7 MOBILIZATION AND DEMOBILIZATION, STORAGE AND CLEANUP**

(Section 01 71 13 Mobilization and Demobilization, of the Manual of Standard Specifications shall apply along with all other sections noted within this section)

- A. Unit Prices shall cover cost of mobilization, demobilization, installation of temporary facilities, and bringing all necessary construction equipment to site.
- B. All areas for storage of materials and equipment used by the Contractor shall be approved by the County prior to use. These areas shall be cleaned up upon completion of the project, and shall be approved by the County prior to final payment. All related costs for storage and clean-up are the responsibility of the Contractor and shall NOT be paid as a separate item.

**A.8 UTILITIES**

Care shall be taken to preserve and protect existing overhead and underground utilities, pole lines, signs, pipelines, and improvements from injury or damage during construction operations. The Contractor shall assume full responsibility for reimbursing the owners of the utilities for any damage to their properties, utilities, or improvements, or interference with their service caused through Contractor’s operations. The Contractor shall contact “Blue Stakes of Utah,” and individual utility owners as necessary, to have all underground utilities located on the work site in accordance with Utah law.

**A.9 REQUIRED EXPERIENCE**

- A. Contractor must complete certification program from licensed Frictional Mastic Surface Treatment manufacturer and be approved and certified to apply material from licensed manufacturer of Frictional Mastic Surface Treatment.
- B. The Contractor must have a minimum of 3 years experience in the work specified herein. Proof of experience must be submitted with each bid.
- C. Each bidder shall provide a list of at least 3 projects similar to this project, which are available for inspection by the County. The minimum information required may be supplied on the Contractor Information Form, however, bidders are encouraged to provide more detailed information, as they may see fit, with their bid submission.
- D. The Contractor shall be the general contractor for the project and is required to have a Contractor License from the Utah Division of Occupational and Professional Licensing and a current local business license from the jurisdiction in which their business is located. A copy of the bidder's Contractor License and current local business license must be submitted with the bid.

**A.10 BONDS**

- A. Before this contract is awarded by Utah County, the Contractor shall furnish to Utah County the following bonds:
  - 1. A performance bond satisfactory to County in an amount equal to 100% of the price specified in the contract, to assure the faithful performance of the contract, for the protection of Utah County, to be held until final acceptance by Utah County of all aspects of this project; and
  - 2. A payment bond satisfactory to the County in an amount equal to 100% of the price specified in the contract, for the protection of each person supplying labor, service, equipment, or material for the performance of the work provided for in the contract.
- B. Each bond shall be:
  - 1. Bidding upon the award of the contract;
  - 2. Executed by a surety company or companies duly authorized to do business in the State of Utah, or, in the form or cash or other certified funds.
  - 3. Payable to Utah County, A Body Corporate and Politic;
  - 4. Filed with the Utah County Public Works Department in a timely manner following the Closing date for Receipt of Bids.
  - 5. Increased if the contract price is increased by change order or otherwise subsequent to entering into the contract.
- C. Utah County will hold the Payment Bond for 90 days subsequent to the completion of the project.

**A.11 FRICTIONAL MASTIC SURFACE TREATMENT**  
(Manual of Standard Specifications, Section 32 01 13.52 amended)

**PART 1 GENERAL**

**1.1 SECTION INCLUDES**

- A. Application of an asphalt-aggregate Frictional Mastic Surface Treatment, herein after referred to as FMST as a roadway surface preservation treatment, consisting of an engineered mixture of fine aggregates, clay, polymers, other additives, and an asphalt emulsion.

**1.2 REFERENCES**

**A. AASHTO Standards:**

- R 5 Selection and Use of Emulsified Asphalts  
T 11 Materials Finer than 75  $\mu\text{m}$  (No. 200) Sieve in Mineral Aggregate  
T 27 Sieve Analysis of Fine and Coarse Aggregates  
T 84 Specific Gravity and Absorption of Fine Aggregate  
T96 Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine  
T 308 Determining the Asphalt Binder Content of Hot-Mix Asphalt (HMA) by the Ignition Method.  
T 327 Resistance of Coarse Aggregate to Degradation by Abrasion in the Micro-Deval Apparatus.

**B. ASTM Standards:**

- C 117 Materials Finer Than 0.075mm (No. 22) Sieve in Mineral Aggregates by Washing  
C 136 Sieve Analysis of Fine and Coarse Aggregates  
D 5 Penetration of Bituminous Materials.  
D 244 Emulsified Asphalts.  
D 2196 Rheological Properties of Non-Newtonian Materials by Rotational (Brookfield Type) Viscometer  
D 6934 Residue by Evaporation of Emulsified Asphalt  
D 6937 Determining Density of Emulsified Asphalt.  
E 1911 Measuring Paved Surface Frictional Properties Using the Dynamic Friction Tester.

**C. ISSA Standards:**

- ISSA Specifications and Guidelines, Current Edition  
TB 100 Wet Track Abrasion of Slurry Surfaces, Modified.

**1.3 SUBMITTALS**

- A. Experience Reports: If requested by ENGINEER, submit the following.
1. List of five (5) projects that have successful product application on bituminous surfaces. Provide names of project contacts.
  2. Source and field quality control testing reports performed by CONTRACTOR and Suppliers.
- B. Mix Design: Submit the following. Allow ENGINEER 10 days to evaluate the submittal.
1. Date of mix design. If older than 60 days from date of submission, recertify mix design.
  2. Proportions of aggregate, filler, water, polymer, and emulsion in the mix.
  3. Residual in-place bitumen content, in *pounds per square yard*.
  4. Residual in-place aggregate or mineral solids content, in *pounds per square yard*.

5. Thickness target for each application coat, in *gallons per square yard*.
  6. Total minimum thickness, in *gallons per square yard*.
  7. Results of a wear resistance or wet track abrasion test current within one (1) calendar year of the proposed mix design.
- C. Asphalt/polymer emulsion
1. Test report, meet the requirements of this Section, article 2.2.
  2. Certificate of analysis and compliance from the manufacturer for each batch.
  3. Verification the asphalt/polymer emulsion supplier adheres to UDOT Quality Management Plan Section 508 Asphalt Emulsion.
- D. Test reports for aggregate.
1. Refer to this Section, article 2.3.
- E. Changes in the job mix gradation.
1. Submit a written request for a change in the job mix gradation.
- F. Before Placement: Submit 48 hours before delivery.
1. Traffic control plan, Section 01 55 26.
  2. List of construction equipment to be used.
  3. Certification from emulsion supplier stating emulsion meets requirements in this section.
  4. Names, certification levels, and years of experience of testing agency's field technicians that are assigned to the Work.
  5. Name and certifications of laboratory to be used for testing.
    - a. Laboratory must comply with ASTM standards.
  6. Warranty.
- G. Quality Control Data as per Article 3.6

#### 1.4 **QUALITY ASSURANCE**

- A. Foreman of CONTRACTOR's crew or Supplier's representative has completed at least three (3) projects of similar scope. If crew foreman does not have such experience, Supplier must provide a full-time representative on site during application.
- B. Use a laboratory that complies with ASTM D 3666 and follows Section 01 45 00 requirements.
- C. Contractor must complete certification program from licensed FMST manufacturer and be approved and certified to apply material from licensed manufacturer of FMST.
- D. Verify mixture delivered to site contains the same emulsion specified in the mix design.
- E. Do not change source of the asphalt emulsion or aggregate without supporting changes in the mix design.
- F. Reject product or work that does not meet requirements of this section.

#### 1.5 **WEATHER**

- A. Temperature:
  1. Apply surface treatment material if air and pavement surface temperatures in the shade is 55 deg F and rising.
  2. Cease application if air or pavement surface temperatures are projected to fall below 45 deg F within 24 hours.
- B. Moisture and Wind:
  1. Do not apply surface treatment material to a wet surface (no visible standing water or high sheen), during rain, 24 hours prior to forecast rain, or in unsuitable windy weather.
  2. Cease work if weather or other conditions prolong opening pavement surface to traffic.

## 1.6 NOTICE

- A. Follow Laws and Regulations concerning when and to whom notices are to be given at least three (3) days before applying surface treatment material.
- B. Indicate application time and when new surface can be used. If necessary, include a map showing closed-off areas.
- C. Provide phone numbers of at least two (2) individuals who represent the CONTRACTOR who can be reached at any time during the work.
- D. Warn of potential vehicle tow away and other construction issues affecting neighborhood.
- E. Should work not occur on specified day, issue an updated notice.

## 1.7 ACCEPTANCE

- A. General:
  - 1. Acceptance is by Lot.
  - 2. Acceptance is performed by the Engineer through review and approval of the submitted Quality Control data and yield calculations. The Engineer may perform additional sampling, testing and verification of any portions of the placement that do not appear to meet requirements.
  - 3. Dispute resolution, Section 01 35 10 of the Manual of Standard Specifications shall apply.
  - 4. Opening surface treatment to vehicular traffic does not constitute acceptance.
  - 5. Observation of CONTRACTOR's field quality control testing does not constitute acceptance.
- B. Frictional Mastic Surface Treatment Thickness:
  - 1. Lot size is one (1) day's production. Sub-lot size is one truck placement.
  - 2. If yield tests indicate average application rate for any sub-lot is more than 0.02 gallons per square yard below target, apply additional coat of FSMT to meet or exceed target thickness at no additional cost to OWNER.
- C. Placement:
  - 1. Mat appearance.
    - a. No runoff onto concrete curbs, gutter pans, and shoulders.
    - b. No streaking, drilling, drag marks, or squeegee marks.
    - c. No light spots.
    - d. No de-bonding.
    - e. Straight longitudinal edges with proper joints.
  - 2. Correct mat placement deficiencies at no additional cost to OWNER.

## 1.8 WARRANTY

- A. Both the CONTRACTOR and Supplier shall provide a two (2) year minimum written warranty when the existing pavement is in an appropriate condition (CONTRACTOR and Supplier to determine condition). Warranty covers delaminating, peeling and pre-mature surface wear.
  - 1. Before placement, notify ENGINEER if pavement condition or application condition voids the warranty.
  - 2. ENGINEER may allow or cancel product application at no cost to OWNER if warranty cannot be given.
- B. Acceptable performance after two (2) year period is no delaminating, peeling, or inter-aggregate loss in surface wear. Mechanical disturbances by snow plow chatter, studded tires, etc. are excluded from warranty. Repair defective coverage at no additional cost to OWNER.

## PART 2 PRODUCTS

### 2.1 ASPHALT BINDER

- A. Crack Pouring Asphalt: Rubberized asphalt or asphalt rubber hot pour, Section 32 01 17.
- B. Tack Coat: SS-1 or CSS-1, Section 32 12 13.13. Use a tack coat that is compatible with seal coat application.
- C. Emulsified Asphalt incorporated in: Grades SS-1, SS-1H, CSS-1, or CSS-1h according to AASHTO R 5 and Table 1.

Table 1 – Physical Properties			
Criterion	Standard	Min	Max
Tests on Emulsion			
Viscosity at 25 deg C, seconds	D 244	15	100
Particle Charge Test (a)		Positive	
Residue by distillation, percent		57	--
Tests on Residue from Evaporation			
Penetration at 25 deg C, 100 g, 5 seconds	D 5	15	150
NOTES			
(a) In case of inconclusive particle charge, material having a pH value of 6.0 will be acceptable as a CSS type.			

### 2.2 AGGREGATE

- A. Material:
  - 1. Clean and free from organic matter or other detrimental substances.
  - 2. Light weight with the following properties.

Table 2 - Aggregate Properties			
Criterion	Standard	Min	Max
Water absorption, percent	T 84	--	10
Micro-Deval, percent (b)	T 327	--	20
NOTES			
(a) Test results are on aggregate received before blending into sealer.			
(b) Micro-Deval wear of aggregate retained on No. 60 sieve.			

- B. Gradation: Analyzed on a dry weight and percent passing basis.
  - 1. Material passing any sieve and retained on the next consecutive sieve is 45 percent maximum.
  - 2. Target Grading Curve must lie within the Master Grading Band.

Table 3 - Master Grading Band and Target Tolerance Limits			
Sieve	Standard	Master Grading Band Limits Percent Passing <sup>a</sup>	Production Tolerance <sup>b</sup>
No. 8		100	
No. 16	C136	80 - 100	+/- 5
No. 30		75 - 100	+/- 5
No. 60		50 - 85 <sup>c</sup>	+/- 5
No. 100	C117	40 - 65	+/- 5
No. 200		25 - 65	+/- 5

**NOTES**

- (a) Test results are on aggregate received before blending into sealer.
- (b) Production tolerance is the allowable variation from the Target Grading Curve during production.
- (c) Provide gradation such that FMST contains a minimum of 18 percent aggregate above the No. 60 sieve, by weight of the wet mixture.

**2.3 ADDITIVES**

- A. Use water that is clean, non-detrimental, and free from salts and contaminant.
- B. Use a minimum of 10% polymer solids content, by weight of asphalt binder.
- C. Use clays, other additives as necessary to achieve mix design performance.

**2.4 MIX DESIGN**

- A. Select type and grade of emulsified asphalt, AASHTO R 5.
- B. Select set and cure time to meet opening to traffic requirements.
- C. Provide a mix meeting the following requirements.
  - 1. Use the same materials and aggregate gradation to be used on the project.
  - 2. Do not change source of the asphalt emulsion and aggregate without supporting changes in the mix design.

<b>Table 4 – Mix Properties</b>			
<b>Test</b>	<b>Standard</b>	<b>Min</b>	<b>Max</b>
Tests on Mix			
Weight per gallon, pounds (a)	ASTM D 6937	Report	
Solids content by evaporation at 130 C, percent (b)	ASTM D 6934	48	--
Rotational Viscosity @ 20 RPM / RV spindle, (cPs) @ 25 C	ASTM D 2196	800	4000
Tests on Residue from Evaporation			
Asphalt binder content of cured mix, (130 deg C method), percent (b)	AASHTO T 308	30	--
Mineral aggregate and fines content of cured mix (130 deg C method), percent (b,c)	AASHTO T 308	50	--
Wet-track abrasion loss, (72 hour soak), g/m <sup>2</sup> (e)	ISSA TB 100 Modified	--	80
Asphalt content by ignition method, percent (b,c)	AASHTO T 308	30	--
Dynamic friction test number, 20 km/h (b,d)	ASTM E 1911	> 90 percent of base value	

## NOTES

- (a) Use the modified method to account for a fine emulsion mixture. Required for calibration of application equipment and for field control and acceptance
- (b) A 500 to 1000 gram representative sample of the mix shall be dried in a suitable oven until weight loss ceases. Solids content shall then be defined as the net residual weight divided by net original weight expressed in percent. Retain this residual dried mix for AASHTO T 308 tests if required.
- (c) Due to the high binder content of the mix the sample size processed in the ignition oven may need to be adjusted to not exceed the binder content allowable for a particular model ignition oven. IMPORTANT: This test should be performed on a completely dry sample.
- (d) Establish base friction value using prepared laboratory compacted slab of any ENGINEER approved mix as surface to be tested. The Dynamic Friction Test (DFT) number ratio should indicate that after application of the mastic seal, the surface retains required minimum percentage DFT number of the original pavement surface. Based on a minimum of three (3) slabs with three (3) measurements per slab. Value for information only. Will not be used for project control.
- (e) See UDOT for Guidelines for Modifications of ISSA TB 100

## PART 3 EXECUTION

### 3.1 CONSTRUCTION EQUIPMENT

- A. Paver: Use a continuous-flow mixing unit.
  - 1. Capable of applying at least 15,000 square yards of material per day.
  - 2. Equipped with full sweep agitation system to assure proper suspension of fine aggregates.
  - 3. Equipped with an operator control station that adjusts material spread rate in accordance with project calibration process.
  - 4. Equipped with a filtering system to catch particles that plug nozzles.
  - 5. Equipped with a retractable spray bar capable of applying mixture without drilling. The bar should be positioned to meet calibration requirements.
- B. Storage Tanks:
  - 1. When delivering mix from the central mixing plant to a job site storage tank, use only storage tanks with a capacity to contain the entire transport load.
  - 2. Ensure that all site storage tanks have internal full sweep mixing mechanisms and mixing capability that can provide at any given point in the tank a homogenous mix.

### 3.2 PREPARATION

- A. Paver Calibration: On a test strip at least 300 feet long, determine the correct pump settings, spray bar height, and ground speed for the application equipment. Apply material with pump settings at 80 percent of maximum output (plus or minus 5 percent) and a ground speed of 300 to 400 feet per minute.
  - 1. Do not begin or continue application without ENGINEER's knowledge of the calibration process and equipment settings.
  - 2. Do not deviate from calibration settings without ENGINEER's knowledge.
- B. Surface Repair: Method of payment to be determined by ENGINEER if any of the following repairs are required.
  - 1. Raising low areas to grade, lowering high areas to grade, hole patching, inlays.
  - 2. Providing tack coat on highly absorbent, polished, oxidized, or raveled asphalt surfaces or on brick

- and concrete surfaces.
- 3. Crack sealing and crack repairing, Section 32 01 17.
- 4. Pushing or shoving pavement repairs.
  - a. Mill damaged area at least three (3) inches below required surface elevation.
  - b. Install and compact three (3) inches of asphalt concrete (grade designated by Engineer).
- C. Masking: Mask-off Street Fixtures, end of streets, intersections.
- D. Traffic Control:
  - 1. Implement traffic control plan requirements. Provide safe passage for pedestrians and vehicles. Do not proceed without flaggers if work requires maintaining two-way vehicular traffic.
  - 2. Grind off existing pavement markings and lane stripes. If existing markings and stripes are to be reestablished, use reflective tabs to mark existing locations before applying surface treatment material. Unless specified otherwise, cost is included in the work of this section.
- E. Cleaning:
  - 1. Remove loose material, mud spots, sand, dust, oil, vegetation and other objectionable material.
  - 2. Do not flush water or apply pressurized water over cracked pavement unless ENGINEER allows its use and a sufficient time is allowed for drying.

### 3.3 PROTECTION

- A. Trees, Plants, Ground Cover:
  - 1. Protect trees, plants and other ground cover from damage.
  - 2. Prune trees to allow equipment passage underneath, Section 32 01 93. Repair tree damage at no additional cost to OWNER.
- B. Protect structures, curb, gutter, sidewalks, guard rails, guide posts, etc. from physical damage.

### 3.4 APPLICATION

- A. General:
  - 1. Two separate application coats are required. The first application must be thoroughly set and free of any damp areas before the second application begins.
  - 2. Adjust application rates according to surface conditions, only after obtaining review by ENGINEER and the asphalt emulsion manufacturer.
  - 3. Do not add additional water to FMST mixture, once required mix design components have been combined at the plant, and do not dilute mixture at any point, after FMST mixture has been manufactured and loaded for transport.
  - 4. Do not allow runoff of the FMST in any areas outside of specified application limits. Remove runoff at no cost to the OWNER.
- B. Spreading:
  - 1. Keep material delivery at a constant rate even if forward speed of lay-down machine varies.
  - 2. Do not reduce application rate along edges or around manhole covers.
  - 3. Apply both applications right to the edge of the pavement. Do not leave uncovered areas near curbs, Street Fixtures, or edges on either application.
  - 4. Make straight lines at all locations.
  - 5. Place product out to right-of-way line on side streets and intersections.
  - 6. Use hand squeegees to spread mix in areas that cannot be reached with distribution spray bar.
    - a. Provide complete and uniform coverage.
    - b. Avoid unsightly appearance from hand work.

- C. Joints:
  - 1. Make transverse joints straight-cut butt type, not over-lap type.
  - 2. Place longitudinal joints on lane lines. Limit overlap to three (3) inches maximum.
  - 3. Stop and correct paving operation if longitudinal or transverse joints have uncovered areas or unsightly appearance.
- D. Lines:
  - 1. Make straight lines along lip of gutters, shoulders, end of streets, and in street intersections. No runoff on these areas will be permitted.
  - 2. Vary edge lines no more than one (1) inch per 100 feet.

### 3.5 TOLERANCES

- A. Each coat thickness = **at least 40 percent of the total thickness.**
- B. Total thickness = **0.30 gallons per square yard minimum.**

### 3.6 QUALITY CONTROL

- A. Perform plant testing as per below, minimum per batch.
  - 1. Solids content by evaporation: 1 per batch, minimum.
  - 2. Rotational viscosity: 1 per batch, minimum;
  - 3. Asphalt binder content of cured mix: 1 per week, minimum;
  - 4. Mineral aggregate and fines content of cured mix: 1 per week, minimum.
- B. Perform field yield calculations for each truck placed to verify application rate. Calculate to the nearest 0.01 gallons per square yard.
- C. Submit the following within 2 working days of the end of placement:
  - 1. Summary of all plant production quality control data from time period covering production of material for the project.
  - 2. Yield calculations for each truck load, or portion thereof, placed on the project.

### 3.7 AFTER APPLICATION

- A. Raise reflective tabs that were covered over by application.
- B. Clean Street Fixtures.
- C. Do not apply permanent pavement markings or striping material until layout and method of payment has been determined by ENGINEER and final application of surface treatment material has been in-place at least 10 days, or as permitted by ENGINEER. Layout must be verified by ENGINEER prior to application.

### 3.8 REPAIR

- A. Remove delaminated or non-compliant product found after installation and apply acceptable product.
- B. Remove spatter, mar and overcoat from curb, gutter, sidewalk, guard rails, guide posts, etc.
- C. Remove overcoat from Street Fixtures.
- D. Make edge and end lines straight. Provide a good appearance.
- E. Leave no streaks, holes, bare spots, or cracks through which liquids or foreign matter could penetrate to the underlying pavement.
- F. Repair collateral damage caused by construction.

### 3.9 **OPENING TO TRAFFIC**

- A. Cure time depends on type of asphalt, mixture characteristics and weather. Keep traffic off surface until material does not track out.

END OF SECTION

**EXHIBIT B**

**CONTRACTOR'S COST PROPOSAL**

**1. BID PRICES FOR ROADWAYS:**

ITEM	UNIT PRICE	TOTAL COST
A. Frictional Mastic Surface Treatment per square foot of finished surface	_____ x	sq ft = _____

**2. BID PRICES FOR PARKING LOTS:**

ITEM	UNIT PRICE	TOTAL COST
A. Frictional Mastic Surface Treatment per square foot of finished surface	_____ x	sq ft = _____

**3. BID PRICES FOR PARKWAYS AND TRAILS:**

ITEM	UNIT PRICE	TOTAL COST
A. Frictional Mastic Surface Treatment per square foot of finished surface	_____ x	sq ft = _____

**TOTAL BID PRICE:** \$ \_\_\_\_\_

NOTE: The quantities specified herein are only estimates used for bid evaluation purposes. Actual payment will be based upon inspection records kept by the County, the actual work completed and the amount of materials installed, approved and accepted by the County.

**3. CERTIFICATION OF BID:**

I hereby certify that I have read, understand, and agree to all sections, Exhibits, and Attachments of this Invitation to Bid for Frictional Mastic Surface Treatment. I further certify that the information submitted by me/my company in response to this Invitation, including the pricing and other information, is true and accurate.

I understand that Utah County has the right to reject any or all bids, to waive minor irregularities when to do so would be in the best interests of Utah County, and to negotiate a price for the proposed services as determined to be in the best interest of Utah County.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print name and Title

**ATTACHMENT A**

**CONTRACTOR INFORMATION FORM**

In order to receive consideration, submitted bids must contain responses to all questions.

Failure to respond to all questions may result in disqualification of the bid.

COMPANY NAME & ADDRESS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Is this an Office: \_\_\_\_\_, Home: \_\_\_\_\_, Shop: \_\_\_\_\_, Other: \_\_\_\_\_

Telephone Number: (\_\_\_\_) \_\_\_\_\_, Emergency Number: (\_\_\_\_) \_\_\_\_\_.

Answering Machine: (\_\_\_\_) \_\_\_\_\_, Fax Number: (\_\_\_\_) \_\_\_\_\_.

Email Address: \_\_\_\_\_

COMPANY OWNER: \_\_\_\_\_

COMPANY PRESIDENT: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_ Phone: \_\_\_\_\_

Type of Company (Partnership, Corporation, Venture etc.): \_\_\_\_\_

\_\_\_\_\_

If a Corporation, in what State Incorporated: \_\_\_\_\_

Business License Number: \_\_\_\_\_

State of Utah Contractor License Number: \_\_\_\_\_

Federal Tax Identification Number: \_\_\_\_\_

D&B D-U-N-S Number: \_\_\_\_\_

How long has this company been in business: \_\_\_\_\_ Years, and \_\_\_\_\_ Months.

Officers authorized to execute contracts: \_\_\_\_\_

\_\_\_\_\_

What would happen to your company in the event of the owner's absence or death?

\_\_\_\_\_

Brief History of the Company: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Are there any judgments, suits or claims pending  
against your company? If Yes, attach a written explanation.

**YES NO**

Has your company operated under any other name (s)?  
If Yes, attach a written explanation.

**YES NO**

CONTRACTOR INFORMATION FORM Page 2

Has your firm failed to complete a contract within the last five years?  
If "yes" attach explanation. **YES NO**

Has your firm or any partner or officers ever been involved in any  
bankruptcy action? If "yes" attach explanation. **YES NO**

Has your firm ever been listed on the Excluded Parties List System? **YES NO**

Are any of your firm's owners, officers, employees, or agents also  
employees of Utah County or related to any employees of Utah County  
If "yes" attach explanation. **YES NO**

FINANCIAL REFERENCES

1. Bank Name & Address \_\_\_\_\_  
\_\_\_\_\_  
Manager \_\_\_\_\_ Phone \_\_\_\_\_

2. Bank Name & Address \_\_\_\_\_  
\_\_\_\_\_  
Manager \_\_\_\_\_ Phone \_\_\_\_\_

CLIENT REFERENCES

1. Name: \_\_\_\_\_, Contact: \_\_\_\_\_  
Address: \_\_\_\_\_, Phone: \_\_\_\_\_  
\_\_\_\_\_

2. Name: \_\_\_\_\_, Contact: \_\_\_\_\_  
Address: \_\_\_\_\_, Phone: \_\_\_\_\_  
\_\_\_\_\_

3. Name: \_\_\_\_\_, Contact: \_\_\_\_\_  
Address: \_\_\_\_\_, Phone: \_\_\_\_\_  
\_\_\_\_\_

4. Name: \_\_\_\_\_, Contact: \_\_\_\_\_  
Address: \_\_\_\_\_, Phone: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**ATTACHMENT C**

**AGREEMENT**

**AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2016, by and between **UTAH COUNTY**, a body corporate and politic of the State of Utah, hereinafter referred to as the **COUNTY**, and \_\_\_\_\_, hereinafter referred to as **CONTRACTOR**.

**WITNESSETH:**

**WHEREAS**, COUNTY desires to obtain materials and services as herein defined and further to obtain such materials and services in accordance with Utah State Law; and

**WHEREAS**, CONTRACTOR is willing to provide such materials and services to COUNTY in consideration of receiving such fees as herein provided;

**NOW, THEREFORE**, in consideration of the mutual promises set forth herein, the parties hereto agree as follows:

**1. DESCRIPTION OF WORK**

In consideration of the compensation set forth in Section 2, the CONTRACTOR agrees to furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work as for COUNTY as set forth in the Specifications attached hereto as Exhibit A and the CONTRACTOR'S Cost Proposal attached hereto as Exhibit B, all of which are incorporated herein by this reference the same as if each and all had been set forth at length herein.

**2. COMPENSATION**

In exchange for services listed in Section 1, COUNTY will pay CONTRACTOR at the applicable price stated in Exhibit B for items accepted by COUNTY which conforms to the Specifications in Exhibit A.

**3. AMENDMENTS**

No oral modifications or amendments to this Agreement shall be effective, but such may be modified or amended by a written agreement signed by the parties.

**4. ALTERATION OF SPECIFICATIONS OR CHARACTER OF WORK**

The County Commission, after recommendation by the County Public Works Director, reserves the right to make, at any time during the term of this Agreement, such increases or decreases in quantities and such alterations in the details of the work, and the elimination of one or more items as may be found necessary or desirable and to adjust the contract price accordingly by change order. Such alterations shall not be considered as a waiver of nor release of any surety. CONTRACTOR agrees to accept the specifications as altered the same as if it had been a part of the original Agreement. CONTRACTOR shall proceed with the work alterations when ordered in writing. Financial increases to this Agreement must be approved by the County Commission before additional work is authorized and constructed.

**5. ASSIGNMENT**

The parties to this Agreement shall not assign said Agreement, or any part thereof, without the prior written consent of the other party to the Agreement. No assignment shall relieve the original parties from any liability hereunder.

**6. AUTHORITY OF THE COUNTY COMMISSION AND THE COUNTY PUBLIC WORKS DIRECTOR**

- A. The County Commission and the County Public Works Director will decide all questions which may arise as to the quality, quantity and acceptability of materials furnished and work performed and as to the rate of progress of work. They will also decide all questions which may arise as to the acceptable fulfillment of the Agreement on the part of CONTRACTOR.
- B. The County Commission or the County Public Works Director will have the authority by written order to suspend work wholly or in part due to the failure of CONTRACTOR to correct conditions unsafe for the workmen or general public, for failure to carry out provisions of the Agreement, for failure to carry out orders, for such periods as deemed necessary due to unsuitable weather, for conditions considered unsuitable for the progress of the work, or for any other condition or reason deemed to be in the public interest. Written orders shall state the reason for suspension.

**7. EMPLOYMENT STATUS VERIFICATION**

CONTRACTOR shall register and participate in the Status Verification System and comply with Utah Code Annotated Section 63G-11-103 of the Identity Documents and Verification Act. CONTRACTOR shall by contract require its contractors, subcontractors, contract employees, staffing agencies, or any contractors regardless of their tier to register and participate in the Status Verification System and comply with Utah Code Annotated Section 63G-11-103 of the Identity Documents and Verification Act.

**8. EXTRA WORK**

Extra work shall be undertaken only when previously authorized in writing by Utah County and is defined as additional work which is neither shown nor defined in the Specifications. Miscellaneous items normally associated with the major work items shown, but which may not be specifically shown, shall be furnished by CONTRACTOR as if they had been shown, without additional cost to Utah County.

**9. INDEMNIFICATION**

CONTRACTOR shall defend, indemnify, save and hold harmless Utah County, its officers, employees, and agents, from and against any and all claims, demands, causes of action, orders, decrees, judgments, losses, damages, and liabilities (including all costs and attorney's fees incurred in defending any claim, demand, or cause of action) occasioned by, growing out of, or arising or resulting from (a) CONTRACTOR'S, its subcontractors, agents or employees performance of this Agreement or their provision of any services required herein to be performed by CONTRACTOR or its subcontractors, agents or employees, and (b) any act or omission of CONTRACTOR, or its subcontractors, agents or employees.

**10. INDEPENDENT CONTRACTOR**

- A. CONTRACTOR states and affirms that it is acting as an independent contractor, holding itself out to the general public as an independent contractor for other work or contracts as it sees fit; that it advertises its services as it sees fit to the general public, maintains its office or place of employment separate from Utah County, and that this Agreement is not exclusive of other agreements, contracts or opportunities.
- B. The parties intend that an independent contractor relationship will be created by this Agreement.

Utah County is interested only in the results to be achieved, and the conduct and control of the work will lie solely with CONTRACTOR. CONTRACTOR is not to be considered an agent or employee of Utah County for any purpose, and the employees of CONTRACTOR are not entitled to any of the benefits that Utah County provides for County's employees. It is understood that Utah County does not agree to use CONTRACTOR exclusively. It is further understood that CONTRACTOR is free to contract for similar services to be performed for others while working under the provisions of this Agreement with Utah County.

- C. Both parties agree that CONTRACTOR shall be deemed an independent contractor in the performance of this Agreement, and shall comply with all laws regarding unemployment insurance, disability insurance, and workers' compensation. As such, CONTRACTOR shall have no authorization, express or implied, to bind Utah County to any agreement, settlement, liability, or understanding whatsoever, and agrees not to perform any acts as agent for Utah County. The compensation provided for herein shall be the total compensation payable hereunder by Utah County.

**11. INSPECTION AND ACCEPTANCE**

Utah County or its authorized representatives shall have the right to enter the premises of CONTRACTOR, or such other places where contract services are being performed, to inspect, audit, monitor or otherwise evaluate the services being provided and the financial records pertaining to the Agreement.

CONTRACTOR must provide reasonable access to all facilities and assistance to Utah County or its authorized representatives.

**12. INSURANCE**

- A. CONTRACTOR agrees to carry Commercial General Liability insurance coverage equal to or greater than \$2,300,000 per occurrence or as modified by the risk manager pursuant to state statute during the term of this Agreement. This coverage shall provide liability insurance to cover the activities of CONTRACTOR including CONTRACTOR'S agents, employees and subcontractors, and for all equipment and vehicles, public or private, used in the performance of this Agreement. The successful bidder shall provide a Certificate of Insurance to Utah County evidencing that CONTRACTOR has this insurance in place and shall maintain said insurance for the duration of this Agreement.
- B. CONTRACTOR shall furnish a Certificate of Insurance to COUNTY evidencing that CONTRACTOR has Workers Compensation Insurance for the CONTRACTOR, all subcontractors, and all employees of the CONTRACTOR and/or subcontractors.

**13. INTERPRETATION OF AGREEMENT**

The invalidity of any portion of this Agreement shall not prevent the remainder from being carried into effect. Whenever the context of any provision shall require it, the singular number shall be held to include the plural number, and vice versa, and the use of any gender shall include all genders. The paragraph and section headings in this Agreement are for convenience only and do not constitute a part of the provisions hereof.

**14. KEYS**

If it becomes necessary for the County to issue CONTRACTOR a key to County locks, final payment to CONTRACTOR will be held until the key has been returned and documented. It is illegal to duplicate County keys.

**15. LEGAL**

CONTRACTOR shall be responsible to provide all legal support for the project including but not limited to the preparation of contracts with subcontractors. This Agreement shall be interpreted pursuant to the laws of the State of Utah.

**16. NO PRESUMPTION**

Should any provision of this Agreement require judicial interpretation, the Court interpreting or construing the same shall not apply a presumption that the terms hereof shall be more strictly construed against a party, by reason of the rule of construction that a document is to be construed more strictly against the person who himself or through his agents prepared the same, it being acknowledged that all parties have participated in the preparation hereof.

**17. NOTICES**

All notices, demands and other communications required or permitted to be given hereunder shall be in writing and shall be deemed to have been properly given if delivered by hand or by certified mail, return receipt requested, postage paid, to the parties at their respective places of business, or at such other addresses as may be designated by notice given hereunder.

**18. PAYMENTS**

- A. CONTRACTOR shall submit timely invoices for materials delivered to County. Upon verification of the validity of an invoice, County shall pay CONTRACTOR within 30 calendar day of receipt of the invoice.
- B. Payment will be based upon verification of the actual quantities accepted by County which comply with these specifications.
- C. Partial or progress payments shall not relieve CONTRACTOR of performance or obligations under this AGREEMENT, nor shall such payments be viewed as approval or acceptance of work performed.
- D. The "Method of Measurement" and the "Basis of Payment" for all items shall be by the "Unit Price" specified by CONTRACTOR in the "Contractor's Cost Proposal".

**19. SUCCESSORS IN INTEREST**

This Agreement shall be binding upon the heirs, successors, administrators, and assigns of each of the parties thereto.

**20. TERM AND RENEWAL**

- A. The initial term of this AGREEMENT shall commence upon execution hereof and shall terminate on December 31, 2016.
- B. This AGREEMENT shall automatically renew for three (3) additional one-year periods upon the same terms and conditions, unless otherwise indicated in writing by COUNTY at least 30 days

prior to the termination date of the initial or renewal terms.

- C. CONTRACTOR may, upon written notice delivered to COUNTY on or before November 1st, request an increase in the contract price by a percentage equal to the percentage increase which occurred in the Consumer Price Index (defined as the Consumer Price Index, All Urban Customers (CPI-U) U.S. City Average, All Items, or a similar index if this index is discontinued) during the preceding one year period. Said price increase shall not to exceed three percent (3%) per year, unless CONTRACTOR submits satisfactory documentation to COUNTY evidencing increases in the cost of materials which exceed 3%. Any requested price increase shall be effective not sooner than the commencement date of the next renewal period of the contract.

**21. TERMINATION**

- A. The Agreement may be terminated for any reason by Utah County upon thirty (30) days written notice to CONTRACTOR, without prejudice to any other right or remedy Utah County may have.
- B. Failure of CONTRACTOR to adhere to any of the performance requirements of the Agreement shall be cause for termination without prior notice.
- C. The Agreement may be terminated for any reason by CONTRACTOR upon ninety (90) days written notice to Utah County.

**22. WARRANTY**

CONTRACTOR warrants to Utah County that all materials furnished under this Agreement will be new unless otherwise specified, and that all work will be of good quality, free from faults and defects and in conformance with this Agreement. All work and/or materials not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by Utah County, CONTRACTOR shall furnish satisfactory evidence as to the kind and quality of materials.

**23. ENTIRE AGREEMENT**

This Agreement shall constitute the entire agreement between the parties and any prior understanding or representation of any kind preceding the date of this agreement shall not be binding upon either party except to the extent incorporated in this Agreement.

**IN WITNESS WHEREOF** the parties have caused this AGREEMENT to be duly executed on the date set forth above.

BOARD OF COUNTY COMMISSIONERS  
UTAH COUNTY, UTAH

\_\_\_\_\_  
LARRY ELLERTSON, Chairman

ATTEST:  
BRYAN E. THOMPSON  
County Auditor/Clerk

By: \_\_\_\_\_  
Deputy

APPROVED AS TO FORM:  
JEFFREY R. BUHMAN  
Utah County Attorney

By: \_\_\_\_\_  
Deputy County Attorney

CONTRACTOR

\_\_\_\_\_  
By: